HFR-217

Data for Operational Histories of THE UNITED STATES ARMORIES AT HARPER'S FERRY, VIRGINIA, AND SPRINGFIELD, MASSACHUSETTS, 1793 to Sept. 30, 1837

Compiled from

American State Papers-Military Affairs(7 v

(7 volumes).

By

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Denver Service Center

National Capital Team

National Park Service

United States Department of the Interior

Denver, Colorado

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January 28,1980

Memo:

To Superintendent Don Campbell, Harpers Ferry NHP

From: Historian Charles W. Snell, NCT/DSC

Subject: Final Transmittional of data on histories of the National Armories, 1793-1837.

Enclosed under four separate covers is "Data for Operational Histories of the U.S. Armories at Harper's Ferry, Va., and Springfield, Mass, 1793 to Sept. 30,1837, compiled from American State Papers-Military Affairs(7 volumes)," dated January 1930 and containing about 313 pages.

This complete the shipment of the copies of the printed documents relating to the histories of the National Armories, 1793-1860. In all, about 1,300 pages have been transmitted.

with best regards,

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Part III & IV

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1793

ASP-MA I — p. 44

3d CONGRESS.] No. 10. [1st SESSION.

RETURN OF ORDNANCE, ARMS, AND MILITARY STORES.

COMMUNICATED TO THE SENATE, BY THE SECRETARY OF WAR, DECEMBER 16, 1793.

WAR DEPARTMENT, *December 14th*, 1793.

SIR:

I have the honor to submit a return of the ordnance, arms, and military stores, in possession of the United States.

It resulted from the casual circumstances of the late war, that these stores were accumulated principally at the following points, viz: New London, in Virginia; Philadelphia; West Point, on Hudson River; and Springfield, on Connecticut River; all of which, perhaps, excepting Springfield, are improper places for permanent magazines.

The important characteristics for magazines and arsenals seem to be perfect security against enemies, internal and external, blended with an easy access by water. The expense of land transportation of heavy articles, for a series of years, compared with that by water, renders the latter quality indispensable for a magazine.

The situation of New London, being destitute of water communication with the ocean, is not a proper place for a permanent magazine, and it would seem therefore necessary that some other position should be sought on James River, more suitable for the erection of proper buildings.

It may be questionable whether a populous city is a proper place for the repository of large quantities of military stores, on account of the accidents to which such places are liable by fire and other causes. Hence it is intended that a part of the stores, now deposited in Philadelphia, shall be removed to some safe position higher up the Delaware.

West Point, on Hudson River, although a precious link in the chain which binds the States together, has, on account of the well known navigation of that river, and the easy access from the ocean, been considered as an improper place for an extensive magazine. For this reason part of the surplus stores have been removed temporarily to Albany.

During the late war a number of valuable brick buildings were erected at Carlisle, in Pennsylvania, as well for the reception of stores, as to accommodate a number of workmen in the Ordnance Department; but these buildings were not much used after the apprehensions of invasion subsided, owing to the expense and delay occasioned by the land transportation. The same causes still prevent their use in any considerable degree.

The situation of the United States would seem to require, that three capital magazines should be established permanently, one for the southern, one for the middle, and one for the eastern States, with such subdivisions as may be deemed indispensable for general use.

It would also seem to be a dictate of sound national policy, that the United States should always possess one hundred thousand arms placed in their respective arsenals, and that the battering and field artillery and ammunition should be in ample proportion.

It is presumed that all the cannon, arms, and ammunition required by the United States, might be fabricated among ourselves. It is possible the expense may be greater than if the articles were imported, but this circumstance is not of such moment as to be compared with the solid advantages which would result from extending and perfecting the means upon which our safety may ultimately depend.

I have the honor to be, with the highest respect, sir, your obedient servant,

H. KNOX, *Secretary of War.*

The PRESIDENT *of the United States.*

Return of Ordnance and Military Stores deposited at Springfield, Massachusetts.

Brass Ordnance.

6 pounders,	56
3 pounders,	10

Howitzers.

8 inch,	2
Do. unfinished,	1
5½ inch,	9
Do. unfinished,	1
4⅝ inch cohorn and bed,	1
Iron beds for 13 inch mortars,	4

Travelling Carriages.

4 pounders, long,	5
6 pounders, short,	28
6⅓ inch howitzers, French,	2

AMMUNITION.

Shot Strapt.

9 pounders,	259
6 do.	192
4 do.	1,244
3 do.	457

Canisters Filled.

12 pounders,	344
9 do.	449
6 do.	368
4 do.	554
3 do.	683

Quilted Grape.

9 pounders,	18
4 do.	44

Iron Shot.

24 pounders,	2,159
18 do.	3,535
6 do.	300
4 do.	3,500
3 do.	1,054

Shells.

8 inch,	4,985
5½ do.	5,829

Powder.

Barrels,	1,393
Half barrels,	22
Musket cartridges,	74,799
Powder horns,	847

Musket Ball.

Boxes, 100 lb. each,	161
Do. 1 lb. ball,	37
Do. grape shot, 2, 3, and 4 ounces,	153
Lead, 211 bars,	lb. 20,268
Flints,	815,115

Paper Cartridges.

18 pounders,	726
12 do.	727
6 do.	100
4 do.	70
3 do.	80

Fuzes Filled.

13 inch,	2,171
10 do.	978
8 do.	978
5½ do.	1,487

Muskets, &c.

New French arms,	6,678
Old do. do.	55
Carbines,	298
Pistols,	495

Swords.

Brass hilted,	406
Marine cutlasses,	110

Military Stores.

Ammunition wagons,	2
Do. boxes,	267
Worms, of sorts,	16
Trail and common handspikes,	88
Kegs yellow paint, ground in oil,	3
Cask Spanish brown,	1
Do. red lead,	1
Gun worms,	3,529
Sword belt,	1
Bayonet belts,	21
Iron bottoms for grape,	344
Handsaws,	2
Yards duck,	8
Bullet pouches, old,	369
Carbine rods, chests,	2
Gun rods, do.	6
Tent,	1
Scales and weights, pairs,	2
Scales, without beams,	1
Tin end pieces for cartridge boxes,	1,370
Tin cases, for do. do.	298
Cartridge boxes and belts,	271
Chests of cannon cartridge paper,	7
Tube boxes,	38
Fire hook, one,	wt. lb. 80
Turners' tools, sets,	1
Beds for 13 inch mortars, unfinished,	6
Rammer heads, of sorts,	161
Sponges, for 4 pounders,	29
Lintstocks,	11
Portfire stocks,	14
Sheep skins,	2
Laboratory chests,	1
Tompions for 4 pounders,	45
Worms and ladles,	6
Rope, 3½ inch, fathoms,	10
Copper hoops,	lbs. 187
Saltpetre, barrels,	2½
Empty tubes,	4,381
Fuzes, 13 inch, not fixed,	1,184
Copper ladles, sorts,	48
Emery, pounds,	11

Return of Ordnance, &c. at Springfield—Continued.

Military Stores

Cylinders.

24 pounders,	369
12 do.	993
9 do.	160
6 do.	946
4 do.	6,150
3 do.	2,400

Caps.

24 pounders,	477
12 do.	355
6 do.	146
4 do.	1,644
3 do.	920

Cask tin,	1
Empty cases for 6 pounders,	180
Do. for 4 pounders,	136
Copper and laboratory kettles,	1
Large screws,	3
Large screw plates,	3
Brass gun mounting,	168
Brimstone, pounds,	300
Portfires, dozen,	70
Portfire moulds and drifts,	1
Gun locks, old,	250
Iron hooks and thimbles,	14
Iron chains,	5
Gun slings,	21
Drum sticks,	1
Fifes,	2
Iron stoves,	2
Iron pots,	7
Spokes,	5,300

Implements.

Blacksmith's bellows,	1
Beck irons,	1
Tin lanterns,	5
Buckles for pouches,	649
Clasps for do.	73
Fronts for do.	20
Hooks for do.	34
Wheels for 4 pounders,	28
Do. for 3 pounders,	5
Do. for wagons,	12
Do. for travelling forges,	4
Do. partly made,	9
Carriage cheeks in the rough,	47
Wagon tops,	2
Wagon boxes,	20
Slowmatch, hhds.	2
Felloes,	500
Grindstones,	2
Chests of iron gun mounting,	7
Boring mill,	1
Limbers framed, not ironed,	5
Augers,	8
Anvil,	1
Armorer's tools, set,	1
Bench vices,	5

Damaged Stores.

Old cartridge boxes,	12
Tents,	6
Jockey caps,	20
Powder, barrel,	1
Old camp kettles,	7
Drum,	1
Arm chests,	67
Armorer's shop,	1
Blacksmith's do.	1
Harness maker's do.	1
Coal house,	1
Travelling forge, unfinished,	1
Backs for travelling forges,	11

Aggregate abstract of the principal articles contained in the foregoing returns.

Iron cannon, of different sizes,	214	Musket ball,	6 tons, 16 cwt. 1 qr. 3lbs.
Iron howitzers,	49	Cannon cartridges,	15,263
Iron mortars,	2	Musket do.	905,460
Iron cohorns,	2	Pistol do.	10,716
Brass cannon,	153		
Brass howitzers,	43	*Damaged.*	
Besides the last mentioned cannon, there are now casting at Springfield, 30 pieces brass ordnance and 20 brass 5½ inch howitzers.		Iron cannon,	21
Brass mortars,	63	Brass howitzers,	3
Brass cohorn,	1	Muskets,	15,670
Muskets,	31,015	Bayonets,	3,035
Bayonets,	4,022	Pistols,	423
Pistols,	805	Flints,	15,942
Flints,	1,610,119	Powder, barrels,	136¾
Powder, barrels,	4,460½	Musket ball,	1 ton, 5 cwt. 24 lb.
Lead,	87 tons, 7 cwt. 1 qr. 18 lbs.	Musket cartridges,	5,137
		Do. do. boxes,	24

Delivered of the principal articles since last General Return, dated 7th October, 1789.

Brass cannon,			16
Iron Ordnance,			11
Muskets, forwarded to the army,	7,619		
Do. do. to the State of Georgia,	2,000		
Do. do. to the Southwestern territory,	1,000		
Do. sold to the State of South Carolina,	600		
Do. to the Minister of France, 4th October, 1791, for the use of the French colonies,	1,000		
		12,219	
Powder, forwarded to the army,	bbls. 844½		
Do. do. to the State of Georgia,	75		
Do. do. to the Southwestern territory,	40		
		959½	
Musket ball, forwarded to the army,	tons, 36 10 3 21		
Do. do. to the State of Georgia,	3 3 1 16		
Do. do. to the Southwestern territory,	3 2 2 0		
		42 16 3 9	
Pig Lead, forwarded to the army,	tons, 23 1 1 27		
Do. do. to the State of Georgia,	4 5 1 9		
Do. do. to the Southwestern territory,	0 18 1 18		
		28 4 0 16	

H. KNOX, *Secretary of War.*

War Department, *December* 14, 1793.

5 1794 ASPMA I 65

3d CONGRESS.] No. 14. 1st SESSION.

ARSENALS AND ARMORIES.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, MARCH 5, 1794.

Mr. FITZSIMONS, from the committee to whom was referred so much of the President's speech of the third of December last, as relates to arms and military stores, magazines and arsenals, made the following report:

That, in addition to the arsenal at Springfield, there ought to be erected two other arsenals, with magazines and other necessary buildings, at such place as may be directed by the President of the United States, and so as to accommodate the Southern and Middle States.

That, in addition to the arms and military stores on hand, there ought to be provided,

7,000 muskets, with bayonets,
2,000 spare bayonets,
1,000 large horsemen's pistols,
100 tons of salt-petre, or 50 tons of powder,
200 tons of lead.

That there ought to be established a national armory for the purpose of making and repairing arms.

The committee submit, herewith, estimates of the expense of erecting two additional arsenals and magazines, amounting to, ... $59,000 00

Of the cost of the additional arms and military stores necessary to be provided, amounting to . 143,640 00

And of the annual expense of a national armory, from which may be expected 4,200 muskets, and bayonets annually, amounting to 22,865 20

In conformity with the foregoing opinions and estimates, the committee beg leave to offer the following resolutions:

Resolved, That the President of the United States be authorized to direct two arsenals and magazines to be erected, in proper situations, to accommodate the Southern and Middle States; and that a sum, not exceeding fifty-nine thousand dollars be provided for that purpose.

Resolved, That a national armory be erected; and that a superintendent, and two master armorers be appointed by the President of the United States, to superintend the same. That so many persons may, from time to time, be employed therein, as the Secretary for the Department of War may judge necessary; and that a sum not exceeding twenty-two thousand eight hundred and sixty-five dollars be provided for defraying the expense thereof.

Resolved, That a sum, not exceeding one hundred and forty-three thousand six hundre and forty dollars, be provided for the purpose of purchasing an additional quantity of arms and ammunition.

No. 1.

Estimate of the expense of purchasing the following articles.

7,000 muskets, at 9 dollars each, ...	$63,000
2,000 bayonets, at 1 do.	2,000
1,000 large horsemen's pistols, at 4 dollars each, ...	4,000
100 tons saltpetre, at $400 00 per ton, ...	40,000
200 do. lead, 173 20 do.	34,640
Dollars, .	143,640

No. 2.

Estimate for two sets of Arsenals and Magazines.

A brick building, three stories high, one hundred and seventy-five feet long, and forty-two feet wide, would contain twenty thousand muskets, artillery and carriages in proportion, together with all the light appendages thereof.

Such a building has been estimated, at the present rate of workmanship, to cost	$15,000
An arched brick magazine, capable of containing two thousand five hundred barrels of powder,	2,500
Brick barracks, and workshop for one hundred armorers, and barracks for the necessary guard,	10,000
Purchase of the necessary ground,	2,000
Dollars,	29,500

There is, at present, at Springfield, an excellent brick magazine, and a variety of wooden buildings, which, with repair, may serve the purpose of securing the public stores at that place, for several years.

If, therefore, two principal arsenals and magazines should be erected at present, besides subordinate ones, they might be sufficient. For the expenses of the latter, the sums contained in the general estimate of the War Department might be adequate.

Two sets of magazines and arsenals, workshops and barracks, each at 29,500 dollars, $59,000

No. 3.

An estimate of the annual expense of the institution of a National Armory, of one superintendent and seventy workmen, and thirty boys.

	Dolls. per. ann.
One superintendent, at 60 dolls. per month,	720 00
Two master armorers, 40 do.	960 00
Sixty-eight journeymen, 15 do.	12,240 00
Thirty boys, as apprentices, clothing annually, at 20 dollars each	600 00
	14,520 00

RATIONS.

One superintendent, three rations per day	1,095		
Two master armorers, two each,	1,460		
Sixty-eight journeymen, one and half each,	37,230		
Thirty boys, one and a half each	16,425		
Rations	56,210	at 12 cents.	6,745 20
Rent of workshops and barracks, estimated at			600 00
Barrack utensils, annually, for one hundred men and boys, beds, blankets, fuel, &c.			1,000 00
		Dollars	22,865 20

PRODUCE.

Muskets and bayonets which the above workmen may make monthly, 350, annually, 4,200, at 9 dolls. each	Dollars,	37,800
Deduct for materials on each, 2 dolls. 25 cts.		9,450
		28,350 00

Hence it would appear, that the probable profit of the labour of the above mentioned number of men and boys, would amount annually to 5,484 80

Economy and experience may even increase the profit, especially where the proposed apprentices should be rendered expert workmen. But were there no profit at all, but a loss incurred, it is humbly conceived, an institution of this nature, by disseminating the knowledge of so valuable an art, would, in a just political view, amply compensate the expense.

WAR DEPARTMENT, *March 4th*, 1794.

H. KNOX, *Secretary of War.*

7 Act of April 2, 1794

US. Statutes at Large I p 352

STATUTE I. April 2, 1794.

CHAP. XIV.—*An Act to provide for the erecting and repairing of Arsenals and Magazines, and for other purposes.*

Arsenals &c. to be established.

1798, ch. 28. 1803, ch. 32, sec. 5.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That for the safe keeping of the military stores, there shall be established under the direction of the President of the United States, three or four arsenals with magazines, as he shall judge most expedient, in such places as will best accommodate the different parts of the United States. Either or both of the arsenals heretofore used at Springfield and Carlisle, to be continued as part of the said number, at his discretion: *Provided,* that none of the said arsenals be erected, until purchases of the land necessary for their accommodation be made with the consent of the legislature of the state, in which the same is intended to be erected.

And at each arsenal, an armoury.

SEC. 2. *And be it further enacted,* That there shall be established, at each of the aforesaid arsenals, a national armoury, in which shall be employed one superintendent, and one master-armourer (who shall be appointed by the President of the United States) and as many workmen as the Secretary for the department of war shall, from time to time, deem necessary, so that the whole number at all the armouries shall not exceed one hundred. And the said superintendents shall each receive as a compensation, seventy dollars per month, and the said master-armourers each, fifty dollars per month.

Superintendant of military stores. 1813, ch. 43, § 1.

His compensation, And by whom appointed.

SEC. 3. *And be it further enacted,* That there shall be employed an officer, whose duty it shall be (under the direction of the department of war) to superintend the receiving, safe keeping and distribution of the military stores of the United States, and to call to account all persons, to whom the same may be intrusted: he shall receive for his compensation, at the rate of one hundred and twenty-five dollars per month, and shall be appointed by the President of the United States.

Appropriation for carrying this act into effect.

SEC. 4. *And be it further enacted,* That a sum not exceeding fifty-nine thousand dollars, be appropriated for the erecting and repairing of the arsenals and magazines aforesaid, and a sum not exceeding twenty-two thousand eight hundred and sixty-five dollars for defraying the expense of the national armouries, for one year; and the further sum of three hundred and forty thousand dollars, to be applied, under the direction of the President of the United States, in the purchase of arms, ammunition and military stores; which said several sums shall be paid out of the duties on imports and tonnage, to the end of the present year.

Annual account of expense of armouries to be laid before the legislature.

SEC. 5. *And be it further enacted,* That an annual account of the expenses of the national armouries be laid before the legislature of the United States, together with an account of the arms made and repaired therein.

APPROVED, April 2, 1794.

D 1795 ASP-NA-I.109

A Statement of the present Military Force of the United States.

	Major General.	Brigadier General.	Adjutant General.	Quarter Master General.	Deputy Quarter Master General.	Paymaster.	Surgeon.	Chaplain.	Lieutenant Colonels.	Majors.	Captains.	Lieutenants.	Cornets.	Ensigns.	Surgeons.	Surgeons' Mates.	Non-commissioned and privates.
General staff, - -	1	1	1	-	-	1	1	1									
Cavalry, - -	-	-	-	-	-	-	-	-	-	1	3	3	2	-	-	-	240
Artillery, - -	-	-	-	-	-	-	-	-	1	4	15	27	-	-	1	4	731
Infantry, - -	-	-	-	-	-	-	-	-	4	12	44	43	-	27	3	12	2,257
Total, - -	1	1	1	-	-	1	1	1	5	17	62	73	2	27	4	16	3,228

With General Wayne, including the garrison on the lower parts of the Ohio, and in advance of Fort Washington, - - - - - - - - - -	2,039
At Pittsburg, Fort Franklin, Presque isle, &c. - - - - - - - - -	222
In Georgia, - - - - - - - - - -	78
Sailed to Georgia, - - - - - - - - - -	272
In the Southwestern territory, - - - - - - - - -	33
At West Point, fortifications of the harbors, and the several recruiting rendezvous, - - -	584
	3,228

A statement showing at what periods the enlistments of the non-commissioned officers and soldiers will expire.

	In December, 1795.	From 1st January to 1st July 1796.	From 1st July, 1796, to 1st January, 1797.	From 1st January, 1797, to 1st July 1797.	From 1st July, 1797, to 1st January, 1798.	From 1st January, 1798, to 1st July, 1798.	From 1st July, 1798, to 31st December, 1798.	Not particularly known, supposed to expire in 1798.	Total.
Cavalry, -	3	15	1	8	17	164	32	-	240
Artillery, -	16	19	16	52	282	260	76	10	731
Infantry, -	27	224	235	288	229	833	359	62	2,257
Total -	46	258	252	348	528	1,257	467	72	3,228

DEPARTMENT OF WAR, *December* 12, 1795.

TIMOTHY PICKERING.

Report of the Secretary of War on the measures which have been pursued to obtain proper sites for Arsenals; which is respectfully submitted to the Senate of the United States:

It having been determined to erect one arsenal on the Potomac, and another in South Carolina, the latter in a situation to and from which water transportation would be afforded, and the former in the vicinity of a number of iron works, the necessary orders were given in the year 1794 for exploring both countries. The agent, employed on the former, reported in the same year in favor of a situation about twenty-five miles below the blue ridge, where a number of circumstances invited the establishment. In an undertaking, however, of such importance and permanency, it was deemed expedient to make another examination. This was done last Spring. The engineer employed, pursuant to his instructions, reported the situation of various places, where it would be practicable to erect the necessary works and magazines, with their respective advantages and disadvantages; and at what prices they could probably be obtained. These were all extremely high; and one far exceeded the whole appropriation for all the arsenals proposed to be erected. For this reason another place, comprehending several lots of land, had the preference; and the requisite negotiations were begun for making the purchases. Before these were concluded, the attention of the Executive was called to another situation on the Potomac, possessing, with some difficulties to be encountered, apparently many important advantages. The engineer was again instructed to examine this place, from whence he has lately returned. The American gentleman, well acquainted with the country, and who assisted him in this examination, was to have transmitted a survey of the place referred to, and of the adjacent waters on which the engineer's report would be completed. The survey has not yet been received, and the determination of the Executive is consequently suspended.

The engineer employed, for the like purpose, in South Carolina, made a report, which was received early in the last Summer. He had explored that part of the country to which his attention had been directed by the Executive. He also examined another. The latter, independent of its being in a more healthful situation, was deemed by him to possess some other advantages over the former. However, he proposed to visit the seat of Government, and personally explain his ideas of the subject. This visit was waited for, but not made; no decision has, consequently, been taken on his report.

The prices of lands and mill seats, (for the latter must be comprehended in the plan of an arsenal,) so far exceeded those upon which the calculations were made, when the plan of erecting arsenals was projected, and rose so rapidly soon after, it is now found that the whole appropriation, for the three or four arsenals which the Executive was authorised by law to erect, would be inadequate for a single new establishment. Hence, the principal object, in the measures pursued during the last summer, was to ascertain and secure the most eligible site on the Potomac, where magazines could be erected, and certain military stores be collected and safely deposited; and where, afterwards, the works necessary, in the formation of all the implements of war, might be erected, as the requisite funds could be provided.

In a country where such establishments are unknown, and where the actual state of things admits of a suspension of some of them, consistently with the public safety, it would seem expedient to make an experiment with *one*

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in a central position. The obvious principles of economy recommend this caution; and the avoiding of defects likely to appear in a first attempt, and the probability of solid improvements, which experience would suggest, in a second, strongly enforce it.

Springfield, in the State of Massachusetts, was at once fixed on as a proper situation for the arsenal to be established in the eastern division of the States. Magazines, for military stores, had been formerly erected at that place. Some additional buildings have been made, and a number of workmen collected for the purpose of repairing and manufacturing small arms. The former has been executed, and the latter commenced.

DEPARTMENT OF WAR, *December* 12, 1795.

TIMOTHY PICKERING.

Report of the Secretary of War on the measures which have been taken to replenish the magazines with military stores.

In respect to some of the most essential articles, the stock on hand is respectable; and, as to others, the magazines are now not ill supplied.

A contract has been made for a large quantity of saltpetre; and probably it is now on its way from India. This important article may, however, be obtained in the Western parts of the United States. The fact is ascertained. Forty or fifty tons have been brought from those parts to Philadelphia for sale, and it is said that several hundred tons might be procured, in the same way, in the course of the next summer, if needed.

To increase the stock of small arms, and to render serviceable those already in the public stores, two sets of armorers have been employed, to wit: at Springfield, Massachusetts, and at New London, in Virginia, in repairing arms, and preparing to manufacture the most essential parts of muskets; and some specimens have been produced which prove their capacity to equal, in that article, the manufacture of any country in the world. All the arms in the magazines in Philadelphia have been repaired, with some thousands at West Point, where the residue are now repairing.

In addition to these sources of supply, besides two thousand rifles which have been purchased, contracts have been made, and are executing, for seven thousand muskets, to be manufactured in the United States. The present period may be deemed an unfavorable one to carry on such manufactures, on account of the high price of labor; nevertheless, it seemed important to secure the services of the manufacturers, when they might be of the highest necessity, by continuing to furnish them employment. Such muskets as are manufactured are after the model of the French arms, which compose, by far, the greatest part of those in our magazines. For this reason, and because they are preferable to those of any other nation known in the United States, it was apparently inexpedient to make an importation of arms from Europe; seeing a supply was not to be expected from France, and the situation of the United States not rendering the measure of an immediate importation indispensable.

The casting of cannon has not been attended, hitherto, with the expected success. The foundries which formerly succeeded very well in the casting of small guns, were not well adapted to the casting of 24 and 32 pounders. A French gentleman, of some knowledge and experience in cannon foundries, has lately been employed to amend the process of casting, and to improve the machinery for boring; and there is room to hope that his projected improvements will be realized. Nevertheless, in an undertaking so important, and, at the same time, so expensive, it was desirable to obtain, if possible, a complete cannon founder; and, from the information received, it seemed probable that one might be procured from one of the first foundries in Europe. Measures, for that purpose, have accordingly been taken.

All which is respectfully submitted to the Senate of the United States.

TIMOTHY PICKERING.

DEPARTMENT OF WAR, *December* 12, 1795.

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FORTIFICATIONS.

COMMUNICATED TO THE SENATE, BY THE SECRETARY OF WAR, JANUARY 18, 1796.

State of the Fortifications of the United States.

WAR OFFICE, *January 16th*, 1796.

PORTLAND, *in the District of Maine.*—The works consist of a fort, a citadel, a battery for ten pieces of cannon, an artillery store, a guard house, an air furnace for heating shot, and a covered way from the fort to the battery. The works are substantially executed, excepting the covered way; to complete this, the earth on the spot being of a bad quality, with the necessary supports of stones and sods, is estimated at four hundred dollars. Levelling the earth round the works, fencing the land pertaining to them, a pump for the well, painting the wood work, and rendering the whole perfectly complete, the estimate is four hundred and seventy-one dollars, in the whole eight hundred and seventy-one dollars.

PORTSMOUTH, *New Hampshire.*—The works consist of a fort, a citadel, an artillery store, and a reverberatory furnace. These are all completed, excepting a little carpenters' work, suspended to let the wood season, and which may cost about fifty dollars. But a small and unforeseen expense must be incurred, for a drain to carry the water from the magazine, and may cost one hundred dollars.

GLOUCESTER, (*Cape Ann.*)—The works consist of a battery and a citadel. These are completed. But to enclose the fort, towards the town, the cost is estimated at one thousand four hundred dollars. This, however, may be postponed till circumstances require it to be done.

SALEM.—The works, consisting of a fort and citadel, have been erected. A gate remains to be made, and some repairs to the walls.

MARBLEHEAD.—A battery and a citadel have been erected. Any other works may be suspended until circumstances shall change.

NEWPORT, *in Rhode Island.*—For the defence of this harbor there have been erected, on Goat Island, a fort, a citadel, and an air furnace. The excellency and importance of this harbor, in time of war, recommend a further expenditure, to render the defence complete. To finish the fort, erect an artillery store, and make a covered way round it, as in a regular fortification, the expense is estimated at about six thousand dollars.

There have also been erected a citadel on Tammany Hill, back of the town of Newport, for the protection of its inhabitants, and a battery and guard house, at Howland's Ferry, at the northern end of the island, to keep open a communication with the main, in case of an invasion. But, to secure effectually this communication, a citadel should be erected on Butts' Hill, that position commanding Howland's Ferry and Bristol Ferry. The cost of it is estimated at eighteen hundred dollars.

NEW LONDON.—The works consist of a fort and citadel, on the Groton side of the harbor, and of a fort, a citadel, and an air furnace, on the New London side. They remain incomplete. Under present circumstances, a small expenditure may be proper, merely to preserve what has been done.

NEW YORK.—Governor's Island has been fortified with a fort made of earth, and two batteries under its protection, partly lined with brick masonry, two air furnaces, a large powder magazine, and a barrack for the garrison; the whole completed.

PHILADELPHIA.—A large pier, as the foundation for a battery, on a sand bar, opposite Mud Island, to make a cross fire, has been completed. A fort, on Mud Island, is about half done, and a citadel has been erected to complete the fort, and on a plan much more circumscribed than was at first projected. The expense is estimated at fifteen thousand dollars.

WILMINGTON, *in the Delaware State.*—Nothing has been done. The project of erecting a fort there has been abandoned as useless.

BALTIMORE.—A battery and barracks have been constructed, and some guns are mounted.

ANNAPOLIS.—Some progress had been made in the construction of a fort and battery, and a barrack has been erected. But an examination of the works by an engineer, other than the one first employed, produced an unfavorable report of the plan of the works; and, under actual circumstances, induced a relinquishment of them.

A similar report as to the plan and situation of the work at

ALEXANDRIA, induced a like relinquishment.

NORFOLK.—Two forts, intended to cross their fire, are erected on the opposite sides of the harbor. The one on the Norfolk side, with barracks and a powder magazine, is completed. The other, Fort Nelson, on the Portsmouth side, is very far advanced, and a powder magazine has been erected. The principal work remaining to be done is the opening of seven embrasures, completing one ditch of three hundred and sixty feet long, cutting another eleven hundred feet long, completing the glacis, and removing the earth from within side of the fort, where it is two feet and an half too high. The expense of doing this, and completing the fortification, may be estimated at five thousand dollars.

OCRACOKE, *in North Carolina.*—The defence proposed was, to erect a fort on Beacon Island. The foundation was laid in 1794. The situation is so far removed (about ninety miles) from any inhabitants, and so exposes any works to injuries from storms, that nothing but an impending or actual war would seem to authorize the construction of a fort there, and furnishing it with a proper garrison.

WILMINGTON, *in North Carolina.*—The battery, on the whole front of the fort, has been completed, and a barrack and powder magazine have been erected.

GEORGETOWN, *South Carolina.*—A battery was begun, and materials collected, when the work was suspended, the owner of the land previously desiring to ascertain the terms on which it was to be occupied, for the fortification and for the road of communication with it. The unhealthiness of the situation and other circumstances authorize an abandonment of the work until war, actual or impending, shall require it to be resumed.

CHARLESTON, *South Carolina.*—The work planned for Sullivan's Island, of which the foundation only was laid in 1794, being on a scale supposed too extensive for the funds destined to this service, was directed to be left as it was. For the same reason, a new work, proposed by the engineer, on a point on the opposite side of the harbor from Fort Johnston, was not attempted. A battery has been erected in the town, by the mechanics.

There remained only Fort Johnston, on which directions were given to make such repairs as would preserve the works already constructed, and render them serviceable. The engineer omitted the work.

The officer in command at the fort has undertaken to make the necessary repairs of the works and barracks, and his intelligence and experience leave no room to doubt but these will be done.

SAVANNAH, *in Georgia.*—The work consists of a battery, at present destined only for six guns, made of timber filled with earth, and enclosed behind with pickets, with a guard house for the garrison, which were in train to be completed early the last autumn.

ST. MARY'S, *in Georgia.*—The work consists of a battery made of timbers filled with earth, and enclosed with pickets. By the personal report of the superintendent it must have been completed.

GENERAL REMARK.—The few ports of the highest importance to the commerce of the United States, in situations to demand, for their security, fortifications of such kind and extent as cannot suddenly be erected, prudence may require to have fortified, in time of peace, and with durable materials.

TIMOTHY PICKERING.

To the PRESIDENT *of the Senate of the United States.*

10 Jan. 22, 1796

Washington, D. C., National Archives, R.G. 153 Office of the Judge Advocate General, Military Reservation Division, Reservation File 1809-1942, West Virginia Box No. 44, 1 Harpers Ferry (ms), (Letter, Timothy Pickering, War Office Washington, D C. to Tobias Lear, January 28, 1796)

"War Office Jan[y] 28 1796
rec[d] Feb[y] 11 "

"Sir,

The President having examined a report from this department and the papers accompanying the same, relative to the site for an arsenal on the Potomac, and weighed the advantages & disadvantages of the several places contemplated for that object is of opinion that the situation in the fork [?] as the junction of the Potomac and Shenandoah rivers is the most eligible, as combining the greatest advantages. He has consequently desired that I would cause measures to be taken immediately for purchasing the land and erecting the necessary works, in conformity to the act of Congress.

The interest you have taken in this affair, & the agency you have had in the preliminary agreements with the proprietors, joined to your earnest wishes al [sic.] all times to render your assistance in carrying into effect whatever the President deems importantly beneficial to his country, leave me no

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no choice of an agent to complete the purchase of the lands necessary for the establishment of an Arsenal. I beg leave to commit the business to your management, and to request that you will immediately proceed to make the purchase of Mr. Rutherford and the Wagers.

By your letter to the President of the 26th of October I conclude the 'saw-mill tract which Bready agreed to sell to John Wager junr.' is the same which in Col. Gilpin's sketch is called 'Harper's Saw-mill', and that this tract is necessary to obtain a complete command of the water of the Shenandoah; of course that it must be comprehended in your purchase.

It will be expedient to agree on a price with Col. Ball for so much of his land as shall eventually be wanted for the public service; & before he knows that the arsenal is positively to be fixed as above mentioned. If there are any other proprietors whose lands on your examination shall appear necessary or highly beneficial to the public establishment, it will be desirable that the like conditional bargains should be made.

[Third Page]

In conversation with Mr. Scarton, he mentioned the practicability of making a canal on the right bank of the Potowmac from the commencement of the rapids about a mile & three quarters above the mouth of the Shenandoah, down to the point; & that fifteen feet head of water may be gained in that distance. Now eventually it may be important to the public to possess the right of making such a canal: and therefore I must request the favor of you to see whether it will be practicable to secure it, & on what terms. Conditional bargains for the land may be entered into. Or will the property of the Wagers and Rutherford extend that length? I hope it does, and that the right will be obtained by the purchasers already contemplated to be made of them.

If a sketch of the lands of the various proprietors in the fork [?], to the extent of a thousand or more acres, could be easily furnished, accompanied by a description of the lands, in relation to the adjoining waters, and the qualities of the lands, particularly in regard to their surface whether hilly,

stony

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stony or otherwise, with indications on the sketch where the qualities change, it would be of great use in judging of further purchases.

I enclose the original agreements of Mr. Rutherford and the Harpers. It had escaped my recollection that they had fixed the 1st [?] & 10th of this month to terminate their conditional obligations, until I since reexamined the papers on this subject, in forming my my [sic.] report to the President. I shall be very unhappy should this delay induce them to depart from their agreements. I am sure you will do whatever is in your power to establish them and complete the purchase.

I shall be obliged by your acknowledging the receipt of this letter & your acceptance of the agency should it be impracticable for you to undertake (tho' I earnestly hope otherwise) I must ask the further favor of you to employ a perfectly confidential man in your stead.

I am with great respect &
esteem, dear sir, Yr obt Servt

Timothy Pickering

Tobias Lear Esqr."

15 Feb 26, 1796

Washington, D. C., National Archives R.G. 153 Office of the Judge Advocate General, Military Reservation Division, Reservation File 1809-1942, West Virginia Box No. 44, 1 Harpers Ferry (ms) (Letter Tobias Lear, Washington, D. C. to Col. Pickering, February 26, 1796)

"Washington Feb^{y} 26th 1796

Sir,

I have the pleasure to inform you that I have concluded the Bargain with the Wagers and Rutherford for the property at the junction of the Rivers Shenandoah & Potomak [sic.] And it is with peculiar satisfaction I can add that it is obtained for the sum proposed in the Terms offered by them last Fall viz. 6666 $^{66}/_{100}$ Dollars for one Tract and Ten Thousand Dollars for the other with a Relinquishment of some Reservations then proposed by the Wagers on the Ferry Tract making the whole much more favorable for the Public. I found more Difficulty in concluding the Bargain then in any Thing of a similar Kind that I ever undertook and I am peculiarly happy in having effected it as it seems an Object of the First Importance for the Public and I am sure you will feel satisfied with it as it relieves you from the Apprehension of Evil having resulted from Delay.

I enclose copies of the Agreements with the parties from which Deeds may be drawn by the Attorney General of the United States. Mr. Lee being so perfectly acquainted with the Manner in which these Things should be done in Virginia I thought it better to put it upon this Footing than to have Deeds drawn and signed in the first Instance in which there might possibly have been some Flaw. The orginal Agreements I keep in my Hands not caring to trust them unnecessarily to the Contingencies of a letter. My further Agency in this Business if wanted may be commanded.

I have the Honor to be
with the greatest Respect and Esteem
Sir Your most obedient Servant

[signed] Tobias Lear

Col. Pickering

P.S. The two Tracts now agreed for include the whole Fall of the Potomack and Shenandoah- of the former there may be 15 Feet fall with the whole Weight of the water of the River- of the latter 25 Feet all the water of the River. I made no additional Agreement for adjoining lands as some peculiar circumstances were then in the way but I have no doubt of being able to obtain it for twenty Dollars an Acre."

ASPMA - 120-12

FORTIFICATIONS, MUNITIONS, AND INCREASE OF THE ARMY.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, APRIL 9, 1798.

Mr. SEWALL, from the committee on that part of the President's speech, which regards the protection of commerce, and the defence of the country, further reported:

That it is expedient to authorize the President of the United States to erect fortifications in such ports and places, near the sea coast, as, in his judgment, shall be requisite, and advantageous, for the common defence.

That a considerable addition is requisite to be made to the corps of artillerists and engineers already established, to be employed in the several fortifications which have been, and which shall be, erected on or near the sea coast.

That a large supply of cannon, arms, and ammunition, is necessary to be immediately provided for the service of the United States.

An addition to a resolve heretofore reported, and under the consideration of the House, will effect the first mentioned object.

For the others, the committee recommend the following resolutions:

Resolved, That the President of the United States be authorized to raise and establish ——— companies of artillerists and engineers, in addition to the present establishment.

Resolved, That the sum of ——— dollars shall be appropriated by law for the purchase of cannon, arms, and ammunition, for the service of the United States.

WAR DEPARTMENT, *April* 9, 1798.

What measures are necessary and proper to be adopted by Congress, in the present conjuncture, to preserve character abroad, esteem for the Government at home, safety to our sea property, and protection to our territory and sovereignty?

France derives several important advantages from the system she is pursuing towards the United States. Besides the sweets of plunder, obtained by her privateers, she keeps in them a nursery of seamen, to be drawn upon, in all conjunctures, by her navy. She unfits, by the same means, the United States for energetic measures, and thereby prepares us for the last degree of humiliation and subjection.

To forbear, under such circumstances, from taking naval and military measures, to secure our trade, defend our territory in case of invasion, and prevent or suppress domestic insurrection, would be to offer up the United States a certain prey to France, and exhibit to the world a sad spectacle of national degradation and imbecility.

The United States possess an extensive trade, heavy expenses must be submitted to for its protection. The United States border upon the provinces of great and powerful kingdoms, heavy expenses must be incurred, that we may be at all times in a situation to assert our rights to our own territory. The measures which appear indispensably necessary for Congress to take, are as follows, viz:

1st. An increase of the naval force, to serve as convoys, protect our fisheries, coast, and harbors. 2d. An augmentation of the present military establishment. 3d. Arrangements which, in case of emergency, will give to the President the prompt command of a further and efficacious military force. 4th. The more complete defence of our principal ports by fortifications. 5th. A supply of ordnance, small arms, powder, saltpetre, copper, and military stores. 6th. Additional revenue.

To answer the 1st. Congress ought to provide for the building or purchasing, equipping, &c. of two vessels of twenty-two guns; eight vessels of twenty guns; and ten vessels of sixteen guns, in addition to the three frigates.

Congress ought also to vest the President with authority, in case of open rupture, to provide, equip, and by such means as he may judge best, a number of ships of the line, not exceeding six, or an equivalent force in frigates.

The first may be either built or purchased in the United States. The latter may, perhaps, be obtained in Europe; for which purpose the law should use general expressions, admitting this mode of procuring them.

To build the twenty vessels, equip, man, and provision them for twelve months, will require, as per annexed estimate, - - - - - - - - - $1,941,181

It may, under this head, be also advisable to make a provision for six galleys, carrying each one or two twenty-four pounders. This will require for galleys carrying one twenty-four pounder each, as per annexed estimate,* $63,826.

2d. An augmentation of the present military establishment. This ought to consist of one regiment of infantry; one regiment of artillery; and one regiment of cavalry. The artillery is considered as indispensable, and the cavalry may be highly useful in the Southern States. These will require, agreeably to the annexed estimate, $517,999

3d. An arrangement which, in case of emergency, will give to the President the prompt command of a further and efficacious military force.

This ought to be a provisional army of 20,000 men, and may be organized agreeable to the principles of a bill proposed in the Senate, during the late extraordinary session, to which I beg leave to refer.

4th. The more complete defence of our principal ports by fortifications.

This may require $1,000,000; but, should the naval force be rendered respectable, much of this sum may be saved.

5th. A supply of cannon, small arms, saltpetre, copper, &c. which, severally, will require—

For cannon, as per annexed estimate, - - - - - -	$308,900
For small arms, say 50,000 stands, at twelve dollars, - - - - -	600,000
For powder, saltpetre, copper for sheathing, &c. - - - - -	200,000

In framing the law to furnish our magazines with ordnance, it will be proper to employ such expressions as will enable the President to procure brass cannon, mortars, &c. with the necessary quantities of ball, shells, &c. These have not been specified in the estimate; but the sum may, perhaps, be sufficient to comprehend them.

To render the regiment of infantry as useful as possible, it is proposed, that the men should be enlisted to act in the double capacity of marines and infantry. By an arrangement of this kind, and having the men stationed at the principal sea ports, they will be always ready to be put on board such vessels as want them, and when not so wanted, will serve to defend the coast, work upon the fortifications, or in dock yards, and guard the public property from thefts or embezzlement.

All which is respectfully submitted,

JAMES McHENRY.

Hon. SAMUEL SEWALL,
Chairman of the Committee for the protection of Commerce and the defence of the country.

Estimate of the pay, &c. of a Regiment of Infantry.

PAY.

1	Lieut. col. commandant,	at $75	per month,	900	2	Sergeant-majors,	at $8	per month,	192
2	Majors,	50	do	1,200	2	Quartermaster-sergeants,	8	do	192
1	Surgeon,	45	do	540	32	Sergeants,	7	do	2,688
2	Surgeon's mates,	30	do	720	32	Corporals,	6	do	2,304
1	Adjutant,	10	do	120	2	Senior musicians,	7	do	168
1	Quartermaster,	10	do	120	16	Musicians,	5	do	960
1	Paymaster,	10	do	120	416	Privates,	4	do	19,968
8	Captains,	40	do	3,840					
8	Lieutenants,	30	do	2,880					$39,312
8	Ensigns,	25	do	2,400					

SUBSISTENCE.

				Rations.				
1	Lieut. col. commandant,	at 6	per day,	2,190	502	Non-commissioned and privates,	1 p'r	day, 183,230
2	Majors,	4	do.	2,920	30	Women,	1	do. 10,950
1	Surgeon,	3	do.	1,095				*Rations*, 222,285
2	Surgeon's mates,	2	do.	1,460		At twenty cents each, is		$44,457
8	Captains,	3	do.	8,760				
16	Subalterns,	2	do.	11,680				

FORAGE.

1	Lieut. col. commandant,	at $12	per month,	144	1	Paymaster,	at $6	per month,	72
2	Majors,	10	do.	240	1	Quartermaster,	6	do.	72
1	Surgeon,	10	do.	120					$1,008
4	Surgeon's mates,	6	do.	288					
1	Adjutant,	6	do.	72					

BOUNTY AND PREMIUM.

502 Non-commissioned officers and privates, at sixteen dollars each, is - - - $8,032

CLOTHING.

502 Suits, at twenty-five dollars per suit, is - - - - - - $12,550

RECAPITULATION.

Pay,	$39,312	Clothing,	12,550
Subsistence,	44,450		$105,359
Forage,	1,008		
Bounty and premium,	8,032		

Estimate of the pay, &c. of a Regiment of Light Dragoons of six Companies.

PAY.

1	Lieut. col. commandant,	at $75	per month,	$900	24	Sergeants,	at $7	per month,	2,016
1	Major,	55	do.	660	24	Corporals,	6	do.	1,728
1	Surgeon,	45	do.	540	6	Farriers,	9	do.	648
1	Surgeon's mate,	30	do.	360	6	Saddlers,	9	do.	648
6	Captains,	40	do.	2,880	6	Trumpeters,	5	do.	360
12	Lieutenants,	30	do.	4,320	312	Dragoons,	4	do.	14,976
6	Cornets,	25	do.	1,800					$32,196
1	Adjutant,	10	do.	120					
1	Quartermaster,	10	do.	120					
1	Paymaster,	10	do.	120					

ARMORY AT SPRINGFIELD.

COMMUNICATED TO THE SENATE, JANUARY 7, 1800.

War Department, *January* 6, 1800.

Sir:

I have the honor to transmit a report, exhibiting the expenses of the national armory at Springfield, Massachusetts, together with the fullest information I have been able to obtain, relative to the said establishment.

I am, sir, with great respect, your obedient servant,

JAMES McHENRY.

The Hon. the Vice President *of the United States.*

War Department, *January* 6, 1800.

The Secretary of War has the honor to lay before the Senate of the United States, an exhibit of the expenses of the national armory at Springfield, Massachusetts, together with the fullest information he has been able to obtain relative to the said establishment.

The following sums appear to comprise the annual expenditures at, and upon, this armory, from the commencement of the same, in the year 1795, down to the 1st of October, 1799.

In the year 1795, expended	$13,095	25
Do. 1796, do.	13,286	49
Do. 1797, do.	11,175	28
Do. 1798, do.	22,245	00
From 1st January, to 1st October, 1799,	48,900	00
Cost of rations issued during the above periods,	20,663	00
Estimated value of musket stocks,	2,000	00
Making a total of,	$129,365	82

The muskets annually fabricated, in the same period, were, viz:

In the year 1795,	245	To July 1st, 1799,	1,888
Do. 1796,	825	In July, August, and September, 1799,	1,184
Do. 1797,	1,028		
Do. 1798,	1,044	Total number,	6,224

In order to form a just opinion of the average price, or cost, of the muskets manufactured as aforesaid, it will be proper to distinguish, and deduct from the total amount, the sums which have been expended upon the buildings, machinery, tools, &c., and the value of the unfinished works, the tools and materials on hand, the 1st October, 1799; as well as of certain incidental work, in repairing French arms in store, and making or repairing cannon carriages.

Although it is stated by the superintendent of the armory to the Secretary, to be wholly out of his power to determine accurately, and with certainty, what proportion of the money expended was laid out on the works, and what on the arms; which, he observes, will be readily conceived on reflecting, that, at the commencement of the business, the public buildings were out of repair; that large sums were expended on them; that new buildings were erected; and that for want of proper assistants and system, he did not keep separate accounts; that, besides, the artificers were employed for some time on the buildings, instead of the manufactory, and in making the necessary pieces of machinery and tools; yet, according to the best judgment he can form, the cost of the work shops and other buildings for the armorers, water dam, and privilege, together with the machinery belonging thereto, and rations drawn by the men while employed in these incidental labors, may be estimated at $20,000 00

Value of parts of muskets on hand,	7,591 50
Stock on hand,	6,958 17
Expense of cleaning and repairing French arms in store, and work done to cannon carriages for five years.	3,800 00
Tools and utensils, estimated at	9,000 00
	$47,349 67

This latter sum, deducted from the total amount of expenditures, leaves a balance of $82,015 35, which, divided by 6,224, the number of muskets fabricated since the commencement of the armory down to the 1st of October, 1799, makes each musket to cost about $13 17.

If we take into view the difficulties always attendant upon the first operations of an establishment, requiring so much skill as the fabrication of arms; that few or none of the workmen were, at first, masters of the business; that some unsuccessful attempts in the proper construction of the machinery, and formation of parts of the musket, must necessarily have occurred; that time and some experience was essential to adjust the various branches of the business to each other, and to ascertain to what branches the capacities and skill of the different persons employed were most appropriate; we shall find reason to be satisfied with the average cost of the muskets, and a sufficient explanation, should any defects appear in some of the earliest manufactured.

The works being now complete, and labor-saving machines operating to great advantage, the artificers, too, being generally well instructed, and the business better arranged, and carried on more systematically, what do muskets now cost the United States at Springfield?

There are, at this time, employed in the armory, 183 artificers, and 11 apprentices. The number employed for the months of August, September, and October ultimo, average 137 per month. In two of these months, there were completed, 884 muskets, being 17 to each working day, or 442 muskets per month.

The superintendent states, as the result of positive experience, the monthly expenditures of the armory to be as follows, viz:

Iron, 3 tons, 15 cwt. 2 qrs. cost	$ 592 17
Wages of workmen, including the pay of the superintendent and master armorers,	2,190 69
Rations for the men,	546 00
Wear of grindstones,	50 00
Charcoal and sea coal,	250 00
Estimated cost of musket stocks,	150 00
Emery, oil, buff leather, &c.	36 00
Cast steel, brass, crucibles, and wire,	18 50
Screws, sand paper, and tallow,	38 00
Clothing apprentices, and team work,	45 00
Files,	100 00
Contingent charges,	100 00
	$4,106 36

This sum, then, or the monthly expenditures apportioned on the number of muskets made monthly, shows their cost to the United States, to be about $9 29 per musket.

This difference in the cost of the musket may be attributed to the price of the ration being less now than heretofore; to the workmen having become more expert; to the materials being bought in larger quantities, coming lower; to supplies being more regularly furnished; and, generally, to the improvements in the machinery and system for carrying on the manufactory.

The high prices offered artificers by private contractors for small arms, have obliged the superintendent to give higher wages since these contracts have been formed. This, however, cannot be long felt disadvantageously, and must operate to increase the number of workmen skilled in the business, and ultimately lower the price of wages. At present, the average wages to workmen at the armory is nearly fifteen dollars per month.

The superintendent, however, expresses himself confidently, that the cost of each musket to the Government, in future, cannot exceed ten dollars.

The progressive improvements in the manufactory will be best evidenced by the statement of the arms made in each year; and the following one, of the number made and turned into the store, during certain parts of the years 1798 and 1799:

In the month of	September,	1798,	80 muskets.
Do.	October,	"	80 do.
Do.	November,	"	150 do.
Do.	December,	"	196 do.
In the month of	January,	1799,	200 do.
Do.	February,	"	250 do.
Do.	March,	"	339 do.
Do.	April,	"	338 do.
Do.	May,	"	336 do.
Do.	June,	"	425 do.
Do.	July,	"	(short, owing to a failure in stocks) 300 do.
Do.	August,	"	442 do.
Do.	September,	"	442 do.

During the last six months, there has been nearly the same number of hands employed, or between 130 and 150. In October, 1798, there were 118 men, and these made 80 muskets only; in November, 121 men, who made 150 muskets; which last is at the rate of near 21 days' work to each musket. The superintendent observes, on this head, that the men can now do double, and, in some instances, treble the work, in the same time; and that a workman, at present, makes a complete musket in somewhat less than nine days; that he finds the workmen now make and complete, in every part, 17 muskets per day, in the usual working hours; and what is, perhaps, of more consequence, that the work, besides being sooner, is much better done.

Before closing this report, it will be proper to mention, that cogent considerations seem to require there should be a power vested in the Secretary of War, under the direction of the President, to vary the compensation of the superintendents and master armorers. Superintendents, in particular, are subjected to expenses which attaches to their station, and cannot be avoided by them.

It is essential also to notice, that it would greatly conduce to the success and improvement of our armories, were,

1st. The workmen, while employed in them, to be exempted from militia service; and, during the term of their engagement, from civil process for all debts or contracts.

2. Were they to be obliged, by a summary process, to fulfil their engagements with the armory.

3. Were a fine to be imposed upon any person who shall withdraw them from the armory, or in whose service they shall be found, after due notice shall be given of their engagements with the armory.

All which is respectfully submitted,

JAMES McHENRY, *Secretary of War.*

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6th Congress.] No. 38. 1st Session.

SUSPENSION OF THE RECRUITING SERVICE.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, JAN. 13, 1800.

Mr. Harrison Gray Otis, from the committee to whom was referred so much of the speech of the President of the United States as relates to "a system of national defence, commensurate with our resources, and the situation of our country," reported in part:

That, in the opinion of the committee, no such material change in the state of the foreign relations of the United States has happened, as would justify a relinquishment of any of the means of defence heretofore adopted by Congress, but that the national honor and interest, in the present posture of affairs, make it prudent and necessary to continue prepared for the worst event; but while danger still threatens our country, yet circumstances having diminished the probability of an immediate invasion, the attention of the committee has been particularly directed to the state of the military establishment, with a view to reconcile safety with economy, to preserve the establishment, and retrench the expense. The annexed abstract, and letter from the Secretary of War, exhibit the state of the twelve new regiments of infantry according to the latest returns. As these men have received their bounty and clothing, and are daily improving in discipline; as they would be useful in any sudden emergency; and the greater part of them may also be usefully employed, until wanted for actual service, on the fortifications of ports and harbors; it is conceived proper to retain them, but to suspend the recruiting service until the approach of danger shall compel the Government to resume it. This project combines the advantage of an important reduction of the national expense, with that of having at command a body of officers ready for the service upon short notice, and a number of disciplined troops sufficient for the present occasion.

The committee, therefore, submit the following resolutions:

Resolved, That, from and after the ——— day of ——— next, all enlistments, under an act entitled "An act to augment the army of the United States, and for other purposes," shall be suspended until the next session of Congress, unless war should break out between the United States and a foreign European power, or in case imminent danger of invasion of their territory, by any such power, shall, in the opinion of the President of the United States, be discovered to exist.

Sir: War Department, 2d *January*, 1800.

I received your letter dated yesterday, and have the honor to inform the committee of defence, that I am preparing, and have nearly finished, a report to the President of the United States, on the subject of the military establishment, containing propositions which it is conceived would improve it, and detailing information from the latest documents, as far as they go, that have been transmitted to me, relative to the number of men that have been actually enlisted in the new regiments.

It will be conceived the report mentioned is intended to embrace the most material objects that have occurred to me, as promising amelioration to our military system. The President, I respectfully presume, will communicate the same to Congress.

The number of men enlisted, at the dates therein specified, as appears from the latest returns to the War Department, in the twelve new regiments of infantry, will be seen by the enclosed statements, which is respectfully submitted.

The other requisitions will require some time to prepare an accurate reply to. They shall claim my attention. and an answer be furnished as soon as possible.

I have the honor to be, with great respect, your obedient humble servant,

JAMES McHENRY.

H. G. Otis, *Esquire, Chairman of the Committee of Defence, of the House of Representatives of the United States.*

Return of the non-commissioned Officers, Musicians, and Privates, enlisted for the twelve regiments, directed to be raised in pursuance of the act of July, 16, 1798.

5th Regiment, to 12th April.	6th Regiment, to December, 1799.	7th Regiment, to November.	8th Regiment, to October.	9th Regiment, to September.	10th Regiment, to August.	11th Regiment, to October.	12th Regiment, to September.	13th Regiment, to November.	14th Regiment, to November.	15th Regiment, to November.	16th Regiment, to November.	Total.
No return.	134	258	424	314	448	458	287	371	327	145	233	3,399

War Department, *January* 2d, 1800.

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7th CONGRESS.] No. 47. [1st SESSION.

ORDNANCE, ARMS, AND MILITARY STORES, AND AN ESTIMATE OF EXPENSES NECESSARY FOR FORTIFICATIONS.

COMMUNICATED TO CONGRESS, FEBRUARY 2, 1802.

Gentlemen of the Senate and of the House of Representatives:

I now lay before you,

1. A return of ordnance, arms, and military stores, the property of the United States.
2. Returns of muskets and bayonets, fabricated at the armories of the United States, at Springfield and Harper's Ferry, and of the expenditures at those places; and,
3. An estimate of expenditures which may be necessary for fortifications and barracks, for the present year.

Besides the permanent magazines established at Springfield, West Point, and Harper's Ferry, it is thought one should be established in some point convenient for the States of North Carolina, South Carolina, and Georgia; such a point will probably be found near the border of the Carolinas, and some small provision by the Legislature, preparatory to the establishment, will be necessary for the present year.

We find the United States in possession of certain iron mines and works, in the county of Berkeley, and State of Virginia, purchased, as is presumable, on the idea of establishing works for the fabrication of cannon and other military articles by the public. Whether this method of supplying what may be wanted, will be most advisable, or that of purchasing at market, where competition brings every thing to its proper level of price and quality, is for the Legislature to decide; and if the latter alternative be preferred, it will rest for their further consideration, in what way the subjects of this purchase may be best employed or disposed of. The Attorney General's opinion on the subject of the title accompanies this.

There are, in various parts of the United States, small parcels of land which have been purchased, at different times, for cantonments and other military purposes. Several of them are in situations not likely to be accommodated to future purposes. The loss of the records prevents a detailed statement of these, until they can be supplied by inquiry; in the mean time, one of them, containing eighty-eight acres, in the county of Essex, in New Jersey, purchased in 1799, and sold the following year, to Cornelius Vermule and Andrew Codmas, though its price has been received, cannot be conveyed without authority from the Legislature.

I enclose, herewith, a letter from the Secretary of War on the subject of the islands in the lakes and rivers of our Northern boundary, and of certain lands in the neighborhood of some of our military posts, on which it may be expedient for the Legislature to make some provisions.

TH. JEFFERSON.

February 2, 1802.

Return of Muskets and Bayonets fabricated at the United States Armory at Springfield, Massachusetts, from and including the year 1795, *to the* 28*th November*, 1801.

		Muskets.	Bayonets.
In the year	1795,	245	
Do.	1796,	835	
Do.	1797,	1,028	
Do.	1798,	1,434	390
Do.	1799,	4,595	4,595
Do.	1800,	5,304	5,304
To the 28th November,	1801,	2,679	2,679
		16,120	12,968

WAR DEPARTMENT, *December* 8, 1801.

Statement of expenditures at the armory of Springfield, Massachusetts, from the 10th July, 1793, to the 31st December, 1800, - - - - - - $192,847 1
Do. from the 1st January to the 30th September, 1801, - - - - 37,404 22

$230,251 23

Statement of expenditures at the armory at Harper's Ferry, Virginia, from the 1st October, 1798, to the 31st December, 1800, - - - - - - - 61,725 12
Do. from the 1st January to the 30th June, 1801, - - - - - 13,489 86

$ 75,214 98

DEPARTMENT OF WAR, *Accountant's Office, December* 8, 1801.

The above statement exhibits expenditures at the aforesaid armories, agreeably to accounts settled and entered on the books of this office.

WM. SIMMONS, *Acc't, Department of War.*

Return of Muskets and Bayonets fabricated at the United States Armory at Harper's Ferry, Virginia, from the 1st of January to the 30th of September, 1801, *inclusive.*

	Muskets.	Bayonets.
From the 1st of January to the 30th September, 1801, - - -	260	260

WAR DEPARTMENT, *December* 8, 1801.

WASHINGTON, *January* 25, 1802.

SIR:

It appears that Potts, Wilson, and North, under the firm of George North & Co. having previously purchased of General Lee, on the 7th day of May, 1800, agreed with the United States, to convey to them, in consideration of 42,000 dollars, two hundred and thirty acres of land, or about that quantity, (describing it,) with a furnace, mill, corn mill, houses, improvements, with privileges, &c. and also the right of digging ore; which right they held under General Lee, from Friend's ore bank, the United States being subject to pay the rent of 1000 dollars, annually, to the said Lee, as a rent reserved to him. The consideration money was to be paid by the United States on their receiving a good title to the premises.

Lee, on the same day, by a similar agreement, engaged with the United States to convey to them, by good and sufficient deeds, all his iron ore in a tract of land of about 1600 acres, and on which is a bank of iron ore, called Friend's ore bank, with certain privileges of ways for carrying off the ore, &c. He also agreed to release, or convey, to the United States, his right to the above mentioned annual rent of 1000 dollars, which, by their agreement with North & Co. they were liable to pay to Lee. For, and in consideration of this conveyance, the United States were to pay 24,000 dollars.

On the next day, May the 8th, Lee made and executed to the United States, in pursuance of the agreement above stated, his deed of the premises, with a general warranty, to defend them to the United States against all persons.

In the same year, North & Co. conveyed, by a deed, regularly executed, in pursuance of their agreement, two hundred and twenty-one acres of land, more or less, with their right of digging ore from Friend's ore bank. Both these deeds, or instruments, appear to be properly made and authenticated, and sufficient to vest the premises in the United States, if the several grantors were respectively possessed and seised of the premises, free from incumbrances, at the time when the deeds were executed.

It appears, by the oregoing statements, that the United States have paid for the purchase of North & Co. $42,000, in addition to an annual rent of $1000, which they were to have paid to Lee: and that for the release from paying this annual rent, and the privilege of digging ore in a described 1600 acres of land, and the accommodation of one-half acre of land to build on for workmen, they have paid $24,000 to General Lee.

Upon searching the records of the general court's office, at Richmond, it appears by a certificate of the clerk, that 3000 acres of land, including Friend's ore bank, was mortgaged June, 1794, to secure the payment of $8000, by several instalments, the last of which ought to have been paid on the 1st day of May, 1798. This mortgage deed is not among the papers. It is said this money has not been paid: if so, and there is no reservation in the deed of this ore bank, the United States title is incumbered to the amount of the whole mortgage money which is now due.

It is said that the title is further incumbered by a mortgage to one Wilson, of Alexandria, on which some considerable part of the money has been paid. Nothing, however, of this appears from the papers you put into my hands. I have no information respecting this purchase, excepting what has appeared on the face of the documents.

I am, sir, with esteem, your humble servant,

LEVI LINCOLN.

HENRY DEARBORN, Esq. *Secretary of War.*

Statement of the sums expended during the years one thousand eight hundred and three, and one thousand eight hundred and four, on Fortifications, Arsenals, Armories, and Magazines; made in conformity to a resolution of the House of Representatives of the United States, of the 22d January, 1805.

NAMES.	RANK.	WARRANTS. Date.	WARRANTS. No.	PURPOSES. Expenditures in 1803.	Amount. Dollars. Cts.
Samuel Annin,	Paymaster and Storekeeper, at Harper's Ferry,	Jan. 3, 1803.	6670	On account of expenditures at Harper's Ferry, Virginia, in January and February, 1803,	4,400 00
William Blagden		" 7, "	6683	For sundry articles furnished at Greenleaf's Point, Washington City,	18 25
Joseph Williams,	Paymaster and Storekeeper at Springfield,	" 17, "	6702	On account of expenditures at the armory to 31st January, 1803.	2,000 00
Do. do.	Do. do. do.	Feb. 22, "	6762	On account of do. do. do. to 28th February, 1803,	1,900 00
Eli Whitney,	Part of warrant	" 28, "	6765	For travelling expenses from Raleigh, North Carolina, to Rocky Mount, South Carolina, to fix on a proper site for an arsenal, including his compensation while employed on that service, to 25th January, 1803,	50 00
Thomas Sumpter,		" " "	6688	For the purchase money of a tract of land in South Carolina, for an arsenal,	3,138 00
Joseph Williams,	Paymaster, &c. at Springfield, Mass.	Mar. 16, "	6784	On account of expenditures at the armory at Springfield, from 1st of March to 1st of April, 1803,	1,200 00
Samuel Annin,	Paymaster, &c. at Harper's Ferry,	" 17, "	6788	On account of expenditures at Harper's Ferry, in March, April, and May, 1803,	6,000 00
William Irvine,	Superintendent of Military Stores,	April 4, "	6810	For salaries of himself and the different persons employed by him to 31st March, 1803,	1,625 00
James Byers, junr.	Contractor,	" 7, "	6820	For balance of his account, for rations and fuel, to the armorers, at Springfield, to 31st March, 1803,	200 40
Do. do.	Do. do. do.	" " "	6821	On account of his contract, for supplies to the armorers, at Springfield, for 1803,	1,000 00
C. P. Pourcheresse,	Assistant Storekeeper at West Point,	" 8, "	6824	For his salary from 1st of January to 31st of March, 1803,	90 00
George Fleming,	Storekeeper at West Point,	" 12, "	6828	For his salary, for the quarter ending 31st of March, 1803,	162 50
Robert Orr,	Of Springfield, Massachusetts,	" 15, "	6837	For his travelling expenses, while engaged in the inspection of arms,	23 75
Joseph Williams,	Paymaster, &c.	" 18, "	6840	On account of expenditures, at Springfield armory, to 30th of April, 1803,	1,900 00
Jonathan L. Austin,	At Boston,	Mar. 7, "	6776	On account of expenditures in erecting fortifications at Boston,	7,500 00
John Foncin,	Engineer,	Apr. 18, "	6841	For his compensation from 1st to 31st January, 1803,	107 41
Jonathan L. Austin,	Of Boston,	" 20, "	6852	On account of expenditures in erecting fortifications at that place,	2,600 00
George Fleming,	Military Storekeeper at West Point,	" 21, "	6856	On account of repairs to the public buildings at West Point,	500 00
John Saunders,	Military Agent,	" " "	6857	On account of the fortifications at Norfolk, Virginia,	2,000 00
William Irvine,	Superintendent of Military Stores,	May 4, "	6875	On account of expenditures incident to Arsenals, Magazines, &c.	800 00
William C. C. Claiborne,	Governor,	" 12, "	6888	On account of the consideration money for forty-three acres of land, for a site, &c. for a fortification; purchased by order of the Secretary of War,	655 00
Christian Senf,	Superintendent of the Arsenal at Rocky Mount,	" 16, "	6891	On account of expenditures in erecting the arsenal, magazines, &c. at Rocky Mount, S. C.	4,000 00
Do. do.	Do. do. do.	" " "	pt. 6892	For making a plan of the arsenal at Rocky Mount, and report thereon, including his travelling expenses, in January, 1803,	60 00
Samuel Annin,	Paymaster, &c. at Harper's Ferry,	" 20, "	6902	On account of expenditures at Harper's Ferry, for May and June, 1803,	6,000 00
Jonathan L. Austin,		" 26, "	6912	On account of the fortifications at Boston,	250 00
Joseph Williams,	Of Springfield,	" 27, "	6915	On account of the armory at Springfield, for May, 1803,	1,300 00
R. Chamberlin,		" " "	6916	For sundry articles purchased and delivered at Greenleaf's Point, in Feb. and May, 1803,	14 87
George Blagden,		June 10, "	6927	For erecting a building adjoining the barracks at Greenleaf's Point,	308 32
William Blagden,		" " "	6928	For do. do. do. in 1803,	336 69
John Livingston,	Lieut. and Assistant Military Agent,	" " "	6929	On account of expenditures in completing the fortifications at Norfolk, Va.	2,000 00
James Taylor,	Of New Port, Kentucky,	" 11, "	6931	On account of expenditures in erecting an arsenal at the mouth of Licking River,	5,000 00
C. P. Pourcheresse,	Assistant Storekeeper at West Point,	" 13, "	6933	For his salary, from 1st April to 31st May, 1803, when discharged,	60 00

MILITARY AFFAIRS.

STATEMENT—Continued.

NAMES.	RANK.	WARRANTS. Date.	WARRANTS. No.	PURPOSES. Expenditures in 1803.	Amount. Dollars. Cts.
Joseph Williams,	Paymaster and Storekeeper at Springfield,	June 21, 1803.	6947	On account of expenditures at the armory at Springfield, for June, 1803,	
George Fleming,	Of West Point,	" 25, "	6956	On account of expenditures in repairing the public buildings at West Point,	1,000 00
Hezekiah Rogers,	Military Storekeeper at Washington,	" 30, "	6970	For his compensation from 1st January to 30th June, 1803,	1,200 00
William Irvine,	Superintendent of Military Stores,	July 1, "	6972	For the salaries of himself and the different persons under his direction, from 1st April to 30th June, 1803,	100 00
James Byers, jun.	Contractor,	" 8, "	6891	For balance of his account for supplies to the armorers, &c. at Springfield, in April, May, and June, 1803,	1,625 00
George Fleming,	Military Storekeeper at West Point,	" 9, "	6985	For his salary from 1st April to 30th June, 1803,	335 28
George Merchant,	Military Storekeeper at Albany,	" 11, "	6992	For do. do. do. do.	162 50
George Hadfield,		" " "	6993	For drawing a plan for an arsenal, &c. at Washington City,	169 39
Israel Whelen,	Purveyor,	" 16, "	7006	On account of the armories for the year 1803,	40 00
Joseph Williams,	Of Springfield,	" " "	7010	For balance due him on his expenditures at that place, to 30th June, 1803,	1,000 00
Samuel P. Dyson,	Baltimore,	" 18, "	7016	For repairs to the barracks at Fort McHenry, in May, 1803,	287 37
William Irvine,	Superintendent of Military Stores, Philadelphia,	" 25, "	7032	On account of his expenditures for the third quarter of 1803,	316 18
George & William Blagden,		" 27, "	7034	For sundry repairs to the barracks at Greenleaf's Point, in July, 1803,	815 98
James Byers, jun.	Contractor,	" 28, "	7036	On account of supplies to the armorers at Springfield, for 1803,	189 83
James Callaway,	Of New London, Va.	Aug. 10, "	7050	For rent of his store at that place, from 1st January to 30th June, 1803,	1,000 00
Joseph Williams,	Paymaster, &c. Springfield,	" 19, "	7052	On account of expenditures at that place, for August, 1803,	87 50
Do. Do.	Do. do.	July 16, "	7007	Do. do. do. July, do.	2,600 00
Do. Do.	Do. do.	Sept. 23, "	7088	Do. do. do. September, do.	3,000 00
Samuel Annin,	Of Harper's Ferry,	Aug. 26, "	7055	On account of expenditures at Harper's Ferry, for August, September, and October, 1803,	2,300 00
R. Chamberlin,		" 29, "	7059	For sundry disbursements at Greenleaf's Point, in June, July, and August, 1803,	6,000 00
John Livingston,	Lieutenant, and Military Agent at Norfolk, Va.	Sep. 1, "	7067	On account of expenditures in completing the fortifications near Norfolk, Virginia,	37 04
George Fleming,	Of West Point,	" " "	7068	On account of repairs to the public buildings at West Point,	1,500 00
Lewis Deblois,	Washington City,	" 28, "	pt. 7094	For disbursements for freight, &c. of military stores, room hire, &c. to 30th Sept. 1803,	200 00
Hezekiah Rogers,	Military Storekeeper at Washington,	Oct. 1, "	7105	For his salary, from 1st July to 30th September, 1803,	228 68
William Irvine,	Superintendent of Military Stores,	" 4, "	7111	For the salaries of himself and the persons employed under his direction, to 30th Sept. 1803,	50 00
George Fleming,	Of West Point,	" 10, "	7122	For his salary, to 30th September, 1803,	1,700 00
James Byers, jun.	Contractor,	" 21, "	7138	On account of his contract for supplies to the armorers at Springfield, for the year 1803,	162 50
John Livingston,	Lieutenant, and Military Agent,	" 25, "	7151	On account of the fortifications near Norfolk, Virginia,	1,000 00
William Irvine,	Superintendent of Military Stores,	" " "	7155	On account of his expenditures at the arsenal on Schuylkill,	2,000 00
George Merchant,	Military Storekeeper at Albany,	" " "	7157	For his salary to 30th September, 1803, and disbursements for storage, &c.	500 00
James Byers, jun.	Paymaster, &c. Springfield,	" 29, "	7164	On account of expenditures at the armory of that place, for October, 1803,	173 62
Charles Scott,		Nov. 10, "	7186	On account of his services and expenses in establishing a site for a magazine at the mouth of Licking river,	3,000 00
Tench Coxe,	Purveyor,	" 16, "	7190	On account of expenses in the purchase of articles for Springfield armory, &c.	312 00
Samuel Annin,	Paymaster, &c. at Harper's Ferry,	" 17, "	7194	On account of expenditures at Harper's Ferry, in October, November, and December, 1803,	3,000 00
James Byers,	Paymaster, &c. at Springfield,	" 25, "	7212	On account of expenditures at Springfield, in November, 1803,	6,000 00
Thomas B. Steele,	Assistant Military Ag't, at Kaskaskias,	Dec. 7, "	7233	On account of expenditures at the public works at Kaskaskias,	3,000 00
Ambrose Whitlock,	Assistant Agent, at Vincennes,	" " "	7234	On account of expenditures at the public works at Vincennes,	200 00
					200 00

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STATEMENT—Continued.

NAMES.	RANK.	WARRANTS. Date.	WARRANTS. No.	PURPOSES. Expenditures in 1803.	Amount. Dollars. Cts.
Wm. M. Duncanson,		Dec. 9, 1803.	7237	For three months' rent of a house, in Washington, for the use of a detachment of troops, to 15th June, 1803,	60 00
James Byers,	Paymaster, &c.	" 21, "	7253	On account of expenditures at Springfield armory, for December, 1803,	2,000 00
Hezekiah Rogers,	Military Storekeeper, Washington,	July 18, 1804,	7717	Part of warrant for his salary to 31st December, 1803,	50 00
William Irvine,	Superintendent of Military Stores,	Jan. 2, "	7282	For the salaries of himself and the different persons employed under his direction, to 31st December, 1803,	1,700 00
Ditto,	Do. do.	" 6, "	7306	For balance due him on settlement of his account, for disbursements at the arsenal on Schuylkill, from 1st October to 31st December, 1803,	10 13
Wm. H. Harrison, & Cornelius Lyman, Captain 1st regiment,		" 13, "	7324	On account of the purchase money, &c. of a tract of land, containing 100 arpents, (or French acres) for the purpose of erecting a fortification,	133 50
George Fleming,	Military Storekeeper at West Point,	" 16, "	7327	For balance of his account of disbursements at West Point, to 31st December, 1803,	175 40
George Merchant,	Military Storekeeper at Albany,	" 27, "	7355	For his salary from 1st October to 31st December, 1803,	125 00
Samuel Annin,	Paymaster, &c. at Harper's Ferry,	Feb. 2, "	7368	For balance of his account of expenditures at Harper's Ferry, to 31st December, 1803,	23 84
James Callaway,	Of New London, Virginia,	" 6, "	7376	For rent of his store at that place, to 31st December, 1803,	87 50
Samuel Annin,	Paymaster, &c. Harper's Ferry,	Mar. 28, "	7486	Part of warrant. For services performed in superintending the public works at Harper's Ferry, from 1st June to 30th September, 1803,	140 00
Thomas Holt,	Military Storekeeper at New London,	May 30, "	7631	Part of warrant for his salary, from 1st June to 31st December, 1803.	58 33
John Bray,	Late Military Storekeeper at New Brunswick, New Jersey,	July 24, "	7739	Part of warrant for balance of his account for store rent, &c. from 1st Jan. to 9th Dec. 1803,	36 1
Wm. H. Harrison, and Cornelius Lyman, Captain,		Oct. 1, "	7842	For drawing the deeds of a tract of land whereon the fort, near Vincennes, is erected,	25 00
John Eccles,	Of Fayetteville, North Carolina,	" 10, "	7865	Part of warrant for rent of a warehouse for military stores at that place, from 1st January to 31st December, 1803.	120 00
John Winslow,	Of do. do.	" " "	7866	For his compensation for taking care of public stores deposited at Fayetteville, from 1st January to 31st December, 1803,	50 00
Christian Senf,	Superintendent of the works at Rocky Mount,	Dec. 27, 1803,	7265	On account of expenditures at the arsenal at Rocky Mount, South Carolina,	1,200 00
					$108,887 77

STATEMENT—Continued.

NAMES.	RANK.	WARRANTS. Date.	WARRANTS. No.	PURPOSES. Expenditures in 1804.	AMOUNT. 1804. Dolls. Cts.	AMOUNT. 1803. Dolls. Cts.
				Amount brought forward,	-	108,887 77
James Byers, junr.	Contractor,	Aug. 3, 1803,	7043	On account of supplies to the armorers at Springfield, in 1804,	1,350 00	
Ditto,	Do.	Jan. 17, 1804,	7332	On account of do. do. do. do.	200 00	
William Irvine,	Superintendent of Military Stores,	" 18, "	7334	On account of expenditures in the military store department, for the quarter ending 31st March, 1804,	700 00	
James Byers,	Paymaster, &c.	" 20, "	7343	On account of expenditures at the armory at Springfield, for January, 1804,	2,800 00	
Broham and Byurs,		" 30, "	7357	For scantling furnished at Greenleaf's Point, for repairs to the barracks,	4 93	
Samuel Annin,	Paymaster, &c. at Harper's Ferry,	Feb. 1, "	7363	On account of the armory at Harper's Ferry, for the quarter ending 31st March, 1804,	8,000 00	
Benjamin Smith,		" 4, "	7374	On account of the fortifications at Fort Johnston, North Carolina,	2,900 00	
George Fleming,	Military Storekeeper at West Point,	" 13, "	7392	On account of repairs to the public buildings at that place,	150 00	
Samuel P. Dyson,	Assistant Military Agent,	" 17, "	7406	On account of the fortifications at Fort McHenry, near Baltimore,	40 00	
James Taylor,		" 22, "	7415	On account of expenditures at the mouth of Licking River,	1,000 00	
James Byers,	Paymaster, &c.	" 18, "	7408	On account of expenditures at Springfield armory, for February, 1804,	3,200 00	
Nemehiah Freeman,	Captain,	Mar. 1, "	7433	On account of the repairs to the fortifications at Fort Independence,	2,000 00	
John Livingston,	Lieutenant, &c.	" 19, "	7455	On account of the fortifications at Fort Nelson, near Norfolk.	2,000 00	
James Byers,	Paymaster, &c.	" 21, "	7459	On account of expenditures at the armory of Springfield,	2,800 00	
Samuel Annin,	Paymaster, &c. at Harper's Ferry,	" 28, "	7487	On account of expenditures at the armory at Harper's Ferry, to March 31, 1804,	1,000 00	
William Irvine,	Superintendent of Military Stores,	April 2, "	7495	For the salary of himself, clerks, &c. for the quarter ending 31st March, 1804,	1,700 00	
Lemuel Gates,	Captain,	" 9, "	7512	For materials purchased for building officer's quarters at Fort Constitution, Portsmouth, New Hampshire,	100 00	
George Fleming,	Military Storekeeper at West Point,	" 27, "	7556	For balance due him for repairs to the public buildings at that place, and for his salary to 31st March, 1804,	129 72	
George Merchant,	Do. do. at Albany,	May 9, "	7574	For his salary from 1st January to 31st March, 1804,	145 50	
Robert Orr,	Inspector of Arms,	" 14, "	7581	For services of said Orr, including his expenses while inspecting small arms in March, 1804,	26 25	
James Byers,	Paymaster, &c. at Springfield,	" 16, "	7587	On account of armory at that place, for April, 1804,	2,000 00	
Ditto,	Do. do. do.	" " "	7588	On account of do. do. May, 1804,	3,700 00	
James Byers, junr.	Contractor,	" 18, "	7598	On account of his contract for supplies to the armorers at Springfield,	1,100 00	
Samuel Annin,	Paymaster, &c. at Harper's Ferry,	" 19, "	7601	On account of expenditures at the armory, for the quarter ending June 30, 1804,	8,000 00	
Tench Coxe,	Purveyor,	" 21, "	7608	On account of expenditures incident to armories for 1804,	2,000 00	
James Byers, junr.	Contractor,	" " "	7631	On account of his contract for supplies to the armorers at Springfield, Mass.	1,200 00	
Thomas Holt,	Military Storekeeper, N. London, Va.	" 30, "	7631	Part of warrant for his salary from 1st January to 31st March, 1804,	25 00	
A. J. Villard,	Engineer,	" " "	7632	For his travelling expenses from Philadelphia to Washington, and his compensation to 31st May, 1804,	277 00	
Thomas B. Steele,	Assistant Military Agent at Kaskaskia,	June 6, "	7644	On account of expenditures on the public works at that place.	150 00	
James Byers,	Paymaster, &c. at Springfield,	" 15, "	7658	On account of the armory at Springfield for June, 1804,	2,800 00	
Thomas Davis,		" " "	7659	On account of his contract for jack screws for mounting cannon.	300 00	
William Irvine,	Of Philadelphia,	" 18, "	7661	On account of his expenditures in 1804,	367 84	
A. J. Villard,		" 23, "	7672	For expenditures at Greenleaf's Point in 1804,	69 28	
Christian Senf,	Superintendent at Rocky Mount,	" 26, "	7678	On account of expenditures at Rocky Mount, South Carolina,	3,000 00	
William Irvine,	Superintendent of Military Stores,	July 2, "	7686	For salaries of himself and persons employed under his direction, to June 30,	1,700 00	
William Berry,		" 7, "	7695	For coal supplied by him at Greenleaf's Point in 1804.	28 00	

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STATEMENT—Continued.

NAMES.	RANK.	WARRANTS. Date.	WARRANTS. No.	PURPOSES. Expenditures in 1804.	AMOUNT. 1804. Dolls. Cts.	AMOUNT. 1803. Dolls. Cts.
				Amount brought forward,	-	108,887 77
George Fleming,	Military Storekeeper at West Point,	July 12, 1804,	7700	For his salary from 1st April to 30th June, 1804, and repairs to the barracks at West Point,	180 87	
James Byers, junr.	Contractor,	" " "	7703	On account of supplies to the armorers at Springfield, Massachusetts,	1,000 00	
James Byers,	Paymaster, &c.	" 17, "	7708	On account of expenditures at Springfield armory for July, 1804,	6,000 00	
A. J. Villard,	-	" " "	7709	On account of disbursement at Greenleaf's Point, Washington City,	500 00	
Ditto,	-	" " "	7710	For sundry expenditures at do. do. do.	119 86	
Hezekiah Rogers,	Military Storekeeper at Washington,	" 18, "	7717	For part of warrant for his salary from 1st January to 30th June, 1804,	100 00	
James Calloway,	Of New London, Virginia,	" 19, "	7727	For rent of his store at that place, to 30th June, 1804,	87 50	
Griffith Coombe,	-	" 23, "	7734	For lumber furnished at Greenleaf's Point in June and July, 1804,	301 64	
George Merchant,	Military Storekeeper at Albany, N. Y.	Aug. 1, "	7754	For his salary from 1st April, to 30th June, 1804.	125 00	
Thomas Holt,	Military Storekeeper at N. London Va.	" 13, "	7775	For his pay from 1st April, to 30th June, 1804,	25 00	
James Byers,	Paymaster, &c.	" 17, "	7782	On account of the armory at Springfield, for August 1804,	3,300 00	
James Taylor,	New Port, Kentucky,	" " "	7783	On account of the arsenal at the mouth of Licking river,	2,000 00	
Samuel Annin,	Paymaster, &c.,	" 27, "	7800	On account of armory at Harper's Ferry, for quarter ending 30th Sept. 1804,	5,000 00	
George Ingels,	Superintendent of Military Stores,	Sept. 1, "	7804	On account of expenditures in the Military Store Department,	478 38	
A. J. Villard,	-	" " "	7805	For his pay from 1st June, to 31st August, 1804,	237 00	
James Byers,	Paymaster, &c.	" 18, "	7824	On account of expenditures at the armory, at Springfield, for September 1804,	2,000 00	
George Ingels,	Acting Supt. of Military Stores,	Oct. 1, "	7844	For the salary of the late William Irvine, to 31st July, 1804, the day of his death, and of the clerks, &c. employed by him, to 30th September, 1804,	1,377 37	
James Byers, junr.	Contractor,	" 6, "	7854	For balance of his account for supplies to the armorers at Springfield,	147 80	
Ditto,	Do.	" " "	7855	On account of his contract for supplies to the armorers at Springfield,	700 00	
George Fleming,	Military Storekeeper at West Point,	" " "	7859	For stationary and repairs to public buildings at West Point, including his salary, to the 30th September, 1804,	171 80	
Samuel Annin,	Paymaster, &c.	" 10, "	7862	On account of expenditures at Harper's Ferry, to the 30th September, 1804,	900 00	
Daniel Hurly,	-	" " "	7864	On account of his contract for the supply of timber at Greenleaf's Point,	80 00	
John Eccles,	Of Fayetteville, North Carolina,	" " "	7865	Part of warrant for rent of a warehouse for military stores, from 1st January, to 31st October 1804,	93 91	
John Winslow,	Of do.	" " "	7866	Part of warrant for his compensation for the care of military stores at that place, from 1st January, to 15th October, 1804,	39 54	
Thomas Holt,	Storekeeper at New London,	" 15, "	7879	For his pay from 1st July, to 30th September, 1804,	25 00	
James Byers,	Paymaster, &c.	" " "	7880	On account of the armory at Springfield, for October 1804,	2,000 00	
A. J. Villard,	-	" 25, "	7898	For balance of his account for erecting sundry newly invented gun carriages,	18 28	
Ditto,	-	" " "	7899	On account of the erection of gun carriages,	500 00	
William Irvine,	Late Superintendent of Military Stores,	" 27, "	7904	For balance due his estate for disbursements at the Arsenal on Schuylkill, to 31st July, 1804, the day he died,	80 49	
Samuel Annin,	Paymaster, &c.	" 31, "	7917	On account of expenditures at Harper's Ferry, to 31st December, 1804,	8,500 00	
Tench Coxe,	Purveyor,	" " "	7918	On account of expenditures in constructing jack screws for gun carriages,	400 00	
Callender Irvine,	Superintendent of Military Stores,	Nov. 3, "	7922	On account of expenditures in the military store department,	617 43	
James Taylor,	Of New Port, Kentucky,	" " "	7926	On account of expenditures at the arsenal at the mouth of Licking river,	3,000 00	
Thomas B. Steele,	Assistant Military Agent,	" " "	7923	On account of expenditures at the public works at Kaskaskia,	220 00	
Thomas Martin,	Military Storekeeper at N. Port, Ky.	" 8, "	7938	On account of his salary,	200 00	
James Byers,	Paymaster, &c.	" 13, "	7947	On account of expenditures at Springfield armory, for November 1804,	2,800 00	

STATEMENT—Continued.

NAMES.	RANK.	WARRANTS. Date.	WARRANTS. No.	PURPOSES. Expenditures in 1804.	AMOUNT. 1804. Dolls. Cts.	AMOUNT. 1803. Dollars. Cts.
George Merchant,	Military Storekeeper at Albany,	Nov. 14, 1804,	7948	For his salary &c. from 1st July, to 30th September, 1804,	162 15	
Robert Orr,	- - - -	" 17, "	7955	For his services inspecting small arms, in July 1804,	23 75	
George Ingels,	Military Storekeeper, Philadelphia,	" 21, "	7960	For disbursements in the military store department, to 14th November, 1804,	357 10	
A. J. Villard,	- - - -	Dec. 3, "	7977	For his compensation from 1st September, to 30th November, 1804,	237 00	
Griffith Coombe,	- - - -	" 10, "	7989	For lumber furnished at Greenleaf's Point in 1804,	333 96	
Christian Senf,	Supt. of the works, Rocky Mount,	" 12, "	7997	On account of expenditures on the works at Rocky Mount, South Carolina,	3,000 00	
N. Fosdick, D. Coit, J. Dewitt & Saml. Mott,	Of New London, Connecticut,	" 15, "	8000	For their services and expenses in appraising the ground on which Fort Trumbull is erected,	132 00	
William O'Neale,	- - - -	" 15, "	8001	For three hundred and nine bushels of coal delivered at Greenleaf's Point, for the use of the public workmen employed there,	105 06	
James Byers,	Paymaster, &c. at Springfield,	" 17, "	8004	On account of expenditures at Springfield armory for December 1804,	5,100 00	
John Dorsey,	- - - -	" 24, "	8010	For iron furnished at Greenleaf's Point, and other articles purchased of him for the works at that place,	1,453 85	
A. J. Villard,	- - - -	" 24, "	8011	On account of expenditures in erecting gun carriages,	100 00	
Callender Irvine,	Superintendent of Military Stores,	" 31, "	8021	For salaries of himself and other persons under his direction to 31st Dec. 1804,	940 16	
George Ingels,	Military Storekeeper at Philadelphia,	" 31, "	8022	For salary of himself and clerks, for the quarter ending 31st December, 1804,	657 39	
Clarence Mulford,	Lieut. and assistant Military Agent.	Jan. 4, 1805.	8031	For a bill of exchange, dated St. Louis, November 13, 1804, drawn by said Mulford on account of rent for officers' quarters and materials, for public buildings,	500 00	
George Ingels,	Military Storekeeper at Philadelphia,	" 7, "	8036	For payment to laborers employed at the arsenal on Schuylkill, in November and December 1804,	234 25	
Hezekiah Rogers,	Do. at Washington,	" 8, "	8040	For his salary from 1st July, to 31st December, 1804,	100 00	
James Byers, junr.	Contractor,	" 9, "	8045	For supplies to the armorers at Springfield, in the quarter ending 31st Dec. 1804,	471 47	
A. J. Villard,	- - - -	" 10, "	8046	For disbursements made by him at Greenleaf's Point, in December 1804,	126 96	
George Fleming,	Military Storekeeper at West Point,	" 17, "	8061	For his salary from 1st October, to 31st December, 1804, including amount paid for stationary,	166 50	
				Dollars.	114,491 99	108,887 77

RECAPITULATION.

	Expenditures in 1803.	Expenditures in 1804.	Total Amount.
Fortifications.			
Boston,	$10,457 41	$2,000 00	$12,457 41
Portsmouth, New Hampshire,	-	100 00	100 00
New London, Connecticut,	-	132 00	132 00
Baltimore, Maryland,	316 18	40 00	356 18
Norfolk, Virginia,	7,500 00	2,000 00	9,500 00
Fort Johnston, Wilmington, North Carolina,	-	2,900 00	2,900 00
Vincennes, Indiana Territory,	358 50	-	358 50
Kaskaskias,	200 00	370 00	570 00
St. Louis,	-	500 00	500 00
Washington, Mississippi Territory,	655 00	-	655 00
Armories.			
Harper's Ferry, Virginia,	28,563 84	33,400 00	61,963 84
Springfield, Massachusetts,	33,246 80	44,719 27	77,966 07
Arsenals and Magazines.			
Albany, New York,	468 01	432 65	900 66
West Point, do.	2,712 90	798 89	3,511 79
Schuylkill, Pennsylvania,	8,776 11	9,615 34	18,391 45
Washington City,	1,433 68	4,987 89	6,421 57
South Carolina,	8,448 00	6,000 00	14,448 00
Kentucky,	5,312 00	6,200 00	11,512 00
Magazines.			
Fayetteville, North Carolina,	170 00	133 45	303 45
New London, Virginia,	233 33	162 50	395 83
New Brunswick, New Jersey.	36 01	-	36 01
Dollars, - -	108,887 77	114,491 99	223,379 76

In addition to the above expenditures on fortifications, other charges will arise on the settlement of agents' accounts, which have not yet been rendered for adjustment.

DEPARTMENT OF WAR, *Accountant's Office, February* 6, 1805.

WM. SIMMONS,
Accountant Department of War.

9th CONGRESS.] No. 58. [1st SESSION.

FIRE ARMS.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, JANUARY 11, 1806.

WAR DEPARTMENT, *January* 10, 1806.

In compliance with the resolution of the House of Representatives of the United States of the 8th instant, I have the honor, through you, to lay before the said House, a statement of the number of fire arms fit for use, the property of the United States, designating the places where they are deposited.

I am, sir, very respectfully, your obedient servant,

H. DEARBORN.

The Hon. the SPEAKER *of the House of Representatives of the United States.*

A Statement of the Fire Arms fit for use, the property of the United States, designating the places where they are deposited, made by the Secretary of War, in obedience to the resolution of the House of Representatives of the United States of the 8th of January, 1806.

PLACES WHERE DEPOSITED.	Muskets with Bayonets.	Rifles.	Fusees.	Pairs of Pistols.
Fort Constitution,	76			
Do. Sumner,	189			
Do. Wolcott,	83			
Do. Independence,	131			
Do. Trumbull,	31			
Do. Jay,	216			
Do. Detroit,	959	51	-	13
Do. Michillimackinac,	79	6	-	3
Do. McHenry,	5			
Do. Nelson,	100			
Do. Johnston, South Carolina,	31			
Do. Greene,	25			
Do. Claiborne,	28			
Do. St. Philip,	20			
Do. Johnston, North Carolina,	299			
Do. St. Stephens,	92	17		
Do. Wilkinson,	238	-	-	37
Southwest Point,	943	-	-	20
St. Vincennes,	31			
Natchitoches,	27			
New Orleans,	5,398	21	-	9
West Point,	2,276	28	-	18
Carlisle,	287			
Harper's Ferry,	9,486	2,488	-	58
Springfield,	39,668	-	20	245
Albany,	6,712			
Pittsburg,	853	100	4	
New Haven,	500			
On board Revenue Cutter Virginia,	12			
Due from McPherson's corps,	128			
Due from volunteer corps,	234			
Due from Navy Department,	809	-	-	246
Treasury Department,	12	-	-	6
War Office,	8	-	2	
Portland,	200			
State of Rhode Island,	500			
State of South Carolina,	2,000			
State of North Carolina,	1,550			
State of Georgia,	1,500			
City of Washington, &c.	3,347			
At the arsenal in Kentucky,	8,000			
Deposited by certain recruiting officers, with sundry persons,	250			
Philadelphia,	26,063	5	6	1,206
Fort Washington,	105	51	-	77
New London,	-	-	30	
Niagara,	-	2		
Loaned Captain John Turner,	-	75		
Loaned the Indian Department,	-	323		
Mississippi Territory,	-	500		
Total,	113,501	3,666	62	1,938

Carbines.

West Point	590
	949

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And the committee are of opinion that, to provide for the exigency of war, it will be expedient to extend the manufacture of fire arms, in the armories of the United States, as far as can conveniently be done, without the erection of new buildings; to effect which, it will be necessary to appropriate, for that purpose, $62,100 in addition to the sums reported in the general estimate.

WAR DEPARTMENT, *March 7th*, 1806.

SIR:

In answer to the queries contained in your letter of the 1st inst. I beg leave, through you, to submit the following statements and remarks to the consideration of the committee instructed to inquire "what measures are necessary to be adopted to complete the arming of the militia of the United States."

In the years 1802, 1803, 1804, and 1805, there have been manufactured 16,234 muskets with bayonets, at the armory in Springfield, Massachusetts.

The expense of this armory within the same time, exclusive of the expenditures incurred in consequence of the burning of one of the buildings attached to the establishment, has amounted to 115,211 dollars. The average expense, therefore, of each musket, within the aforesaid four years, is eight dollars ninety-four and a half cents.

In the armory at Harper's Ferry, Virginia, there have, within the same years, been manufactured, of muskets with bayonets, - - - - - - - - - - 2,676

Of rifles, 2,488, equal to muskets. - - - - - - - - - 3,732

Old arms repaired, estimated equal to the manufactory of muskets, - - - - - 750

Total. - - - 7,158

The expenses of the armory, within the same time, exclusive of repairs of dam and canal, amount to 96,169 dollars.

The average expense of each musket, within the aforesaid term of four years, manufactured at this armory, appears consequently to be thirteen dollars forty-three and a half cents.

A defect in the dam and canal occasioning, in the year 1802, a want of water for the use of the machinery, and the prevalence of a bilious complaint among the workmen, in a subsequent year, considerably retarded, in those two years, the operation of the armory at Harper's Ferry. It will not be improper, moreover, to remark, that the muskets and rifles manufactured at this armory are superior in workmanship to any others intended for military purposes, which are manufactured either in this, or, I presume, in any other country.

Although the muskets manufactured at the Springfield armory are not as highly finished as those made at Harper's Ferry, they are still considered equal, if not superior, in workmanship, to the best muskets, manufactured for the use of soldiers, in either France or England.

To what extent the existing public armories may be increased in number of workmen, and how far the number of arms manufactured annually may be augmented, without increasing the average expense of the arms, it is difficult to determine. It is probable, however, that such an additional number of workmen may be employed, as would ensure the manufacturing of from ten to eleven thousand muskets annually, with but a small, if any, additional average expense on each musket.

The existing armories might be so extended, by additional buildings and apparatus, as to admit of a much greater number of workmen, and, of course, of the manufacturing of a proportional increase in the number of arms annually. But, for such an additional number of workmen, as is first above contemplated, it is presumed that no considerable augmentation of expense would be required for buildings or apparatus.

I have the honor to be, very respectfully, sir, your obedient servant,

H. DEARBORN.

Honorable JOSEPH B. VARNUM.

11th Congress.] No. 104. [3d Session.

EXPENSES OF ARMORIES, AND ARMS MANUFACTURED IN 1810.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, MARCH 2, 1811.

War Department, *February* 23, 1811.

Sir:

In obedience to the fifth section of an act, entitled "An act to provide for the erecting and repairing of arsenals and magazines, and for other purposes," I have the honor of transmitting to Congress an account of the expenses of the national armories at Springfield and Harper's Ferry, together with a return of the arms made and repaired at each, during the year 1810.

It will appear from the report, that the amount of the expenditures at the armory at Harper's Ferry, for the last six months of the year 1810, are founded on estimates—the accounts for that period not having been received.

It may be proper also to state, that the account of the expenses at Harper's Ferry includes disbursements to a considerable amount, made at that place in 1810, for the erection of additional buildings.

I have the honor to be, very respectfully, sir, your most obedient servant,

W. EUSTIS.

The Honorable the Speaker *of the House of Representatives.*

Statement of the expenses of the National Armories at Springfield, Massachusetts, and at Harper's Ferry, Virginia, for one year, commencing the 1st of January, 1810, viz:

Armory at Springfield.

For amount of money expended at that place in the manufacture of arms, and expenses incident thereto, from the 1st of January to the 31st of December, 1810, - - - -		$122,774 08

Armory at Harper's Ferry.

For amount of moneys expended at that place, in the manufacture of arms, and expenses incident thereto, to 30th June, 1810, to which period the accounts have been settled,	78,576 50	
To which add the amount of moneys advanced on estimate, being the probable expenses of the armory, to the 30th November, 1810, - - - -	61,680 36	
Probable expenses for December, 1810, - - - -	14,833 33	
	76,513 69	
		155,090 19
Dollars, -		277,864 27

War Department, *Accountant's Office, February* 22, 1810.

WILLIAM SIMMONS, *Accountant.*

Return of Arms manufactured and repaired at the United States' armory at this place, that have been received from the superintendent, and deposited in the military stores in the year 1810.

New muskets with bayonets, - - - - - - - -	9,700
New carbines or Indian guns, - - - - - - - -	601
Total, new arms, -	10,301
French, English, American, &c., muskets, with bayonets, that have been repaired, - - -	1,406

Springfield, Massachusetts, *December* 31, 1810.

JAMES BYERS, *Storekeeper.*

The Honorable Secretary of War.

Statement showing the number of Arms manufactured at the armory at Harper's Ferry, in Virginia, and received into the store in the year 1810; also, of arms repaired and received during the same period.

	Harpoon Guns.	Muskets.	Muskets repaired.
Received for January,	-	700	
February,	-	700	
March,	-	800	
April,	-	800	
May,	-	800	
June,	2	800	
July,	2	800	42
August,	-	800	45
September,	-	800	112
October,	-	800	117
November,	-	800	133
December,	-	800	157
	4	8,600	606

SAMUEL ANNIN, *Military Storekeeper.*

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AMERICAN STATES PAPERS, MILITARY AFFAIRS, I, 317.

12th CONGRESS.] No. 109. [1st SESSION.

ARMORIES, AND ARMS MANUFACTURED THEREIN.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, FEBRUARY 19, 1812.

WAR DEPARTMENT, *February 17th*, 1812.

SIR:

In conformity to the fifth section of the act of the 2d April, 1794, I have the honor to transmit to Congress, a statement of the amount of expenditures on account of the national armories at Springfield and Harper's Ferry, during the year 1811, and of the number of arms made and repaired at each place during the same period.

With the greatest respect, I have the honor to be, sir, your obedient servant,

W. EUSTIS.

The Honorable the SPEAKER *of the House of Representatives.*

A Statement of the expenditures on account of the National Armories, and of the number of arms manufactured and repaired at the same, in the year 1811.

At Harper's Ferry, expended,	$141,357 00
At Springfield, Massachusetts, do.	103,785 77
Total expended,	$245,142 77
At Harper's Ferry, muskets made,	10,000
At do. do. repaired,	1,505
At Springfield, do. made,	12,020
Total made and repaired,	23,525

AMERICAN STATE PAPERS, MILITARY AFFAIRS, I, p. 335.

12th CONGRESS.] No. 119. [2d SESSION.

CONTRACT PRICE OF ARMS FOR THE MILITIA.

The payments made, the sum carried to the Sinking Fund, and the balance of appropriation remaining unexpended.

COMMUNICATED TO THE SENATE, MARCH 3, 1813.

WAR DEPARTMENT, *March* 1, 1813.

SIR:

Conformably to a resolution of the honorable the Senate of the United States, of the 27th of February last, requiring the Secretary of War to cause to be laid before the Senate information on the following points:

1st. What is the contract price of the arms contracted for, under the authority of the act making provision for arming and equipping the whole body of the militia of the United States?

2d. What amount of money has been drawn from the treasury under the appropriation of the said act, at what times, and in what sums, have such moneys been drawn from the treasury?

3d. To whom, and at what times, have the moneys drawn, as aforesaid, been paid?

4th. What is the balance of the appropriation, made by the said act, remaining unexpended, and has any part of such balance, and, if any, what, sum been carried to the Sinking Fund?

5th. Has any part of the money, appropriated by the said act, been applied to the manufacture of arms in the public factories, and, if so, how much?

I have the honor to state, that the average price of arms, manufactured by private contracts, for arming the whole body of the militia of the United States, under the act of April 23d 1808, is ten dollars and seventy-five cents for each stand; that the amount of money drawn from the treasury, and expended on that account, is detailed in the enclosed statement; that one hundred thousand dollars of the appropriation has been carried to the surplus fund; that the balance remaining to the credit of the appropriation is five hundred thousand dollars, exclusive of the annual sum of two hundred thousand dollars for the year 1813; and that no part of the money appropriated by the said act has been applied to the manufacture of arms in the public armories, except nine thousand seven hundred dollars at Springfield, Massachusetts.

I have the honor to be, with great respect, sir, your obedient servant,

JOHN ARMSTRONG.

The Honorable the PRESIDENT *of the Senate of the United States.*

Statement of moneys drawn from the Treasury under the act "making provision for arming and equipping the whole body of the militia of the United States."

1808, November 23,	$100,000	1811, June 25,	10,000
1810, March 14,	50,000	August 12,	30,000
September 25,	55,000	September 12,	20,000
December 26,	5,000	October 18,	40,000
1811, May 9,	40,000	1812, May 2,	50,000
" 16,	50,000	July 10,	50,000
			$500,000

NOTE.—The last ten sums, above stated, were advanced from the treasury, to Thomas T. Tucker, as agent for the Military Department.

A.

Return of Muskets delivered under contracts made for the War Department by the late Purveyor, from the month of May, 1809, to the 7th October, 1812, viz:

DATE OF CONTRACTS.	CONTRACTORS' NAMES.	FROM WHAT STATE.	Duration of Contracts.	Number of stands contracted for.	Advances made on contracts.	TO WHOM DELIVERED.	Muskets delivered to Sept. 30, 1809, inclusive.	Muskets delivered to Sept. 30, 1810, inclusive.	Muskets delivered to Sept. 30, 1811, inclusive.	Muskets delivered to October 7, 1812, inclusive.	Total amount delivered.	Number of stands due by each contractor on the 7th October, 1812.
June 30, 1808,	W. & I. I. Henry,	Pennsylvania,	5 years,	10,000	$10,750	George Ingels,	573	1,600	1,225	848	4,216	5,754
July 13, "	Goetz & Westphall,	Do.	do.	2,500	1,000	Do.	113	406	400	100	1,019	1,481
" 20, "	John Miles,	New Jersey,	do.	9,200	no advance	Do.	213	438	967	789	2,407	6,793
	Winner, Nippes & Co.	Pennsylvania,	do.	9,000	7,000	Do.	1,000	1,700	800	400	3,900	5,100
September 8, "	Waters & Whitmore,	Massachusetts,	do.	5,000	9,375	Jacob Eustis,	-	1,200	1,000	800	3,000	2,000
" 14, "	Ethan Stillman,	Connecticut,	do.	2,500	3,306	William Lyon,	-	75	325	425	825	1,675
October 13, "	Daniel Gilbert,	Massachusetts,	do.	5,000	8,000	Do.	-	-	550	325	875	4,125
" 20, "	French, Blake, & Kinsley,	Do.	do.	4,000	6,000	Jacob Eustis,	-	500	1,050	625	2,175	1,825
" 21, "	I. & C. C. Barstow,	New Hampshire,	do.	2,500	5,375	Capt. Walbeck,	-	275	650	700	1,625	875
	Wheeler & Morrison,	Virginia,	do.	2,500	3,487	- -	-	-	125	-	125	2,375
" 25, "	Oliver Bidwell,	Connecticut,	do.	4,000	4,300	William Lyon,	-	125	350	275	750	3,250
	O. & E. Evans,	Pennsylvania,	do.	4,000	2,500	George Ingels,	274	601	634	451	1,960	2,040
	Stephen Jenks & Sons,	Rhode Island,	do.	4,000	5,800	James House,	-	325	1,000	975	2,300	1,700
" 29, "	R. & C. Leonard,	Massachusetts,	do.	5,000	9,875	Jacob Eustis,	-	200	1,125	800	2,125	2,875
" 31, "	A. & P. Bartlett,	Do.	do.	2,500	2,687	James Byers,	-	475	950	75	1,500	1,000
	Rufus Perkins,	Do.	do.	2,500	2,687	Jacob Eustis,	-	100	100	-	200	2,300
November 1, "	I. I. & N. Brooke,	Pennsylvania,	do.	4,000	4,000	George Ingels,	-	605	472	180	1,257	2,743
" 9, "	W. & H. Shannon,	Do.	do.	4,000	2,200	Do.	198	504	351	48	1,101	2,899
November 13, 1810,	Sweet, Jenks, & Sons,	Rhode Island,	do.	3,000	6,450	James House,	-	-	-	-	250	2,750
				85,200	$94,792		2,371	9,129	12,074	7,816	31,640	53,560

Stands of Arms sold to the following States.

May	3, 1808,	State of Georgia,	4,000
May	16, 1809,	State of Maryland,	4,000
August	4, 1810,	do.	1,200
October	1, 1811,	do.	1,200
June	10, 1812,	do.	1,200
August	5, "	State of Delaware,	150
September,	1, "	do.	500
			12,250

COMMISSARY GENERAL'S OFFICE, *Philadelphia, December* 12, 1812.

CALLENDER IRVINE, *Commissary General.*

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Statement of the expenditures under the same, viz:

1808, July 8,	in favor of	Tench Coxe,	Warrant No.	541	$25,000 00
August 5,	ditto	ditto,	ditto	649	20,000 00
October 18,	ditto	ditto,	ditto	840	10,000 00
November 17,	ditto	ditto,	ditto	907	25,000 00
December 5,	ditto	ditto,	ditto	957	2,687 50
1809, June 17,	ditto	Charles Williams, Inspector,	ditto	1,609	588 39
July 3,	ditto	Daniel Pettibone,	ditto	1,649	100 00
July 29,	ditto	ditto,	ditto	1,817	100 00
November 13,	ditto	ditto,	ditto	2,096	58 02
" 18,	ditto	Charles Williamson,	ditto	2,112	583 64
December 19,	ditto	Tench Coxe,	ditto	2,204	10,000 00
1810, February 26,	ditto	ditto,	ditto	2,395	20,000 00
April 24,	ditto	ditto,	ditto	2,580	20,000 00
May 21,	ditto	ditto,	ditto	2,635	10,000 00
" 26,	ditto	ditto,	ditto	2,644	25,000 00
July 17,	ditto	ditto,	ditto	2,779	10,000 00
September, 17,	ditto	ditto,	ditto	2,901	20,000 00
October 26,	ditto	Charles Williams,	ditto	2,976	1,132 36
1811, January 5,	ditto	Tench Coxe,	ditto	18	25,000 00
" 12,	ditto	ditto,	ditto	38	10,000 00
February 13,	ditto	ditto,	ditto	120	15,000 00
" "	ditto	ditto,	ditto	122	20,000 00
March 16,	ditto	ditto,	ditto	195	10,000 00
May 17,	ditto	ditto,	ditto	329	20,000 00
July 13,	ditto	Charles Williams,	ditto	445	1,122 54
September 9,	ditto	Tench Coxe,	ditto	545 & 546	25,000 00
October 18,	ditto	ditto,	ditto	635	10,000 00
1812, January 2,	ditto	ditto,	ditto	2 & 3	25,000 00
February 24,	ditto	ditto,	ditto	141 & 142	35,000 00
March 31,	ditto	ditto,	ditto	290	20,000 00
April 22,	ditto	John Chaffee,	ditto	386	9,700 00
June 22,	ditto	Benjamin Mifflin,	ditto	600 & 601	25,000 00
July 9,	ditto	ditto,	ditto	700	10,000 00
July 20,	ditto	Eli Whitney,	ditto	744	5,000 00
September 26,	ditto	Benjamin Mifflin,	ditto	905	10,000 00
September 7,	ditto	Caleb Irvine,	ditto	973	2,000 00
October 26,	ditto	Amasa Stetson,	ditto	1,255	5,000 00
					$483,072 45

War Department, *March 1st*, 1813.

From Register of the Army for 1813

ASP MA 1 p. 390 39

ORDNANCE DEPARTMENT.

Decius Wadsworth,	Colonel,	Commissary General,	July 2, 1812,	-	Washington.
George Bomford,	Major,	Assist. Commis. Gen.	June 18, 1812,	9	Albany.
John Morton,	Captain,	Deputy Commissary,	September 11, 1812,	-	Washington.
Abraham R. Woolley,	Do.	Ditto,	December 4, 1812,	4	Pittsburg.
John H. Margart,	Do.	Ditto,	December 31, 1812,	6	Charleston.
James Dalibre,	Do.	Ditto,	August 5, 1813,	9	Albany.
Thomas L. Campbell,	Do.	Ditto,	Ditto,	9	
Edwin Tyler,	Do.	Ditto,	Ditto,	5	
R. D. Richardson,	Do.	Ditto,	Ditto,	8	N. W. Army.
George Talcott, Jun.	Do.	Ditto,	Ditto,	3	New York.
Æneas McKay,	Lieutenant,	Assistant Dep. Com.	March 12, 1813,	3	New York.
William Wade,	Do.	Ditto,	Ditto,	4	Pittsburg.
Rufus L. Baker,	Do.	Ditto,	Ditto,	9	Albany.
William C. Lyman,	Do.	Ditto,	April 19, 1813,	4	Pittsburg.
George Larned,	Do.	Ditto,	Ditto,	9	Albany.
Nehemiah Baden,	Do.	Ditto,	August 6, 1813,	5	Washington.
Daniel Brucknor,	Do.	Ditto,	Ditto,	6	
Christopher Keiser,	Do.	Ditto,	Ditto,	6	Charleston.
Thomas L. Hawkins,	Do.	Ditto,	Ditto,	-	N. W. Army.
James Baker,	Do.	Ditto,	Ditto,	9	Albany.

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14th CONGRESS.] No. 146. [1st SESSION.

ORGANIZATION OF THE STAFF OF THE ARMY.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, FEBRUARY 6, 1816.

WAR DEPARTMENT, *December* 27, 1815.

SIR:

In replying to your letter of the 21st instant, inquiring into the expediency of providing by law for the staff appointments which have been provisionally retained, and for such others as the interest of the service may require, it is presumed that the intention of the committee over whose deliberations you preside is to give to the military peace establishment that organization which is necessary to secure to it all the efficiency which can be expected from its numerical force. The experience of the two first campaigns of the last war, which has furnished volumes of evidence upon this subject, has incontestably established not only the expediency, but the necessity of giving to the military establishment, in time of peace, the organization which it must have to render it efficient in a state of war.

It is believed also to be demonstrable, that a complete organization of the staff will contribute as much to the economy of the establishment as to its efficiency.

The stationary staff of a military establishment should be substantially the same in peace as in war, without reference to the number or distribution of the troops of which it is composed. It is, therefore, respectfully proposed that this branch of the general staff be organized in the manner following, viz:

One adjutant and inspector general, at Washington.
One quartermaster general, at Washington.
One paymaster general, do.
One commissary general, at Philadelphia.
One apothecary general, do.

The organization of the division of staff should be regulated by the number of independent corps into which the military force is distributed. By general order of the 17th May last, the United States were divided into military divisions, commanded by generals, independent of each other, within their respective divisions. As nothing has occurred, since this distribution of the military force has been made, to change the opinion which was then entertained of its expediency, it is proposed to organize the division staff so that each division shall comprehend

One adjutant general, and two assistant adjutant generals;
One inspector general, and two assistant inspector generals;
One quartermaster general, and two deputy quartermasters general, with regimental quartermasters, as at present authorized;
Three judge advocates;
Two chaplains;
One deputy commissary general, and two assistant commissaries of issues; four hospital surgeons, and eight hospital surgeons' mates; and as many posts' surgeons, with the pay and emoluments of hospital surgeons' mates, as the distribution of the forces into garrisons and posts may require, not exceeding twelve;
Four assistant apothecaries;
Two assistant deputy paymasters, with regimental paymasters, as now established.

It is not deemed necessary to change the organization of the corps of artillery, the corps of engineers, or the ordnance department, unless the committee should be disposed to increase the corps of engineers. Considering the qualifications of the officers of that corps, and the great utility which may be derived from transferring them into the line of the army, when a sudden augmentation of the military establishment should become necessary at the approach of war, some increase of that scientific corps is respectfully submitted.

The act fixing the military peace establishment has produced some inequalities in the pay and emoluments of the officers, which, owing to the particular circumstances under which that act was passed, it is probable were neither foreseen nor intended. One case of this nature is, the allowance of forage to a major general of twenty dollars a month, whilst the adjutant general is allowed thirty. The allowance of a clerk to one of the major generals, and not to the other, must have proceeded from the same cause. The fact of these inequalities are mentioned here with a view to attract the attention of the committee to the pay and emoluments of the officers of the army generally.

Should any explanations growing out of this communication be required, it will afford me great pleasure to give them, in writing or verbally, to the committee, whenever it shall suit their convenience.

I have the honor to be, respectfully, your very humble servant,

WM. H. CRAWFORD.

Hon. RICHARD M. JOHNSON, *Chairman of the Military Committee,*
House of Representatives of the United States.

13th CONGRESS.] No. 141. [3d SESSION.

NATIONAL ARMORIES.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, FEBRUARY 24, 1815.

WAR DEPARTMENT, *February* 20, 1815.

SIR:

In conformity to the 5th section of the act of the 2d of April, 1794, I have the honor to transmit to Congress a statement of the amount of expenditures on account of the national armories at Harper's Ferry and Springfield, during the year 1814, and of the number of arms made and repaired at each place, during the same period.

I have the honor to be, with great respect, sir, your obedient servant,

JAMES MONROE.

The Honorable LANGDON CHEVES.

Statement showing the expenditures on account of National Armories, and of the number and kinds of arms manufactured and repaired at the same, in the year 1814.

PLACES.	Expenditures.	Muskets and Bayonets manufactured.	Muskets repaired.	Rifles (short) manufactured.	Rifles repaired.	Pattern Rifles (short.)	Total manufactured.	Total repaired.
Harper's Ferry, -	$170,122 03	10,400	548	1,600	16	4	12,004	564
Springfield, -	73,500 00	9,585	5,190	-	-	-	9,585	5,190
Total, -	$243,622 03	19,985	5,738	1,600	16	4	21,589	5,754

C.

A statement of the number and species of arms manufactured, and the number and species of arms repaired at the national armories; and also of the moneys expended at those works, exhibiting a view of the whole, from the period of their first establishment, and according to the accounts received and on record in the Department of Ordnance. January, 1818.

ARMORY, HARPER'S FERRY, VIRGINIA.

YEARS.	Muskets made.	Muskets repaired.	Rifles made.	Pistols made.	Total amount expended, including purchases, buildings, repairs, &c.
1798 and 1800,	-	-	-	-	$59,908 32
1801,	293	-	-	-	27,201 81
1802,	1,472	-	-	-	29,334 33
1803,	1,048	-	-	-	28,697 58
1804,	161	-	780	-	31,313 71
1805,	-	-	1,716	-	31,262 17
1806,	136	-	1,381	-	41,908 80
1807,	50	-	146	2,892	40,631 28
1808,	3,051	-	-	1,208	104,952 63
1809,	7,348	-	-	-	158,835 13
1810,	9,400	691	-	-	145,042 30
1811,	10,000	1,392	-	-	139,707 59
1812,	10,200	2,113	-	-	161,772 01
1813,	9,000	612	-	-	183,663 93
1814,	10,400	548	1,600	-	144,010 81
1815,	5,239	-	1,469	-	125,335 82
1816,	6,416	23	2,052	-	227,286 87
1817,	8,513	-	2,726	-	177,533 00
Total,	82,727	5,379	11,870	4,100	$1,858,398 09

REMARKS.

The amount expended at this armory in 1817, is - - - - - $177,533
Muskets manufactured, - - - - - - 8,513
Rifles manufactured, 2,726, equal in labor to - - - - - 3,770

Total number of muskets, - 12,283

In order to ascertain the precise cost of each musket, the following deduction should be made:
Probable amount of expenditures for repairing mill-dam, laborers employed thereat, &c. - - 2,500

Actual expenditure, - - $175,033

From the above deduction being made, it would result that the actual cost of muskets at this armory, will be $14 25 each.
Stock and tools, and unfinished work on hand, estimated at - - - - - $255,000

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AMERICAN STATE PAPERS. MILITARY AFFAIRS, I, 680.

ARMORY, SPRINGFIELD, MASSACHUSETTS.

YEARS.	Muskets manufactured.	Muskets repaired.	Carbines manufactured.	Total amount of expenditures, including purchases, buildings, repairs, &c.
1795,	245	-	-	$4,495 5
1796,	838	-	-	15,392 25
1797,	1,028	-	-	18,863 80
1798,	1,044	-	-	19,157 40
1799,	4,595	-	-	84,299 23
1800,	4,862	-	-	64,924 94
1801,	3,205	-	-	50,328 94
1802,	4,358	-	-	30,142 55
1803,	4,775	-	-	32,459 74
1804,	3,566	-	-	43,312 64
1805,	3,535	-	-	45,937 25
1806,	2,018	-	-	42,674 01
1807,	5,692	-	-	55,304 64
1808,	5,870	-	-	103,174 71
1809,	7,070	1,086	600	122,469 31
1810,	9,700	1,406	602	131,556 47
1811,	12,020	-	-	114,151 26
1812,	10,140	-	-	139,340 07
1813,	6,920	11,105	-	104,958 48
1814,	9,585	5,475	-	102,632 64
1815,	7,279	21,145	-	151,456 37
1816,	7,199	5,129	-	155,951 65
1817,	13,015	454	-	187,138 08
Total,	128,559	45,800	1,202	$1,820,122 08

REMARKS.

The actual expenditure in the manufacture of arms at this armory, in 1817, - - $187,138 08

In order to ascertain the precise cost of each musket, the following deductions should be made:

For muskets which have been repaired at the armory in 1817, - - -	$2,000 00	
For inspection of contract arms, by officers of the armory, and by orders of the Ordnance Department, in 1817, - - - - - -	1,236 68	
For making arm-chests, - - - - - -	1,392 00	
For manufacturing screw-drivers, - - - - -	1,040 00	
For purchases of additional ground and buildings, in 1817, - - -	4,975 00	
		10,643 68
Actual expenditure, - -		$176,494 40

From the above deductions being made, it would result that the actual cost of muskets at this armory will be $13 56 each.

The stock on hand, and parts of work done at this armory, is valued at - - $111,545 56

GENERAL REMARK.

It may, in addition, be remarked, generally, that though the within sums appear to have been expended in the manufacture of arms, making their apparent cost at the rates stated, there were other expenditures at both armories (such as transportation of arms to and from the armory, with other incidental expenses,) which have not yet been reported, and which would render the actual cost of the arms still lower. The value of the public buildings, grounds on which they are erected, and the adjacent lands, belonging to the national armories, may be estimated to be at least *one hundred thousand dollars each.*

ORDNANCE DEPARTMENT, *February* 12, 1818.

G. BOMFORD, *Lieut. Col. of Ordnance.*

15th Congress.] No. 166. [2d Session.

WESTERN ARMORY.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, DECEMBER 7, 1818.

DEPARTMENT OF WAR, *December* 3, 1818.

SIR:

In reply to so much of your letter of the 20th ultimo as requires my opinion "as to the expediency or necessity of the establishment of a national armory on the Western waters," I have the honor to enclose, for the consideration of the Military Committee, a report of the Ordnance Department, containing a statement of such facts as appear to be connected with the object of your inquiry.

Whether it would be expedient to establish an additional national armory will depend, in the first place, on the fact, whether those already established are sufficient to fabricate as many arms as the necessity of the country requires; and, if they are not sufficient, whether it would be more advisable to fabricate them by a national armory or by contract.

In presenting this view of the subject, it is assumed that the supply of arms ought to be manufactured within the country, and ought not to be imported.

By a reference to the report of the Ordnance Department, it will appear that the national armories can fabricate, annually, about twenty-five thousand. This number, it is conceived, is not sufficient, whether we regard the present supply, or the increased number which the growing population of the country requires.

Our principal reliance for defence is on the militia—a species of force which requires a much more ample supply than regular troops, as experience proves them to be much more wasteful of arms. At the commencement of the late war our supply amounted to two hundred thousand stands; and, though it continued less than three years, our stock, at its termination, was nearly exhausted.

It is believed that, as arms can be fabricated at least as cheap, and of a better quality, by a national armory, than by contract, it is the preferable mode.

If these observations are correct, it would appear expedient to establish an additional national armory, and that the "place of its location" ought to be on the Western waters. It is probable that arms can be fabricated in that portion of our country at least as cheap as at Harper's Ferry, or Springfield; and a very considerable expense would be annually saved in transportation. As to the particular "place of location," I am not in possession of such information as will enable me to give an opinion on the subject.

I have the honor to be, with very great respect, your most obedient servant,

J. C. CALHOUN.

Hon. R. M. JOHNSON, *Chairman of the Military Committee of the House of Representatives, U. S.*

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ORDNANCE OFFICE, *December* 2, 1818.

SIR:

In answer to the inquiries of the Military Committee, made in their communication of the 20th ultimo, I have now the honor to state that the national armories at Springfield and Harper's Ferry are capable of fabricating, annually, about twenty-five thousand stands of arms, at an expense of three hundred and fifty to three hundred and seventy-five thousand dollars. By contracting for some of the heavier parts of the work, it is judged the product at those establishments might be increased to thirty thousand stands a year, in which case the expense might amount to four hundred and twenty or four hundred and thirty thousand dollars. The arms manufactured by contract amount now to eight or ten thousand stands a year, and the price is, in general, fourteen dollars for the musket, exclusive of extra charges incurred in proving, inspecting, packing, and transporting the arms to the arsenals. It is calculated the demand for the Western country will embrace at least one-third of the whole supply required for the United States.

There are now deposited at Pittsburgh from twelve to fifteen thousand stands, viz: two thousand rifles, sent from Harper's Ferry in 1817, and eight thousand muskets sent from the same place in the present year. The residue consists principally of arms which have been in service and have undergone repairs.

The expense attending the transportation of arms from Harper's Ferry to Pittsburgh may be stated at about one dollar a stand.

About twenty thousand stands of arms remain at New Orleans; about four thousand at Newport, Kentucky; and about three thousand at Detroit. These are principally such as have been in the hands of troops, and have undergone, or are undergoing, repairs. The cost of fabricating muskets may be stated at about two-thirds in labor, and one-third in materials.

As the necessaries of life will be cheaper in the Western country than on the seaboard, it may be presumed the wages of workmen will eventually be lowest where they can be easiest subsisted.

Iron may be delivered on the Ohio, of a quality suitable for the manufacture of arms, at nearly the same price it will cost at Harper's Ferry. The other materials, with the exception of coals, will cost higher. The number of men employed at Springfield and Harper's Ferry varies from two hundred and twenty to two hundred and forty, or thereabouts, at each place. It is judged not proper to employ at one establishment more than about two hundred and fifty hands, because a degree of discipline and subordination is necessary to be maintained, and the difficulty of preserving regularity, and ensuring united exertion, increases with the increase of numbers.

The first cost of an armory in the Western country, on the scale of Springfield and Harper's Ferry, may be calculated at about two hundred thousand dollars for lands, command of water, buildings, and machinery. About three years will probably be required to bring a new establishment into successful operation, and the expense may be during that time sixty or seventy thousand dollars a year. Supposing it should be decided to establish an armory in the Western country on the scale of Springfield or Harper's Ferry, it would be advisable to employ, for a few years, at first, no more than about one hundred and fifty hands, or enough to ensure eight thousand stands of arms yearly; otherwise, some inconvenience might be sustained by the desertion of workmen from armories now in operation. The permanent annual expense on that scale may be from one hundred and twenty to one hundred and thirty thousand dollars. The number of arms in the possession of the Government, at the commencement of the late war, is not distinctly known at this office. It is presumed to have been upwards of two hundred thousand stands. At the close of the campaign of 1814 the arsenals were nearly exhausted. The great extent of seacoast, and of inland frontier, to be protected, will render large distribution of arms to the militia indispensable in time of war; and it ought to be concluded, as well from past experience as the nature of the case, that our resources will sooner fail in that particular than in any other of our military supplies. The reason is, that so much time is required to put in operation an establishment for manufacturing arms on a large scale, that it will not be in the power of Government, on a sudden emergency, to increase very materially the supply.

I have the honor to be, very respectfully, your most obedient servant,

DECIUS WADSWORTH, *Colonel of Ordnance.*

The Hon. JOHN C. CALHOUN.

Situation and dimensions of each lot or tract.	From whom purchased, or by whom ceded.	Date of conveyance.	Consideration.
MASSACHUSETTS.			
Lot in Springfield of one acre and a half,	Nathaniel Patten,	June 22, 1795,	400 00
Island, called Castle island, in the harbor of Boston,	Ceded by the Legislature of the State,	June 25, 1798.	
Lot in Springfield of one acre and 136 rods,	John Ashley,	Sept. 19, 1798,	343 00½
Two lots in Springfield, one containing 3¼ acres and 14 rods, the other 30 rods.	Inhabitants of the town of Springfield,	Aug. 24, 1801.	300 00
Lot in Springfield, containing 139 perches,	Jonathan Dwight and others,	Oct. 16, 1807,	300 00
Lot at Spring Point, opposite the entrance of Portland harbor, containing five acres.	Ebenezer Thrasher,	Feb. 29, 1808,	500 00
Piece of land in Kittery, called "Battery Pasture,"	Legislature of the State,	May 12, 1808.	
Tract on Governor's Island, in the harbor of Boston, containing six acres.	James Winthrop,	May 18, 1808,	15,000 00
Lot in Georgetown, containing two acres,	Joshua Shaw,	June 21, 1808,	1,850 00
Lot in Edgcomb,	Moses Davis,	June 30, 1808,	300 00
Lot in Salisbury, containing one acre,	Inhabitants of the town,	Aug. 9, 1808,	100 00
Lot in Springfield, containing 127 rods,	Inhabitants of the town,	Sept. 2, 1808,	100 00
Tract on the east side of St. George's river, known by the name of "Robinson's Point," containing 2½ acres and 20 rods.	Joseph Robinson,	Sept. 22, 1808,	100 00
Lot in Marblehead, containing about 2,300 sq. feet,	Inhabitants of the town,	Sept. 26, 1808.	
Lot in New Bedford, containing 2⅛,	Killey Eldridge,	Sept. 28, 1808,	750 00
Lot in Salem, containing 5,600 square feet,	Inhabitants of Salem,	Oct. 1. 1808.	
Lot in Gloucester, containing 2,800 square feet,	William Pearce,	Oct. 15, 1808.	
Two lots in Springfield, supposed to contain 117 rds.	John Ashley,	Jan. 10, 1809,	285 25
Lot in Springfield, containing 7 acres and 95 rods,	Geraldo Warner,	March 2, 1809,	150 00
Lot in Castine, containing three acres,	Joseph Perkins,	April 1, 1809,	450 00
Lot in Springfield, containing 15 acres,	Daniel Ashley,	April 17, 1809,	535 33
Lot in the town of Beverly, on which the United States is to erect a gun-house.	Inhabitants of the town of Beverly,	May 17, 1809.	
Lot in Springfield, containing five acres,	Jonathan Dwight,	June 10, 1809,	153 00
Lot in Machias, of four rods and three-quarters,	William Sandborn,	Nov. 16, 1809,	53 16
Lot in Machias, of 224 square rods and 10 links,	Benjamin Berry,	Nov. 16, 1809,	109 25
Lot in Springfield, containing 60 rods,	Jacob Bliss,	Dec. 20, 1809,	29 50
Lot in Springfield, containing 6 acres 79 rods,	William Carlisle,	Jan. 26, 1811,	200 00
Tract in Springfield, (with certain reservations,) of 18 acres 102 rods.	Trustees of schools in said town,	May 9, 1812,	950 00
Lot in Springfield, with the building thereon,	Joseph Corew,	May 13, 1812,	1,250 00
Lot in Springfield, containing 72 rods, with the buildings thereon.	James Byers,	May 13, 1812,	640 00
Lot in Springfield, containing 16 rods, with the dwelling house thereon.	Obed Wright,	May 14, 1812,	280 00
Lot in Springfield, containing 36 rods, with a house and barn.	Josiah Comstock,	May 16, 1812,	1,425 00
Tract or lot in Berkshire county, containing 1 acre, with the buildings thereon.	William Allen,	May 23, 1812,	800 00
Lot in Springfield, containing 9 rods 12 feet by 9 rods, with a store-house thereon.	William Wood,	May 26, 1812,	800 00
Lot in Springfield, with the store-house thereon,	E. Cooley,	May 28, 1812,	580 00
Lot in Springfield, with the buildings thereon,	Calvin Barrett,	May 30, 1812,	355 00
Lot in Springfield, containing half an acre, with the dwelling house, &c. thereon.	Lemuel Wheeler,	June 4, 1812,	2,400 00
Tract in Pittsfield, containing seven acres 90 rods,	William Allen, executor, &c.	Oct. 26, 1814,	680 62
Tract on Charles river, about one mile below Watertown, containing 20 acres 3 rods and 39 poles.	Thomas Learned,	Sept. 23, 1816,	2,095 38
Tract or lot in Springfield, containing 8¾ acres,	George Blake,	June 5, 1817,	3,300 00
Lot in Springfield,	Jacob Bliss,	Sept. 30, 1817,	175 00
Lot in Springfield, containing 80 square rods,	John Ashley,	May 27, 1819,	200 00

LIST—Continued.

Situation and dimensions of each lot or tract.	From whom purchased, or by whom ceded.	Date of conveyance.	Consideration.
VIRGINIA.			
Island in the Potomac, opposite Harper's Ferry, containing 20 acres; also, a tract called the Harper's Ferry tract.	John Wager and others, - -	June 15, 1796,	7,016 66⅔
Tract near Harper's Ferry, containing 310 acres, -	Tho. Rutherford and others,	Feb. 20, 1797,	10,000 00
Iron ore in a certain tract on the river Potomac, near Keeptryst furnace, containing about 1,600 acres, in which is a bank of iron ore.	Henry Lee, - -	May 8, 1800,	24,000 00
Tract in Berkley county, near Keeptryst furnace, with the buildings and improvements thereon, containing 4 acres 50 rods.	William Wilson, John Potts, and George North, -	June 1, 1800,	10 00
Tract in Berkley county, called the Furnace tract, containing 221 acres, with all the buildings and improvements, including the furnace and mills, with the right of digging ore from Friend's ore bank.	William Wilson, John Potts, and George North, -	June 20, 1800,	42,000 00
Tract on James river, (part of a tract called Hood's,) containing 10 acres.	Sarah Peter, and Elizabeth Horsburgh, - -	April 5, 1808,	1,000 00
Piece of land on Ferry Point, containing 136 square poles and 50 links.	William Thompson, - -	Sept. 21, 1808,	1,500 00
A spot of land, 30 feet square, on the above mentioned tract called Hood's, which had been reserved for a grave yard.	James Henderson and James Freeland, - -	Oct. 16, 1812,	285 00
Right of cutting wood and timber from a tract of land containing 1,300 acres 2 rods and 20 perches.	Ferdinando Fairfax and others, - - -	Aug. 20, 1813,	20,860 62
Tract on James river, Chesterfield county, containing 27⅛ acres.	William Trabue and Mary Reddy, - -	Sept. 21, 1815,	4,310 00
Island in Norfolk county, called Craney Island, with all the buildings, &c.	George D. Wise, and others,	May 5, 1817,	12,550 00

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Statement of the several purchases of real estate, &c.—Continued.

Quantity of real estate purchased.	Where situated.	Date of purchase.	Of whom purchased.	To whom conveyed.	Nature of the estate.	To what purpose applied.	Act authorizing purchase.	Jurisdiction acquired.	Consideration	Remarks.
Lot	Southwark	Feb. 20, 1801	Anthony Morris	United States	Fee simple	Navy yard			$14,000 00	
Lot	do	Feb. 20, 1801	Luke Morris	do	do	do			11,000 00	
Lot	do	Feb. 20, 1801	William I. Allen	do	do	do			12,000 00	
Lot	Philadelphia	Oct. 3, 1816	Joseph Lowndes	do	do	Custom-house			1,500 00	
Lot	do	Oct. 3, 1816	do	do	do	do			14,000 00	
Lot	do	Oct. 4, 1816	George Hunter	do	do	do			18,000 00	
Lot	do	June 4, 1818	William Hinckle	do	do	do			16,000 00	
60 acres	Presqu'Isle	Apr. 18, 1795	Ceded by the State	do	Under certain reservations.	For forts, &c.	June 9, 1794	Jurisdiction reserved		Ceded to the United States for erecting and maintaining forts and other defences. The right of soil reserved to the State, act of April 18, 1795.
39 acres	do	Apr. 18, 1795	do	do	do	do	do	do		
100 acres	do	Apr. 18, 1795	do	do	do	do	do	do		
									118,321 95	
	DELAWARE.									
1 acre	Burlington	Aug. 13, 1809	Peter Baudry	United States	Fee simple	Arsenal	April 2, 1794		$250 00	
	Pea patch island	May 27, 1813	Ceded by the State	do	do	Fort Delaware	July 5, 1812	Jurisdiction ceded May 27, 1813		
									250 00	
	MARYLAND.									
3 acres 127 perches	On Potomac river	Apr. 15, 1808	Thomas A. Digges	T. Jefferson, for United States	Fee simple	Fort Washington	Jan. 8, 1808		$6,000 00	
2¼ acres	Near Annapolis	July 16, 1808	David Kerr	United States	do	Fort	do		750 00	
7 acres	Windmill Point	Nov. 14, 1808	Henry M. Ridgeley	do	do	Fort	do		1,800 00	
1¼ acre	Annapolis	Dec. 12, 1808	Corporation of Annapolis	do	do		do			
2¼ acres	Near Baltimore	Apr. 23, 1814	William Lorman	do	do		July 5, 1812		1,375 00	
9 acres 23 perches	Potomac river	Aug. 21, 1815	W. and Thomas A. Digges	do	do	Fort Washington	do		8,461 00	
4 acres	Potomac canal	Sept. 9, 1815	Thomas A. Brooke	do	do	Magazine	Feb. 8, 1815		1,000 00	
14 acres 147 perches	Baltimore county	Feb. 25, 1819	James Smith	do	do	Arsenal	do		895 12	
7 acres 56 perches	Whetstone Point	July 20, 1795	Alexander Furnival	do	do		June 9, 1794		3,200 00	
2 acres	do	Nov. 6, 1798	William Goodwin	do	do		do		1,600 00	
11¾ acres 25 perches	do	Aug. 26, 1800	do	do	do		do		5,400 00	
5 acres	Love's Point	Jan. 14, 1804	John O'Donnell	do	do		do		1,600 00	
									31,681 12	
	VIRGINIA.									
62½ acres	Harper's Ferry tract	June 15, 1796	John Wager *et al.*	G. Washington, for United States.	Fee simple	Armory	April 2, 1794		$7,046 66⅔	No knowledge of the consent of the State.
399 acres	Near Harper's Ferry	Feb. 20, 1797	John Rutherford *et al*	do	do	do	do		10,000 00	Do. do.

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IV, p. 519

Public Lands IV

Statement of the several purchases of real estate, &c.—Continued.

Quantity of real estate purchased.	Where situated.	Date of purchase.	Of whom purchased.	To whom conveyed.	Nature of the estate.	To what purpose applied.	Act authorizing purchase.	Jurisdiction acquired.	Consideration.	Remarks.
1,600 acres	On Potomac river	May 8, 1800	Henry Lee	J. McHenry, Secretary of War, for United States.	Fee simple	Cannon foundry	April 2, 1794		$24,000 00	
4 acres 50 rods	Berkeley county	June 1, 1800	Wilson, Potts & North	J. Adams, President, for United States.	do	do	do		10 00	
216 acres 110 rods	do	June 30, 1800	do	do	do	do	May 4, 1798		42,000 00	Sold to John Prachn, under an act of Congress of March 3, 1819.
10 acres	On James river	April 5, 1803	S. Peter and S. Horsehang	United States	do		June 9, 1794		1,000 00	Do. do.
136 sq. pchs. 50 links	On Ferry Point	Sept. 21, 1808	William Thompson	do	do	Fort Norfolk	do		1,500 00	Consent of the State.
30 feet square	On Hood's tract	Oct. 16, 1812	Henderson & Freeland	do	do	Graveyard	April 2, 1794		225 00	
1,395 acres	Shannondale	Aug. 26, 1813	Ferdinando Fairfax	J. Armstrong, Secretary of War.	do	Armory	do		20,860 62	
27¼ acres	On James river	Sept. 21, 1815	Trabue & Riddy	United States	do	Arsenal	Feb. 8, 1815, & subsequent.		4,310 00	
	Canary island	May 5, 1817	George D. Wise *et al*	do	do				12,550 00	
68 acres 60 perches	Shannondale	Oct. 27, 1818	Ferdinando Fairfax	J. Monroe, President, for United States.	do	Armory	April 2, 1794		5,000 00	
	Old Point Comfort	—— —, 1821	Ceded by the State	United States	do	Fort Monroe		Jurisdiction ceded 1821		
	Rip Rap islands	—— —, 1824								
									128,532 281	
	NORTH CAROLINA.									
	Beacon island	Sept. 9, 1799	Blount & Wallace				June 9, 1794		$1,000 00	
2 lots, 21,780 square feet each.	Smithville	Jan. 1, 1800	Benjamin Smith	G. McRee, agent for the United States.	Fee simple		do		410 09	
5 acres	Old Topsail inlet	Dec. 17, 1807	State of North Carolina	United States	Fee simple, provided a fort is built there in 1808.		April 21, 1806			
6 acres 118 square perches.	do	May 1, 1810	Small & Davis	do			June 14, 1809		300 00	
									1,610 09	
	S. CAROLINA.									
523 acres	Catawba river	Nov. 12, 1802	Thomas Sumpter	T. Jefferson, President, for United States.	Fee simple				$200 00	
5 acres	Sullivan's island	Dec. 19, 1805	Ceded by the State	United States	Act of appropriation	Fort Moultrie	June 9, 1794	Act of jurisdiction, December 19, 1805.		In 1805 the legislature granted all these lands for forts, &c., to the United States, excepting the above 523 acres.
20 acres	Highlands	Dec. 19, 1805	do	do	do	Fort Johnson	do			
3 acres	Charleston	Dec. 19, 1805	do	do	do	Fort Pinckney	do			
2 acres	SE. pt., Charleston	Dec. 19, 1805	do	do	do		do			
Mustard island	Beaufort river	Dec. 19, 1805	do	do	do		do			
7 acres	St. Helena island	Dec. 19, 1805	do	do	do		do			

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17th CONGRESS.] No. 236. [2d SESSION.

EXPENSES OF THE ORDNANCE DEPARTMENT, ARMORIES, ARSENALS, AND MAGAZINES, FROM THE YEAR 1816.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, JANUARY 6, 1823.

To the House of Representatives of the United States: WASHINGTON, *January* 3, 1823.

In compliance with the resolutions of the House of Representatives of the 8th January, 7th May, and 17th December, 1822, requesting the President of the United States to cause to be laid before that House a detailed statement of the current expenses of the Ordnance Department for the years 1817, '18, '19, '20, and '21, and as much as can be shown for the year 1822; and also the number and local position of each of the armories, arsenals, and magazines of the United States; the total expense of constructing and repairing the same, up to the year 1821; the number of cannon and other arms annually made at each; and the expenses of each armory and arsenal for each year, from 1816 to 1821, inclusive; I herewith transmit a report from the Secretary of War, accompanied by such documents as will be found to contain the desired information.

JAMES MONROE.

DEPARTMENT OF WAR, *December* 30, 1822.

The Secretary of War, to whom was referred the resolution of the House of Representatives of the 8th of January, 1822, requesting the President of the United States "to cause to be laid before the House a statement, showing the amount expended for the current expenses of the Ordnance Department during the years 1817, 1818, 1819, and 1820, and as much as can be shown of said expenditures for the year 1821; with the particular items for which the money was expended, the place where, and the persons to whom paid; what quantity of timber has been procured for gun-carriages and caissons, its cost annually, and where deposited; the quantity of ordnance of every kind that has been provided during those years, or paid for; the sums expended in the purchase of sites for arsenals since the peace; the cost of the buildings erected thereon; and whether all those arsenals are necessary for the service of the United States;" and that of the 7th of May, 1822, requesting the President of the United States "to cause to be laid before the House a report, showing the number and local position of each of the armories, arsenals, and magazines of the United States; the time at which each was established, and the total expense of constructing and repairing the same, up to the end of the year 1821; also, the whole number of cannon and other arms made annually at each armory and arsenal, from its establishment to the end of the said year; also, an exhibit, in detail, of the expenses of each armory and arsenal, for each year, from 1816 to 1821, inclusive, showing, first, the gross amount of money expended at each, within each year; second, the separate object to which the expenditure was applied; third, the contracts and purchases made at each within each year, by whom and with whom, whether publicly or privately, with or without public notice, for what articles or materials, the amount of each contract for all purchases and the amount given therefor, the names of all concerned as principals, agents, and securities, their places of residence, and the failures which may have occurred in any contract; fourth, the whole number of arms and equipments transmitted to each State and Territory in the Union, under the act of Congress for arming the whole body of the militia of the United States; fifth, the whole number of cannon, arms, equipments, and munitions of war of every kind, distinguishing the different kinds, now belonging to the United States, and where placed; sixth, the annual expense of transporting ordnance and ordnance stores from the places at which they were made or purchased, in the Atlantic States, to the places at which they were to be delivered or used, in the Western States or Territories, specifying the several descriptions of arms and munitions so transported, and the cost thereof when purchased; the whole so arranged as to exhibit clearly the annual expenditure of the annual appropriation for each specific object;" as well as the resolution of the 17th of December, 1822, requesting the President of the United States "to cause to be laid before this House a statement, showing the amount expended for the current expenses of the Ordnance Department during the years 1817, 1818, 1819, 1820, and 1821, and as much as can be shown of said expenditure for the year 1822; with the particular items for which the money was expended, the place where, and the persons to whom paid; what quantity of timber has been procured for gun-carriages and caissons, its cost annually, and where deposited; the quantity of ordnance of every kind that has been procured during those years, or paid for; and the whole amount of the arms of every description, now belonging to the United States; the sums expended in the purchase of sites for arsenals since the peace; the cost of the buildings erected thereon; and whether all those arsenals are necessary for the service of the United States," has the honor to transmit herewith the report of the lieutenant colonel of ordnance, and those of the Second and Third Auditors of the Treasury, which contain the information required, with the exception of the "expenditure of the Ordnance Department for the year 1822," which will be transmitted as soon as prepared.

All which is respectfully submitted:

J. C. CALHOUN.

The PRESIDENT OF THE UNITED STATES.

magazines of the United States; the time at which each was established, and the total expense of constructing and repairing the same, up to the end of the year 1821; also, the whole number of cannon and other arms made annually at each armory and arsenal, from its establishment to the end of the said year; also, an exhibit, in detail, of the expenses of each armory and arsenal, for each year, from 1816 to 1821, inclusive, showing, first, the gross amount of money expended at each, within each year; second, the separate object to which the expenditure was applied; third, the contracts and purchases made at each within each year, by whom and with whom, whether publicly or privately, with or without public notice, for what articles or materials, the amount of each contract for all purchases and the amount given therefor, the names of all concerned as principals, agents, and securities, their places of residence, and the failures which may have occurred in any contract; fourth, the whole number of arms and equipments transmitted to each State and Territory in the Union, under the act of Congress for arming the whole body of the militia of the United States; fifth, the whole number of cannon, arms, equipments, and munitions of war of every kind, distinguishing the different kinds, now belonging to the United States, and where placed; sixth, the annual expense of transporting ordnance and ordnance stores from the places at which they were made or purchased, in the Atlantic States, to the places at which they were to be delivered or used, in the Western States or Territories, specifying the several descriptions of arms and munitions so transported, and the cost thereof when purchased; the whole so arranged as to exhibit clearly the annual expenditure of the annual appropriation for each specific object;" as well as the resolution of the 17th of December, 1822, requesting the President of the United States "to cause to be laid before this House a statement, showing the amount expended for the current expenses of the Ordnance Department during the years 1817, 1818, 1819, 1820, and 1821, and as much as can be shown of said expenditure for the year 1822: with the particular items for which the money was expended, the place where, and the persons to whom paid; what quantity of timber has been procured for gun-carriages and caissons, its cost annually, and where deposited; the quantity of ordnance of every kind that has been procured during those years, or paid for; and the whole amount of the arms of every description, now belonging to the United States; the sums expended in the purchase of sites for arsenals since the peace; the cost of the buildings erected thereon; and whether all those arsenals are necessary for the service of the United States," has the honor to transmit herewith the report of the lieutenant colonel of ordnance, and those of the Second and Third Auditors of the Treasury, which contain the information required, with the exception of the "expenditure of the Ordnance Department for the year 1822," which will be transmitted as soon as prepared.

All which is respectfully submitted:

J. C. CALHOUN.

The PRESIDENT OF THE UNITED STATES.

SIR: ORDNANCE DEPARTMENT, *December* 30, 1822.

In answer to the resolution of the House of Representatives of the 17th instant, I have the honor to report that a statement of "the whole amount of the arms of every description now belonging to the United States," is contained in the papers marked H and I, which were communicated with my report of the 27th instant, and that all other statements required by the resolution which appertains to this department to furnish, is contained in my report of the 28th instant, and the papers therein mentioned; to which reports and statements I beg leave to refer, as containing all the information in possession of this department which is required by the resolution.

I have the honor to be, sir, very respectfully, your obedient servant,

G. BOMFORD, *Lieut. Col. on ordnance duty.*

Hon. J. C. CALHOUN.

SIR: ORDNANCE DEPARTMENT, *December* 27, 1822.

I have the honor to communicate herewith sundry statements which contain the information required by the resolution of the House of Representatives of the 7th of May last, as far as the same can be furnished by this department.

Statement A shows the number and local position of each of the arsenals and magazines of the United States, the time at which each was established, and the total expense of constructing and repairing the same up to the close of the year 1821; also, the sums expended in the purchase of sites for arsenals since the peace, and the cost of the buildings erected thereon.

The sums expended in the construction and repairs of arsenals from 1799 to the close of the late war amount to - - - - -	$275,787 78
The sums expended in the purchase of sites for arsenals since the peace amount to -	26,201 33
And the cost of the buildings erected since the peace amounts to - -	974,782 95
Total amount expended in building and repairing arsenals from 1799 to 1821, inclusive, and in purchasing sites for arsenals since the peace, - - -	$1,276,772 06

This statement has been prepared from the separate reports of the Second and Third Auditors. It is considered better thus to blend in one statement these separate reports, as the information required can by this means be presented at one view and in a more condensed form.

Statement B exhibits the annual expenditures at the armory at Springfield, Massachusetts, for the purchase of land, the construction and repair of buildings, the manufacture and repair of arms, and for miscellaneous purposes, from the year 1795 to 1821, inclusive; also, the number of arms made and repaired therein during the same period.

Statement C is an appendage to the foregoing, and exhibits the present state of the Springfield armory, the value of the land, the number and value of the buildings, and other permanent improvements erected thereon; also, the value of the machinery, tools, and materials on hand.

The total amount expended at this armory from 1795 to 1821, on account of permanent improvements, is	$134,623 69
On account of the manufacture and repair of arms,	2,335,160 95
On account of miscellaneous objects,	29,094 54
Total amount expended,	$2,498,879 18

The number of arms made and repaired at this armory during the same period is as follows, viz:

New muskets manufactured,	178,759
New rifles and carbines manufactured,	2,452
Damaged muskets repaired,	46,325
Total made and repaired,	227,536

The total value of arms made and repaired is estimated to be equal to the manufacture of 192,751 new muskets.

Statements D and E contain information similar to the foregoing respecting the armory at Harper's Ferry, Virginia.

The total amount expended at this armory from 1799 to 1821, inclusive, on account of permanent improvements, is	$366,180 01
On account of the manufacture and repair of arms,	2,171,490 85
For miscellaneous objects,	63,438 49
Total amount expended,	$2,601,109 35

The number of arms made and repaired at this armory during the same period is as follows, viz:

New muskets manufactured,	119,911
New rifles, pistols, and other arms manufactured,	23,884
Damaged arms repaired,	12,830
Total made and repaired,	156,625

The total value of arms made and repaired at this armory is estimated to be equal to the manufacture of 151,550 new muskets.

The present value of the armory at Springfield, including, with the land and sixty-six buildings, the machinery, tools, and stock on hand, is estimated at	$251,857 50
The armory at Harper's Ferry, consisting of one hundred and thirteen buildings, estimated as above, is valued at	539,442 79
Total value of the two armories,	$791,300 29

The armory at Harper's Ferry is more extensive than that at Springfield. The former could employ about one hundred more workmen than the latter. The number employed at each at present is, however, about the same, viz. 260.

The report of the Third Auditor embraces a part of the details given in the foregoing statements relative to the armories. By the same report it appears that the data upon which its accompanying statements were founded were very defective. Recourse was therefore had by this department to the books and papers at the armories; and the statements accompanying this report have been prepared from documents furnished by the superintendents of the armories, and are believed to be more accurate than any which could have been prepared from other sources.

No cannon have been made at the armories; those establishments are employed in the manufacture and repair of small arms only. No cannon or other arms have been made at the arsenals. The arsenals are used as depots for the collection and preservation of artillery, arms, ammunition, and military supplies generally, and for the fabrication of gun-carriages and other artillery equipments, for the preparation of ammunition, and for the repair of arms.

An exhibit, in detail, of the expenses of each armory for "each year, from 1816 to 1821, inclusive, showing the gross amount of money expended at each within each year, and the separate object to which the expenditure was applied," is contained in the statements B and D above mentioned. A similar exhibit in relation to each arsenal is contained in the report of the Second Auditor.

In answer to the third head of inquiry, requiring an exhibit of "the contracts and purchases made at each within each year, by whom, with whom," &c., I have to state that the materials and supplies for the armories and arsenals are generally procured in small quantities, under the direction of their respective superintendents or commanding officers, by open purchase or by special contract, as the exigencies of the service require. The quantities of supplies purchased, the amount paid therefor, and the names of the persons from whom purchased, are stated in the report of the Second Auditor.

A greater quantity of supplies is required at the armories than at the arsenals, and the articles required are of a more fixed and uniform character; engagements for regular supplies are therefore made at the armories to a greater extent than at the arsenals. I communicate herewith a report of the superintendent of the armory at Springfield, (marked F,) which contains the details required under this head. The superintendent of the armory at Harper's Ferry reports that the supplies required at that armory have been procured on contracts made by him; and as no advances have been made on any contracts, no securities have been required; and as the articles were never paid for until they were delivered at the armory, no losses have been sustained by the United States.

The paper marked G contains a statement of the "number of arms and equipments transmitted to each State and Territory in the Union, under the act of Congress for arming the whole body of the militia," since the 1st of January, 1816.

Statements H and I exhibit "the whole number of cannon, arms, equipments, and munitions of war of every kind now belonging to the United States, and where placed," taken from the latest returns on file in this department. Statement H contains the returns from the fortifications, and statement I the returns from the arsenals and depots, with a recapitulation showing the total number or quantity of each article on hand in the United States.

The annual expense of transporting "ordnance and ordnance stores from the places at which they were made or purchased, in the Atlantic States, to the places at which they were to be delivered or used, in the Western States or Territories, specifying the several descriptions of arms and munitions so transported, and the cost thereof where purchased," it was supposed would be furnished by the Auditors in whose offices the accounts for such expenditures are settled. But it appears by the report of the Third Auditor that a correct statement cannot be prepared, owing to the loss of accounts, which were burned by the enemy, and to other causes which are specified in his report. It was therefore considered proper, under these circumstances, to have recourse to the quarterly returns of military stores received and issued, although those returns furnish no data for ascertaining the cost of transporting the stores.

The returns referred to are from the arsenal at Pittsburg, through which place most of the military supplies for the western country have passed; and they embrace the period from 1813 to 1821, inclusive. From these data two statements (marked K and L) have been prepared, which specify the different kinds of articles transported, and the places from and to which they were sent.

From these statements, and from one for the year 1812, prepared by the Third Auditor, it appears that, from the commencement of the late war up to the close of the last year, there have been transported from the seaboard (including those sent from Harper's Ferry) to Pittsburg 49,500 muskets, 6,098 rifles, and other small arms, amounting to 12,940, making the total of small arms 68,538; and that there have been transported in like manner to the same place 14 pieces of artillery mounted complete, 2,500 sets of accoutrements, 381,400 flints, and 141,000 pounds of powder.

It appears also that, during the same period, the following articles were transported from Pittsburg to the Western States and Territories, viz: 36,687 muskets, 2,429 rifles, 4,570 pistols, sabres, &c., making a total of small arms of 43,686; also, 5,770 sets of accoutrements, 117,200 flints, 3,445,700 musket cartridges, and 165,333 pounds of powder; also, 108 cannon and howitzers, with 99 field artillery carriages, 29,079 cannon balls and shells, weighing about 174 tons, and 8,500 rounds of fixed ammunition for artillery.

All the cannon, artillery carriages, and cannon balls, except a small quantity forwarded at the commencement of the war, were manufactured at Pittsburg. All the powder, with the same exception, and all the lead, were procured in Kentucky and Missouri. All the small arms and flints required for the public service in the western country have been forwarded from the Atlantic States.

I have the honor to be, sir, very respectfully, your obedient servant,

GEO. BOMFORD, *Lt. Col. on ordnance duty.*

Hon. J. C. CALHOUN.

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AMERICAN STATE PAPERS, MILITARY AFFAIRS, II, p. 475.

SIR: ORDNANCE DEPARTMENT, *December* 28, 1822.

In answer to that part of the resolution of the House of Representatives of the 8th of January last, which inquires "whether all the arsenals erected on sites purchased since the peace are necessary for the service of the United States," I have the honor to report that all those arsenals are deemed necessary and indispensable for the safe keeping and proper preservation of the arms and other military stores now on hand. Most of those arsenals already contain as great a quantity of military stores as they are capable of containing, consistent with such an order of arrangement as is indispensable for their examination and preservation.

All other information required by the resolution, and which appertains to this department to furnish, is contained in the statements which accompanied my report of the 27th instant, made in pursuance of the resolution of the 7th of May last, viz: Statement I "shows the quantity of timber for gun-carriages and caissons on hand, and the places where deposited." Statement A, which has been prepared from the reports made by the Second and Third Auditors, shows "the sums expended in the purchase of sites for arsenals since the peace, and the cost of the buildings erected thereon;" to which report and statements I beg leave respectfully to refer.

All the statements required by that resolution relative to expenditures must necessarily be prepared from the individual accounts of the disbursing officers, and which can be done only by the Auditor in whose office those accounts are settled and filed.

I have the honor to be, sir, very respectfully, your obedient servant,

GEO. BOMFORD, *Lt. Col. on ordnance duty.*

The Hon. JOHN C. CALHOUN.

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A.

Statement of the number and local position of the arsenals and magazines of the United States, the time at which each was established, and the annual expense of constructing and repairing the same, up to the end of the year 1821; *also, of the sums expended in the purchase of sites for arsenals since the peace.*

WHERE SITUATED.	AMOUNT EXPENDED AT EACH ARSENAL IN THE CONSTRUCTION AND REPAIRS OF BUILDINGS IN THE FOLLOWING YEARS:										
	1799.	1800.	1801.	1802.	1803–4.	1805 to '8.	1809.	1810–11.	1812.	1813.	1814.
ARSENALS AND MAGAZINES.											
At Philadelphia, on the Schuylkill, near the city,	12,695 60	94,709 24	32,324 37	6,615 55	-	-	-	-	1,796 76	524 24	
At Newport, Kentucky, on the Ohio river, opposite Cincinnati,	-	-	-	-	10,722 35	15,874 72	4,696 89	133 36			
At Rome, New York, on the canal joining the waters of the Hudson and Lake Ontario,	-	-	-	-	-	-	-	-	-	755 91	1,347 95
At Watervliet, New York, on the Hudson, seven miles above Albany,	-	-	-	-	-	-	-	-	-	-	71,363 94
At Pittsburg, Pennsylvania, on the Allegany river, two miles above the city,	-	-	-	-	-	-	-	-	-	-	22,226 90
At Watertown, Massachusetts, on Charles river, six miles from Boston,											
At Frankford, Pennsylvania, on Frankford creek, six miles from Philadelphia,											
Near Baltimore, Maryland, on the western turnpike, eight miles from the city,											
At Greenleaf's Point, District of Columbia, and magazine at the Little Falls of the Potomac,											
Near Richmond, Virginia, on James river, twelve miles above the city,											
Near Augusta, Georgia, on Savannah river, two miles from the city,											
At Baton Rouge, on the Mississippi river, one hundred and twenty-five miles from New Orleans,											
At Detroit, Michigan Territory, on Detroit river,											
SITES FOR ARSENALS.											
At Waterford, Pennsylvania, on the head waters of the Allegany, fourteen miles from Lake Erie,											
At Vergennes, Vermont, on Otter creek, adjoining the city,											
Total dollars,	12,695 60	94,709 24	32,324 37	6,615 55	10,722 35	15,874 72	4,696 89	133 36	1,796 76	1,280 15	94,938 79

1828 56 1 ASP MA II 477

A—Continued.

WHERE SITUATED.	AMOUNT EXPENDED AT EACH ARSENAL IN THE CONSTRUCTION AND REPAIRS OF BUILDINGS IN THE FOLLOWING YEARS:							SITES FOR ARSENALS SINCE THE PEACE.		Total amount expended for each arsenal, including the purchase of sites since the peace.
	1815.	1816.	1817.	1818.	1819.	1820.	1821.	Date of purchase.	Cost.	
ARSENALS AND MAGAZINES.										
At Philadelphia, on the Schuylkill, near the city,	-	-	-	-	-	-	-	-	-	148,665 76
At Newport, Kentucky, on the Ohio river, opposite Cincinnati,	-	3,063 97	1,306 22	130 05	-	-	-	-	-	35,927 56
At Rome, New York, on the canal joining the waters of the Hudson and Lake Ontario,	15,295 50	17,106 52	75 94	287 62	186 28	326 05	-	July 10, 1816,	1,572 73	36,954 50
At Watervliet, New York, on the Hudson, seven miles above Albany,	5,152 26	2,372 81	9,269 00	11,276 40	-	4,156 25	-	-	-	103,590 66
At Pittsburg, Pennsylvania, on the Allegany river, two miles above the city,	59,615 00	62,316 06	39,773 29	9,296 77	10,244 68	338 60	156 60	-	-	203,967 90
At Watertown, Massachusetts, on Charles river, six miles from Boston,	-	41,232 70	37,671 37	38,671 86	24,583 61	10,784 89	-	Oct. 8, 1816, / June 6, 1818,	2,099 38 / 3,090 84	158,134 65
At Frankford, Pennsylvania, on Frankford creek, six miles from Philadelphia,	-	9,578 82	25,512 44	4,855 85	10,065 00	2,500 00	2,161 10	May 27, 1816,	7,680 75	62,353 96
Near Baltimore, Maryland, on the western turnpike, eight miles from the city,	-	18,327 86	62,775 37	2,045 95	-	-	-	June 18, 1816,	895 13	84,044 31
At Greenleaf's Point, District of Columbia, and magazine at the Little Falls of the Potomac,	-	15,586 88	13,519 65	358 83	1,328 76	421 15	248 02	Sept. 30, 1815,	1,000 00	32,463 29
Near Richmond, Virginia, on James river, twelve miles above the city,	-	68,650 97	43,089 10	58,715 09	10,344 98	2,248 69	-	Sept. 25, 1815,	4,312 50	187,361 33
Near Augusta, Georgia, on Savannah river, two miles from the city,	-	-	897 00	38,644 92	49,060 02	31,110 01	40,843 54	Dec. 9, 1816, / July 4, 1820,	2,500 00 / 850 00	163,905 49
At Baton Rouge, on the Mississippi river, one hundred and twenty-five miles from New Orleans,	-	-	-	-	18,425 33	24,956 04	3,944 36	-	-	47,325 73
At Detroit, Michigan Territory, on Detroit river,	-	-	-	-	8,751 17	855 34	270 41	-	-	9,876 92
SITES FOR ARSENALS.										
At Waterford, Pennsylvania, on the head waters of the Allegany, fourteen miles from Lake Erie,	-	-	-	-	-	-	-	April 7, 1818,	1,200 00	1,200 00
At Vergennes, Vermont, on Otter creek, adjoining the city,	-	-	-	-	-	-	-	Oct. 8, 1816,	1,000 00	1,000 00
Total dollars,	80,062 76	238,236 59	233,889 38	164,283 34	132,989 83	77,697 02	47,624 03	-	26,201 33	1,276,772 06

RECAPITULATION.

Expended in the construction and repairs of arsenals from 1799 to 1814, inclusive,	$275,787 78
Expended in the construction and repairs of arsenals from 1815 to 1821, inclusive,	974,782 95
Expended in the purchase of sites for arsenals since the peace,	26,201 33
	$1,276,772 06

ORDNANCE DEPARTMENT, *December* 26, 1822.

GEORGE BOMFORD, *Lieutenant Colonel on ordnance duty.*

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B.

Statement of the expenditures of the United States' Armory at Springfield, Massachusetts, and of the arms made and repaired therein, from its establishment to the close of the year 1821.

YEARS.	AMOUNT EXPENDED.							ARMS MADE AND REPAIRED.										REMARKS.
								MADE.							REPAIRED.			
	For land, including mill seats.	Buildings, mill-dams, canals, and other permanent improvements.	Repairs of buildings, mill-dams, &c.	Total for land, buildings, &c.	For the manufacture and repair of arms.	Miscellaneous expenses, not included in the foregoing.	Total amount expended.	Muskets.	Rifles.	Pistols.	Carbines.	Ball screws.	Screw drivers.	Spring vices.	Muskets.	Value of repaired arms in new muskets.	Total value of arms made and repaired, estimated in new muskets.	
1795	100 00	-	25 00	425 00	4,070 75	-	4,495 75	215										The item of "Miscellaneous expenses" is for disbursements made at the armory, for purposes not connected with the product of the establishment, viz:
1796	-	-	100 00	100 00	15,298 25	-	15,398 25	838										Value of parts of work, tools, &c. prepared and sent to distant arsenals for repairing arms, - $20,985 83
1797	-	-	120 00	120 00	18,743 80	-	18,863 80	1,028										Amount paid to inspectors while employed in inspecting arms made by private contract, and other expenses connected therewith, - - - - 5,106 71
1798	313 33	1,934 88	125 00	2,403 21	16,754 19	-	19,157 40	1,044										Amount paid for arm chests, and for the transportation of arms, 3,002 00
1799	-	2,395 62	514 00	2,909 62	81,389 61	-	84,299 23	4,595										Total, $29,094 54
1800	-	328 95	360 00	688 95	64,240 49	-	64,929 44	4,862										
1801	509 00	1,627 25	300 00	2,436 25	47,892 69	-	50,328 94	3,205										
1802	-	-	390 89	390 89	29,751 66	-	30,142 55	1,358										
1803	-	1,157 18	185 00	1,342 18	31,098 23	-	32,440 41	4,775										
1804	-	2,275 29	240 00	2,515 29	40,741 22	-	43,256 51	3,566										
1805	-	1,325 79	245 00	4,570 79	41,376 32	-	45,947 11	3,535										
1806	-	7,562 50	240 00	7,802 50	34,803 44	-	42,605 94	2,018										
1807	300 00	9,461 49	300 00	10,061 49	45,269 89	-	55,331 38	5,692										
1808	-	31,094 09	600 00	31,684 09	71,490 62	-	103,174 71	5,870										
1809	2,153 03	14,916 72	620 00	17,689 80	104,779 51	-	122,469 31	7,070	-	-	600	-	-	-	1,086			
1810	-	1,175 37	680 00	1,855 37	129,715 10	-	131,570 47	9,700	-	-	602	-	-	-	1,406			
1811	200 00	-	618 86	818 86	113,685 00	-	114,503 86	12,020										
1812	2,050 00	9,071 64	690 00	11,811 64	128,166 39	-	139,978 03	10,140										
1813	-	993 71	602 00	1,595 71	113,890 32	-	115,486 03	6,920	-	-	-	-	-	-	11,105			
1814	-	-	544 30	544 30	101,771 42	-	102,315 72	9,585	-	-	-	-	-	-	5,475			
1815	-	-	1,000 00	1,000 00	149,466 37	1,000 00	151,466 37	7,279	-	-	-	-	-	-	21,145			
1816	-	1,272 00	1,200 00	2,472 00	151,618 38	1,123 50	155,213 88	7,199	-	-	-	-	-	-	5,125			
1817	3,475 00	1,500 00	2,000 00	6,975 00	150,015 06	-	156,990 06	13,015	-	-	-	-	-	-	454			
1818	-	1,000 00	2,000 00	3,000 00	158,782 10	11,155 59	172,937 69	12,000	-	1,000	-	-	-	-	110			
1819	200 00	2,500 00	1,636 00	4,336 00	162,813 61	5,494 16	172,643 77	12,000	250	-	-	-	12,000	-	80			
1820	-	6,174 75	3,000 00	9,174 75	162,716 29	7,444 61	179,335 65	13,200	-	-	-	1,300	13,000	1,300	259			
1821	-	4,500 00	1,400 00	5,900 00	164,820 24	2,876 68	173,596 92	13,000	-	-	-	1,300	13,000	1,300	80			
Tot.	$9,630 41	$105,257 23	$19,736 05	$134,623 69	$2,335,160 95	$29,091 54	$2,498,879 18	178,759	250	1,000	1,202	2,600	38,000	2,600	46,325	11,540	192,751	

In some of the years the expenditures and the products of the armory appear to be disproportionate. This has arisen partly by the purchase of a greater or a less quantity of stock and materials in a year than was consumed within it, and partly by the payment of debts in one year, which had been contracted in the year preceding.

C.

Statement of the number and dimensions of the buildings at the United States' Armory at Springfield, Massachusetts, together with the materials of which they are built, and their estimated value.

Number of buildings.	For what purpose built, or how occupied.	Dimensions in feet.	Number of stories.	Of what built.	Estimated value.
1	Dwelling house,	45 by 40	2	Brick,	
	Kitchen,	35 20	1	Brick,	$3,500
	Wood house,	30 17	1	Wood,	
1	Stable,	40 30	-	Wood,	200
2	Dwelling houses,	38 31	1	Wood,	1,300
1	Dwelling house,	60 21	1	Wood,	
	Wood house,	14 16	1	Wood,	850
1	Dwelling house,	43 34	2	Wood,	
	Wing,	20 16	1	Wood,	2,000
	Wood house,	44 18	1	Wood,	
1	Stable,	26 20	-	Wood,	200
1	Dwelling house,	60 30	2	Wood,	
	Kitchen,	28 24	1	Wood,	2,450
	Wood house,	48 14	1	Wood,	
1	Dwelling house,	68 34	2	Wood,	2,100
	Shed,	26 13	1	Wood,	
1	Dwelling house,	36 17	1	Wood,	250
1	Dwelling house,	38 32	1	Wood,	
	Shed,	22 9	-	Wood,	750
1	Dwelling house,	25 25	1	Wood,	450
1	Dwelling house,	20 14	1	Wood,	225
1	Dwelling house,	33 26	2	Wood,	
	L part,	24 19	2	Wood,	1,600
	Wood house,	24 20	1	Wood,	
1	Stable,	24 20	-	Wood,	50
1	Dwelling house,	35 30	2	Wood,	
	Wood house,	20 10	1	Wood,	675
1	Dwelling house,	37 28	2	Wood,	
	Kitchen,	24 15	1	Wood,	1,800
	Wood house,	30 17	-	Wood,	
1	Stable,	30 20	-	Wood,	125
1	Dwelling house,	32 18	2	Wood,	
	Kitchen,	24 23	1	Wood,	500
1	Stable,	24 20	-	Wood,	75
1	School house and shed,	24 18	1	Wood,	225
1	Dwelling house,	111 20	1	Wood,	550
1	Dwelling house,	110 20	1	Wood,	540
1	Store, (for provisions,)	40 18	2	Wood,	690
1	Dwelling house,	43 36	2	Wood,	2,500
1	Dwelling house,	38 32	2	Wood,	1,900
1	Dwelling house,	33 29	1	Wood,	
	Sheds,	33 10	-	Wood,	383
1	Dwelling house,	38 32	1	Wood,	250
1	Stable,	22 20	-	Wood,	60
1	Store room, offices, &c.	60 30	2	Brick,	4,500
1	Filing and stocking shop,	204 30	2	Brick,	16,560
1	Forging shop,	130 33	1	Brick,	6,186
1	Furnace,	32 16	1	Brick,	900
1	Coal house,	142 34	1	Wood,	500
1	File cutters' shop,	20 16	1	Wood,	150
1	Iron storehouse,	33 23	1	Wood,	275
1	Proof house, for proof barrels,	20 16	1	Wood,	510
1	Block house,	18 18	2	Wood,	500
1	Engine house,	24 16	1	Wood,	175
1	Work shop,	70 35	2	Brick,	3,500
1	Coal house,	70 30	2	Wood,	1,000
1	Coal house,	60 30	2	Wood,	1,500
1	Work shop,	65 32	2	Brick,	3,400
1	Case hardening shop,	30 16	1	Brick,	
	Store, for old shoes,	20 14	-	Wood,	800
1	Stone coal house,	23 25	1	Wood,	100
1	Iron store house,	29 16	1	Wood,	250
1	Welding shop,	78 49	1	Stone,	2,700
1	Trip hammer shop,	50 25	1	Stone,	1,225
1	Coal house,	70 35	1	Wood,	850
	Coal bin,	30 19	-	Wood,	190
1	Carpenters' shop,	26 18	1	Wood,	200
1	Iron store house,	41 18	1	Wood,	450
1	Work shop,	54 32	2	Brick,	2,400
1	Coal house,	40 25	-	Wood,	450
1	Iron store house,	24 20	1	Wood,	350
1	Stocking shop,	45 24	-	Wood,	
1	Forge,	30 30	-	Brick,	1,600
1	Coal house,	30 24	-	Wood,	500
1	Wood house,	50 10	-	Wood,	75
	Coal bin,	17 14	-	Wood,	125
1	Bridge with roof,	45 17	-	Wood,	175
1	Saw mill,	52 17	-	Wood,	200

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C.—Continued.

Number of buildings.	For what purpose built, or how occupied.	Dimensions in feet.	Number of stories.	Of what built.	Estimated value.
1	Arsenal,	100 by 45	2	Wood,	$2,500
1	Arsenal,	100 34	2	Brick,	7,300
1	Arsenal,	100 28	2	Wood,	3,000
1	Pay office,	22 18	1	Wood,	300
1	Wood house,	11 10	1	Wood,	50
1	Ordnance yard,	166 102	1½	Wood,	} 1,500
	Roof inside with brick pillars,	102 21	1	Wood,	
1	Magazine,	83 22	1½	Brick,	5,500
					$98,644

RECAPITULATION.

Dwelling houses and out-buildings,	$26,198 00
Workshops and appendages,	52,296 00
Arsenals and magazine,	20,150 00
	$98,644 00

Statement of the estimated value of the United States' Armory at Springfield, Mass., on the 31st December, 1821.

For 102¾ acres of land, with water privilege,	$9,630 41	
For 66 buildings, as per annexed statement,	98,644 00	
For mill-dams, flumes, and other permanent improvements,	9,276 00	
		$117,550 41
For machinery, &c.,	9,170 62	
For tools, horses, wagons, &c.,	8,642 11	
		17,812 73
For component parts of arms in progress,	38,454 98	
For unwrought materials on hand,	78,039 38	
		116,494 36
Amount,		$251,857 50

ORDNANCE DEPARTMENT, *November* 30, 1822.

GEO. BOMFORD, *Lieut. Col. on ordnance duty.*

33 60

D.

Statement of the expenditures at the United States' Armory at Harper's Ferry, Va., and of the arms made and repaired therein, from its establishment to the close of the year 1821.

Year.	AMOUNT EXPENDED. For land.	Buildings, mill-dams, canals, and other permanent improvements.	Repairs of buildings, mill-dams, &c.	Total for land, buildings, &c.	For the manufacture and repair of arms.	Miscellaneous expenses not included in the foregoing.	Total amount expended.	ARMS MADE AND REPAIRED. MADE. Muskets.	Rifles.	Pistols.	Pattern muskets.	Pattern rifles.	Pattern pistols.	Wall pieces.	Harpoon guns.	Torpedo locks.	Torpedolock boxes	Cannon locks.	Ball screws.	Screw-drivers.	Bullet moulds.	Wipers.	Rifle charges.	Spring vices.
1796	7,016 66	-	-	$7,016 66	-	-	$7,016 66																	
1797	10,000 00	-	-	10,000 00	-	-	10,000 00																	
1798	-	$3,028 53	-	3,028 53	$1,092 17	$247 73	4,368 43																	
1799	-	14,565 00	-	14,565 00	9,520 49	-	24,085 49																	
1800	-	19,552 33	$505 81	20,058 14	11,397 12	-	31,455 26																	
1801	-	6,558 20	728 69	7,286 89	19,914 92	-	27,201 81	293																
1802	-	4,698 92	1,512 97	6,211 89	23,222 44	-	29,434 33	1,172																
1803	-	4,905 13	1,715 32	6,620 45	22,076 95	-	28,697 40	1,018																
1804	-	4,159 25	2,624 56	6,783 81	24,529 90	-	31,313 71	156	772	-	4	4	-	-	-	-	-	-	772	-	772	772	772	
1805	-	2,696 15	2,117 34	4,813 49	26,448 68	-	31,262 17	-	1,716	-	-	-	-	-	-	-	-	-	1,716	-	1,716	1,716	1,716	
1806	-	12,329 20	1,856 43	14,185 63	26,869 49	853 68	41,908 80	136	1,381	-	-	-	8	-	-	-	-	-	1,381	-	1,381	1,381	1,381	
1807	-	8,543 50	1,584 16	10,127 66	29,365 62	1,138 00	40,631 28	50	146	2,880	-	-	-	1	-	-	-	-	116	-	116	146	116	-
1808	-	40,655 32	2,356 87	43,012 19	60,726 44	1,214 00	104,952 63	3,051	-	1,208	-	-	-	6										
1809	-	37,231 26	2,732 21	39,963 47	117,764 31	1,107 35	158,835 13	7,348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1810	-	11,192 90	2,486 55	16,679 45	126,362 85	2,000 00	145,042 30	9,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1811	-	9,125 06	3,048 36	12,173 42	124,957 17	2,575 00	139,707 59	10,000	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
1812	-	11,032 48	2,732 58	13,765 06	131,156 78	16,850 17	161,772 01	10,200	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-
1813	20,862 62	10,560 83	3,028 35	34,449 80	168,761 20	1,313 60	204,524 60	9,000	-	-	5	4	-	-	-	10	25	-	-	-	-	-	-	-
1814	-	1,681 23	3,755 91	5,437 14	131,696 02	6,877 65	144,010 81	10,400	1,600	-	-	-	-	-	-	-	-	-	1,600	-	1,600	1,600	1,600	-
1815	-	-	3,244 72	3,244 72	113,616 10	8,475 00	125,335 82	5,340	1,508	-	-	-	-	-	-	-	-	-	1,508	-	1,508	1,508	1,508	-
1816	-	2,981 12	4,758 88	7,743 00	217,043 87	2,500 00	227,286 87	6,416	2,052	-	5	-	-	-	-	-	-	-	2,052	-	2,052	2,052	2,052	
1817	-	4,939 61	4,360 25	9,299 89	157,113 39	1,486 94	170,900 22	8,513	2,726	-	6	-	-	-	-	-	-	6	2,726	-	2,726	2,726	2,726	
1818	5,000 00	4,563 24	4,340 33	13,903 57	171,921 80	7,109 37	193,021 74	9,892	2,700	-	8	9	-	-	-	-	-	-	2,700	6,750	2,700	2,700	2,700	
1819	-	9,554 05	4,782 27	14,336 32	162,079 14	2,600 00	179,015 46	7,020	3,324	-	2	2	6	-	-	-	-	-	3,324	12,500	3,324	3,324	3,324	
1820	-	16,934 50	5,164 52	22,099 02	152,589 00	1,500 00	176,188 02	9,856	1,793	-	-	-	-	-	-	-	-	-	1,793	10,000	1,793	1,793	1,793	3,768
1821	-	12,018 57	7,356 24	19,374 81	141,263 00	2,500 00	163,137 81	10,320	-	-	-	-	-	-	-	-	-	-	-	8,500	-	-	-	2,266
Tot.	42,877 28	256,509 41	66,793 32	366,180 01	2,171,490 85	63,438 49	2,601,109 35	119,911	19,718	4,088	30	19	18	7	4	40	25	6	19,718	37,750	19,718	19,718	19,718	6,034

Year.	ARMS MADE AND REPAIRED. REPAIRED. Muskets.	Rifles & carbines.	Pistols & swords.	Value of repaired arms in new muskets.	Total value of arms made and repaired, estimated in new muskets.
1796					
1797					
1798					
1799					
1800					
1801					
1802					
1803					
1804					
1805					
1806					
1807	5,500				
1808					
1809	590				
1810	691				
1811	1,392				
1812	2,113	531	581		
1813	612	231			
1814	518	16			
1815	23	2			
1816					
1817					
1818					
1819					
1820					
1821					
Tot.	11,469	780	581	3,208	151,550

Remarks.—In some of the years the expenditures and products of the armory appear to be disproportionate. This has arisen partly by the purchase of a greater or less quantity of stock and materials in a year than was consumed within it, and partly by the payments of debts in one year which had been contracted in the year preceding.

Note.—The item of "Miscellaneous expenses" is for disbursements made at the armory for purposes not connected with the product of the establishment, viz:

Amount paid for the transportation of arms,	$21,568 44
Amount paid the workmen employed in the arsenals in cleaning and preserving the arms,	11,750 00
Cost of arm chests for packing 120,000 stands of arms,	18,000 00
Value of parts of work and tools sent to distant arsenals for repairing arms,	12,120 05
	$63,438 49

ORDNANCE DEPARTMENT, *November* 30, 1822.

G. BOMFORD,
Lieut. Col. on ordnance duty.

E.

Statement of the estimated value of the United States' Armory at Harper's Ferry, Virginia, on the 31*st of December,* 1821.

For 1890 acres of land, including the ferry across the Shenandoah, -	$42,877 28	
For 113 buildings, as per annexed statement, - - - -	150,650 00	
For mill-dams, canals, bridges, and other permanent improvements, -	105,000 00	
		$298,527 28
For machinery, &c., - - - - - -	40,000 00	
For tools, horses, wagons, boats, &c., - - - -	20,000 00	
		60,000 00
For component parts of arms in progress, - - - -	50,000 00	
For unwrought materials on hand, - - - - -	108,000 00	
		158,000 00
For tools and machinery for making patent rifles, - - -	12,247 44	
For component parts of patent rifles in progress, - - -	10,668 07	
		22,915 51
Amount, - - - -	-	$539,442 79

ORDNANCE DEPARTMENT, *November* 30, 1822.

G. BOMFORD, *Lieutenant Colonel on ordnance duty.*

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American State Papers, Military Affairs, II, 482.

E.

Statement of the estimated value of the United States' Armory at Harper's Ferry, Virginia, on the 31st of December, 1821.

For 1890 acres of land, including the ferry across the Shenandoah, -	$12,377 28	
For 113 buildings, as per annexed statement, - - - -	150,650 00	
For mill-dams, canals, bridges, and other permanent improvements, -	105,000 00	
		$298,527 28
For machinery, &c., - - - - - -	40,000 00	
For tools, horses, wagons, boats, &c., - - - -	20,000 00	
		60,000 00
For component parts of arms in progress, - - - -	50,000 00	
For unwrought materials on hand, - - - - -	108,000 00	
		158,000 00
For tools and machinery for making patent rifles, - - -	12,247 44	
For component parts of patent rifles in progress, - - -	10,668 07	
		22,915 51
Amount, - - - - -	-	$539,442 79

ORDNANCE DEPARTMENT, *November* 30, 1822.

G. BOMFORD, *Lieutenant Colonel on ordnance duty.*

December 31, 1821

Statement of the number and dimensions of the buildings at the United States' Armory at Harper's Ferry, Virginia, together with the materials of which they are built, and their estimated value.

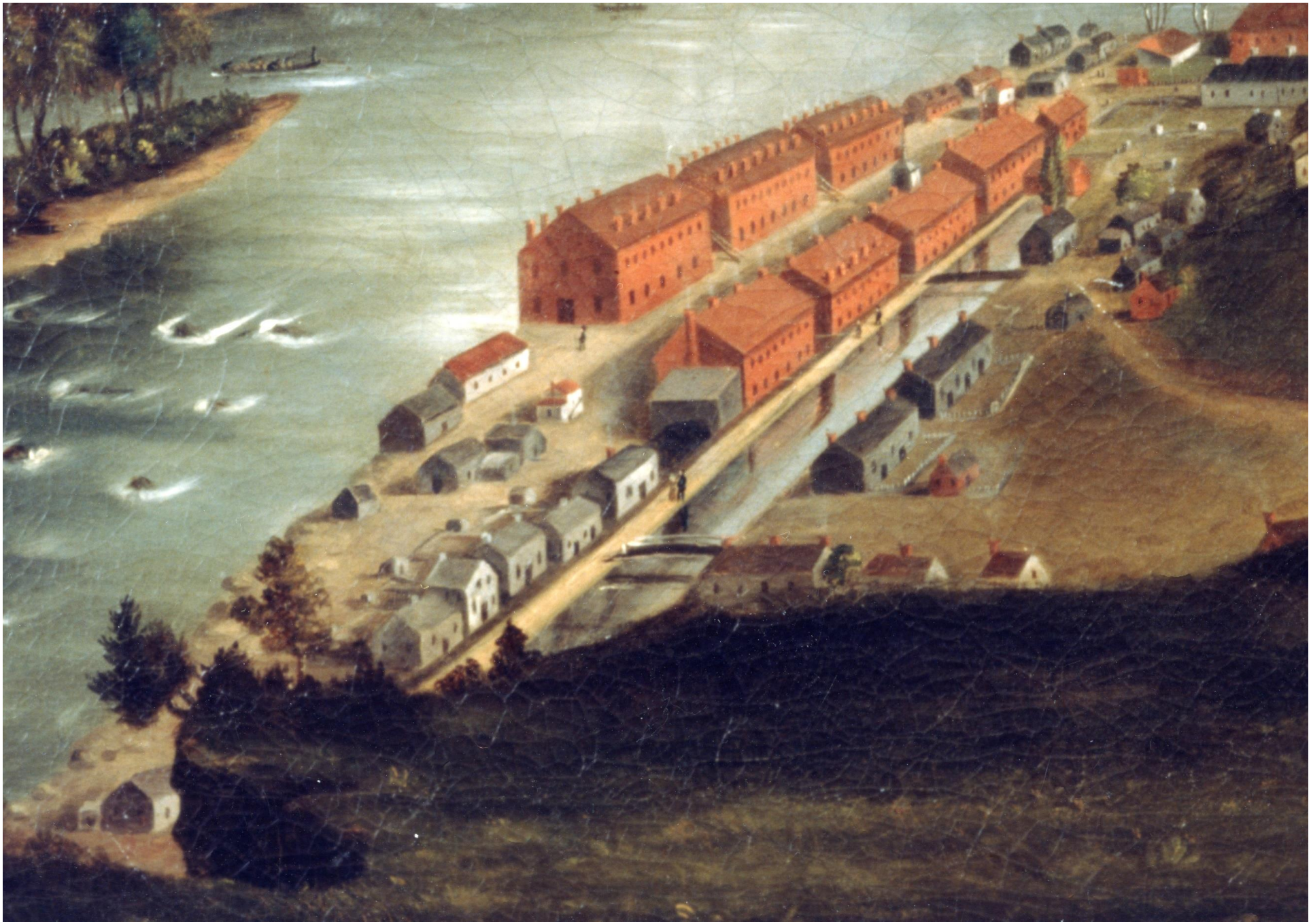
Number of buildings.	For what purpose built, or how occupied.	Dimensions in feet.	Number of stories.	Of what built.	Estimated value.
1	Work shop,	131 by 45	2	Brick,	$15,000
1	Work shop,	130 30	2	Brick,	12,000
2	Work shops,	120 30	2	Brick,	20,000
1	Work shop,	111 30	2	Brick,	8,000
2	1 work shop and 1 store-room,	80 30	2	Brick,	12,000
1	Arsenal,	125 32	2 & a cellar,	Brick,	12,000
1	Arsenal,	68 36	2	Brick,	8,000
1	Grinding mill,	85 40	1	Brick,	6,000
1	Furnace and forges,	45 45	1	Brick,	4,000
1	Work shop,	30 30	2	Stone,	1,000
1	Work shop,	50 16	1	Wood,	500
1	Dwelling house,	36 30	2 & a cellar,	Brick,	3,000
1	Dwelling house,	36 26	2 & a cellar,	Brick,	2,500
1	Dwelling house,	40 24	2 & a cellar,	Brick,	2,500
1	Dwelling house,	30 20	2 & a cellar,	Brick,	1,200
1	Dwelling house,	28 20	2	Brick,	1,000
1	Dwelling house,	64 21	2	Brick,	3,000
1	Dwelling house,	28 18	2	Brick,	700
2	Dwelling houses,	28 18	1	Brick,	1,000
1	Dwelling house,	48 18	1	Brick,	800
1	Dwelling house,	32 20	1	Brick,	600
11	Dwelling houses,	24 18	1	Brick,	4,400
1	Dwelling house,	36 24	2	Stone,	800
1	Dwelling house,	48 22	1	Stone,	800
1	Dwelling house,	28 22	1	Stone,	600
1	Dwelling house,	94 21	2	Wood,	2,000
1	Dwelling house,	70 18	2	Wood,	2,000
2	Dwelling houses,	40 20	2	Wood,	2,500
1	Dwelling house,	42 20	2	Wood,	1,000
2	Dwelling houses,	50 18	1	Wood,	1,200
1	Dwelling house,	36 18	2	Wood,	700
2	1 dwelling house and 1 school house,	40 20	1	Wood,	1,100
5	Dwelling houses,	36 18	1	Wood,	2,100
1	Superintendent's office,	18 18	2	Wood,	500
3	Dwelling houses,	24 18	1	Wood,	900
3	Dwelling houses,	28 16	1	Wood,	1,000
1	Dwelling house,	50 16	1	Wood,	400
2	Dwelling houses,	26 16	1	Wood,	600
4	Dwelling houses,	30 18	1	Wood,	1,450
1	Dwelling house,	48 20	1	Wood,	400
1	Dwelling house,	40 18	1	Wood,	400
1	Dwelling house,	32 20	1	Wood,	400
1	Dwelling house,	34 16	1	Wood,	300
1	Dwelling house,	26 18	1	Wood,	300
1	Dwelling house,	36 16	1	Wood,	300
2	Dwelling houses,	20 18	1	Wood,	550
1	Dwelling house,	32 14	1	Wood,	250
4	Dwelling houses,	30 16	1	Wood,	950
5	4 dwelling houses and 1 school house,	24 16	1	Wood,	1,100
1	Dwelling house,	28 18	1	Wood,	250
7	Dwelling houses,	18 16	1	Wood,	1,250
2	Dwelling houses,	18 18	1	Wood,	300
1	Dwelling house,	18 20	1	Wood,	150
1	Draw-grinding shop,	18 18	1	Wood,	150
1	Dwelling house,	16 14	1	Wood,	100

E—Continued.

Number of buildings.	For what purpose built, or how occupied.	Dimensions in feet.	Number of stories.	Of what built.	Estimated value.
5	Dwelling houses, - -	16 by 16	1	Wood, -	$500
1	Proof house, - - -	14 12	1	Wood and stone,	200
1	Timber shed, - - -	50 24	1	Wood, -	250
1	Tempering shop, - -	26 16	1	Wood, -	200
1	Engine-house and lodging room, -	16 12	2	Wood, -	300
1	Saw-mill, - - -	-	-	Wood and stone,	1,000
1	Magazine, - - -	18 18	1	Wood, -	150
1	Iron store house, - -	120 16	1	Wood and stone,	1,000
1	Charcoal house, - -	111 30	1	Wood, -	400
1	Stone coal-house, - -	30 30	1	Wood, -	400
1	Stable, - - -	36 24	1	Wood, -	250
113					$150,650

RECAPITULATION.

89 dwelling houses and out-buildings, - - - - - -	$47,600
21 work shops and appendages, - - - - - -	82,900
3 arsenals and magazine, - - - - - -	20,150
113	$150,650



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F.

[F being a statement, in detail, of contracts for stock, tools, and materials, for the armory at Springfield, Massachusetts, from January 1, 1816, to December, 1821, has been omitted as unimportant. The aggregate amount paid for those articles for six years is $59,653 22.]

NOTE TO F.

The contracts have generally been made at the superintendent's office, without public notice, except for coal. For this article, proposals have been publicly requested by notice in the papers. Relative to imported articles, I have made it a point to inquire of the most respectable hardware importers in New York and Boston, and request their prices for such articles as were wanted in the armory, and have made their lowest prices the standard for making the contract, taking into consideration the quality of the materials and the time of payment, and have generally procured them at the New York and Boston prices, delivered at the armory, and warranted. I have generally made the purchases with the stipulation that, if the articles did not prove good, they were to be returned. This is particularly the case with iron, steel, files, coal, and gun stocks, and all the heavy materials used in this establishment.

It has been an object to keep so large a supply of those articles on hand, that it might not be in the power of the sellers to impose on us an unreasonable price. By this management we have reduced the prices of most of the articles, viz. iron from $10 to $7 per cwt., charcoal from eight and nine cents to five and six cents per bushel, pit coal from fifty to forty cents per bushel, &c. &c.

It may be proper here to remark that, at the close of the year 1815, the armory was in debt $50,000, and but very little stock on hand. This debt has been paid, and the quantity of stock increased to a considerable amount, so that the establishment, at the close of 1821, it may be safely calculated, was in a better situation than in 1815, including debts and stock and materials, to the amount of more than $100,000, without taking into view the improvements made and labor performed during that time.

Relative to the contracts, as we have never made any payments in advance, and being careful to contract with responsible men, no bonds or sureties have been required; nor is it recollected that a single person has failed to fulfil the terms of his contract.

For the purpose of exhibiting the mode of transacting business at this armory, the following extract from the local regulations is respectfully submitted:

1. All the stock, tools, and materials, purchased by the superintendent, are delivered to the master armorer, who gives receipts therefor, one of which will accompany the bill, and be filed in the superintendent's office, and bear corresponding numbers and marks with the account.

2. The master armorer is to be held strictly responsible for all articles put under his charge, and deliver, at the beginning of every month, to the assistant master armorers and foremen, on their returns or requisitions, and the order of the superintendent, such articles as may be necessary in their respective departments, taking their receipts therefor, a duplicate of which will be handed to the superintendent.

3. The assistants and foremen will severally be held responsible for all articles received by them, and will deliver to the individual workmen under their charge such articles as may be necessary for their branches of work, who will be held strictly accountable for every article of public property delivered them.

4. Regular and accurate returns will be made, monthly, by the assistants and foremen, of all work executed by the men under their charge, and forwarded to the superintendent's office as soon after the close of the month as practicable, noting particularly, against each man's name, the quantity of work condemned, and the causes.

5. The assistants and foremen will make to the master armorer daily and monthly returns of all stock, tools, and materials received, and quarterly returns of all articles received, expended, and on hand; and semi-annual statements exhibiting the kind and quantity of labor performed by each individual, the amount of stock, tools, &c. on hand, showing the component parts of the musket executed under their direction, and how disposed of.

6. The master armorer will cause to be made to the superintendent consolidated returns and statements, immediately on the receipt of those above mentioned, keeping them distinct, that all articles on the hill, upper, middle, and lower water shops may be separately exhibited, including, in his return, all articles received by himself. He will also report, monthly, in writing, the quantity of work finished, and the number of arms, &c. delivered to the storekeeper.

F.

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3. The assistants and foremen will severally be held responsible for all articles received by them, and will deliver to the individual workmen under their charge such articles as may be necessary for their branches of work, who will be held strictly accountable for every article of public property delivered them.

4. Regular and accurate returns will be made, monthly, by the assistants and foremen, of all work executed by the men under their charge, and forwarded to the superintendent's office as soon after the close of the month as practicable, noting particularly, against each man's name, the quantity of work condemned, and the causes.

5. The assistants and foremen will make to the master armorer daily and monthly returns of all stock, tools, and materials received, and quarterly returns of all articles received, expended, and on hand; and semi-annual statements exhibiting the kind and quantity of labor performed by each individual, the amount of stock, tools, &c. on hand, showing the component parts of the musket executed under their direction, and how disposed of.

6. The master armorer will cause to be made to the superintendent consolidated returns and statements, immediately on the receipt of those above mentioned, keeping them distinct, that all articles on the hill, upper, middle, and lower water shops may be separately exhibited, including, in his return, all articles received by himself. He will also report, monthly, in writing, the quantity of work finished, and the number of arms, &c. delivered to the [illegible]

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7. Settlements of accounts will be made semi-yearly, in the following order: 1. Between the superintendent and master armorer; the vouchers for the latter will be the superintendent's order, and an assistant or foreman's receipt. 2. Between the master armorer and the assistants and foremen; the vouchers for the latter shall be receipts from the individual workmen, and parts of work corresponding with the property issued. 3. Between the assistants and foremen, and the individual workmen, in their respective departments; the vouchers for the latter shall be the parts of work executed by them, inspected, and approved, making the usual allowance for waste, scraps, &c.

8. It is to be understood that there is an assistant master armorer or foreman to each principal branch of the work, viz: one foreman of the forges; one foreman of the barrel welders, grinders and mounting forgers, and filers; one foreman of the lock filers; one foreman of the stockers, and one of the finishers. These men are held accountable for all stock, tools, &c. delivered them, (as stated in the foregoing,) and are responsible for the faithful and correct performance of the work. Each individual puts on the work he executes his own private mark; also the inspectors put on their mark when they examine and approve of the various parts of the musket, that, in case a defect is discovered, the delinquent may readily be found. The men to warrant their work.

All accounts are made out at the superintendent's office on the receipt of the master armorer, and accepted by him (the superintendent.) The disbursements are all made by the paymaster.

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1823- AMERICAN STATE PAPERS, MILITARY AFFAIRS, II, 513.

Treasury Department, Third Auditor's Office, *September 7*, 1822.

Agreeably to your request, accompanied by a resolution of the House of Representatives, dated 7th May, 1822, to furnish a report on so much of said resolution as refers to this office, I have the honor to hand you, herewith, statements of the expenditures made on account of buildings and repairs at the following armories and arsenals, so far as the same can be ascertained from the books and accounts in this office:

Abstract A exhibits a statement of the annual expenditures for buildings, canals, and repairs, at the armory at Harper's Ferry, between the years 1798 and 1815, amounting to - - - $204,700 77

And for expenditures at the armory at Springfield, Massachusetts, from the year 1798, to include the first quarter of the year 1815, - - - - - 103,234 31

Abstract B exhibits the annual expenditures for buildings and repairs at the following arsenals, viz:

Arsenal at Schuylkill, from the year 1799, to include the year 1813,	148,665 76
Arsenal at Pittsburg, Penn. for the year 1814, and first three quarters of 1815,	60,336 47
Arsenal at Rome, New York, for the years 1813, 1814, and 1815,	17,390 28
Arsenal at Watervliet, New York, for the years 1814 and 1815, - -	76,516 90
Arsenal at Newport, Ky. from 1803 to 1811, - -	31,497 89

Abstract A also exhibits a statement of the expenses attending the transportation of ordnance and ordnance stores from the Atlantic to the Western States, so far as the same could be collected from the accounts on file in this office. No distinct account having been kept for the transportation of ordnance to the Western States, nor, indeed, generally, the expenditure could only be ascertained by reference to the accounts of such disbursing officers as were known likely to have made payments for this purpose; and in this reference the data are extremely defective and uncertain, because the article transported is often not mentioned in the account paid for the transportation, and consequently cannot be ascertained; and as the accounts settled prior to the year 1813 were destroyed by the enemy, it will readily be conceived that the statement, in this respect, contains but a part of the expenses incurred for transportation. I deem it also proper to remark, that, as separate and distinct accounts for the armories and arsenals were kept only for a part of the periods included in the abstract, and the accounts settled prior to the year 1813 having been destroyed, the statements are necessarily made from the entries on the books, so far as they specifically designate the purpose, and the residue extracted from such accounts of the disbursing officers as recourse could be had to. The statements, therefore, although not embracing the full amount of expenditures for buildings and repairs at each of the armories and arsenals, are as perfect as the documents in this office enable me to make. The accounts for expenditures at the armories and arsenals, subsequent to the war, were adjusted in the office of the Second Auditor.

With great respect, your obedient servant,

PETER HAGNER, *Auditor*.

Hon. J. C. Calhoun, *Secretary of War*.

A.

Abstract of expenditures at the following armories for constructing and repairing the same, and for canals.

At Harper's Ferry.	
1798, - - - - -	$93,000 00
1799, - - - - -	10,393 63
1800, The entries on the books for this year do not designate the sums expended for the above purposes; and the accounts having been burnt, the sum is not ascertainable.	
1801, - - - - -	9,551 91
1802, - - - - -	6,211 59
1803, - - - - -	6,619 37
1804, - - - - -	6,753 81
1805, - - - - -	4,013 23
1806, - - - - -	14,103 62
1807, - - - - -	10,049 26
1808, - - - - -	13,011 01
1809, - - - - -	31,611 91
1810, - - - - -	16,498 36
1811, - - - - -	12,150 42
1812, - - - - -	10,503 54
1813, - - - - -	6,031 61
1814, - - - - -	1,466 20
1815, None to the end of the third quarter; thereafter the accounts settled in the office of the Second Auditor.	
Buildings, canals, and repairs, -	$204,700 77

SIR: TREASURY DEPARTMENT, THIRD AUDITOR'S OFFICE, *September* 7, 1822.

Agreeably to your request, accompanied by a resolution of the House of Representatives, dated 7th May, 1822, to furnish a report on so much of said resolution as refers to this office, I have the honor to hand you, herewith, statements of the expenditures made on account of buildings and repairs at the following armories and arsenals, so far as the same can be ascertained from the books and accounts in this office.

Abstract A exhibits a statement of the annual expenditures for buildings, canals, and repairs, at the armory at Harper's Ferry, between the years 1798 and 1815, amounting to - - - $204,700 77

And for expenditures at the armory at Springfield, Massachusetts, from the year 1798, to include the first quarter of the year 1815, - - - - - 105,254 31

Abstract B exhibits the annual expenditures for buildings and repairs at the following arsenals, viz:

Arsenal at Schuylkill, from the year 1799, to include the year 1813, - -	148,665 76
Arsenal at Pittsburg, Penn. for the year 1814, and first three quarters of 1815, - -	66,436 47
Arsenal at Rome, New York, for the years 1813, 1814, and 1815, - -	17,399 36
Arsenal at Watervliet, New York, for the years 1814 and 1815, - - -	76,516 20
Arsenal at Newport, Ky. from 1803 to 1811, - - - -	31,427 32

Abstract A also exhibits a statement of the expenses attending the transportation of ordnance and ordnance stores from the Atlantic to the Western States, so far as the same could be collected from the accounts on file in this office. No distinct account having been kept for the transportation of ordnance to the Western States, nor, indeed, generally, the expenditure could only be ascertained by reference to the accounts of such disbursing officers as were known likely to have made payments for this purpose; and in this reference the data are extremely defective and uncertain, because the article transported is often not mentioned in the account paid for the transportation, and consequently cannot be ascertained; and as the accounts settled prior to the year 1813 were destroyed by the enemy, it will readily be conceived that the statement, in this respect, contains but a part of the expenses incurred for transportation. I deem it also proper to remark, that, as separate and distinct accounts for the armories and arsenals were kept only for a part of the periods included in the abstract, and the accounts settled prior to the year 1813 having been destroyed, the statements are necessarily made from the entries on the books, so far as they specifically designate the purpose, and the residue extracted from such accounts of the disbursing officers as recourse could be had to. The statements, therefore, although not embracing the full amount of expenditures for buildings and repairs at each of the armories and arsenals, are as perfect as the documents in this office enable me to make. The accounts for expenditures at the armories and arsenals, subsequent to the war, were adjusted in the office of the Second Auditor.

With great respect, your obedient servant,

PETER HAGNER, *Auditor.*

Hon. J. C. CALHOUN, *Secretary of War.*

Sept. 7, 1822

A.

Abstract of expenditures at the following armories for constructing and repairing the same, and for canals.

	At Harper's Ferry.	
1798,		$3,000 00
1799,		15,382 62
1800,	The entries on the books for this year do not designate the sums expended for the above purposes; and the accounts having been burnt, the sum is not ascertainable.	
1801,		2,556 98
1802,		6,211 59
1803,		6,619 37
1804,		6,783 81
1805,		4,813 32
1806,		14,183 63
1807,		10,049 26
1808,		43,018 08
1809,		31,611 98
1810,		16,498 36
1811,		12,158 42
1812,		18,502 54
1813,		8,834 61
1814,		1,466 20
1815,	None to the end of the third quarter; thereafter the accounts settled in the office of the Second Auditor.	
	Buildings, canals, and repairs,	$204,700 77
	Armory at Springfield.	
1798,		$3,167 30
1799,		2,819 04
1800,		19,698 10
1801,	The journal entries for this year and a part of 1800 not designating the sums expended for building or repairs, and the accounts being burnt, the amount is not ascertainable.	
1802,		451 11
1803,		425 74
1804,		2,514 84
1805,		5,541 55
1806,		6,971 37
1807,		9,579 95
1808,		31,684 09
1809,		15,718 04
1810,		1,855 37
1811,		555 25
1812,		2,120 13
1813,		1,595 71
1814,		544 30
1815,	First and second quarters,	12 42
	The disbursements subsequently made at this arsenal were accounted for at the office of the Second Auditor.	
	Building and repairs,	$105,254 31

Armory at Springfield.

1795,	$3,167 30
1799,	2,019 04
1800,	19,688 16
1801, The journal entries for this year and a part of 1800 not designating the sums expended for building or repairs, and the accounts being burnt, the amount is not ascertainable.	
1802,	451 11
1803,	426 74
1804,	2,514 84
1805,	6,641 66
1806,	6,971 37
1807,	9,679 95
1808,	31,684 09
1809,	16,718 01
1810,	1,655 37
1811,	655 25
1812,	2,120 13
1813,	1,696 71
1814,	644 30
1815, First and second quarters,	12 42

The disbursements subsequently made at this arsenal were accounted for at the office of the Secretary

Statement of moneys expended for the transportation of ordnance and ordnance stores from the places at which they were made or purchased in the Atlantic States, to the places at which they were to be delivered or used in the Western States, as far as the same is ascertainable from the books of the Third Auditor of the Treasury.

Year.	Muskets and bayonets.	Rifles.	Cartridge boxes.	Cartridges.	Flints.	Pistols.	Horsemen's swords.	Carbines.		Dolls.	Cts.
1812	1,000	-	500	30,000	10,000	-	-	-	Harper's Ferry to Knoxville, Tennessee, -	1,982	99
	20,500	1,000	-	-	-	500	100	500	Harper's Ferry, as far as Pittsburg, Penn., -	12,442	83
1814	6,000	-	-	-	-	-	-	-	Harper's Ferry, as far as Pittsburg, Penn., -	4,295	65

TREASURY DEPARTMENT, THIRD AUDITOR'S OFFICE, *September* 7, 1822.

PETER HAGNER, *Auditor.*

Note by the Ordnance Department.—It appears by the arsenal returns that the arms above mentioned as having been forwarded in the year 1812, were all forwarded from Pittsburg during the same year, except 4,000 muskets.

DECEMBER 18, 1822.

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B.

Abstract of expenditures made on account of buildings and repairs at the following arsenals, ascertained from the books and accounts in the office of the Third Auditor of the Treasury.

Schuylkill, Pennsylvania.

	Amount.
1799,	$12,695 60
1800,	94,709 24
1801,	32,324 37
1802,	6,615 55

From 1803, to include the first quarter of 1812, the entries on the books do not designate any sums paid for repairs; and the accounts for that period having been burnt, if any repairs were made, the amount cannot be ascertained.

1812, in the last three quarters,	1,796 76
1813,	524 24

Subsequent to 1813, to include the first quarter of 1816, the accounts exhibit no expenditures for buildings and repairs, other than small contingent repairs, such as repairing glass, pumps, pavements, &c. After this period the accounts for expenditures at this arsenal were settled in the office of the Second Auditor.

Amount,	$148,665 76

Pittsburg, Pennsylvania.

1814,	$22,226 90
1815, three quarters of this year,	44,209 57

Subsequent to the third quarter of 1815, the accounts for expenditures at this arsenal were settled in the office of the Second Auditor.

Amount,	$66,436 47

Rome, New York.

1813,	$755 91
1814,	1,347 95
1815,	15,295 50
Amount,	$17,399 36

Watervliet, New York.

1814,	$71,363 94
1815,	5,152 26
Amount,	$76,516 20

Newport, Kentucky.

1803 and 1804,	$10,722 35
1805 to 1808,	15,874 75
1809,	4,696 89
1810 and 1811,	133 36

The accounts of the disbursing officer at Newport for expenditures at this arsenal subsequent to 1811 were adjusted in the office of the Second Auditor.

Amount,	$31,427 32

Arsenal near New York.

The expenditures for this arsenal not having been separately kept or designated in the accounts of the disbursing officers, but appearing to be included generally as expenses on the fortifications in the harbor of New York, the sums expended for buildings and repairs are, therefore, not ascertainable.

Arsenal at Greenleaf's Point.

The expenditures for the erection of this arsenal and for repairs were made subsequent to the war, the former buildings having been destroyed by the enemy; the accounts are to be found in the office of the Second Auditor.

TREASURY DEPARTMENT, THIRD AUDITOR'S OFFICE, *September* 7, 1822.

PETER HAGNER, *Auditor.*

Statement of the expenditures at the national armories, and of the arms made and repaired therein, during the year 1822.

	EXPENDITURES.				
	For land, buildings, canals, repairs, and other permanent improvements.	For the manufacture and repair of arms.	For miscellaneous purposes, not embraced in the foregoing.	On account of 1000 patent rifles in progress, but not yet completed.	Total am't expended.
Springfield, Massachusetts, -	$7,801 68	$174,033 49	$305 99	-	$182,141 16
Harper's Ferry, Virginia, - -	5,484 75	148,615 84	1,086 00	$8,010 73	163,197 32
Total, -	$13,286 43	$322,649 33	$1,391 99	$8,010 73	$345,338 48

STATEMENT—Continued.

	ARMS, &c. MADE AND REPAIRED.								
	MADE.								REPAIRED.
	Muskets.	Ball screws.	Wipers.	Screw drivers.	Spring vices.	Pattern musk's.	Sets of verifying instruments, for pattern muskets.	Arm chests.	Muskets.
Springfield, Massachusetts, -	13,200	1,440	2,200	13,200	1,320	30	10	659	220
Harper's Ferry, Virginia, -	10,000	-	-	5,594	-	32	32	500	
Total, -	23,200	1,440	2,200	18,794	1,320	62	42	1,159	220

ORDNANCE DEPARTMENT, *February* 13, 1823.

GEO. BOMFORD, *Lieut. Col. on ordnance duty.*

1819 Report 70 Military Affairs, II p. 538

17th CONGRESS.] No. 246. [2d SESSION.

ARMORY AT SPRINGFIELD.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, BY THE COMMITTEE ON MILITARY AFFAIRS, MARCH 3, 1823.

A description of the United States' Armory at Springfield, Massachusetts, with a statement exhibiting the number of arms manufactured and repaired, and the amount of expenditures annually, from the commencement of the establishment in 1795, *to the close of the year* 1817.

At Springfield, in the county of Hampden, and commonwealth of Massachusetts, the United States have an extensive establishment for the manufacture of arms. "The original site of this manufactory is also a military post, which is a perfectly level elevated plat, situated about half a mile east of the village, from which there is a gradual ascent, flanked on the north by a deep ravine, and on the south by a less considerable one, with an extensive plain spreading in the rear, the adjacent parts being uncovered, fronting on the brow of the declivity, and commanding an extensive and beautifully variegated landscape."

At the armory on the hill "there is one brick building, 204 by 32 feet, two stories high, divided into eight rooms, occupied by lock filers, stockers, and finishers. One brick forging shop, 130 by 32 feet, of one story, containing eleven double forges, used for forging the limbs of locks," breech pins, screw pins, ramrods, "and repairing tools." One brick building, 60 by 32 feet, two stories high, with a paved cellar under the whole, used for storing iron, steel, oil, &c.; the first story is occupied as offices for superintendent, master armorer, and clerks; the second story, forming a large and spacious hall, is devoted to religious worship, and as a chapel was dedicated to the service of God, on the 13th day of May, 1817, by the Rev. Titus Strong, of Greenfield. One building, 100 by 40 feet, two stories high, also of brick, for the deposite of arms; two military stores; a carpenter's shop; a file cutter's shop; a coal and proof house; one brick shop, fire proof, 32 by 16 feet, with three furnaces, one for hardening ramrods, one for nealing work, and one for a brass foundry; two stores for forged work, one for files, and seventeen dwelling houses. One pay office, ordnance yard, magazine, block house, and lumber yard. On the large shop first mentioned is a handsome cupola and bell, from which is an interesting view of Connecticut river and the surrounding country.

The aforesaid buildings are arranged northerly of the great State road leading to Boston, bordering on a large flat square piece of ground, fenced and set out with trees, around which is a road about 60 feet wide, leading to the several dwelling houses occupied by the officers and workmen; the whole assuming a handsome and regular appearance.

"The water works are situated about one mile southerly of the arsenal, in three different sites, denominated the upper, middle, and lower water shops, on an excellent stream, called Mill river, which falls into the Connecticut, and exhibits in a little distance the greatest assemblage of mills and other waterworks to be found in the State."

The whole comprises five workshops, twenty-eight forges, ten trip hammers, eighteen water wheels, nine coal houses, three stores, and five dwelling houses.

The upper works have one shop, 65 by 32 feet, two stories high, built of stone and brick; the lower story contains three water wheels, one for polishing and boring and milling bayonets, and two for grinding barrels, lock plates, mounting, and bayonets. The upper story contains two rooms, one for polishers of locks, barrels, mounting rods, and finish boring, &c.; the other for drilling locks, barrels, &c., milling and slitting screw pins, making screws and swivels, milling tumblers, turning bayonet sockets, &c. One stone shop, 75 by 30 feet, one story, containing one trip hammer and ten forges, (bellows blown by water,) eight of which are used for welding barrels; three dwelling houses, a store, four coal houses, and one case-hardening shop, 26 by 18 feet, one story.

The middle works have one stone shop, 84 by 45 feet, one story high, which contains six water wheels; attached to one are three trip hammers for welding barrels, which will strike four hundred blows in a minute each; the whole three may go at the same time, and each one may be stopped at pleasure; two wheels for trip hammers, one for grinding barrels, one for rough and smooth boring barrels, one for smooth boring barrels, nine forges (bellows blown by water) used for trip hammers, barrel welding, forging bayonets, and repairing tools. One stone shop, 50 by 23 feet, of one story, which also contains three water wheels for three trip hammers, and five forges, three for trip hammers and two for forging bayonets. One dwelling house, one store, four coal houses, and a carpenter's shop.

At the lower works, there is one shop, 55 by 32 feet, two stories high, the lower of hewn stone, the upper of brick; the lower story contains three water wheels and four forges, one wheel for trip hammer, one for grinding ramrods and mounting, and one for polishing; the forges are occupied for trip hammer and by mounting forges. The upper room is used by mounting filers, polishers, and for trimming, punching, and drilling. One dwelling house, store, and coal house. The United States also own a valuable mill-seat near the last mentioned works, with a saw mill, where may be erected two large water shops if necessary.

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In this establishment are employed from 240 to 250 workmen, who complete on an average about forty-five muskets daily. The works may be increased to almost any extent. The water privileges already owned by the United States will warrant the extension to thirty thousand stands annually.

This extensive manufactory is under the direction of a principal, who is styled superintendent, who has the chief management of the business of the armory; provides, contracts for, and purchases all stock, tools, and materials necessary for manufacturing arms; engages the workmen, determines their wages, and prescribes the necessary regulations for the local government of the establishment. To aid him in the important duties of the armory, there are allowed a master armorer, who manages the mechanical operations, and is held accountable for all stock, tools, and materials put under his charge for the use of the armory, and for the correct workmanship of the muskets, and a paymaster and storekeeper, whose duty it is to liquidate and pay all debts contracted by the superintendent for the armory, and receive the finished arms, for which he is held accountable, as well as for all other public property delivered him. Each of the above officers is allowed a clerk, to aid in keeping his accounts. There is also a foreman, or assistant master armorer, to each principal branch of the work, viz: one of forged work, one inspector of welded, bored, and ground barrels, mounting bayonets and ramrods; one of the lock filers; one of the stockers; and one of the finishers. They are severally held accountable for all stock, tools, and parts of work, delivered them for their respective departments, who severally hold the individual workmen responsible for all stock, tools, or parts of work delivered to them. Each assistant master armorer, or foreman, is inspector in their several branches, and is responsible for the faithful and correct performance of the work. Each individual puts on the work he executes his own private mark, as do the inspectors, when they examine and approve of the various parts of the musket. Thus, in case of any defect, the delinquent may readily be found. Monthly returns of work are made to the superintendent, from which the monthly pay-roll is made.

The establishment of this armory was by an act of Congress passed in 1794, and in 1795 the work commenced with about forty hands. At the end of December, 1817, there had been completed in this manufactory 128,559 new muskets, and 1,202 new carbines, and 45,790 repaired muskets, equal to 12,000 new muskets. Calculating the carbines to be equal to the same number of new muskets, (they cost much more, on account of the small number made,) makes the aggregate equal in labor and expense to 141,761 new muskets. The amount of purchase money for land, mill-seats, and for erecting water shops, machinery, workshops, stores, and buildings of every description, and repairs, is estimated at $155,500. The other expenses for the above period, exclusive of stock and parts of work on hand, amount to $1,553,100. Amount of stock, and parts of the muskets and pistols on hand, December 31, 1817, $111,545. Total amount of expenditures, from the commencement of the works, to December 31, 1817, is $1,820,120 18.

The situation of this establishment is remarkably pleasant and healthy; being sixty miles from the nearest seaport, in a thickly inhabited country, it is perfectly safe from an invading foe, and still has water communication to within a few rods of the armory. Materials for the manufacturing of arms may be obtained in great abundance, and on reasonable terms. The number of arms completed in the year 1817 exceeded 13,000, with an increase of the several parts of the musket; and the works are so arranged, that in the year 1818 15,000 stands may be made by the same number of hands, (250, including officers,) and for about the same expense. Good professional armorers, in considerable numbers, can at any time be added to the works, if necessary, for reasonable wages. The necessaries of life are abundant, and can at all times be procured at a moderate price.

On the whole, it is believed that there is not a situation in the United States where arms can be made for a less sum, and where so many important advantages combine, as renders this station eligible for a grand national establishment.

72 March 3, 1823
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Statement of arms made and repaired at the United States' Armory, Springfield, Massachusetts, from the first establishment of the armory, in 1795, *to the* 31*st December*, 1817, *inclusive; exhibiting the amount of expenditures for the same period, with the amount of stock and parts of work on hand at the close of the year* 1817.

Year.	No. of muskets manufactured.	No. of muskets repaired.	No. of short muskets repaired.	Whole No. repaired.	No. new carbines.	Amount of purchase money.	Expenses of buildings.	Expense of repairs.	Total amount of expenditures.	Amount of purchase money, cost of buildings, machinery, and repairs.	Amount of stock on hand, Dec. 31st, 1817.	Amount of parts of work on hand, Dec. 31, 1817.	Amount of stock and parts of work.	Amount of purchase money, expense of buildings, machinery, repairs, stock, & parts of work.	Actual expense for muskets.	No. of new muskets; the repaired are equal to	Whole No. of new muskets and carbines; the No. of new msk'ts repaired are equal to
1795,	245	-	-	-	-	$100 00	-	$25	$1,495 75								
1796,	838	-	-	-	-	-	-	100	15,398 25								
1797,	1,028	-	-	-	-	-	-	120	18,863 80								
1798,	1,044	-	-	-	-	343 33	-	125	19,157 40								
1799,	4,595	-	-	-	-	-	-	524	84,299 23								
1800,	4,862	-	-	-	-	-	-	360	64,921 94								
1801,	3,205	-	-	-	-	509 00	-	300	50,328 94								
1802,	4,358	-	-	-	-	-	-	180	30,142 55								
1803,	4,775	-	-	-	-	-	-	185	32,459 71								
1804,	3,566	-	-	-	-	-	-	240	43,312 64								
1805,	3,535	-	-	-	-	-	$3,200 00	245	45,937 25								
1806,	2,018	-	-	-	-	-	5,300 00	240	42,674 01								
1807,	5,692	-	-	-	-	300 00	-	300	55,304 64								
1808,	5,870	-	-	-	-	-	31,063 91	600	103,174 71								
1809,	7,070	1,086	-	1,086	600	2,153 08	12,309 69	620	122,469 31								
1810,	9,700	1,406	-	1,406	602	-	-	680	131,556 47								
1811,	12,020	-	-	-	-	200 00	-	650	111,151 26								
1812,	10,140	-	-	-	-	9,691 51	-	690	139,340 07								
1813,	6,920	11,105	-	11,105	-	-	700 00	602	104,958 48								
1814,	9,585	5,175	300	5,475	-	-	-	624	102,632 64								
1815,	7,279	15,715	5,430	21,145	-	-	-	1,000	157,456 37								
1816,	7,199	3,485	1,644	5,129	-	-	1,272 00	1,200	155,951 65								
1817,	13,015	454	-	454	-	3,475 00	1,500 00	2,000	†187,138 08								
						17,918 00*	53,754 45*										
Tot.	128,559	38,416	7,374	45,790	1,202	34,989 92	109,100 08	11,410	1,820,120 18	155,500 00	42,547 73	‡68,997 83	111,545 56	267,045 00	1,553,100	12,000	141,761

* These sums are estimated, there being no correct record of the expenses of buildings and purchase money, except as put down against each year.
† $25,211 10 due for debts contracted previous to 1817.
‡ Parts of rifle work sent to the armory at Harper's Ferry, in the year 1817, to the amount of $9,540 57, not included in this statement.

73 March 3, 1823
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SIR: U. S. ARSENAL, WATERVLIET, (N. Y.,) *November* 5, 1819.

In obedience to your command, I proceeded to the United States' armory at Springfield, Massachusetts, on the 12th of October, for the purpose of investigating the state and condition of that establishment; and, having completed that object, I returned to this post on the 26th of the same month. As the result of that investigation, I now beg leave to lay before you the following report:

After taking a general view of the place and works, I settled upon a plan of investigation in detail, which was, to separate the different subjects that required my attention into classes, and then to proceed to examine the subjects under each class distinctly. The whole subject appeared naturally to fall under the following twenty-four heads, viz:

1. General police of the post, and cleanliness of the shops.
2. Number of officers, under officers, clerks, duties, and pay.
3. Number of workmen, and prices paid for work.
4. General arrangement of workmen to the several branches of business.
5. Hours of work for jobbers and day laborers each day.
6. Process and method of executing the work generally.
7. Proof of barrels, whether according to regulations.
8. Quality of work, and of the arms when finished.
9. Number of arms manufactured per month.
10. Marking and packing the arms, whether according to regulations.
11. Preservation and condition of the arms, and of the ordnance and stores in charge of the storekeeper.
12. Method of purchasing stock and supplies, and prices paid for the same.
13. Economy in preserving, using, and expending the same.
14. Method of keeping and rendering the accounts for the same, by the superintendent, master armorer, assistant master armorers, foremen of shops, and workmen.
15. State and condition of the books, returns and papers of the same, and also of the storekeeper and paymaster.
16. State of the debts of the armory, and punctuality of payment.
17. Regulations for the government of the men, and the good order of the same; also, their general character.
18. Occupancy of the public houses and gardens.
19. Number of public teams and carriages employed or kept.
20. Condition of the public buildings, fences, &c.
21. Arrangement of the shops and machinery.
22. Improvements made since 1815 in the establishment, under the present superintendent.
23. Improvements contemplated, and within the power of the superintendent, without any special appropriation.
24. Improvements contemplated by the superintendent, requiring special appropriation of funds.

SUBJECT 1.

General police of the post, and cleanliness of the shops.

The police of the establishment is universally good; and, considering the nature of the business, (manufacturing,) much better than I had anticipated.

The general appearance is pleasing; and by the removal of some old buildings which were originally located without taste, and without a view to their proper position when the place should be enlarged to its present size, and by some further improvements in the fences, and painting, the main establishment, on the hill, will be beautiful and attractive to strangers.

The police generally, in and about the shops, is as good as the nature of the business will admit of. A further attention to that point I consider would be unprofitable.

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SUBJECT 2.

Number of officers, under officers, clerks, duties, and pay.

The number of principal officers employed is three, agreeably to the regulations of the Ordnance Department, sanctioned by the Secretary of War, viz:

1. One superintendent, Lieutenant Colonel Roswell Lee, late of the army. Pay one hundred dollars per month, and four rations per day, equal to $1,429 per annum. He is drawing forage for one horse, which he says is understood by the colonel of ordnance and by the Government. He is further allowed and occupies public quarters, a public office, and draws fuel for his office, and occupies a public garden. Estimating his forage at eight dollars per month, his quarters and garden at one hundred dollars per annum, his place is worth $1,688 a year. His office, and fuel for the same, cannot be considered an emolument, any more than the stationary for the same. His duties are explained by his title, and also in the regulations before mentioned.

2. One paymaster and storekeeper, Mr. John Chaffee. He has filled the office many years. Pay $62½ per month, equal to $750 per annum; and no other emolument. He occupies a public office, and draws fuel for the same, and also his stationary. His duties are pointed out in the regulations before mentioned.

3. One master armorer, whose duties are also pointed out in the regulations. Mr. Adonijah Foot now occupies the place. Pay $50 per month, and two rations per day, equal to $746 per annum; and no other emolument except quarters and a garden, equal, perhaps, to $56, making about $800 per annum. He occupies a public office, and draws fuel and stationary for the same.

The storekeeper and paymaster has been offered public quarters and a garden, but prefers living in the village and paying his own rent to living on the public ground. Neither of the above named officers draws fuel for his quarters. The allowance of such fuel is recommended to the consideration of Government.

It is also recommended to the consideration of Government whether the salaries of these officers should not be raised. It will be seen that their pay is not equal to that of the clerks in the several offices at Washington; and there is scarcely a boy who writes in these offices that does not receive more than the storekeeper and master armorer. Scarcely a more important office has been created, under those of the heads of departments and chiefs of corps, than those of the superintendents of the national armories; and those offices ought to be filled by men whose talents and conduct would secure them a genteel living in any business.

The pay of the master armorer is far less equal to his services than that of the paymaster. His duties are very arduous. Those of the paymaster, under the present regulations, are comparatively easy and light.

It is the opinion of the superintendent, and it is also my opinion, that the salaries of those officers should be increased—say to $2,000 a year, including all emoluments, for the superintendent; $1,000 for the storekeeper, and $1,200 for the master armorer.

There are now employed five assistant master armorers and inspectors of work, three foremen of shops or branches, who are not inspectors of work, and two inspectors of contract arms; making a total of ten, viz:

1. Jacob Perkins, foreman of lock filers, and inspector of their work.
2. John Stebbins, foreman of stockers, and inspector of their work.
3. Elisha Toby, foreman of finishers, and inspector of their work.
4. Joseph Lombard, foreman of barrel welders and mounting forgers, and inspector of their work.
5. Justin Murphy, foreman of lock forgers, and inspector of their work. Murphy is sometimes employed to inspect contract arms. The pay of these men is $48 per month, equal to $576 per annum, and no other emolument.
6. Lewis Foster, foreman of the upper water shop, not inspector.
7. Diah Allen, foreman of the middle water shop, not inspector.
8. Levi Dart, foreman of the lower water shop, not inspector. The pay of these men is also $48 per month, equal to $576 per annum, and no other emolument.
9. John Newbury, inspector of contract arms.
10. Luther Sage, inspector of contract arms.

By "inspector of contract arms," will be understood men furnished by the superintendent at Springfield to inspect the arms made on contract in the New England States; that duty having been allotted to that officer. These men receive also $48 per month, and no other emolument, except when *travelling* and employed at distant factories; their bills of actual expenses are then paid by the superintendent.

The duties of the assistant master armorers and foremen of shops are pointed out in the regulations before specified. They are arduous and incessant. It is considered their wages are low: $60 per month would not be too much.

The number of clerks allowed by the regulations is three, one for the superintendent, paymaster, and master armorer, each. There are now employed four, viz:

William F. Wolcott, } for the superintendent.
Elizur Warner, }
Ethan A. Clary, for the master armorer.
Eldad Stebbins, for the paymaster and storekeeper.

Wolcott receives $50 pay per month; the other three $45 per month each.

The superintendent found it necessary to employ a second clerk, and I understood him to say that he had been authorized so to do by the colonel of ordnance. From the investigation of his books, returns, and accounts, I am satisfied that two clerks are required for his office, and ought to be employed.

I am convinced that no greater number of the before-mentioned officers, under officers, and clerks, is employed than the several duties actually require, and that the *foremen* must still be increased if there should be any considerable increase of workmen. The two inspectors of contract arms, when not on that duty, are employed as assistant inspectors at Springfield.

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Subject 3.

Number of workmen, and prices paid for work.

The number of workmen now employed is 244, viz:

7 Barrel welders, who work by the piece.
7 Barrel borers, who work by the piece.
5 Lock forgers, who work by the piece.
2 Bayonet forgers, who work by the piece.
8 Mounting forgers, who work by the piece.
2 Gun rod forgers, who work by the piece.
6 Trip hammer's men, who work by the piece.
18 Forgemen and trip hammer men's assistants, who work by the piece.
10 Grinders, who work by the piece.
10 Polishers, who work by the piece.
9 Drillers, millers, and turners, who work by the piece.
5 Barrel finishers, who work by the piece.
42 Lock filers, who work by the piece.
12 Mounting filers, who work by the piece.
35 Stockers, who work by the piece.
14 Finishers, who work by the piece.
52 Jobbers, or those men who work by the day, including carpenters and millwrights.

The number of jobbers ordinarily employed is forty; it being now increased, in consequence of the building of a forge for making bar iron from the scraps, &c. made at the works.

The price paid for the working of each piece have been settled by the superintendent, upon the result of much experiment. It is calculated that good industrious men will be able to earn $1 40 per day. Upon this basis the prices have been established. The workmen earn now from $20 to $60 per month; such is the difference in the skill, industry, and ambition of men of the same trade. There are, however, but three or four in the 244 who come up to $60 per month. The average price paid is about $35 per month, or about $1 35 per day, allowing that they work twenty-five days in the month.

The jobbers are men who work by the day, and are paid $1 to $1 75 per day when they work. The usual price given to all sorts of mechanics is $1 40 per day.

The prices paid to the workmen, on the whole, are not high. "The times are hard," and the wages of mechanics are now generally high in every part of the Northern States. The prices paid to ordinary mechanics in the State of New York for the two past years is $1 37½ per day; to first rate workmen $1 50; and to some few of known skill and smartness $1 75; to master workmen, to direct and oversee, $2 per day; and to master builders from $3 to $5 per day. So that by comparison, considering the mechanics at Springfield are generally first rate workmen and respectable citizens, the prices now given appear to be rather under those ordinarily paid to mechanics in this part of the United States.

I obtained a table of prices paid for working each piece, in part, or in whole, as the piece is either worked in part or wholly by the same man; but as it is lengthy, and as it can be obtained at any time of the superintendent, if required, I think it not worth while to embrace it in this report. There are a hundred and forty things to be done by the workmen by the piece, and as many prices for doing them.

The plan of having the work done by the piece is, undoubtedly, the best of all possible plans, provided there is a strict attention paid to the inspection of the several parts, before they pass from one workman to another. It gives this advantage, that every man is paid according to his merit; it excites ambition and industry, and brings into operation and usefulness the otherwise dormant powers of the mind. It has a moral, good tendency upon the workmen, and at the same, or a far less price, gives annually to the Government a much greater number of arms. Where it is practicable, this plan is pursued; but there are some kinds of the work that cannot be done by the piece.

Subject 4.

General arrangement of workmen to the several branches of business.

The general arrangement of the workmen to their work is the best that can be adopted for the United States, but not so for the interest of the workmen; that is, each man is kept at one particular kind of work, and is not shifted. For instance, one man is always kept at forging locks, another at filing them, and so on for the other parts. One man is kept at putting the parts of the lock together, and finishing them; another at drilling them; another at milling the pins; another at slitting the heads; another at polishing the parts of the lock. One is kept grinding barrels; another at turning; another at sighting, and another at breeching them, &c.

By this arrangement, it will readily be perceived that each workman becomes an adept at his part. He works with greater facility, and *does the work much better* than one *could* who worked at all the parts. This is undoubtedly the best method for Government. The consequence, however, to the workmen is, that not one of them becomes a finished armorer. If he is always employed at the Government factories, it is no matter for him; he is, in fact, the better for it, for he does more work, and gets more money; but if he wishes to set up business for himself, he has got no trade; he cannot make a fire-arm.

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SUBJECT 5.

Hours of work established for those who work by the piece, and those who work by the day.

From the 1st of April to the 1st of November, the shops are opened at sunrise, and closed at sunset. During this part of the year, the men who work by the piece remain in the shops as many hours as they choose between those periods. Those who work by the day commence at 7 A. M., and leave off at 6 P. M., having one hour for dinner. They work ten hours. From the 1st of November to the 1st of April, the shops are opened at daylight, and closed at 6 P. M. During this part of the year, those who work by the piece have the same privileges as in the other part, while the shops are open; and those who work by the day commence at sunrise, having taken their breakfast, and leave off at sunset; one hour for dinner.

It is considered that as much time is occupied in the winter season as is either profitable or desirable. No more could be done without working altogether by candle-light. The work is of that nature that it cannot be done well by fire-light; besides, there would be much danger from fire, and the men could not feel so well for work in the morning.

In the summer season, the jobbers might work more than ten hours; but the custom has been long established to work but ten, and the superintendent has not thought it advisable yet to change it. Mechanics ordinarily in the Northern States work twelve hours each day. Whether it shall be done in the national armories, is a subject submitted to the colonel of ordnance.

SUBJECT 6.

Process and method of executing the work generally.

It has already been observed, that each part of the work is done by particular men, and, in addition to the advantages there stated to be derived from this method, it will be proper further to remark, that the great desideratum, uniformity of work, is thus more nearly obtained. To obtain continually from the United States' armories, and from contractors, arms made precisely to one pattern in all the detail of parts, is very desirable; but it is believed that perfection in this subject is not attainable. One thing, I believe, is most clear to all those officers who have turned their attention to this point, that we ought to arrive as *near* to perfection as time, money, the want of arms, reason, and good sense will allow. To what extent shall we try? and when shall we be satisfied? are, it is thought, the proper questions to be decided. That a few pieces might be made so perfect, that if they were taken to pieces, and the several parts of the locks, the stocks, barrels, and mounting thrown into a pile promiscuously, they might again be put together when the parts should be alternately changed, is believed, provided each similar part was made by the same man; but if the similar parts were made by different men, which must always be the case where a great number are made even at one factory, it is not believed practicable even to make a small number perfect; and as the parts must be made by different men where the arms are made at different factories, and as the United States have, and will have, different factories employed, it is believed to be impossible to attain universal perfection. Different men have different visions; they do not see alike, and they do not feel alike; and, as the accuracy of parts depends upon the vision and feeling of the workmen, the parts made by them must vary. Admitting that arms to any extent could be made perfectly alike in all their parts, would it be advisable? Being governed in this decision, as we must be, by the before-mentioned considerations, of money, time, want of arms, and reason, it is believed it would not be advisable. Why? Because the muskets would cost at least $30 each, instead of $12 50; and because about three years instead of one would be required to make an equal number of arms; and because the country wants arms as fast as they can be made; and lastly, because, if perfection were attained in the muskets, the real advantage gained to the country would be proportionably very far short of the expense. What is the advantage of having all the similar parts precisely alike? This: that when they are damaged, the several parts that remain good can be put together, and good arms be made out of bad ones. *In practice*, what parts would be thus put together, if they were perfectly alike? and who would do it? Let us see, and then we can judge of the advantage. Arms damaged in service would be turned over to, or collected by the quartermaster, or some other proper officer of the army. Arms are wanted; new ones cannot be obtained; some officer or soldier of the army would be directed to overhaul the damaged arms *in possession of that army*, and make out as many good ones as he could. What parts, if damaged, would he, with his *skill and tools*, replace? If other parts would fit, he can exchange and replace bayonets, ramrods, barrels, stocks, cocks, and whole locks—nothing more. He can never replace the parts of locks or mounting, except bands, which are seldom damaged or lost. Then it follows that locks and mounting must go to the repairing shops to be repaired, if they are all alike. The workmen in the repairing shops are armorers, and have tools. If the parts requiring to be changed want a little altering or filing, they are able to do it, to make them fit; so that, if the parts of the locks and mounting are so nearly alike that the repairer is able to make them fit with his tools, it is all that is required. The following objects, then, only seem necessary to be attained in the manufacture of small arms, viz: that the barrels, stocks, whole locks, cocks, bayonets, and

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ramrods should each fit every musket; and that the several parts of the locks and mounting should be made so nearly alike, that they could be fitted at the repairing shops. Consequently, when this is attained, we shall have done all we ought to wish for. This is not yet done, but it is believed *to be practicable*. The most important of the individual objects is to have the bayonets all fit every musket. Bayonets are more likely to get lost or broken than any other parts of the musket, and hence much difficulty has been experienced. This is proved by the result of repairing arms damaged in the last war. Last year I had at this post, Rome, and Vergennes, six thousand stands of repaired arms, in every other way complete but wanting bayonets and ramrods, and only about three thousand wanted the rods. There were probably about thirty thousand stands repaired, and about five hundred stands condemned altogether. From this it appears that about one-fifth of the whole wanted the bayonets, either by loss or not fitting, about one-tenth the rods, and only about one-sixtieth the other parts altogether. This deficiency of bayonets was made up by getting six thousand made at Springfield, and sent to the repairing shops. In this great difficulty was experienced, on account of the different sizes of sockets required. Twelve different sizes of patterns were sent to the forgers, and then each class of sizes had to be altered individually at the repairing shops, to fit the barrels. Hence it appears evident, that the first and most important object in the manufacture of muskets is, to cause all the bayonets to fit the same gun, and all the barrels to fit the same bayonets.

In order to attain this grand object of uniformity of parts, the only method which can accomplish it has been adopted at Springfield, but it requires to be perfected, viz: making each part to fit a standard gauge. The master armorer has a set of standard patterns and gauges. The foremen of shops and branches and inspectors have each a set for the parts formed in their respective shops; and each workman has those that are required for the particular part at which he is at work. These are all made to correspond with the original set, and are tried by them occasionally, in order to discover any variation that may have taken place in using. They are made of hardened steel. The workman makes every similar piece to fit the same gauge, and, consequently, every similar piece must be nearly of the same size and form. If this method is continued, and the closest attention paid to it by the master workmen, inspectors, workmen, and superintendent, the desired object will finally be attained. The method practised at Springfield, of inspecting each part before the parts are put together, or before it goes to another workman, to be put through another process, has a great influence on the workman; it does much towards improving the work generally, and towards obtaining a uniformity of parts, and consequently a uniformity of muskets, and is undoubtedly the best possible method. If a part does not pass inspection, it goes back to the workman, either to be improved, or deducted from his wages. His interest compels him to do it well. It is on account of this method that the arms made at the national armories are, and will be, superior to those made on contract. In the latter case, the arm is finished before inspection, and, if a part is condemned, the whole piece, valued at $13 or $14, is condemned. The inspector cannot, from this cause, avoid feeling a reluctance in condemning the arms he is sent to inspect; his feeling will be towards the contractor; and, from a slight neglect in one particular part, he will seldom condemn the musket; and thus he will receive arms, among which, perhaps, there is not one without some defect; whereas, if the same inspector were to inspect the same parts as they were made, he would condemn them, because he would think that the loss would be but trifling, and it would be incurred by the workman, who ought to bear the loss of his own bad work; and if all the parts of a musket were to be condemned in this way, the loss would be divided between, perhaps, a dozen or fifteen men, instead of falling upon one. An inspector is more likely to condemn a trifling thing than a valuable one, for a small defect.

In the method and process of executing the work at Springfield, I have reason to believe, both from inquiry and a comparison of the arms now made with those made before the late war, that great improvements have been made. How much credit is due for this to the superintendent, and how much to the colonel of ordnance, I have not the means of judging; but there is a credit due somewhere.

To give in detail the process of each part of the musket, from the raw material to the finishing shop, would occupy too much room to be embraced in this report. I shall, therefore, not attempt it. I will only observe that, as far as I can judge, the arrangements are good, and, with some intended changes in the shops, cannot probably be bettered. There must necessarily be in such establishments a good deal of passing of parts of muskets from one shop to another; but the whole is accomplished at Springfield by one two-horse team, which passes round to the different shops but twice in each day.

On the subject of uniformity of arms I will make one more remark: that, in order to accomplish this object throughout the Union, it will be necessary to have a set of original patterns and gauges of each and every part of the musket, sealed and kept in the Ordnance Office at Washington, and to cause those of the superintendent of each factory to be sent occasionally to that office, to be compared with them, and fitted anew, if required. This remark will hold good with every thing else in the Union that requires uniformity of construction. Hence, we may, by fair inference, deduce the great importance of the present organization and arrangement of the Ordnance Department to the country. The great advantage of placing the armories under the direction of such a permanent corps and such a head is already felt and acknowledged at Springfield, both by the officers and citizens.

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Subject 7.

Proof of barrels, whether according to regulations.

When I was at the factory, the superintendent had directed that the barrels should be proved temporarily, at the first charge, with one-sixteenth instead of one-eighteenth of a pound of powder, in consequence of having no powder that was full proof. All the powder at Springfield (and there is a large quantity) has been found to be under proof. Colonel Lee had sent to Middletown for a temporary supply of the best powder. He intended to use no more under proof. It is very important that a full supply of the best powder should be kept on hand at the armory. It was understood that the colonel of ordnance had made an arrangement for such a supply in future from Dupont's works. Colonel Lee informed me that, on proving the barrels that were on hand when he took charge of the armory, many hundred of them burst that had before stood the proof given them. They had, undoubtedly, been proved with poor powder. I discovered a deficiency at the armory in the want of a standard powder proof, or eprouvette, and nothing by which to compare it. It was recommended to the superintendent to obtain for the present a howitzer and ball, by which to compare his triangular eprouvette occasionally, in order to be sure of the strength of the powder used in proving musket barrels. I have before communicated with you on the subject of an improved eprouvette for the United States.

Subject 8.

Quality of the work and arms when finished.

The quality of the workmanship of the arms is, in my opinion, comparatively excellent; and it is believed to be superior to that in any of the national armories in Europe. The plan adopted by the superintendent, if closely pursued, cannot fail to produce good work.

Subject 9.

Number of arms manufactured per month.

The average number per month during this year has been eleven hundred stands, equal to thirteen thousand two hundred in the year. The superintendent states that, if he should be directed, he can make in 1820 fifteen thousand stands. It will only require an increase of hands; the present machinery is sufficient for it.

Subject 10.

Lettering and boxing the arms, whether according to regulations.

The lettering of the arms, according to the series, established in the regulations, must be done by the storekeeper after they are turned over to him, and placed in his arsenal. If it were to be done in the shops by the workmen the arms would get so mixed up that it would be very difficult to separate them for boxing and labelling. As non of the arms made since the series was established have been sent away from Springfield, very few of them hav as yet been lettered and boxed for transportation; but it is intended to be done before they shall be wanted. Th storekeeper appeared to be laboring under difficulties about it, for want of method in the process. The difficult was this: as the arms have been turned into the arsenal, they have been put loose, twenty in a box, without bein lettered, &c.; the box labelled 20 muskets, from B 1 to B 20; no other attention being paid to the pieces put in bu to have those in one box all made in the same year. The boxes were then piled up in the arsenal, and so they have been done from the commencement of the plan. Now the storekeeper wishes to go on and take the arms out of the boxes, letter them according to the labels on the boxes, respectively, and pack them for transportation. But the boxes first put up require to be first lettered, and, being at the bottom of the piles he cannot get at them without great labor; and upon that plan this difficulty would always continue. It would be impossible so to arrange the boxes in the arsenal that the first put in should be the first out. I therefore recommended to him to pursue the following method, which, in the end, will be seen to have many advantages, viz:

Let the storekeeper put the arms as they come in into boxes, loose as now, but not label the boxes; let him only put the year in which they were made, with chalk, on the ends of the boxes; and let him put all those made in each year in piles of boxes by themselves; let him commence lettering the arms in the pile of boxes longest made, and let him commence the series for that year, or where he last left off, as the case may be, and go on until he has completed the arms made in that year, and label the boxes as the arms in them are labelled, and then commence on the pile made in the next following years, and so on.

In order that the storekeeper may know what he is about, and to insure accuracy in the series, let him keep a book in his office, in which he shall enter the lettering, boxing, and labelling the arms. He will enter on his book the part of the series last put upon the muskets of a given year, and the corresponding labels on the boxes. When he wishes to box and letter more, he will turn to his book, and see what letter was last put on in the series for the year in which the arms were made which he wishes now to letter, and note on a piece of paper the letter and number to be commenced with, and give this to the workman who is to oversee the lettering and boxing, and also to give him the corresponding labels from his office, where they should be kept, of the part of the series he wishes at that time to have put upon the muskets, according to the number he wishes put up at that time for transportation. When the lettering is done for that time, let the workman give to the storekeeper the account of what he has done, and where he left off, and let the storekeeper enter it on his book; and so on. It will be remembered that a portion of the arms, the parts of which are finished and dated in one year, will not be finished and turned over to the storekeeper until the following year, and that the labels on the boxes will express the year in which those parts were made and *dated*, as the *date* of the labels must correspond with the *year* stamped on the lock and heel plates, so that the labels on the boxes will never show the *year* in which the arms were *finished*, but that in which the *parts were made*. But in the method of lettering which I have proposed, the series will always in the end come out accurately. It will make no difference whether the arms made in 1817 or 1819 are first lettered and boxed, as the parts of the series already taken up in each year will at all times be found on book. In this way the arms in the store of the oldest dates can always be first sent away, if desired, as the boxes for each year will be piled separately, and not be mixed.

The storekeeper has been advised always to enter on his book of deliveries, or issues of arms to be taken from the place, the part of the series or letters and year of fabrication then sent away, and always to send them away according to the series, so as always to be able to know the particular arms sent away at any one time, and to any place, by the letters and by a reference to the book of the armory.

Thus the arms belonging to the United States, and to particular States, could always be distinguished when mixed in service. This was undoubtedly the object of the colonel of ordnance when he established the plan of lettering the arms by a series. The only thing that required my attention was, to assist the storekeeper in adopting a method for himself of carrying that plan into execution.

Subject 11.

Preservation and condition of the arms, and of the ordnance and stores in charge of the storekeeper.

The condition of the arms, ordnance, and stores in charge of the storekeeper is very good, and every proper attention appears to have been paid to them.

The arms are principally kept in boxes. It is believed by the storekeeper, from his own experience, that, for any length of time they will probably be kept there, they will not be injured by rust, as they are perfectly dry when taken into the arsenal. I am also of opinion that, for the time the arms will remain at Springfield, it would not be worth while to make a display of them in the arsenal. It would cost too much time and trouble to justify the measure. But, to speak a little further on this subject generally, I am of opinion that the best method of preserving the arms in the arsenal, after they have been removed from the armories, is to keep them displayed, and in the open air, having the rooms of the arsenal cieled, and made light and clean. 1st. That after arms have been transported they must always be taken out of the boxes and wiped and oiled anew, or they will rust. I have never opened a box that had been transported, and lain three years in store afterwards, that the arms were not more or less damaged, and frequently they have to be taken to the repairing shops before being fit to issue. 2d. That, by the method I have lately adopted for putting up arms in the arsenal, which is very cheap, as great a number can be put in a given space as if they were in boxes. 3d. That if the arms were repacked in boxes after being wiped and oiled, and the boxes put up in the arsenal, there would be a time when they would begin to rust, and when they should be overhauled; but from their situation they cannot be seen, and the time when they require overhauling can only be guessed at. To overhaul them in this situation requires the boxes all to be taken down, and every musket to be taken out of the boxes to see whether they are rusting or not. This would require more labor than would be necessary to actually rub and oil them over if they stood in racks in the arsenal as I have them; and to be sure that none of them are rusting, it would be necessary to overhaul and examine them at least once in two years. I know, from actual experiment, that if they are put up in the racks of the arsenal, they will be kept in perfect order by being rubbed and oiled over every other year; and then I always know they are not injured, but are always in order, and spend no more time upon them than would be required to examine them in the other case; and if they are boxed, there is always an uncertainty about their condition. Supposing, as has often been the case, that they were left too long in boxes before being examined, and they should be found badly rusted, it will then cost from one to two dollars each to repair, clean, and polish them. But if they are displayed in the arsenal, the storekeeper can every day pass among them, and see the first appearance of rust, and have them immediately rubbed over. I am satisfied that two laborers will keep in perfect order thirty thousand stands for any length of time, if they are put up in racks, which is certainly a very trifling expense. From all this, I am fully settled in the opinion that the best method of preserving arms for a great length of time is to display them in the open air in well finished arsenals, and keep men, according to the number of arms, always at work among them.

I recommended to the storekeeper to let Colonel Lee use the old accoutrements of the revolution, which are completely worthless, for case-hardening the parts of muskets. They are in the way, and can never be of the least use for service; also, to let him use the old paper cartridges, made in the revolutionary war, for wadding to prove barrels, as they are as useless as the accoutrements; and also improve his police, by burning a quantity of old barrels and other lumber that disfigure the places where they are deposited, and are not worth altogether one farthing except for fuel.

Subject 12.

Method of purchasing stock and materials generally, and the prices paid for the same.

Imported articles, such as steel, files, emery, glue, wire, stockers' tools, and some smiths' tools, such as anvils, vices, &c., have been, heretofore, principally furnished in large quantities by importing merchants of New York, Philadelphia, Boston, and Springfield, upon the orders of the superintendent, and paid for as soon after delivery as the funds would admit of. Two importations since 1815 have, however, been made by Boyd, of New York, and Neilson, of Baltimore, upon the orders of the Ordnance Department, or, as it is understood by Lieutenant Colonel Bomford, for the national armories, a part of which has been sent to Springfield armory. The Messrs. Dwight, of Springfield, made one importation in 1817, and have made another the present year for the year 1820; the articles are now on delivery to a pretty large amount at the armory. It is calculated that the present supply will be sufficient for four years, (except the article of files,) and perhaps five. It is intended to keep on hand at least three years' supply, that, in case of a war, there should be no failure of stock. The present time is also considered favorable to purchase, as the articles are low in England. It is very difficult for any one who is not an importing merchant to know precisely at what prices the articles could be afforded. The only point of attention seemed to be, from a comparison of the several bills, who has furnished the cheapest? and, from thence, what method of obtaining this class of supplies appears to be the best? In order to judge of this, I shall here give a comparative view of the prices paid upon the several importations since the last war.

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Extracts from the bills on file at the armory at Springfield, Massachusetts, October, 1819.	Imported by Thomas Richards, New York; transportation paid from New York to Springfield by the United States, 1817.	Imported by J. & E. Dwight, Springfield, and delivered by them at the armory storehouse, 1817.	Imported by T. Wickham, Philadelphia; transportation paid from Philadelphia by the United States, 1818.	Imported by Boyd, of New York, London (1817) bills, without packing, cordage, importation, or transportation bills, and without duties.	Imported by J. C. Neilson, Baltimore, London bills as the last, 1818: no duties; importation, transportation, packing, &c. added.
English blistered steel, per pound,	$0 16	$0 18	$0 20	$0 18¼	$0 10⅝
German blistered steel, do.	-	-	-	16⅝	11½
English emery, do.	-	13½	15	-	6
Twelve inch flat rough files, per dozen,	3 18	3 83	3 50	2 25	4 69
Twelve inch 2d cut rough files, do.	4 58	4 58	-	-	4 48
Thirteen inch flat rough files, do.	4 66	4 66⅔	4 25	3 16½	5 78
Ten inch flat rough files, do.	2 66	-	2 50	-	3 22
Ten inch smooth files, do.	3 75	3 99	3 75	-	3 78
Eight inch smooth files, do.	2 33	2 33	2 12½	-	2 66
Eight inch bastard files, do.	2 16	1 67	1 62½	-	2 11

From a view of the foregoing table, it will be seen that there is not much difference in the average of prices given to Richards, Dwight, and Wickham; Richards's charge on blistered steel is lowest; Dwight's nearly splits between them. But when it is considered that Dwight delivers at the works, and the others in New York and Philadelphia, the purchase from Dwight is the best, if the articles are as good. Of this I can know nothing but from the superintendent and other officers. They declare his articles the best. The articles of the present importation, I am informed, will come a little lower; best English blistered steel seventeen cents per pound.

The calculation is, that 50 per cent. added to London bills of hardware will cover the duties, importation, and all other expense attending it, until delivered in one of the towns on the seaboard. The goods are marked at that rate, and the profit of the importer arises from his getting a deduction of 20 per cent. for paying ready cash in London. Those who buy on credit must sell higher. Allowing that the steel imported by Boyd and Neilson costs the Government at that rate for duties, importation, &c., it came at the same rate as that purchased by other importers, unless Government allowed them a per centage for agency beyond this; if so, their steel was highest. The files imported by Boyd appear to come at about the same rate. Not having seen the bills upon which Boyd and Neilson were paid, I do not know what they received; but the files imported by Neilson must have been a bad bargain to Government. It will be seen that the London prices are considerably more than the prices of the same kind of articles delivered at the armory in Springfield. There must be deducted from these prices 20 per cent., (for ready pay by Government, so say the bills,) and then added to that remainder 24 per cent. to the London merchant for collecting the articles, 50 per cent. for importation and duties, and then probably a commission to Neilson, which must have brought the prices given for the articles from 30 to 40 per cent. above the other importatinos.

The final inference from all this is, that there is no advantage as yet gained by Government in importing hardware for the armories, but an actual loss; and that if the articles can be and are delivered at the works at as low a rate as they can be obtained in any other way, that method is the best.

I was the more particular in this part of my investigation, in consequence of its having been reported here, by Colonel Prescott, I believe, that the Dwights were furnishing the armory pretty much at their own prices, and that they had obtained a complete ascendancy over Colonel Lee, and made him do as they wished him; but nothing could have been more unfounded, and, I believe, more false. Colonel Prescott must have been misinformed, and I have told him so since my return.

The article of iron is obtained from the Salisbury and Winchester iron works. It is delivered by the proprietors at the armory. The price now paid for warranted bar iron, thus delivered and drawn, is $7 50 per hundredweight. This price is from $1 50 to $2 per hundredweight higher than European bar iron; but its quality is superior, and it brings that price in any market. Charcoal of hard wood is delivered at the works for $6 50 per 100 bushels; that is low, and $1 50 cheaper than the price upon the Hudson river. Pit-coal is obtained at the works from Richmond at fifty cents per bushel; that is the price I now give at Albany, although I think it rather high. It can be afforded at a far lower price in Albany than at Springfield.

Brass and copper for pans are bought of pedlars, or obtained at Hartford. Musket stocks, from Pennsylvania, are delivered at Hartford at thirty cents each, warranted; those that do not work are returned to the contractor at the armory. They can be obtained without warranting for twenty-five cents; but it is found much cheaper to give thirty cents for those warranted. Sometimes thirty are condemned out of a hundred.

Grindstones are obtained from Nova Scotia, and from Long Meadow, the adjoining town. The Long Meadow stones are delivered at the works for one cent per pound; (very cheap.)

Generally every thing is purchased warranted that can be; the part not used is returned to the furnisher. This is by far the best way and the cheapest. The articles nominally cost more, but, in fact, not so much; besides, in this way, none but the best materials are used. The Messrs. Dwight warrant steel and other articles of that nature, when furnished by them, which is of very great importance. A bad lot of steel can be returned, and poor steel cannot be used; and it is a very heavy article of expense. On the whole, the best arrangements appear to have been made by the superintendent to supply the armory with stock and materials, and they are obtained at a very fair price.

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SUBJECT 13.

Economy in preserving, using, and expending the stock and materials.

The arrangements made by the superintendent to insure economy in the stock, materials, and tools, are good, and appear to be strictly enforced. The method of accountability established and enforced is such that no unnecessary loss or waste can well take place without the amount being deducted from the wages of the workmen, or others who have the property in charge. I was much pleased with this arrangement, and found the actual economy throughout to be much greater than I had anticipated, and equal to any thing I have ever seen in any private manufactory; there is, in fact, nothing lost. I dwell upon this point, because its importance in such an establishment can scarcely be calculated. The method adopted will be explained under the next head.

SUBJECT 14.

Method of keeping and rendering the accounts of stock, materials, &c., from the superintendent down to individual workmen.

Receipts of stock and materials.

All stock, tools, and materials for the work, except coal and bar iron, are received at the large new store on the hill (or at the principal establishment) by the master armorer, and receipted for by him to the persons from whom they are received, or to the superintendent; and the articles, with dates, and from whom received, are immediately entered on his book. The articles of coal and bar iron are delivered to the assistant master armorers, and to the foremen of the forging shops, by the persons who bring them, and are receipted for by them to such persons, and entered on their day-books. Returns of stock, &c. thus received by them are made weekly and monthly to the master armorer, who then enters the receipts of the articles upon his own book, the same as those received directly by him. Thus the master armorer has an account of all articles received for the armory.

At the close of each month, the master armorer adds up all the several articles entered on his day-book of receipts during the month, and transfers them to a book of monthly abstracts, and enters them alphabetically in a tabular form. At the end of each quarter the whole receipts are added up on the last mentioned book, and the amount stands ready to be carried into the quarterly return for the superintendent, and through him to the Treasury Department.

Issues of stock and materials to assistant master armorers and foremen.

A day-book is kept, in which the master armorer enters all articles delivered by him to the assistant master armorers and foremen of branches: 1st. Articles delivered them from his store, such as steel, files, emery, sand-paper, &c.; 2d. Articles received by them from abroad, such as iron, coal, &c.; 3d. All parts of muskets delivered them to be further worked; 4th. All articles received by each from other assistant master armorers and foremen.

At the end of each month the articles charged in the before-mentioned day-book are added up severally, and transferred to a monthly abstract book, and entered in a tabular form. This forms the account of debtor to each of them, respectively.

The assistant master armorers and foremen are credited by the master armorer on a book: 1st. By all the parts produced by manufacturing, where the materials are not expended agreeably to the receipts of the master armorer from them; 2d. Actual expenditures, such as coal, &c., according to their monthly returns; 3d. With parts of muskets, where such parts are delivered them by the master armorer to be further worked upon; 4th. All articles delivered by them to other assistant master armorers and foremen; 5th. With all scraps, &c. made in working stock. These form the account of their credit.

To enable the master armorer to know what articles have been received and delivered from one assistant master armorer to another, receipts are given by them in all such cases, specifying the articles, which receipts accompany their monthly returns made to the master armorer, from which he enters the amount of each receipt and delivery respectively.

Each assistant master armorer and foreman keeps a day-book, on which the amount of all articles received by them from all sources is entered; from which they make up their weekly and monthly returns in part to the master armorer; also, the amount of all articles delivered by them to the master armorer and to other assistant master armorers and foremen.

Books are also kept by them, on which are entered *all articles* delivered by them to each workman under their respective commands, that is, all articles not consumable in working, such as iron, steel, tools, &c., and likewise parts of arms to be further worked upon. This forms the debtor to each workman.

Each workman is credited by them for all articles returned to them; 1st. All articles produced from the stock, such as parts of muskets forged, &c.; 2d. Tools returned, either good or worn out; 3d. Parts of muskets received by them for working upon, and again returned when such process has been completed; 4th. Is credited to them the necessary waste of stock in working, such as waste of iron, steel, &c. in forging; 5th. All articles returned, such as scraps of iron, steel, &c. necessarily made in working. All these must equal each workman's debtor, or he is made to pay for the deficiency.

All articles consumed in working, such as coal, emery, &c., are not charged to the workmen, but, when delivered for use, are entered by the assistant master armorers and foremen on their books of debtor and creditor with the master armorer as expended.

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All articles of stock and materials, as fast as they are worked up and credit given to the workmen for them, are entered by the assistant master armorers and foremen as expended on their books of debtor and creditor with the master armorer, in this way: The assistant master armorers, &c. are charged with 500 pounds of bar iron by the master armorer. The assistant charges himself with the same on his own book, as before stated. It is known by experiment how many articles of any one kind, such as barrels, lock plates, &c., 100 pounds of iron will make, or nearly. The assistant master armorer (for instance, the foreman of the upper water shop) counts the pieces forged from that iron as turned over to him by the forger of barrel plates, and credits on his own book of debtor and creditor with the master armorer the number made, and calculates the iron which should have been used in making them, and carries out the credit to himself of that amount of iron, as follows:

Dr.	*Master armorer with L. Foster, foreman of the upper water shop.*	Cr.
To 71 barrel plates, at 7 pounds each, 479 lbs. iron.	By bar iron, - - - 500 pounds.	
To scraps, - - - - 3 lbs. iron.		

And so on for other articles made from stock.

In the accounts of the assistant master armorers and foremen, with each workman the credits are made in the same way.

If at any time a man is discharged, his accounts are closed; and if there is a balance found against him not accounted for, the amount is deducted from his pay.

It will be seen, by the foregoing regulations for the accounts of the armory, that complete accountability is established and enforced throughout; and if there is any error committed, it will be discovered on a comparison with the books, and it can be traced to its source. The workmen having to pay for what they do not regularly account for, causes them to work every thing close, and to have each a box or boxes, into which all the scraps are carefully put, which gives to the shops a clean appearance, and the evidence of great economy.

In the accounts between the foremen of the finishing shop, the foreman is charged with parts, and credited with arms complete, and carried out equal to so many parts. At the end of each month the master armorer turns over to the storekeeper the finished arms, with screw-drivers and gun-boxes for the same, for which he takes duplicate receipts, one on a book for that purpose, and one on loose paper, which last he hands over to the superintendent's office; at the same time he enters the amount of the arms thus delivered to the storekeeper on a book for that purpose, in a tabular form.

As the regulations for the armory do not point out the particular method in which the books, returns, &c. shall be kept at the armory, and as such information may be interesting to you, I shall continue the report on this point a little further.

Besides the books before mentioned kept by the master armorer, books are also kept which exhibit the amount of all the work performed in each month in all the branches, entered in a tabular form, from the monthly returns of the assistant master armorers and foremen; and also an account of all articles condemned during the same month; also a book in which an account of the purchases is abstracted, showing all that is delivered by each individual with prices, &c. for any length of time.

Returns.

Returns are made weekly by the assistant master armorers and foremen to the master armorer of all articles received by purchase, which were delivered at their shops and to them; also monthly returns of the same articles, by consolidating the weekly returns, which are consolidated by the master armorer, and added to those received by him at his store, and the whole received in the month, abstracted upon his book kept for that purpose. From this book of abstracts the master armorer makes out a monthly abstract or return for the superintendent, from which he makes out his estimate of funds for stock, &c. for that month, which he presents to the paymaster of the armory.

Monthly returns are made by the assistant master armorers and foremen to the master armorer of all property (without prices) received, expended, and remaining on hand in that month; and the master armorer, by consolidating them, and from his own books, makes out a similar one for the superintendent.

The assistant master armorers and foremen make each a quarterly return of property (without prices) received, expended, and remaining on hand at the close of the quarter, by consolidating the monthly returns.

The master armorer, from the last returns, and from his own books, makes up a similar return for the superintendent, who makes a copy of it for the Treasury Department in his own name.

The assistant master armorers and foremen make monthly returns of all work executed in the month, likewise of all articles consumed; the first to the superintendent, and the latter to the master armorer. Upon the first, the superintendent makes out the muster and pay-rolls of the men, which are presented to the paymaster, and upon which the workmen are paid monthly. The master armorer abstracts both returns upon his books.

Monthly returns of arms finished and turned over to the storekeeper are made by the superintendent to the Ordnance Department, embracing also the number of workmen employed in the month, of each trade or branch, accompanied by the storekeeper's receipts for the arms. Monthly estimates of funds required are made to the same department.

Monthly muster-rolls of the officers and workmen are likewise made to the same department, showing their employments, and amount of pay due them.

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Quarterly returns or abstracts of all purchases, embracing the items and amount, are made by the superintendent to the Second Auditor of the Treasury Department, in the form of an account of debtor and creditor. He debits himself with the articles purchased, and forwards the master armorer's receipts for the same as vouchers. On the opposite side of the account he credits to himself the same amount, and the proprietors' or contractors' names on the back of the receipts of the master armorer just mentioned (which signifies that he has received an accepted account or order on the paymaster for the same) are vouchers to his items of credit. Copies of these account returns are kept on book by the superintendent. I do not see the necessity of these returns. The same articles of property are embraced in the superintendent's quarterly returns to the office before mentioned; and if the master armorer's receipts were to accompany that return, they would be as good a voucher to the accuracy of the property therein declared to be received as the same acknowledgment in the other. The Second Auditor does not want to know whether Colonel Lee has given the contractor an accepted account and order on the paymaster or not. It does not prove that the account has been paid, for that accepted account may lie in the hands of the contractor for months before it is presented to the paymaster; and, if presented, it may not have been paid, and of course cannot be embraced in the paymaster's accounts for that quarter, so as to form a check upon the returns of the superintendent. The paymaster's accounts would show if Colonel Lee had embraced all the property paid for, but could not show that he had not received some that had not been paid for, which ought to have been embraced in his return, but which was not. I conceive that all the Auditor wants to know is, the articles actually purchased and received in that quarter by the superintendent, and that he has embraced them in his quarterly return of property received, expended, and remaining on hand. The master armorer's receipts would show that he had delivered over all that he had embraced in his return. But with both the returns now made for the same thing, it is not shown that Colonel Lee has not received more property than he has acknowledged; and that he has not even given orders for the payment of it on the storekeeper, which orders have not been paid. Therefore, I do not see the use of this second return to the Second Auditor.

A better plan would be this, which I explained to the officers: Let the superintendent make but the first mentioned quarterly return of property, and send on the master armorer's receipts for the same received. Let the paymaster have a book, on which the accepted accounts given by the superintendent shall be entered, whether paid or not. Let the superintendent daily give the paymaster a statement of the accounts accepted, to enable him to enter them. Let the paymaster's abstract of payment or cash account be so made out as to show the articles purchased, and the amount in the footing of articles, as well as of cash, (which would be very little more labor;) then let him enter below that the amount of articles purchased, for which orders had been given on him for payment by the superintendent and not paid, and add up these columns; the total amount would be what the superintendent should embrace in his quarterly returns. This would form a complete check upon him, and a good voucher, and also save him the labor of making a large return quarterly. The paymaster, in his next quarterly account and abstract, would not add in the articles contained in the vouchers paid in that quarter, but which articles were returned in the previous quarter, but only the amount of cash paid.

There is another reason why this method of keeping the accounts of accepted accounts and orders on the paymaster should be adopted, which will be mentioned in speaking of the paymaster's books.

Books kept by the superintendent.

1st. A day-book, in which is entered the work done by each workman, and wages due, and deductions made, from the monthly returns of the same made by the assistant master armorers and foremen.

2d. A leger, in which the account with each individual is entered—1st, Cr. by work; 2d, Dr. by pay.

3d. A book, in which are entered the monthly returns of arms finished and of men employed, and the quarterly returns to the Second Auditor of property received, expended, and on hand.

4th. A book, in which are entered the second quarterly returns of property received, and balanced by orders sent to the Second Auditor.

5th. A book, in which is entered the amount of stock and materials received, from whom, and the amount, taken from the monthly returns of the master armorer.

6th. A book, in which the monthly estimates of funds are entered; also, the annual estimates for the armory.

7th. A book, in which the accepted accounts and orders on the paymaster are entered when signed, which is a counterpart to book No. 5.

8th. A leger, in which the contents of books Nos. 5 and 7 are consolidated in the form of Dr. and Cr., with each individual of whom purchases are made.

9th. A book, in which the orders of the superintendent on the master armorer for issues to his assistants are entered, by which he tests the monthly returns of the master armorer.

10th. A book, in which the monthly returns of the master armorer are entered: 1st, returns of stock, &c. received; 2d, of receipts, expenditures, and balances on hand.

11th. A book of debt and credit with the master armorer, for all supplies and expenditures.

12th. A book, in which the amount of parts of muskets are entered semi-annually, which are found to be on hand by actual count. This, with the parts put together into muskets, added to the condemned parts, must equal the amount of work done in that time, as shown by the book of the master armorer, if correct. This is a method of testing the accuracy of the accounts generally of materials and work.

13th. A book, in which are entered abstracts of letters received, with an index.

14th. A book, in which all receipts taken by the superintendent for property delivered are entered.

15th. A book, in which are entered all orders given by the superintendent for furnishing stock, &c. for the armory.

16th. Invoice book of property sent away.

17th. Letter book.

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Books and papers of the storekeeper and paymaster.

His duties being common, the forms of his books and papers are also common, and need no explanation. One or two remarks only are necessary.

His cash vouchers are registered and abstracted according to the dates of the accounts, and no dates put to the receipts to show when the money was paid; which I conceive is not the proper way. Again, the accounts, when liquidated by the superintendent, are not registered according to the regulations of the Ordnance Department for the armory; they are only registered when paid. Payments are made when accounts and orders are presented, without knowing what accounts, or how many, are outstanding or of an older date.

It was recommended that these errors should be corrected. The fault is not owing to inattention in the paymaster, (he appears very desirous of doing his duty strictly correct,) but owing to a misconstruction of the regulations.

It will be seen, by a perusal of the foregoing statement on the subject of accounts, books, and returns, that every *transaction* at and relating to the establishment, of any consequence to the public or to individuals, is registered and fairly kept; and every such transaction can be examined, if desired, at any future time.

All invoices of stock and other loose papers are neatly filed, and put up in the superintendent's office. In short, a thorough examination of the *contents of his office* will at all times enable the department or Government to take a full review of all transactions, occurrences, and conduct of the superintendent, relative to the armory, since the time he took the charge of it in 1815; and every person who takes the trouble, which I have done, to go into that examination, will be satisfied of the integrity, industry, and ability with which that establishment has been superintended.

SUBJECT 15.

State and condition of the books, returns, and papers of the officers of the armory.

The condition of the books of the assistant master armorers and foremen are as good as their situation and business will admit of.

The books of the superintendent, master armorer, and paymaster and storekeeper, are in the best condition. The forms are excellent; they are very neat, and the entries clear and legible.

All loose papers are handsomely filed, and properly laid away.

SUBJECT 16.

State of the debts of the armory, and punctuality of payment.

There are no debts against the armory contracted previously to the 30th September, 1819, except that of Messrs. Dwight, for importations for 1820, which is not yet due.

The payments are punctually made by the paymaster.

SUBJECT 17.

Regulations for the government of the men, and the good order of the same; also, their general character.

The regulations for the government of the men, for the good order of the same, and of the shops, and the post generally, are good, and well calculated to produce peace and harmony among themselves, and respectability with the surrounding citizens.

One great point has been gained by the superintendent—that of prohibiting the use of ardent spirits in and about the works. This, above all other things, will have a good tendency; but, owing to the effect of custom and habit, it was a difficult one to establish.

The character of the workmen generally, and almost universally, is good, and much better than is usual with mechanics employed at large manufactories. There is not one drunkard, or otherwise vicious man, at the armory; or none that are habitually so. They are mostly very respectable, and some of them wealthy citizens, and almost all natives of New England.

SUBJECT 18.

Occupancy of the public houses and gardens.

There are belonging to the United States, connected with the armory, twenty-two dwelling-houses.

The superintendent and master armorer, each, occupy a public house and a garden, free of expense.

The storekeeper and paymaster has been offered the use of one, but chooses not to accept of it.

Twenty houses, with small gardens, are occupied by forty-two of the workmen with their families. They each pay a small rent, which is deducted from their pay, of from sixteen to thirty dollars a year. The rooms occupied by each are generally one sitting room, one kitchen, and one bed room, with some out-houses. The average rent of each house is $39 35 per annum. The rents are generally very low, probably not more than sufficient to keep the buildings and garden fences in repair; whether the rents shall be raised, is a subject for consideration.

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SUBJECT 19.

Number of public teams and carriages kept, and in use.

Only one two-horse team is kept at the armory, and two wagons and one sleigh in use. No more are usually required. It is cheaper occasionally to hire a team than to keep any more.

The quantity of forage used is about ten tons of hay and one hundred bushels of corn annually. From this quantity the superintendent takes the forage for his own horse. The forage is not limited in quantity. It is purchased by the superintendent. The quantity of hay is above the ordinary allowance, but the grain much below; so that the amount expended for forage is considerably under the usual allowance for three horses.

SUBJECT 20.

Condition of the public buildings and fences.

The condition of the public buildings, so far as depends on police, and being taken care of, and well used, is good, generally.

The workshops of the whole establishment are in excellent condition and repair, being all built of brick and stone, and some fire-proof, the carpenters' shops excepted. Those buildings are of wood, and one of them is not very good.

The arsenal, master armorer's storehouse, public offices, and chapel (the three last being in one building) are likewise excellent buildings, and in good order and repair.

The magazine is a good building, and in good condition and repair. The surrounding fence is of wood, founded on a stone basement, but is painted and new.

The block house is in pretty good repair, and is used as a school house.

The coal houses are all in good repair and condition, several of them being new.

The several small iron and other stores near the forging shops are all in good repair and condition.

The two large wooden store houses for ordnance stores are in pretty good condition, but rather ancient, having been long built.

The ordnance yard and sheds are all in good condition.

The proving house is new and in good repair

The several dams and flumes are mostly in good repair; some of them new.

The twenty-two dwelling houses before mentioned are:

Five wood houses, two stories each, in good repair and condition.

One wood house, one story and a half, in good repair and condition.

One wood house, three stories, in good condition and repair.

Six wood houses, one story each, in good condition and repair.

One brick house, two stories, in good condition and repair.

Eight wood houses, one story each, old, poor, and worth but little.

The nealing, case-hardening, and casting houses are all in good condition and repair.

The saw-mill is in pretty good repair, also the bridges and stone walls about the water shops.

On the whole, all the important buildings of the establishment are in excellent repair and condition.

The fences are all good. Those around the public square and about the shops, at the main establishment, are all newly painted and in good repair.

The fence surrounding the public ground on the hill, and the several garden fences, are poor, and require to be built anew.

I consider it unnecessary, in this report, to give a particular description of the several buildings, although I have it in my minutes, as they are already known to the colonel of ordnance, and as this report is already drawn to a length which I fear will be tedious.

SUBJECT 21.

Arrangements of the shops and machinery.

I shall also abridge very materially the remarks under this head from what I at first intended, for the reason before mentioned. I at first intended to have given a statement of all the machines and apparatus in use at the works, and their several uses. The principal part of them may be seen in a pamphlet printed at Springfield about the beginning of the year. I presume you have one; if not, it can be obtained from the superintendent. Some additions have been since made to the works.

The arrangements of the shops, and machinery in the same, considering the necessary localities of the former, or such of them as require water power, appear to be as good as is practicable, with a very few exceptions. A few changes of small machines, by the removal of them to other shops, and the workmen of them, so as to save the transporting of the parts of muskets from one shop to another, are all the improvements that appear practicable in this part of the works; and this change is intended to be made by the superintendent as soon as time will admit.

Very considerable improvements have been made since the last war in the machinery, particularly by the introduction of several new machines; and the whole appear to operate with great efficacy. It is, indeed, pleasing to observe throughout the work the immense saving of manual labor by the introduction of water power and other machinery and apparatus, and also to reflect upon the ingenuity of our countrymen in the conception. The fact that there are in use between fourteen and fifteen thousand tools in this establishment could scarcely be credited by any one who had not been through the works. In short, no man will have a just conception of the extent and importance of the works at our national armory at Springfield who has not seen them for himself in their present condition. I shall make some remarks upon the new machines under the head of "improvements made."

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SUBJECT 22.

Improvements made in the establishment since 1815, *under the present superintendent.*

First.—At the main establishment, on the hill.

1. A stone floor made in the forging shop.
2. The magazine fence made new, and painted.
3. Magazine roof painted, and body whitewashed.
4. Cupola and bell put upon the roof of the main armory shop.
5. All the shops newly painted over.
6. Lumber yard built.
7. Two cisterns made to hold water for the fire engine.
8. A small magazine built for proof powder.
9. One two story brick building erected for master armorer's storehouse, for offices, and chapel.
10. One brick building erected for casting shop.
11. One house for proving barrels, rebuilt.
12. One old block house (military) moved off from the public square.
13. Several fences about the square, and buildings, made new and painted.
14. Trees set out in the square.

Secondly.—At the upper water shops.

1. Introduced a draw grinding stone machine, which goes by water, and facilitates the draw grinding of musket barrels, and does them better than in the old way.
2. Four drilling and milling machines (perpendicular) have been made upon an improved plan, which greatly facilitates the drilling generally of the parts of muskets, but particularly the lock plates, and drills every one precisely similar.
3. Several hand machines, for cutting small screws and pins, made.
4. The machines for milling and slitting heads of pins extended.
5. Machines for turning bayonet sockets and for boring pans made.
6. In progress, new flumes and a new water wheel (horizontal) to use less water.
7. Four machines introduced and made for turning the exterior of the musket barrels, forming, at the same time, the flats and ovals of the breech. The introduction of these ingenious and excellent machines is of great importance. It not only facilitates the manufacture of barrels, but it brings them to an equal thickness in the same circle throughout, and consequently greatly improves their quality. In this point, we have gone before the English manufacturers of arms.
8. Machines made for milling cock pins and rammer heads.
9. In progress, a new invented machine for turning musket stocks, and letting in the locks, by water—a process very difficult to conceive. This ingenious machine will lessen very considerably the expense of stocking guns, as well as facilitate the process.
10. Built one coal house, 30 by 60 feet, two stories.
11. One shop for case-hardening and nealing, extended and new covered.
12. Built one double forge, for four fires, with the apparatus complete.
13. Added one story to one of the principal water shops, and new covered the same.
14. Built a new bridge to connect the upper stories of two shops across the stream.

Thirdly.—Middle water shops.

1. The principal shop has been newly covered with tin plate, and thoroughly repaired throughout, and painted.
2. Three new water wheels built, (1st shop.)
3. Three trip hammers for welding barrels, with three new forges.
4. Three new water wheels and three flumes built, (2d shop.)
5. One dwelling house thoroughly repaired and painted.
6. One carpenter's shop built and painted.
7. One large coal house built.
8. One small one in progress.
9. Iron store extended and painted.
10. Some walls built, and some fences built and painted.
11. In progress, two forges and four trip hammers for welding barrels, with appendages, nearly done. These, together with the four already in operation, will make eight trip hammers for welding barrels, which will entirely do away the method of welding by hand hammers. This is a good improvement, and is also humane in its effects, as the welding of barrels by hand will wear out the constitutions of any workmen in a few years.

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Fourthly.—Lower water shops.

1. Two water wheels built new.
2. The flume built new.
3. Roof of the main shop put on new, and painted.
4. Introduced and made new one machine (water power) for striking out of rolled iron upper and lower bands, side plates, guards, and triggers; also, for trimming butt plates, guards, and triggers. These are all struck out at one stroke each. It is intended to strike out lock plates in the same machine. This machine saves much labor, and produces similar parts alike.
5. In progress, one shop (new) to contain one forge and appendages for making bar iron out of scraps, &c. made at the works, and an additional number of polishing wheels for work generally. Also, in progress, a new bridge across the stream, with stone abutments.

In addition to the improvements detailed, there are many small ones, in and about the works; to which must be added *the general improvement* adopted of making standard gauges, to which to work all the parts of muskets, and the *execution* of the work upon that system.

The improvements made in the method of accountability, and in keeping and rendering the accounts, must not be overlooked.

SUBJECT 23.

Improvements contemplated, and within the power of the superintendent, without any special appropriation of funds.

1. The removal of the ordnance yard and sheds from the square where they now stand to a place near the magazine.
2. Removal of the two large wood shops (store houses) on the Boston road into a line with the arsenal.
3. Removal of the old wood shops standing eastwardly of the new store house and offices; and, also, the dwelling houses and stables standing on the Boston road, into a line eastwardly of that on which are the brick shops and offices, &c., so as to form with them and the houses already in that direction a second square, between the large square and the magazine lot.

The above removal of buildings was proposed by me, and approved by the superintendent, who is, with your approbation, very desirous of doing it.

I strongly recommend that it may be done, as it will cost very little. They can all be removed by the workmen in a short time, and it would add much to the beauty of the establishment. Those buildings are all of long standing, and were located where they ought not to have been, not knowing at the time what the place would become, without a view to the general plan of the present establishment. On first arriving at the place, I was struck with the awkward appearance of those buildings on the main road, and in front of the square.

SUBJECT 24.

Improvements contemplated by the superintendent, which would require a special appropriation of funds.

1. Erection of one brick dwelling house on the west side of the great square, and opposite to the present building, or store house, offices, &c.
2. Erection of another brick armorer's shop, between the offices and Boston road, to complete the side of the square, of the size and form of the present one, on the other side of the offices, 204 by 30 feet, two stories high, for filers, stockers, and finishers.
3. Painting over with one color all the good dwelling houses already built.
4. One common dwelling house at the lower water shops.
5. One common dwelling house at the upper water shops.

The erection of the above buildings, and particularly the armorer's shop and brick dwelling house, would undoubtedly be very useful, and highly ornamental.

GENERAL REMARKS.

Finally, the armory bears inspection remarkably well; it bears a close and scrutinizing examination quite as well as a cursory view, and in fact better; for it is only when it is thus scrupulously investigated, that all its good arrangements and excellent operations can be discovered; and it is only upon such an examination that we can learn how much credit is due to the superintendent, and how much integrity, skill, and talents has been exercised, and how much attention and time has been devoted to its interests by him. I am fully convinced of the excellency of his character and conduct so far; and if he should continue in the same course, under the same, or a similar head in the Ordnance Department, the armory at Springfield will, if proper funds are granted to it by Government, become what it ought to be—a credit to the Government and an ornament to the nation, and highly beneficial to both.

I cannot but remark how detrimental to the establishment, and how expensive to Government, would be a change in the pattern musket. The effect cannot be realized by any one who has not paid particular attention to it, and who has not seen something of the method and process of the work, and the extent of the tools and apparatus adapted to a particular pattern. It is the easiest thing in the world to change the pattern at Washington, and to make, in imagination, thousands of arms upon the new pattern; but it is far otherwise in the practice. The same remark will hold good with respect to a change of the pattern of any other material article which constitutes a part of the equipments of the nation for war, in a certain degree proportionate to the tools, machinery, apparatus, labor, and expense requisite in the fabrication, and proportionate to the necessity or utility of a uniformity of the articles produced.

The importance of these subjects certainly could not have been understood by this nation formerly, or they would not have changed the plan and patterns for military weapons and appendages, with the seasons, or with the admission of new men to office, from the revolution to the late war; for which reasons the millions were lost which were devoted to the expense, and a heterogeneous mass of them created, which was thrown aside on the commencement of the war, either for bad construction or workmanship, or for the want of uniformity.

Stability of things, and stability of mind, are indispensable in the Ordnance Department, and particularly at its head.

To arrive at that height of excellence in the military preparation for war in this country to which the warlike nations of Europe have attained, permanency of men and measures and uniformity of construction must exist.

By permanency of men, I mean those men on whom depend, principally, the plans and execution of the means of national defence.

I do not mean that I wish for any change in our constitution and Government, for these I admire, and hope never to see materially altered—an elective Government by the people, and temporary power of individuals; but I do wish for, and hope to see, more permanency in the subordinate branches, or appendages of the Government, which our constitution does not require to be changed during good behavior, than did exist under former administrations; because I am satisfied, from observing the operations and effects of such changes, that the good of the people requires more permanency, when the men who fill the places are properly and fully qualified for their stations. The men engaged in the execution of the preparations for war, together with the systems and methods pursued, should form a machine which should be kept in motion by any power the people choose to apply, but which should move in the same manner during the operations of the same power. It is pleasing to observe that the prospects are now good towards the attainment of this grand object. The operation of things at the present time seems to be very favorable to its accomplishment.

The following tables show the present cost of the musket at Springfield, which is about $1 50 lower than they were previously to the present organization of the armory, or $10,500 per annum.

Cost of the workmanship of a musket complete, in 1819.

Cost of musket barrel complete,	$1 31
Cost of musket lock complete,	2 10
Cost of mounting, including rod and bayonet, complete,	1 50
Cost of stocking and finishing the musket,	1 66
Total amount,	$6 57

Expense of workmanship and materials, or musket complete.

Twenty pounds of iron, at eight cents,	$1 60
Three pounds of steel, at sixteen cents,	48
Rough stock,	30
Coal,	1 00
Files,	20
Labor,	6 57
Contingencies,	1 00
Wear of tools and machinery,	25
Loss,	1 00
Cost of musket complete,	$12 40

It is believed that a further reduction in the cost is practicable, and that in one or two years from this the cost will not exceed $12.

Col. Decius Wadsworth, *U. S. Ordnance.*

[N. B. The above report was made by Major James Dalliba, of the Ordnance Department, in October, 1819.]

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H.

SIR: ORDNANCE DEPARTMENT, *November* 21, 1823.

In compliance with your instructions, of the 7th of April last, and of the 5th instant, I have the honor to communicate, herewith, the papers marked H No. 1, H No. 2, H No. 3, H No. 4, and H No. 5, containing the statements required, viz:

Statement H No. 1 exhibits an account of the remittances, through this department, in the year 1822, showing the amount, under each head of appropriation, received by each disbursing officer; the amount of the accounts rendered by them; and the balances remaining in the hands of each, at the close of the year.

By this statement, it appears that the total amount of money expended through this department, in the year 1822, was	$698,467 16
The amount of accounts rendered and settled in the same time was	643,418 60
The balance remaining in the hands of disbursing officers, at the close of the year, was	$55,048 56

and that the whole of this balance has been since accounted for, no instance of defalcation having occurred.

Statement H No. 2 exhibits an account of the moneys transmitted to the several disbursing officers at the armories and arsenals, during the first three quarters of the present year; the amount of the accounts rendered by them during the same period; and the balances remaining unexpended, in the hands of each, at the close of the third quarter.

By this statement, it appears that the total amount of moneys transmitted was	$346,217 68
The amount of accounts rendered,	339,983 93
The balances remaining unexpended, at the close of the third quarter, in the hands of disbursing officers,	$6,233 75

The accounts of all the disbursing officers and agents of this department have been rendered up to the 30th of September last, and have been deposited in the Auditor's Office for settlement.

Statement H No. 3 shows the number and description of arms and accoutrements procured, and of the expenditures made under the act for arming and equipping the militia, during the first, second, and third quarters of the present year.

The arms procured under this act are as follows, viz:

Muskets,	9,240
Rifles,	1,542
Pistols,	3,400
Total	14,182

The amount drawn from the Treasury on this account is	$171,845 92
Amount collected on account of advances,	13,682 00
	$185,527 92

The amount collected on account of advances is a reimbursement of a part of the sums advanced to contractors, several years past. No advances have been made upon any contracts made by this department since the year 1819.

In July last an apportionment was made of the arms due to the several States and Territories, under the above-mentioned act, up to the close of the year 1822. The arms apportioned were those procured during the last seven years, and amounted to ninety-four thousand stands. After deducting the partial deliveries which had been made on account, there remained due to the several States and Territories about sixty-six thousand eight hundred stands, of which about thirty-six thousand have been transported and delivered: the remainder have either been delivered, or are in due course of transmission; the reports of which have not yet been received. A doubt has arisen whether the terms of the act authorized a distribution to the militia of the District of Columbia. The third section provides that the arms shall be transmitted to the several States and Territories, in proportions corresponding with the number of effective militia in each respectively, and that they shall be distributed under such rules and regulations as shall be prescribed by their respective Legislatures. No such regulations have been established for the distribution of arms to the militia of the District; nor is there any executive officer designated by law to whom this department can deliver them.

Under these circumstances, the delivery has been suspended; and I take the liberty respectfully to suggest that provision may be made by law for furnishing to the militia of the District the quota of arms which shall be due thereto.

Statement H No. 4 exhibits an account of the work done, and supplies procured, at the several armories and arsenals, from the 1st October, 1822, to the 30th September, 1823. In addition to the particulars shown in this statement, much other business has been done, which cannot be exhibited in a tabular form; such as the repairs and preservation of the arsenals, workshops, and wharves; the enclosures and improvements of the public grounds; and the preservation and improvement of the establishments, generally.

Those objects have received due attention, and the condition of all the public buildings, and other property under the control of this department, has been much improved; and they are, generally, in a good state of preservation.

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The work done under the appropriation for arsenals, and which is not embraced in the statement, is the following:

At Frankford, Pennsylvania.—An arsenal 100 by 36 feet, three stories high; a store-house, 60 by 26 feet, two stories high; and two workshops, 45 by 26 feet, one story high; all of stone, with slate roofs, have been commenced; of which, the store-house and workshops have been completed, and the arsenal nearly finished. The interior of a building for officers' quarters, formerly commenced, has also been completed.

At Greenleaf's Point, District of Columbia.—Two workshops of brick, each 100 by 25 feet, one story high, have been commenced and completed. A substantial wall, 260 feet in length, connecting the buildings, has also been erected; and 6,000 cubic yards of earth have been removed; 1,400 feet of stone fence, enclosing the magazine, has also been built.

At Baton Rouge.—The arsenal formerly commenced at that place has been entirely completed; and a substantial gun-house, 110 by 45 feet, of brick, has been commenced, and some progress made. The establishment at that place has been so far completed, that the ordnance and ordnance stores, hitherto at New Orleans, (a considerable part of which was deposited in rented warehouses) have been removed to it.

At Watervliet, New York.—Five and three-quarters acres of land adjoining the public ground, and the New York canal, have been purchased; and a substantial shed, 100 by 28 feet, has been erected.

Statement H No. 5 shows the quantity of ordnance and ordnance stores issued from the arsenals and depots, for the supply of the army and military posts, from the 1st January to the 30th September, 1823.

In conclusion, I beg leave to observe, that, upon a review of the preceding statements, it will be seen that about $700,000 was drawn from the Treasury and remitted to the disbursing officers of this department, and to contractors, during the year 1822; and that the whole amount has been regularly and promptly accounted for; and that about $518,000 has been remitted in like manner, during the first three quarters of the present year; and that the accounts of all the disbursing officers have been rendered up to the close of the third quarter, which account for the expenditure of about $512,000, leaving a balance of only $6,000 unexpended, which is applicable to the expenses of the present quarter; no instance of defalcation or failure to render accounts promptly having occurred during the period embraced by the statements. These satisfactory results show that the present system of accountability has attained a high degree of perfection, and that it has answered the fullest expectations.

It may not be irrelevant to add, that there has been a steady progressive improvement, as respects both the number and quality of the arms procured. The product of the national armories will this year exceed by two thousand stands that of any former year, and of a quality equal to any that have been manufactured in the country.

I have the honor to be, sir, very respectfully, your obedient servant,

GEO. BOMFORD, *Lieut. Col. on ordnance duty.*

Hon. J. C. CALHOUN.

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H No. 1.

Statement of the money expended through the Ordnance Department in the year 1822.

Officers' names and stations.	Amount of sums remitted, including the balances in the hands of agents on the 1st January, 1822. APPROPRIATIONS. For national armories.	For the current expenses of the ordnance service.	For arsenals.	For cannon, shot, shells, &c.	For arming and equipping the militia, &c.	Total amount remitted.	Amount expended and accounted for in 1822.	Balances remaining unexpended in the hands of disbursing officers, 31st Dec. 1822.	Remarks.
John Chaffee, armory, Springfield, Mass.,	$192,937 42	-	-	-	$1,530 58	$194,468 00	$183,321 66	$11,146 34	Balance accounted for in first quarter of 1823.
John P. McGuire, armory, Harper's Ferry.	183,553 34	-	-	-	-	183,553 34	157,184 89	26,368 45	Ditto.
Capt. D. T. Welch, arsenal, Watertown,	-	$3,313 75	-	-	-	3,313 75	2,821 97	491 78	Ditto.
Lt. A. Mackay and Lt. J. Monroe, N. Y.,	-	569 72	-	1,250 00	-	1,819 72	1,485 60	334 12	Ditto.
Lieut. Martin Thomas, Frankford, Penn.,	-	2,118 18	-	-	810 00	2,928 18	2,351 21	576 97	Ditto.
Lieut. N. Baden, Baltimore, Maryland, -	1,010 61	1,790 86	-	-	-	2,801 47	2,712 79	88 68	Ditto.
Capt. G. Talcott, Pittsburg, Penn., -	-	9,226 81	-	-	500 00	9,726 81	8,276 81	1,450 00	Ditto.
Lieut. J. Simonson, Greenleaf's Point, -	-	2,427 81	-	3,600 00	500 00	6,527 81	4,822 39	1,705 42	Ditto.
Capt. R. L. Baker, Richmond, Virginia, -	-	1,159 77	-	-	-	1,159 77	862 34	297 43	Ditto.
Capt. H. K. Craig, Augusta, Georgia, -	-	4,295 92	226 52	-	476 00	4,998 44	4,287 49	710 95	Ditto.
Lieut. J. A. Adams, New Orleans, -	-	200 00	-	-	-	200 00	-	200 00	Ditto.
Lieut. J. Symington, Baton Rouge, -	-	600 00	10,392 32	-	-	10,992 32	8,919 55	2,042 77	Ditto.
J. Whistler, m. s. k., Belle Fontaine, -	-	108 22	-	-	-	108 22	54 53	53 69	Ditto.
S. Perkins, m. s. k., Detroit, -	-	898 42	-	-	-	898 42	679 74	218 68	Ditto.
R. L. Stevens, for elongated shells, -	-	-	-	6,000 00	-	6,000 00	6,000 00	-	Payments due on audited acc'ts.
John Clarke & Co., for shot and shells, -	-	-	-	5,490 45	-	5,490 45	5,490 45	-	Payments due on audited acc'ts.
John Mason, for cannon, howitzers, &c.,	-	-	-	8,000 00	-	8,000 00	-	8,000 00	Accounted for third quarter 1823.
Major J. Dalliba, Watervliet, New York,	-	7,045 26	324 69	-	500 00	7,869 95	6,506 67	1,363 28	Accounted for first quarter 1823.
Sundry contractors for small arms, &c., -	-	-	-	-	247,610 51	247,610 51	247,610 51	-	Payments due on audited acc'ts.
Total, -	$377,501 37	$33,754 72	$10,943 53	$24,340 45	$251,927 09	$698,467 16	$643,418 60	$55,048 56	

ORDNANCE DEPARTMENT, *November* 21, 1823.

GEO. BOMFORD, *Lieut. Col. on ordnance duty.*

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H No. 2.

Statement of funds transmitted to the several armories and arsenals of the United States, from the 1st January to the 30th September, 1823, and the amount of accounts rendered from each during the same period.

Officers' names and stations.	Amount in officers' hands, 1st January, 1823.	Amount transmitted in the 1st, 2d, and 3d quarters of 1823.	Total amount.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1823.	Balances remaining in officers' hands, Oct. 1, 1823.
John Chaffee, armory, Springfield, Mass.,	$11,146 34	$129,019 00	$140,165 34	$138,999 77	$1,165 57
John P. McGuire and Wm. P. Craighill, armory, Harper's Ferry, Virginia,	26,368 45	120,000 00	146,368 45	144,868 45	1,500 00
Capt. D. T. Welch and Lieut. J. W. Thompson, arsenal, Watertown, Massachusetts,	491 78	2,300 00	2,791 78	2,443 15	348 63
Major J. Dalliba and Lieut. A. Lowd, arsenal, Watervliet, New York,	1,363 28	7,040 00	8,403 28	8,160 83	242 45
Lieut. James Monroe, arsenal, New York,	334 12	750 00	1,084 12	1,084 12	
Lieut. M. Thomas, Frankford arsenal, Penn.,	576 97	16,059 32	16,636 29	16,546 57	89 72
Lieut. N. Baden, arsenal near Baltimore, Md.,	88 68	1,977 42	2,066 10	2,025 62	40 48
Capt. J. Talcott and Lieut. G. S. Drane, arsenal, Pittsburg, Pennsylvania,	1,450 00	6,775 45	8,225 45	8,074 94	150 51
Lieut. J. Simonson and Lieut. W. E. Williams, arsenal, Greenleaf's Point,	1,705 42	7,000 00	8,705 42	6,955 83	1,749 59
Capt. R. L. Baker and Lieut. T. J. Baird, arsenal, near Richmond, Virginia,	297 43	600 00	897 43	639 37	258 06
Capt. H. K. Craig and Capt. A. Mackay, arsenal, Augusta, Georgia,	710 95	2,045 67	2,756 62	2,656 68	99 94
Lieut. J. Symington and Lieut. J. A. Adams, arsenal, Baton Rouge,	2,042 77	-	2,042 77	2,042 77	
J. Whistler, depot, Belle Fontaine,	53 69	-	53 69	46 19	7 50
S. Perkins, arsenal, Detroit,	218 68	-	218 68	218 68	
Lieut. J. A. Adams, depot, New Orleans,	200 00	1,200 00	1,400 00	818 70	581 30
Sundry persons for balances due on settlements,	-	4,402 26	4,402 26	4,402 26	
Total,	$47,048 56	$299,169 12	$346,217 68	$339,983 93	$6,233 75

ORDNANCE DEPARTMENT, *November* 21, 1823.

GEO. BOMFORD, *Lieut. Col. on ordnance duty.*

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H No. 2.

Statement of funds transmitted to the several armories and arsenals of the United States, from the 1st January to the 30th September, 1823, and the amount of accounts rendered from each during the same period.

Officers' names and stations.	Amount in officers' hands, 1st January, 1823.	Amount transmitted in the 1st, 2d, and 3d quarters of 1823.	Total amount.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1823.	Balances remaining in officers' hands, Oct. 1, 1823.
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John P. McGuire and Wm. P. Craighill, armory, Harper's Ferry, Virginia,	26,368 45	120,000 00	146,368 45	144,868 45	1,500 00
Capt. D. T. Welch and Lieut. J. W. Thompson, arsenal, Watertown, Massachusetts,	491 78	2,300 00	2,791 78	2,443 15	348 63
Major J. Dalliba and Lieut. A. Lowd, arsenal, Watervliet, New York,	1,363 28	7,040 00	8,403 28	8,160 83	242 45
Lieut. James Monroe, arsenal, New York,	334 12	750 00	1,084 12	1,084 12	
Lieut. M. Thomas, Frankford arsenal, Penn.,	576 97	16,059 32	16,636 29	16,546 57	89 72
Lieut. N. Baden, arsenal near Baltimore, Md.,	88 68	1,977 42	2,066 10	2,025 62	40 48
Capt. J. Talcott and Lieut. G. S. Drane, arsenal, Pittsburg, Pennsylvania,	1,450 00	6,775 45	8,225 45	8,074 94	150 51
Lieut. J. Simonson and Lieut. W. E. Williams, arsenal, Greenleaf's Point,	1,705 42	7,000 00	8,705 42	6,955 83	1,749 59
Capt. R. L. Baker and Lieut. T. J. Baird, arsenal, near Richmond, Virginia,	297 43	600 00	897 43	639 37	258 06
Capt. H. K. Craig and Capt. A. Mackay, arsenal, Augusta, Georgia,	710 95	2,045 67	2,756 62	2,656 68	99 94
Lieut. J. Symington and Lieut. J. A. Adams, arsenal, Baton Rouge,	2,042 77	-	2,042 77	2,042 77	
J. Whistler, depot, Belle Fontaine,	53 69	-	53 69	46 19	7 50
S. Perkins, arsenal, Detroit,	218 68	-	218 68	218 68	
Lieut. J. A. Adams, depot, New Orleans,	200 00	1,200 00	1,400 00	818 70	581 30
Sundry persons for balances due on settlements,	-	4,402 26	4,402 26	4,402 26	
Total,	$47,048 56	$299,169 12	$346,217 68	$339,983 93	$6,233 75

ORDNANCE DEPARTMENT, *November* 21, 1823.

GEO. BOMFORD, *Lieut. Col. on ordnance duty.*

H No. 3.

Statement of the arms and accoutrements procured, and of the expenditures made, under the act of 1808, *for arming and equipping the militia; from* 1st *of January to the* 30*th of September*, 1823.

Arms and accoutrements procured.

Muskets,	9,240
Rifles,	1,542
Pistols,	3,400
Flints,	24,000
24 pdr. spherical case shot,	2,717
12 pdr. do.	1,472
Rifle accoutrements, complete,	600
Sabre belts,	823
Rifle accoutrements, without flasks,	550

Expenditures, viz:

Amount paid for the arms and accoutrements procured,	$166,307 13
Amount paid for inspection, packing boxes, storage, and distribution to the respective States,	5,538 79
Total amount drawn from the Treasury,	$171,845 92
Amount collected from contractors, on account of former advances,	13,682 00
Total value of arms and accoutrements procured, at contract price,	$185,527 92

ORDNANCE DEPARTMENT, *November* 21, 1823.

G. BOMFORD, *Lieut. Col. on ordnance duty.*

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H No. 4.

Statement of work done and supplies procured at each of the armories and arsenals of the United States, from the 1st October, 1822, to the 30th September, 1823.

STATIONS.	Muskets manufactured.	Ball screws manufactured.	Wipers manufactured.	Screw drivers manufactured.	Spring vices manufactured.	Arm chests manufactured.	Muskets repaired.	Muskets cleaned and furbished.	Muskets new stocked.	Rifles repaired.	Rifles cleaned and furbished.	Rifles new stocked.	Swords and sabres cleaned and repaired.	Pistols cleaned and repaired.	Boxes of arms unpacked, inspected, and repacked.	Cannon and howitzers cleaned and lackered.	Cannon and howitzers proved and inspected.	Shrapnell shells proved and inspected.	Gun-carriages made.	Gun-carriages repaired.	Musket and rifle barrels proved.	Infantry accoutrements cleaned and repaired.	Artillery harness cleaned and repaired.	Rammers and sponges made.	Tamkins made.	Prolonges made.	Bricoles made.	Gunners' haversacks made.	Powder horns made.	Sponge buckets made.	Tube boxes made.	Sets tube moulds made.	Rammers and sponges repaired.	Rocket moulds repaired.
Armory, Springfield, Mass.	14,400	1,440	14,400	14,400	1,440	720																											
Armory, Harper's Ferry, Va.	11,500	1,150	11,500	11,500	1,150	575																											
Arsenal, Watertown, Mass.	-	-	-	-	-	37	120	1,380	-	8	-	-	-	18	-	-	-		-	-	-	-	-	-	10							
Arsenal, Watervliet, New York,	-	-	-	-	-	4	2,043	13,488	-	-	-	-	5,084	11,600	750	-	-		-	10	-	-	-	-	-	-	-	8	6				
Arsenal, New York,	-	-	-	-	-	-	-	695	-	-	99	-	225	99	-	134	-		-	2	-	-	-	-	-	-	-	-	2				
Arsenal, Rome, New York,	-	-	-	-	-	-	-	747	-	-	-	-	-	-	-	-	-		-	-	-	1,753	2	-	-	-	-	-	-	-	-	37	
Arsenal, Frankford, Penn.	-	-	-	-	-	-	-	133	-	-	40	-	248	153	-	-	-		-	-	9,139	1,703	20	-	-	-	-	-	-	7	1	-	1
Arsenal, Pittsburg, Penn.	-	-	-	-	-	100	7,668	11,605	58	708	2,578	19	11,398	1,982	361	85	41		-	-	-	-	-	-	20	-	-	-	-	-	-	200	
Arsenal, near Baltimore, Md.	-	-	-	-	-	-	-	1,735	-	-	-	-	-	-	-	-	-		-	1	-	-	354	-	-	-	-	-	-	-	-		
Arsenal, Greenleaf's Point, D. C.	-	-	-	-	-	-	63	2,359	-	82	-	-	-	-	-	-	125		-	2	-	3,300	-	33	-	-	16	14					
Arsenal, near Richmond, Va.	-	-	-	-	-	-	-	14,727	-	-	-	-	-	-	790	411	-	5,937	2	5	-	2,000											
Arsenal, near Augusta, Georgia,	-	-	-	-	-	67	1,343	-	85	-	-	-	-	-	120																		
Depot, New Orleans,	-	-	-	-	-	-	-	1,504	-	-	-	-	-	-	-	-	-		-	9	-	1,504	9										
Arsenal, Detroit, Michigan Ter.	-	-	-	-	-	-	-	2,965	-	-	-	-	-	-	32	43	-	-	-	2	-	3,350	6	-	-	1	-	-	2	-	-	4	
	25,900	2,590	25,900	25,900	2,590	1,503	11,237	51,318	143	798	2,717	19	16,965	13,852	2,053	673	166	5,937	2	31	9,139	13,610	37	387	30	1	16	14	8	10	7	1	241	1

H No. 4—Continued.

STATIONS.	Gin blocks and tackles made.	Sets of instruments for proving cannon made.	Fire engines repaired.	Pounds of powder dried, sifted, and repacked.	Barrels of powder proved.	Barrels of powder repacked with waterproof paper.	Powder barrels repaired.	New powder barrels procured.	Cartridge kegs repaired.	Kegs of cartridges repacked.	Musket cartridges made.	Cannon cartridges made.	Rockets made.	Priming tubes made.	Fusees made.	Pounds of cartridge paper procured.	Pounds of bees' wax procured.	Gallons spirits turpentine procured.	Gallons oil procured.	Gallons lacker made.	Reams of waterproof cartridge paper prepared.	Axes made and procured.	Spades & shovels made and procured.	Augers made and procured.	Saws made and procured.	Planes made and procured.	Files procured.	Feet of lumber procured.	Feet of board fence made and painted.	Yards of brick floor paved.	Packing boxes made.	Pounds of white lead procured.	Ammunition boxes made.	Sets of gun-carriage timber procured.
Armory, Springfield, Mass.																																	
Armory, Harper's Ferry, Va.																																	
Arsenal, Watertown, Mass. -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	58	-	-	7	22	-	-	-	183	7,647	-	-	-	476		
Arsenal, Watervliet, New York,	1	-	-	-	270	-	-	46	-	-	-	1,347	10	-	-	3,638	835	389	14	-	35	-	12	2	-	-	116	56,165	2,742	-	6	173	17	
Arsenal, New York, - -	-	-	-	-	-	-	-	25	-	-	-	-	30	-	-	-	-	7	76	-	-	2	10	12	6	10	47	4,950	-	-	-	224		
Arsenal, Rome, New York, -	1	-	-	-	-	-	50	-	713	1,216	-	-	-	-	-	-	-	2	26	-	-	-	-	-	-	-	-	800	437	-	2			
Arsenal, Frankford, Penn. -	-	-	-	-	103	-	58	-	70	-	-	-	-	-	-	-	-	-	-	-	-	189	178	-	-	-	33	7,377	-	-	12			
Arsenal, Pittsburg, Penn.	-	2	1	24,200	-	209	221	-	-	-	5,000	1,154	58	25,100	560	617	100	262	194	-	7	27	16	10	3	7	676	30,418	987	390	8	562		
Arsenal, near Baltimore, Md. -	-	-	-	19,800	150	198	198	-	1,057	1,154	-	-	-	-	-	1,391	276	206	90	144	13	-	-	-	-	-	-	2,884	-	-	-	596		
Arsenal, Greenleaf's Point, D. C.	-	-	-	-	199	-	-	151	-	-	-	-	80	-	-	-	-	-	48	-	-	-	-	-	-	-	36	9,000	-	-	-	336	-	42
Arsenal, near Richmond, Va. -	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	-	-	-	-	37	-	-	-	-	-	-	-	32	2,071						
Arsenal, near Augusta, Georgia,	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,300						
Depot, New Orleans, - -	1	-	-	-	709	-	409	-	102	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40			
Arsenal, Detroit, Michigan Ter.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	4	20	-	853		-				
	3	2	1	44,000	1,431	407	936	257	1,942	2,472	5,000	2,501	178	26,200	560	5,646	1,211	889	543	144	55	225	238	35	13	37	1,123	129,465	4,166	390	68	2,367	17	42

ORDNANCE DEPARTMENT, *November* 21, 1823.

GEORGE BOMFORD, *Lieutenant Colonel on ordnance duty.*

18th CONGRESS.] No. 259. [1st SESSION.

OPERATIONS OF THE ARMORIES FOR THE YEAR 1823.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, MARCH 24, 1824.

SIR: DEPARTMENT OF WAR, *March* 23, 1824.

In pursuance of an act concerning arsenals and armories, passed April 2, 1794, I have the honor to transmit, herewith, a statement of the expenditures at the national armories, and of the arms, &c. made therein during the year 1823.

I have the honor to be your obedient servant,

J. C. CALHOUN.

The SPEAKER *of the House of Representatives.*

Statement of the expenditures at the national armories, and of the arms, &c. made therein during the year 1823.

	Expenditures.					Arms, &c. made.					
	For land, buildings, canals, repairs, and other permanent improvem'ts.	For the manufacture of arms.	For miscellaneous expenses not embraced in the foregoing.	On account of 1,000 patent rifles in progress, but not yet completed.	Total am't expended.	Muskets.	Screw-drivers.	Wipers.	Ball-screws.	Spring-vices.	Arm chests.
	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.						
Springfield, Mas.,	5,375 27	175,595 76	1,016 98	-	181,988 01	14,000	14,000	15,831	1,400	1,400	1,065
Harper's F'y, Va.	11,037 80	161,813 77	492 25	11,207 37	184,551 19	12,200	10,343	-	-	-	921
	16,413 07	337,409 53	1,509 23	11,207 37	366,539 20	26,200	24,343	15,831	1,400	1,400	1,986

ORDNANCE DEPARTMENT, *March* 23, 1824.

GEO. BOMFORD, *Lieut. Col. on ordnance duty.*

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H.

SIR: ORDNANCE DEPARTMENT, WASHINGTON, *November* 25, 1824.

In compliance with your instructions of the 1st instant, I have the honor to communicate, herewith, the papers numbered 1, 2, 3, 4, 5, and 6, containing the statements required, viz:

No. 1 exhibits an account of the remittances, through this department, in the year 1823; showing the amount, under each head of appropriation, received by each disbursing officer; the amount of accounts rendered by them; and the balances remaining in the hands of each at the close of the year. By this statement it appears that the total amount of money remitted through this department, in the year 1823, was - - $666,460 84
The amount of accounts rendered and settled, during the same time, - - 639,157 55
The balance remaining in the hands of disbursing officers at the close of the year, - 27,303 29

and that the whole of this balance was accounted for in the first quarter of the present year; no case of defalcation having occurred during the year.

No. 2 exhibits an account of the moneys transmitted to the several disbursing officers, at the armories and arsenals, during the first three quarters of the present year; the amount of the accounts rendered by them during the same period; and the balances remaining unexpended in the hands of each at the close of the third quarter.

By this statement it appears that the total amount of moneys transmitted was - - $354,387 41
The amount of accounts rendered, - - - - - 339,101 84
The amount remaining unexpended in the hands of disbursing officers at the close of the third quarter, and applicable to the fourth quarter, - - - - 15,285 57

The accounts of all the disbursing officers and agents of this department have been rendered up to the 30th of September last, and have been deposited in the Auditor's office for settlement.

No. 3 shows the number and description of arms and accoutrements procured, and of the expenditures made, under the act for arming and equipping the militia, during the first, second, and third quarters of the present year.

The arms procured are as follows, viz: 7,485 muskets, 2,800 rifles, and 17 pieces of ordnance, with cannon balls, accoutrements, &c.

The amount drawn from the Treasury on this account is - - - $142,341 08
Amount collected on account of advances made on contracts, prior to the year 1819, - 8,930 00

Total amount, $151,271 08

No. 4 exhibits an apportionment of the arms procured under the law for arming the militia, during the year 1823; by which it appears that fifteen thousand stands of arms have been apportioned to the militia of the several States and Territories, in quotas proportioned to the number of militia in each, respectively. The arms embraced in this apportionment have not yet been distributed, except in a few instances; but they are all in readiness for delivery, and will be distributed whenever required by the proper authorities of the respective States, to whom they are due.

Of the arms which were apportioned prior to 1823, and remained undistributed at my last annual report, about twenty-seven thousand have been delivered; leaving about four thousand yet to be delivered, and which are waiting the orders of the States to which they are due.

No. 5 exhibits an account of the work done, and supplies procured, at the several armories and arsenals, from the 1st of October, 1823, to the 30th of September, 1824.

By this statement it will be seen that 23,859 muskets have been manufactured at the national armories during the year. This number is equal to the average annual product of the armories, but is less than the product of the last year by about two thousand stands. This diminution has been occasioned by fires, which destroyed one of the principal workshops at each of the armories, in the early part of the year. The damages occasioned by these fires have since been repaired, and both armories are now in full and complete operation.

In addition to the particulars exhibited in this statement, much other business has been done, which cannot be stated in a tabular form; such as the repair and preservaiton of the arsenals, workshops, and enclosures; the improvement of the public grounds, and the preservation of the depots generally. These objects have received due attention, and the public buildings, and other property pertaining to this department, are generally in a good state of preservation.

No. 6 shows the kind and quantity of ordnance and ordnance stores issued from the arsenals and depots, for the supply of the army and military posts, during the first three quarters of the present year.

By the latest returns from the lead mines on Fever river, which embrace the period from October 1st, 1823, to June 30th, 1824, it appears that, during that period, 138,644 pounds of lead have been produced; and that 17,222 pounds have been delivered to the United States, on account of rents, and deposited in the public storehouses at St. Louis. The number of lessees at work during the same period was ten. No leases have been granted, and no mines have been worked, on public account, in any other section of the country than those above stated, on Fever river.

I have the honor to be, sir, very respectfully, your obedient servant,

GEO. BOMFORD, *Lieut. Col. on ordnance service.*

Hon. JOHN C. CALHOUN, *Department of War.*

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No. 1.

Statement of the money expended through the Ordnance Department in the year 1823.

Officers' names and stations.	Appropriations.						Amount expended and accounted for in 1823.	Balances remaining unexpended in the hands of disbursing officers, Dec. 31, 1823.	Remarks.
	For national armories.	For the current expenses of the ordnance service.	For arsenals.	For cannon, shot, &c.	For arming & equipping the militia.	Total amount remitted.			
John Chaffee, armory, Springfield, Mass.	186,824 19	-	-	-	1,341 15	188,165 34	182,749 05	5,416 29	Balance accounted for in 1st quarter of 1824.
John P. McGuire, W. P. Craighill, do Harper's Ferry, Va.	194,368 45	-	-	-	-	194,368 45	184,615 47	9,752 98	Balance accounted for in 1st quarter of 1824.
Lt. J. W. Thompson, arsenal, Watertown, Mass.	-	4,433 78	-	-	187 13	4,620 91	3,758 12	862 79	Balance accounted for in 1st quarter of 1824.
Maj. J. Dalliba, do Watervliet, N. Y.	-	8,928 56	2,400 00	-	200 00	11,528 56	10,511 49	1,017 07	Balance accounted for in 1st quarter of 1824.
Lieut. J. Simonson, do Rome, N. Y.	-	610 32	-	-	-	610 32	381 74	228 58	Balance accounted for in 1st quarter of 1824.
Lieut. J. Monroe, do New York,	-	1,434 12	-	-	-	1,434 12	1,295 81	138 31	Balance accounted for in 1st quarter of 1824.
Lieut. M. Thomas, do Frankford, Penn.	-	3,098 18	19,000 00	-	6,981 30	29,079 48	27,650 40	1,429 08	Balance accounted for in 1st quarter of 1824.
Capt N. Baden, do Baltimore, Md.	227 42	2,474 36	-	-	-	2,701 78	2,531 64	170 14	Balance accounted for in 1st quarter of 1824.
Lieut. G. S. Drane, do Pittsburg, Penn.	-	10,390 96	261 48	-	1,637 14	12,289 58	10,154 54	2,135 04	Balance accounted for in 1st quarter of 1824.
Lieut. C. Ward, do Newport, Ken.	-	50 00	-	-	-	50 00	50 00		
Lt. W. E. Williams, do Greenleaf's Point,	-	2,926 32	8,000 00	906 61	399 67	12,232 60	10,351 64	1,880 96	Balance accounted for in 1st quarter of 1824.
Lieut. T. J. Baird, Capt. D. T. Welch, do Richmond, Va,	-	1,097 43	-	-	769 01	1,866 44	1,214 20	652 24	Balance accounted for in 1st quarter of 1824.
Lieut. J. Symington, do Charleston, S. C.	-	500 00	-	-	-	500 00	159 07	340 93	Balance accounted for in 1st quarter of 1824.
Capt. M. M. Payne, do Augusta, Geo.	-	5,099 75	1,600 00	-	245 84	6,945 59	3,933 65	3,011 94	Balance accounted for in 1st quarter of 1824.
Lieut. J. A. Adams, do Baton Rouge, La.	-	1,650 54	1,423 85	-	-	3,074 39	3,025 34	49 05	Balance accounted for in 1st quarter of 1824.
J. Whistler, do Belle Fontaine, Mo.	-	53 96	-	-	-	53 69	41 86	11 83	Balance accounted for in 1st quarter of 1824.
S. Perkins, do Detroit, M. T.	-	468 66	-	-	-	468 66	262 60	206 06	Balance accounted for in 1st quarter of 1824.
John Mason, for cannon, howitzers, &c.	-	-	-	369 63	-	369 63	369 63	-	Payments due on audited accounts.
R. L. Stevens, for elongated shells,	-	2,565 50	-	-	-	2,565 50	2,565 50	-	Payments due on audited accounts.
John Clarke & Co., for shot and shells,	-	1,195 13	-	-	4,081 16	5,276 29	5,276 29	-	Payments due on audited accounts.
Sundry contractors, for small arms, &c.	-	-	-	-	185,056 00	185,056 00	185,056 00	-	Payments due on audited accounts.
Sundry persons, for balances due on settlements,	-	3,203 51	-	-	-	3,203 51	3,203 51	-	Payments due on audited accounts.
Total dollars,	381,420 06	50,180 81	32,685 33	1,276 24	200,898 40	666,460 84	639,157 55	27,303 29	

ORDNANCE DEPARTMENT, *November* 25, 1824.

G. BOMFORD, *Lt. Col. on ordnance service.*

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No. 2.

Statement of funds transmitted to the several armories and arsenals of the United States, from the 1st January to the 30th September, 1824, and the amount of accounts rendered from each during the same period.

Officers' names and stations.	Am't in officers' hands 1st January, 1824.	Transmitted in the 1st, 2d, and 3d quarters of 1824.	Total amount.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1824.	Balances remaining in officers' hands 1st October, 1824.
John Chaffee, armory, Springfield, Massachusetts, -	$5,416 29	$143,250 00	$148,666 29	$146,577 98	$2,088 33
Wm. P. Craighill, armory, Harper's Ferry, Va.(a)	9,752 98	28,735 43	38,488 41	30,755 75	7,732 66
William Broadus, armory, Harper's Ferry, Va. -	-	122,339 57	122,339 57	120,180 63	2,158 94
Lt. J. W. Thompson, arsenal, Watertown, Mass.	862 79	3,146 46	4,009 25	3,960 63	48 62
Major J. Dalliba, Lt. T. J. Baird, arsenal, Watervliet, N. Y. -	1,017 07	3,400 00	4,417 07	4,323 77	93 30
Lieut. T. Burke, depot, West Point, New York, -	-	530 00	530 00	510 15	19 85
Lieut. J. Monroe, arsenal, New York, -	138 31	1,150 00	1,288 31	991 57	296 74
Lt. J. Simonson, do. Rome, New York, -	228 58	680 00	908 58	908 58	
Lt. M. Thomas, do. Frankford, Penn. -	1,429 08	2,525 00	3,954 08	3,008 20	945 88
Maj. S. Churchill, Lt. G. S. Drane, do. Pittsburg, Penn. -	2,135 04	4,920 00	7,055 04	7,014 48	40 56
Lieut. C. Ward, do. Newport, Kentucky, -	-	83 93	83 93	83 93	
Lt. W. E. Williams, do. Greenleaf's Point, D. C.	1,880 96	3,800 00	5,680 96	5,422 37	258 59
Capt. R. L. Baker, Fortress Monroe, Virginia, -	-	200 00	200 00	115 90	84 10
Capt. D. T. Welch, arsenal, Richmond, Va. -	652 24	801 27	1,453 51	1,387 51	66 00
Capt. N. Baden, do. Baltimore, Md. -	170 14	1,259 22	1,429 36	1,429 36	
Lieut. J. Symington, do. Charleston, S. C. -	340 93	1,059 05	1,399 98	1,399 98	
Major M. M. Payne, do. Augusta, Geo. -	3,011 94	2,800 00	5,811 94	4,459 49	1,352 45
Lieut. J. Adams, do. Baton Rouge, -	49 05	1,700 00	1,749 05	1,749 05	
J. Whistler, do. Belle Fontaine, -	11 83	-	11 83	4 67	7 16
S. Perkins, do. Detroit, -	206 06	100 00	306 06	213 65	92 41
Remitted sundry persons,(b) - - -	-	4,604 19	4,604 19	4,604 19	
Total dollars, -	27,303 29	327,084 12	354,387 41	339,101 84	15,285 57

(a) This officer died in March last, leaving the balance stated unaccounted for. This balance is considered safe, as the securities are responsible men, and are bound for the sum of fifty thousand dollars; and they have made arrangements for an early payment of the amount due.

(b) Settlements on audited accounts.

ORDNANCE DEPARTMENT, *November* 25, 1824.

GEO. BOMFORD, *Lieut. Col. on ordnance service.*

No. 3.

Statement of the arms and accoutrements procured, and of the expenditures made, under the act for arming and equipping the militia, from the 1st January to the 30th September, 1824.

Arms and accoutrements procured.

Muskets complete, - - -	7,485	Rifle flasks, - - - -	246
Rifles complete, - - - -	2,800	Sets of rifle accoutrements, without flasks, -	251
Six pounder iron cannon, - - -	17	Breastplates, - - - -	250
Twenty-four pounder iron howitzers, -	10	Brushes and wires, - - -	1,200
Six pounder shot, - - - -	5,196		

Expenditures, viz:

Amount paid for arms and accoutrements procured, - - - -	$136,738 78
Amount paid for inspection, packing boxes, storage, and distribution to the respective States, -	5,602 30
Total amount drawn from the Treasury, - - - - -	142,341 08
Amount collected from contractors, on account of former advances, - - -	8,930 00
Total value of arms and accoutrements procured at contract price, - - -	$151,271 08

ORDNANCE DEPARTMENT, *November* 25, 1824.

GEORGE BOMFORD, *Lieut. Col. on ordnance service.*

No. 4.

Apportionment of arms to the militia, for the year 1823, *under the law of* 1808, *for arming and equipping the whole body of the militia.*

States and Territories.	Date of the return.	Number of militia.	No. of arms apportioned.	Remarks.
Maine,	1823	38,245	544	
New Hampshire,	1823	28,792	410	
Massachusetts,	1823	54,728	779	
Connecticut,	1823	22,650	323	
Rhode Island,	1823	9,214	131	
Vermont,	1823	27,653	394	
New York,	1823	146,709	2,088	
New Jersey,	1823	42,300	602	
Pennsylvania,	1823	158,512	2,256	
Delaware,	1814	7,451	106	
Maryland,	1811	32,189	458	
Virginia,	1823	96,252	1,370	
North Carolina,	1823	54,144	771	
South Carolina,	1820	28,230	402	
Georgia,	1819	29,661	422	
Kentucky,	1823	65,882	938	
Tennessee,	1823	42,715	608	
Ohio,	1823	94,896	1,351	
Louisiana,	1821	10,189	145	
Indiana,	1823	15,808	225	
Mississippi,	1812	5,291	75	
Illinois,	1822	8,521	121	
Alabama,	1820	20,000	285	
Missouri,	1823	10,000	143	
Michigan,	1822	1,503	21	
Arkansas,	-	-	-	No return.
Florida,	-	-	-	No return.
District of Columbia,	1812	2,252	32	
		1,053,787	15,000	

ORDNANCE DEPARTMENT, *November* 25, 1824.

GEORGE BOMFORD, *Lieut. Col. on ordnance service.*

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No. 5.

Statement of work done at each of the armories and arsenals of the United States from the 1st of October, 1823, to 30th September, 1824.

STATIONS.	Muskets manufactured.	Ball screws manufactured.	Wipers manufactured.	Screw drivers manufactured.	Spring vices manufactured.	Arm chests manufactured.	Muskets repaired.	Muskets cleaned.	Muskets new stocked.	Rifles repaired.	Rifles cleaned.	Rifles new stocked.	Carbines cleaned and repaired.	Swords and sabres cleaned and polished.	Pistols cleaned and repaired.	Bayonet scabbards made.	Bayonet blades forged.	Muskets stocks prepared for use.	Cannon and howitzers cleaned and lackered.	Gun carriages repaired.	Rammers and sponges made.	Artillery harness cleaned and repaired.	Tamkins made.	Sets of tube moulds made.	Tubes made.	Fusees made.
Armory Springfield, Mass.	13,700	1,730	14,800	13,700	1,370	1,354																				
Armory Harper's Ferry, Va.	10,159	-	7,173	5,922	-	730																				
Arsenal Watertown, Mass.	-	-	-	-	-	-	2,925	-	-	-	11	-	-	-	2,014											
Arsenal Watervliet, N. Y.	-	-	-	-	-	-	559	8,534	-	-	265	-	8	2,247	1,406	-	-	-	14	14	-	-	-	-	-	25
Arsenal New York.																										
Arsenal Rome, N. Y.	-	-	-	-	-	-	64	566																		
Arsenal Frankford, Penn.																										
Arsenal Pittsburg, Penn.	-	-	-	-	-	-	1,854	-	270	281	-	-	-	844	378	196	330	-	69	4	7	44	-	5	12,300	
Arsenal Baltimore Md.	-	-	-	-	-	-	196	1,936	7	-	301	7	-	-	-	-	-	-	-	1	166	-	15			
Arsenal Richmond, Va.	-	-	-	-	-	-	-	101	-	-	-	-	-	-	-	-	-	240	-							
Arsenal Augusta, Geo.	-	-	-	-	-	-	-	2,995	39	-	820	-	-	900	1,400											
Arsenal Baton Rouge,	-	-	-	-	-	-	4	100																		
Arsenal Detroit.																										
Total, -	23,859	1,730	21,973	19,622	1,370	2,084	5,602	14,232	316	281	1,397	7	8	3,991	5,198	196	330	240	83	19	173	44	15	5	12,300	25

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STATEMENT—Continued.

STATIONS.	Six pounder tin canisters made.	Sets of instruments for proving cannon made.	Infantry accoutrements cleaned and repaired.	Fire engines repaired.	Rockets made.	Ammunition boxes made.	Packing boxes made.	Wagon wheels made.	Axes made.	Pounds of cast steel made.	Lightning rods made.	Gravel picks made.	Feet of board fence made.	Perches of stone wall laid.	Loads of sand hauled.	Feet of flooring, &c. prepared and finished.	Powder barrels procured.	Barrels of powder proved.	Barrels of powder repacked with waterproof paper.	Powder barrels repaired.	Barrels of cartridges inspected and repacked.	Pounds of powder dried, sifted, and repacked.	Kegs of cartridges repacked.	Musket cartridges made.	Cannon cartridges made.	Boxes of ammunition repacked.	Cartridges inspected and sorted.
Armory Springfield, Mass.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	965	-	800							
Armory Harper's Ferry, Va.																											
Arsenal Watertown, Mass.	-	-	-	-	-	-	-	4	-	-	-	-	967														
Arsenal Watervliet, N. Y.	-	-	-	-	96	152	12	-	-	70	-	-	865	177	-	-	-	1,080	469	1,155	-	-	237	577	700		
Arsenal New York.																											
Arsenal Rome, N. Y.	-	-	226	-	-	-	-	-	-	-	-	-	-	-	45	-	-	359	-	-	-	-	-	5,000			
Arsenal Frankford, Penn.	-	-	-	-	-	-	-	-	-	-	2	-	1,567	-	-	-	2,254										
Arsenal Pittsburg, Penn.	-	400	1	1,846	-	133	14	43	-	164	-	-	317	-	-	2,657	-	-	-	-	-	47,800	-	-	1,386		
Arsenal Baltimore, Md.	-	-	-	-	1	115	5	9	-	-	-	-	-	-	-	-	-	481	412	412	12	-	96	9,782	-	47	25,800
Arsenal Richmond, Va.	-	-	-	-	1	24	-	-	-	2																	
Arsenal Augusta, Geo.																											
Arsenal Baton Rouge,	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	328	212	212							
Arsenal Detroit.																											
Total,	-	400	1	2,172	2	368	171	64	4	166	70	2	39	3,716	177	45	2,657	2,254	3,213	1,093	2,579	12	47,800	333	15,359	2,086	47	25,800

ORDNANCE DEPARTMENT, *November* 25, 1824.

GEORGE BOMFORD, *Lieutenant Colonel on ordnance service.*

No. 6.

Statement of the artillery, small arms, and accoutrements, and other ordnance stores, issued to the troops of the United States, from the 1st of January to the 30th September, 1824.

Muskets, complete,	1,808	Gallons spirits of turpentine,	
Cartouch boxes,	1,543	Sea coal, chaldron,	
Cartouch belts,	1,352	Barrels of pitch,	
Bayonet scabbards,	1,838	Wipers,	
Bayonet belts,	1,358	Bullet moulds,	
Sergeants and musicians' swords,	155	Gun slings,	
Sword belts,	58	Pounds saltpetre,	
Breastplates,	423	Pounds sulphur,	
Brushes and wires,	1,627	Pounds rosin,	
Screw drivers,	214	Wheelbarrows,	
Ball screws,	105	Spades,	
Spring vices,	50	Shovels,	
Musket cartridges,	56,000	Picks,	
Flints,	14,100	Crowbars,	
Powder, pounds,	9,915	Hoes,	
Six pounder iron cannon,	2	Felling axes,	
Six pounder travelling carriages,	2	Sledge hammers,	
Six pounder carriage wheels,	2	Files, assorted,	
Six pounder trunnion cap squares,	2	Smiths' bellows,	
Six pounder flannel cartridges,	2,945	Soldering irons,	
Twelve pounder flannel cartridges,	1,250	Plane irons,	
Eighteen pounder flannel cartridges,	200	Planes, assorted,	
Six pounder canister shot, fixed,	300	Augers, assorted,	
Six pounder round shot,	900	Chisels, assorted,	
Iron eprouvette and ball,	2	Saws,	
Ten inch shells,	100	Cross cut saws,	
Twenty-four pounder shells,	200	Whip saws,	
Twelve pounder shot,	100	Hatchets,	
Portfires,	446	Broad axes,	
Tubes, filled,	2,500	Adzes, assorted,	
Slow match, pounds,	120	Gimlets, assorted,	
Cartridge paper, reams,	44	Trowels,	
Sponge skins,	2	Scythes,	
Powder horns,	7	Scythe sharpening stones,	
Gunners' belts,	1	Brace and bits,	
Gunners' haversacks,	3	Chalk, pounds,	
Thumbstalls,	7	Chalk lines,	
Dark lanterns,	4	Drawing knives,	
Tamkins,	40	Froes,	
Cartridge thread, pounds,	30	Grindstones,	
Powder sieves,	3	Gouges,	
Rammers and sponges,	18	Hammers,	
Sponge tacks,	3,000	Mattocks,	
Six inch blocks and tackles, complete,	40	Oil stones,	
Priming wires,	12	Carpenters' rules,	
Gunners' callipers,	1	Iron squares,	
Portfire stocks,	6	Sand paper, quires,	
Mealed powder, pounds,	100	Screw drivers,	
Sides of harness leather,	10	Compasses,	
Budge barrels,	15	Hand axes,	
Lead, pounds,	2,000	Rasps,	
Tallow, pounds,	10	Feet of ranging timber, ten inches square,	
Iron, pounds,	168	Sets of rocket tools,	
Steel, pounds,	30	Sets of portfire tools,	
Spanish brown, pounds,	20	Sets of fusee tools,	
White lead, pounds,	300	Sets of tube tools,	
Lampblack, pounds,	29	Stamps for cannon cartridges,	
Paint brushes, assorted,	22	Formers for cannon cartridges,	
Lacker barrels,	7	Sets of scales and weights,	
Gallons of lacker,	25	Sets of copper adzes and drivers,	
Gallons of linseed oil,	79	Sets of copper hammers,	
Gallons of neatsfoot oil,	12	Compasses and squares,	
Gallons of olive oil,	1		

Ordnance Department, *November* 22, 1824.

GEO. BOMFORD, *Lieut. Col. on ordnance service.*

18th Congress.] No. 268. [2d Session.

OPERATIONS OF THE ARMORIES FOR THE YEAR 1824.

COMMUNICATED TO THE SENATE, FEBRUARY 14, 1825.

SIR: DEPARTMENT OF WAR, *February* 12, 1825.

In pursuance of an act concerning arsenals and armories, passed the 2d of April, 1794, I have the honor to transmit, herewith, a statement of the expenditures at the national armories, and of the arms, &c. made therein, during the year 1824.

I have the honor to be, your obedient servant,

J. C. CALHOUN.

The Hon. SPEAKER *of the House of Representatives.*

Statement of the expenditures at the National Armories, and of the arms, &c. made therein, during the year 1824.

	EXPENDITURES.				
	For land, buildings, canals, repairs, and other permanent improvements.	For the manufacture of muskets.	For the manufacture of patent rifles.	For miscellaneous expenses, not embraced in the foregoing.	Total amount expended.
Springfield, Massachusetts,	$21,909 75	$163,942 37	-	$1,215 92	$187,068 04
Harper's Ferry, Virginia,	16,271 96	157,671 09	$21,654 89	592 00	196,189 94
Total, -	$38,181 71	$321,613 46	$21,654 89	$1,807 92	$383,257 98

	ARMS, &c. MADE.												
	Muskets complete.	Extra bayonets.	Extra ramrods.	Screw drivers.	Wipers.	Ball screws.	Spring vices.	Arm chests.	Patent rifles.	Rifle bullet moulds.	Rifle wipers.	Rifle screw drivers.	Rifle flasks and belts.
Springfield, Massachusetts,	14,000	-	-	14,000	15,100	1,400	1,400	861					
Harper's Ferry, Virginia,	10,559	3,050	6,879	5,922	7,173	-	-	212	1,000	1,000	1,000	1,000	1,000
Total, -	24,559	3,050	6,879	19,922	22,273	1,400	1,400	1,073	1,000	1,000	1,000	1,000	1,000

ORDNANCE DEPARTMENT, *February* 12, 1825.

G. BOMFORD, *Lieutenant Colonel on ordnance service.*

99 Nov. 29, 1825 ASP-MA II-128-129
1824 REPORT

G.

ORDNANCE DEPARTMENT, *November* 29, 1825.

SIR: In compliance with your instructions, I have the honor to communicate herewith the papers marked A, B, C, D, E, and F, which contain the statements required.

Statement A exhibits an account of the remittances through this department in the year 1824, showing the amount under each head of appropriation received and expended by each disbursing officer, and the balance remaining in the hands of each at the close of the year.

By this statement it appears that the total amount of money remitted through this department during the year 1824 was	$638,798 82
And that the amount of accounts rendered during the same period was	617,838 62
Leaving a balance in the hands of disbursing officers at the close of the year of	20,960 20

The whole of which was accounted for in the first quarter of 1825, except a balance due from the estate of a deceased officer, which is in course of payment.

Statement B exhibits an account of the moneys transmitted to the several disbursing officers at the armories and arsenals during the first three quarters of the present year, the amount of the accounts rendered by them during the same period, and the balances remaining unexpended in the hands of each at the close of the third quarter.

By this statement it appears that the total amount of moneys transmitted was	$360,450 11
The amount of accounts rendered	353,247 63
The amount remaining unexpended in the hands of disbursing officers at the close of the third quarter, and applicable to the service of the fourth quarter	7,202 48

The accounts of all the disbursing officers of this department have been rendered up to the 30th September last, excepting in one case, where the officer died a short time previous to that date.

Statement C shows the number and description of arms and accoutrements procured, and the expenditures made, under the act for arming and equipping the militia, during the first, second, and third quarters of the present year.

The arms procured are 5,630 muskets, and 3,660 rifles, with 1,500 rifle flasks.

The amount drawn from the treasury on this account is	$131,963 01
Amount collected on account of advances made to contractors prior to the year 1819	3,695 00
Total value of arms procured	135,658 01

Statement D exhibits an account of the work done, and supplies procured, at the several arsenals and armories during the year ending September 30, 1825. By this statement it will be seen that 29,500 muskets, and 1,000 rifles have been manufactured at the national armories during the year. This number exceeds, by about 3,000, the product of any former year, and the arms are equal in quality to any heretofore made.

In addition to the particulars exhibited in this statement, much other business has been done, which cannot be stated in a tabular form; such as the repair of the public buildings, the arrangement and preservation of the military stores, and the improvement of the depots generally, to which due attention has been given.

The work done under the appropriation for arsenals, which is not exhibited in this statement, is as follows, viz: at the arsenal in Washington, D. C., there has been erected one building, 100 by 30 feet, two stories high; one building, 75 by 25 feet, two stories high; one building, 45 by 22½ feet, two stories high; and two small buildings, 25 by 19 feet, one story high; all of which are substantial brick buildings.

At the arsenal in Watervliet, N. Y., but a small portion of the appropriation has been expended. It was found, after the appropriation was made, that building materials could not be procured upon favorable terms so late in the season. It was considered necessary, also, that additional ground should be purchased, before all the buildings contemplated at this post should be commenced. For these reasons it was deemed most advisable to defer erecting the buildings until the next season. Arrangements have, however, been made for procuring the necessary materials, preparatory to an early commencement next spring.

The amount appropriated for the arsenal at Baton Rouge has been transmitted to that post, and will effect the object contemplated.

Statement E exhibits the number and description of ordnance and ordnance stores issued from the arsenals to the army and military posts, during the three first quarters of the present year.

Statement F exhibits a view of the operations at the United States lead mines in the vicinity of Potosi, Missouri, and near Fever river, an eastern branch of the Upper Mississippi. By this statement, it appears that the amount of lead produced at these mines, during the first nine months of the present year, was 887,298 pounds; and that the amount received by the United States, for rent of mines, during the same period, was 104,113 pounds. If to the latter be added the amount which it is estimated will accrue on the ore already raised, and which it is supposed will be smelted during the present quarter, the rents will be augmented to 192,113 pounds.

B.

Statement of funds transmitted to the several armories and arsenals of the United States from January 1 to September 30, 1825, and the amount of the accounts rendered from each during the same period.

Officers' names.	Stations.	Amount in officers' hands January 1, 1825.	Transmitted in the 1st, 2d, and 3d quarters of 1825.	Total amount.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1825.	Balances remaining in officers' hands Oct. 1, 1825.	Remarks.
John Chaffee	Armory, Springfield, Mass.	$9,085 65	$127,500 00	$136,585 65	$134,638 20	$1,947 45	
William Broadus	....do...Harper's Ferry, Va.	806 38	152,000 00	152,806 38	151,863 20	943 18	
Lieut. D. Van Ness and Major H. K. Craig.	Arsenal, Watertown, Mass.	38 80	2,750 00	2,788 80	2,546 16	242 64	
Major G. Talcott	....do...Watervliet, N. Y.	46 33	2,700 00	7,746 33	6,480 27	1,266 66	
Lieut. J. Monroe	....do...New York	534 89	500 00	1,034 89	1,034 89		
Lieut. J. Simonson	....do...Rome, N. Y.	40 92	675 00	715 92	704 94	10 98	
Lieut. T. J. Baird	....do...Frankford, Pa.	285 05	3,220 00	3,505 05	3,503 10	1 95	
Major S. Churchill	....do...Pittsburg, Pa.	1,413 06	11,250 00	12,663 06	11,572 82	1,090 24	
Capt. N. Baden	....do...near Baltimore, Md.	65 97	1,658 18	1,724 15	1,724 15		
Capt. R. L. Baker	Fortress Monroe, Va.	47 28	2,200 00	2,247 28	2,088 17	159 11	
Capt. D. T. Welch	Arsenal, near Richmond, Va.	407 49	1,350 00	1,757 49	798 83	963 66	Deceased.
Lieut. W. H. Bell and Major W. Wade.	....do...Greenleaf's Point, D. C.	2 86	24,225 14	24,228 00	24,223 17	4 83	
Major M. M. Payne	....do...Augusta, Ga.	383 79	4,700 00	5,083 79	4,575 61	508 18	
Lieut. J. A. Adams and Lieut. C. Ward.	....do...Baton Rouge, La.		6,026 58	6,026 58	6,025 77	81	
Major J. Whistler	....do...Belle Fontaine	69 07	50 00	119 07	91 24	27 83	
Capt. S. Perkins	..do...Detroit		650 00	650 00	614 44	35 56	
Remitted sundry persons	.....		767 67	767 67	767 67		Settlement on audited accounts.
Total		13,227 54	347,222 57	360,450 11	353,247 63	7,202 48	

ORDNANCE DEPARTMENT, *November* 29, 1825.

GEO. BOMFORD, *Brevet Colonel on Ordnance service.*

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The number of leases granted is twenty-seven, the greater part of which were given during the present year. The business is therefore in its incipient state at present, and it is estimated that in the next year the product of the mines now in operation will amount to three or four million pounds, yielding a rent to the United States of about three hundred and fifty thousand pounds.

The rents have been fixed at a very low rate, being but ten per cent. on the lead produced at the mines, while the duties on imported lead are more than twenty-five per cent. It is supposed therefore that additional leases will be applied for, and that five million pounds will be made at the United States mines next year, which will yield a rent of half a million pounds.

It may be proper to add that it is not contemplated to sell any of the lead which has been or which may be received on account of rent, but to deposit it in the arsenals for public use.

Contracts have been entered into for cannon and shot for the new fortifications, to the extent authorized by the appropriation made on the 2d of March last. The contractors are engaged in the business, but have not yet made any deliveries.

These contracts were made by this department in the usual manner, after having been submitted to and approved by the proper authorities. The contracts for cannon were made upon proposals invited by letters addressed to the proprietors of all the foundries where cannon had been made for the public service, and which were then in operation. The contracts for shot were made upon proposals obtained by public advertisement. It may not be irrelevant to advert briefly to the considerations which led to this course.

All the existing cannon foundries, as well as the manufactories of small arms, had been established under the assurances of continued support from the government, if their terms and the quality of their work should prove satisfactory. These foundries have accordingly continued to furnish all the ordnance required for the public service, both for the War and Navy Departments. The experience acquired in a practice of many years enables them to furnish ordnance of a more safe and durable description and of a better quality, generally, than could be expected from new establishments. The cannon foundries now established are capable of furnishing more ordnance than is required in the public service. It was not therefore considered either advantageous to the public interest or just to those who had relied upon the promised support of the government to depart from the course long since established and uniformly pursued for a number of years, by inviting proposals from persons unaccustomed to the business, and thereby encouraging the establishment of additional cannon foundries which the wants of the public service did not require and could not sustain. The course uniformly pursued in procuring the public supplies, both of small arms and of cannon, was therefore adhered to by the government.

As there are no foundries designed for the manufacture of shot exclusively, and as most of the ordinary foundries of the country are competent to make them, without incurring any material additional expenses, proposals for them were invited by public advertisement, from the belief that competition, in this case, would be advantageous to the public interest, without the hazard of receiving for the public service articles of an inferior quality.

I have the honor to be, sir, very respectfully, your obedient servant,

G. BOMFORD, *Brevet Colonel on Ordnance service.*

Hon. JAMES BARBOUR.

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A.

Statement of the money expended through the Ordnance Department in the year 1824.

Officers' names.	Stations.	Amount of sums remitted, including the balances in the hands of agents January 1, 1824. Appropriations. For national armories.	For the current expenses of the ordnance service.	For arsenals.	For cannon, shot, &c.	For arming and equipping the militia.	Total amount remitted.	Amount expended and accounted for.	Balances remaining unexpended in the hands of disbursing officers, December 31, 1824.	Remarks.
John Chaffee	Armory, Springfield, Mass.	$195,836 16	$577 36			$1,330 13	$197,743 65	$188,658 00	$9,085 65	Balance accounted for in the first quarter of 1825.
William Broadus	Armory, Harper's Ferry, Va.	167,839 57					167,839 57	167,033 19	806 38	Do. do.
William P. Craighill, deceased	....do.....do	38,413 41				75 00	38,488 41	30,755 75	7,732 66	The sum of $1,265 48 has been paid into the treasury on account of this balance during the year 1825, leaving a balance due from the estate of $6,467 18.
Lieuts. J. W. Thompson and D. Van Ness	Arsenal, Watertown, Mass.		4,982 79			226 46	5,209 25	5,170 45	38 80	Balance accounted for in the first quarter of 1825.
Major J. Daliba, Lieut. T. J. Baird, and Major G. Talcott.	Arsenal, Watervliet, N. Y.		7,417 07				7,417 07	7,370 74	46 33	Do. do.
Lieut. J. Monroe	Arsenal, New York		1,888 31				1,888 31	1,353 42	534 89	Do. do.
Lieut. J. Simonson	Arsenal, Rome, New York		1,258 58				1,258 58	1,217 66	40 92	Do. do.
Lieuts. M. Thomas and T. J. Baird	Arsenal, Frankford, Pa.		3,004 08			2,100 00	5,104 08	4,819 03	285 05	Do. do.
Lieut. G. S. Drane and Major S. Churchill	Arsenal, Pittsburg, Pa.		10,195 85			859 22	11,055 07	9,642 01	1,413 06	Do. do.
Captain N. Baden	Arsenal, near Baltimore, Md.	59 22	2,270 14				2,329 36	2,263 39	65 97	Do. do.
Lieuts. W. E. Williams and W. H. Bell	Arsenal, Greenleaf's Point, D. C.		6,458 61	$1,455 64	$222 45	111 31	8,248 01	8,248 15	2 86	Do. do.
Captain R. L. Baker	Fortress Monroe, Va.		700 00				700 00	652 79	47 28	Do. do.
Captain D. T. Welch	Arsenal, near Richmond, Va.		1,603 51			750 00	2,353 51	1,946 02	407 49	Do. do.
Major M. M. Payne	Arsenal, Augusta, Ga.		4,211 94	2,100 00			6,311 94	5,928 15	383 79	Do. do.
Lieut. J. Symington	Arsenal, Charleston, S. C.		1,540 93				1,540 93	1,540 93		
Lieut. J. A. Adams	Arsenal, Baton Rouge		2,009 05			200 00	2,209 05	2,209 05		
Major J. Whistler	Arsenal, Belle Fontaine		111 83				111 83	42 76	69 07	Do. do.
Captain S. Perkins	Detroit		306 06				306 06	306 06		
McClung & McKnight, for cannon						2,772 70	2,772 70	2,772 70		Payments due on audited accounts.
John Clarke & Co., for six-pounder shot						1,670 14	1,670 14	1,670 14		
Sundry contractors for small arms, &c.						168,219 70	168,219 70	168,219 70		
Sundry persons for balances due on settlements			5,717 34			301 26	6,018 60	6,018 60		
Total		402,148 36	54,253 45	3,555 64	222 45	178,615 92	638,798 82	617,838 62	20,960 20	

ORDNANCE DEPARTMENT, *November* 29, 1825.

GEORGE BOMFORD.

B.

Statement of funds transmitted to the several armories and arsenals of the United States from January 1 to September 30, 1825, and the amount of the accounts rendered from each during the same period.

Officers' names.	Stations.	Amount in officers' hands January 1, 1825.	Transmitted in the 1st, 2d, and 3d quarters of 1825.	Total amount.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1825.	Balances remaining in officers' hands Oct. 1, 1825.	Remarks.
John Chaffee	Armory, Springfield, Mass.	$9,085 65	$127,500 00	$136,585 65	$134,638 20	$1,947 45	
William Brondus	....do...Harper's Ferry, Va.	806 38	152,000 00	152,806 38	151,863 20	943 18	
Lieut. D. Van Ness and Major H. K. Craig.	Arsenal, Watertown, Mass.	38 80	2,750 00	2,788 80	2,546 16	242 64	
Major G. Talcott	....do...Watervliet, N. Y.	46 33	2,700 00	7,746 33	6,480 27	1,266 66	
Lieut. J. Monroe	....do...New York	534 89	500 00	1,034 89	1,034 89		
Lieut. J. Simonson	....do...Rome, N. Y.	40 92	675 00	715 92	704 94	10 98	
Lieut. T. J. Baird	....do...Frankford, Pa.	285 05	3,220 00	3,505 05	3,503 10	1 95	
Major S. Churchill	....do...Pittsburg, Pa.	1,413 06	11,250 00	12,663 06	11,572 82	1,090 24	
Capt. N. Baden	....do...near Baltimore, Md.	65 97	1,658 18	1,724 15	1,724 15		
Capt. R. L. Baker	Fortress Monroe, Va.	47 28	2,200 00	2,247 28	2,088 17	159 11	
Capt. D. T. Welch	Arsenal, near Richmond, Va.	407 49	1,350 00	1,757 49	798 83	963 66	Deceased.
Lieut. W. H. Bell and Major W. Wade.	....do...Greenleaf's Point, D. C.	2 86	24,225 14	24,228 00	24,223 17	4 83	
Major M. M. Payne	....do...Augusta, Ga.	383 79	4,700 00	5,083 79	4,575 61	508 18	
Lieut. J. A. Adams and Lieut. C. Ward.	....do...Baton Rouge, La.		6,026 58	6,026 58	6,025 77	81	
Major J. Whistler	....do...Belle Fontaine	69 07	50 00	119 07	91 24	27 83	
Capt. S. Perkins	..do...Detroit		650 00	650 00	614 44	35 56	
Remitted sundry persons	.....		767 67	767 67	767 67		Settlement on audited accounts.
Total		13,227 54	347,222 57	360,450 11	353,247 63	7,202 48	

ORDNANCE DEPARTMENT, *November* 29, 1825.

GEO. BOMFORD, *Brevet Colonel on Ordnance service.*

C.

Statement of the arms and accoutrements procured, and of the expenditures made under the act for arming and equipping the militia, from January 1 to September 30, 1825.

ARMS, &C., PROCURED.

Muskets complete	5,630
Rifles complete	3,660
Rifle flasks	1,500

EXPENDITURES, VIZ:

Amount paid for arms, &c., procured	$126,142 95
Amount paid for inspection, packing boxes, storage, and distribution to the respective States.	5,820 06
Total amount drawn from the treasury	131,963 01
Amount collected from contractors on account of former advances	3,695 00
Total value of arms, &c., procured at contract price	135,658 01

G. BOMFORD, *Brevet Colonel on Ordnance service.*

ORDNANCE DEPARTMENT, *November* 29, 1825.

D.

Statement of work done at each of the armories and arsenals of the United States from October 1, 1824, to September 30, 1825.

	Muskets manufactured.	Patent rifles manufactured.	Extra bayonets manufactured.	Extra ramrods manufactured.	Bullet-screws made.	Wipers made.	Worm-drivers made.	Spring-vises made.	Packing-boxes made.	Rifles cleaned and repaired.	Rifle barrels proved.	Muskets cleaned and repaired.
Armory, Springfield	14,600				2,300	14,600	14,600	2,300	397			
Harper's Ferry	14,300	1,000	2,200	5,221	5,000	11,000	25,225		648			
Arsenal, Watertown												3,732
Watervliet									1			1,487
Rome												
Frankford									3		548	
Pittsburg			1,055	956					22	476		4,018
Baltimore												1,491
Washington												499
Richmond									12			113
Augusta												1,440
Baton Rouge	1								46			1,226
Fortress Monroe												309
Total	29,501	1,000	3,405	7,227	7,300	25,600	41,525	2,300	1,324	476	548	13,225

STATEMENT—Continued.

	Muskets cleaned.	Musket barrels proved.	Musket-stocks.	Musket cartridges made.	Bayonets repaired and finished.	Bayonet scabbards made.	Sets of infantry accoutrements cleaned and oiled.	Pistols cleaned and repaired.	Sabres cleaned and repaired.	Sabre-belts made.	Number of flints inspected and packed.	Ammunition boxes made.
Armory, Springfield												
Harper's Ferry												
Arsenal, Watertown									253			
Watervliet					165				8,678		1,943,000	72
Rome	271						3,202					
Frankford		3,516									248,000	168
Pittsburg			444	110,060		550	1,048	128		277		
Baltimore			21									
Washington									350			
Richmond												
Augusta			277					170				
Baton Rouge												
Fortress Monroe				9,230					3			
Total	271	3,516	745	119,290	165	550	4,250	298	9,484	277	2,191,000	240

STATEMENT—Continued.

	Musket cartridges inspected and repacked, pounds.	Pounds of shot repacked.	Boxes and kegs of ammunition repacked.	Cannon cleaned and oiled.	Cannon lackered.	Mortars lackered, and placed on skidding.	Gun-carriages made.	Gun-carriages repaired.	Gun-carriage wheels made.	Arm-chests made.	Rammers and sponges made.	Sponge buckets made.	Bricoles made.
Armory, Springfield													
Harper's Ferry													
Arsenal, Watertown													
Watervliet	120,212			162									
Rome					25								
Frankford		129,691											
Pittsburg							4		45	4	31		100
Baltimore			301								70		
Washington						50	6	1		9		10	58
Richmond													
Augusta													
Baton Rouge								12			5		
Fortress Monroe													
Total	120,212	129,691	301	162	25	50	10	13	45	13	106	10	158

STATEMENT—Continued.

	Gunner's haversacks made.	Tube-pouches made.	Thum-stalls made.	Fuze-augers made.	Fuze-engines made.	Shot-gauges made.	Tubes cast.	Port-fires made.	Fuzees made.	Sets of artillery harness made.	Cannon cartridges made.	Rockets made.	Shot and shells proved.
Armory, Springfield													
Harper's Ferry													
Arsenal, Watertown											1,000		
Watervliet											25	132	
Rome													
Frankford													20,495
Pittsburg	22						10,150	60	95	4	139		
Baltimore											860	125	
Washington	32	15	21	6	1	12					2,268	75	
Richmond													
Augusta													
Baton Rouge											1,000		
Fortress Monroe							204	36	234		575	151	
Total	54	15	21	6	1	12	10,354	96	329	4	5,867	483	20,495

STATEMENT—Continued.

	Barrels of powder proved.	Powder barrels repaired.	Barrels of powder repack'd in water-proof linings.	Sheets of paper varnished, water-proof.	Percussion-primers made.	Wagons made.	Carts made.	Picks and mattocks made.	Loads of gravel hauled.	Pounds of iron-railing made.	Feet of fence-chain made.	Feet of board-fence made.
Armory, Springfield												
Harper's Ferry												
Arsenal, Watertown											1,021	650
Watervliet			971	13,491								360
Rome		360										606
Frankford	1,349				1,000				1,645		1,220	300
Pittsburg	1,139			860		2		45		498		851
Baltimore	240		240									
Washington	577											
Richmond												
Augusta												
Baton Rouge	313	40					1					
Fortress Monroe												
Total	3,618	400	1,211	14,351	1,000	2	1	45	1,645	498	2,241	2,767

ORDNANCE DEPARTMENT, *November* 29, 1825.

G. BOMFORD, *Brevet Colonel on Ordnance duty.*

19TH CONGRESS.] No. 315. [1ST SESSION.

EXPENDITURES AT THE NATIONAL ARMORIES AND ARMS MADE THEREIN DURING THE YEAR 1825.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES FEBRUARY 22, 1826.

DEPARTMENT OF WAR, *February* 21, 1826.

SIR: In pursuance of an act concerning arsenals and armories, passed the 2d of April, 1794, I have the honor to transmit herewith a statement of the expenditures at the national armories, and of the arms, &c., made therein during the year 1825.

I have the honor to be, your obedient servant,

JAMES BARBOUR.

The Hon. SPEAKER *of the House of Representatives.*

Account, in detail, of the operations of the armory at Harper's Ferry, viz:

Value of unwrought materials on hand January 1, 1825	$115, 685 97	
Value of component parts of arms on hand January 1, 1825	65, 659 36	
Total amount drawn from the Treasury and expended during the year 1825	190, 790 04	
		$372, 135 37
Amount expended in permanent improvements, per foregoing statement	6, 273 00	
Amount expended in the manufacture of arms, viz:		
14,000 muskets, average cost of each, $11 56	161, 840 00	
5,000 ball-screws, average cost of each, 15 cents	750 00	
11,000 wipers, average cost of each, 13 cents	1, 430 00	
848 arm chests, average cost of each, $2 25	1, 908 00	
26,926 screw-drivers, average cost of each, 7 cents	1, 884 82	
Amount expended for miscellaneous purposes, per foregoing statement	2, 660 13	
Amount expended on account of 1,000 patent rifles in progress, but not yet completed	20, 372 30	
Value of unwrought materials on hand December 31, 1825	114, 037 44	
Value of component parts of arms on hand December 31, 1825	60, 979 68	
		372, 135 37

GEO. BOMFORD, *Brevet Colonel, on Ordnance service*

ORDNANCE DEPARTMENT, *February* 20, 1826.

Account, in detail, of the operations of the armory at Springfield, viz:

Value of unwrought materials on hand January 1, 1825	$44,704 82	
Value of component parts of arms on hand January 1, 1825	100,792 95	
Total amount drawn from the treasury and expended during the year 1825	179,983 03	
		$325,480 80
Amount expended in permanent improvements, per foregoing statement	8,873 16	
Amount expended in the manufacture of arms, viz:		
15,000 muskets, average cost of each, $10 50	157,500 00	
15,000 screw-drivers, average cost of each, 8 cents	1,200 00	
1,500 spring vices, average cost of each, 30 cents	450 00	
1,500 ball-screws, average cost of each, 15 cents	225 00	
15,000 wipers, average cost of each, 12½ cents	1,875 00	
437 arm chests, average cost of each, $1 45	633 65	
Amount expended for miscellaneous purposes, per foregoing statement	1,438 50	
Value of component parts of arms on hand December 31, 1825	112,567 91	
Value of unwrought materials on hand December 31, 1825	40,717 58	
		325,480 80

GEO. BOMFORD, *Brevet Colonel, on Ordnance service.*

ORDNANCE DEPARTMENT, *February* 20, 1826.

Statement of the expenditures at the national armories, and of the arms, &c., made therein during the year 1825.

	Expenditures.				Arms, &c., made.					
	For land, buildings, canals, repairs, and other permanent improvements.	For the manufacture of arms.	For miscellaneous expenses not embraced in the foregoing.	Total.	Muskets.	Screw drivers.	Wipers.	Ball screws.	Spring vices.	Arm chests.
Springfield, Mass.	$8,873 16	$169,071 37	$1,438 50	$179,983 03	15,000	15,000	15,000	1,500	1,500	437
Harper's Ferry, Va.	6,273 00	181,856 91	2,660 13	190,790 04	14,000	26,926	11,000	5,000	.....	848
	15,146 16	351,528 28	4,098 63	370,773 07	29,000	41,926	26,000	6,500	1,500	1,285

ORDNANCE DEPARTMENT, *February* 20, 1826.

G. BOMFORD, *Brevet Colonel, on Ordnance service.*

SYSTEM OF FORTIFICATIONS RECOMMENDED BY THE BOARD OF ENGINEERS.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 1, 1826.

To the House of Representatives of the United States:

A resolution of the House of Representatives, adopted at the first session of the eighteenth Congress, and bearing date May 6, 1824, requested the President of the United States to lay before the House at their then next session a detailed report of the system and plan of fortifications then contemplated and recommended by the board of engineers, with various particulars specified in the resolution; and on the fifth of January last a further resolution was adopted requesting similar information. I transmit herewith a report from the Secretary of War, with a letter from the chief engineer, and documents containing, so far as it has been found practicable to obtain and compile it, the information requested by these resolutions.

JOHN QUINCY ADAMS.

WASHINGTON, *March* 1, 1826.

DEPARTMENT OF WAR, *February* 27, 1826.

SIR: The Secretary of War, to whom was referred the resolutions of the House of Representatives of the 6th of May, 1824, and of the 5th of January, 1826, the former requesting the President of the United States to lay before the House, at the next session of Congress succeeding the date of the resolution, a "report of the system and plan of fortifications at present contemplated by him, and as recommended by the board of engineers, including the plans and surveys of said fortifications, so far as, in his opinion, the same may be communicated without injury to the public service; and also the number and position of the fortifications heretofore at any time erected, or which are now erecting, or to be erected for the defence of the coast, harbors, and frontiers of the United States, distinguishing those on the sea-coast in one class and those on each frontier in like classes, and including all the fortifications which are to be preserved as a part of the plan for the future defence of the country, and showing under proper heads the State in which each is situated, when begun, which of them are finished, and when, with the magnitude of each, (as well those erected before as since the year 1815,) the aggregate amount expended in erecting such as are completed; the amount of repairs since made, particularly upon those that were finished prior to the year 1815; the amount expended on those now erecting, and the estimates to complete the same; the number of guns of every description and calibre for each fortification to complete its armament; the total cost of a complete armament for each; the force required to garrison each in time of war; the same in time of peace; and showing which and how many of those erected prior to 1815 are found useless in the contemplated plan of defence; which and how many of them have been or are to be abandoned; and the cost of each so abandoned or to be abandoned; distinguishing between the original cost and subsequent repairs; and in all cases wherein sums of money have been already expended or authorized to be so expended, the authority therefor, by reference to the amount of date of each appropriation, with a like reference to the law under which any of said works were erected;" the latter requesting the President to communicate to the House "a detailed report of the system and plan of fortifications proposed for the national defence; specifying the location and cost of each particular work already erected, and the location and estimated cost of such as are contemplated to be erected; and stating whether any, and if any, what works already erected have been deemed useless in the contemplated plan of defence;" has the honor to transmit herewith a report of the chief engineer, which furnishes the information required, so far as this department can furnish it.

In relation to the delay which has occurred in rendering this report, it is proper to remark that it has been owing to a deficiency of information in the office of the chief engineer, which it was necessary to have supplied to enable him to make as full a report as was required by these resolutions.

Respectfully submitted.

JAMES BARBOUR.

THE PRESIDENT *of the United States.*

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G.

ORDNANCE DEPARTMENT, *November* 28, 1826.

SIR: In compliance with your instructions, I have the honor to communicate herewith sundry papers, marked from A to H, inclusive, which contain the statements and information required.

Statement A exhibits an account of the moneys remitted through this department in the year 1825, showing the amount, under each head of appropriation, received by each disbursing officer, the amount of accounts rendered by them, and the balance remaining in the hands of each at the close of the year. By this statement it appears that the total amount of remittances during the year 1825 was..... $634,079 38
The amount of accounts rendered and settled during the same period was..... 629,720 43

The balance remaining in the hands of disbursing officers at the close of the year.... 4,358 95

The whole of which was accounted for in the first quarter of the present year, except a small balance due from the estate of a deceased officer, and this case has been placed in the hands of the Agent of the Treasury.

Statement B exhibits an account of the moneys transmitted to the several disbursing officers of this department during the first three quarters of the present year, the amount of accounts rendered by them during the same period, and the balance remaining in the hands of each at the close of the third quarter. By this statement it appears that the total amount transmitted was..... $391,657 16
The amount of accounts rendered..... 351,919 18

The amount remaining unexpended in the hands of disbursing officers at the close of the third quarter and applicable to the service of the fourth quarter was..... 39,737 98

The accounts of all the disbursing officers of this department have been rendered up to the 30th of September last, with one exception. The accounts from the armory at Harper's Ferry have not yet been received for the third quarter.

Statement C exhibits an account of the work done and of the supplies procured at the several arsenals and armories during the year ending September 30, 1826. By this statement it will be seen that 25,690 muskets have been made at the national armories during the year. This number falls short of the number made during the previous year. The diminution was occasioned principally by bilious fevers, which prevailed to a great extent among the workmen at Harper's Ferry for two or three months of the latter part of the summer and autumn. In addition to the particulars exhibited in this statement, other business, such as repairs of buildings, arrangement and repairs of military stores, &c., which cannot be particularized in tabular form, have received due attention.

Statement D shows the number and description of small arms, artillery, and equipments procured, and the expenditures made under the act for arming and equipping the militia, during the first three quarters of the present year. The arms procured are 6,480 muskets and 3,280 rifles; the artillery, thirty-two six-pounder and three twelve-pounder field carriages and equipments. Two million and five thousand flints have also been procured. The amount expended for small arms and artillery for arming the militia was $141,026 66.

Statements E and F show the number of arms which have been apportioned to each of the several States and Territories for the years 1824 and 1825. The whole number apportioned for these two years is 30,000. But a small proportion of them have yet been distributed. They are, however, all in readiness to be delivered whenever required by the proper authorities of the respective States to which they have been apportioned

There are now in the public arsenals about thirty-six thousand muskets, which are due to the several States under former apportionments; these, with the number which may be apportioned for the present year, making in all upward of fifty thousand, it is contemplated to distribute early next season.

Statement G shows the number and description of the ordnance arms and military stores issued from the arsenals to the army and military posts during the first three quarters of the present year.

Statement H exhibits an account of the operations of the United States lead mines in Missouri and in the vicinity of Fever river. By this statement it appears that the lead made at those mines during the year ending on the 30th September last amounted to 2,333,804 pounds, and that the rent accruing during the same period was 233,380 pounds, 208,440 pounds of which has been collected and deposited in the public stores. The total number of leases which have been granted for working the lead mines is sixty-one, being an addition of thirty-four during the past year. These results, although they fall short of the estimates presented in the last annual report, show that the business is rapidly extending. The number of leases which had been granted prior to the year 1825 was seventeen; the lead made at the same was 138,644 pounds. During the year 1825 the number of leases was extended to twenty-seven, and the lead produced in that year was 887,298 pounds. The number of leases now granted, as above stated, is sixty-one, and the lead produced in this year is extended to 2,333,804 pounds. The value of this product for the last year to the section of country which produces it may be estimated at about $120,000.

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Under the act passed at the last session concerning the United States arsenal at Augusta, a suitable site has been selected and purchased, and the necessary arrangements preparatory to erecting the buildings have been made. The site for an arsenal at St. Louis has not yet been procured. Several sites have been examined and reported on. But as some difference of opinion prevailed among those who examined the sites, as to their respective eligibleness, it was considered most advisable to have a further examination made. This has occasioned some delay in determining the choice of a site. Such arrangements for procuring building materials have been effected as will admit of the works being commenced very early in the ensuing spring. The act "granting certain grounds to the city of Detroit," has been carried into effect. The proper authorities of the city have been placed in possession of all the grounds not reserved by the act for the use of the United States, except a small lot occupied by a magazine, which is temporarily retained until another magazine shall be erected.

A part of the appropriation for building an arsenal at Vergennes, in Vermont, has been applied to that object. The season was so far advanced before the works could be advantageously commenced that they could not be completed during the present year.

The rifles which, by the resolution of May 20, 1826, were directed to be delivered to Captain Aikins's volunteers, have been prepared and forwarded to the arsenal (nearest to the residence of the several persons named in the resolution) for distribution.

I have the honor to be, respectfully, your obedient servant,

GEO. BOMFORD, *Brevet Colonel on Ordnance Service.*

Hon. JAMES BARBOUR, *Secretary of War.*

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VOL. III——45 A

A.

Statement of the money expended through the Ordnance department in the year 1825.

Officers' names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS, JANUARY, 1, 1825. Appropriations. For the national armories.	For the current expenses of the ordnance service.	For arsenals.	For the armament of the new fortifications.	For arming and equipping the militia.	Total am't remitted.	Amount expended and accounted for.	Balances remaining in disbursing officers' hands Dec 31, 1825.	Remarks.
John Chaffee	Armory, Springfield, Mass	$183,753 81				$1,067 53	$184,821 31	$184,036 25	$785 09	Balance accounted for in the first quarter of 1826.
William Broadus	Armory, Harper's Ferry, Va	190,806 38					190,806 38	190,790 14	16 24	Do. do. do.
Lieut. D. Van Ness and Major H. K. Craig	Arsenal, Watertown, Mass.		$3,439 44				3,439 44	3,148 86	290 58	Do. do. do.
Major G. Talcott	Arsenal, Watervliet, N. Y		6,600 00	$3,700 00		93 30	10,393 30	10,393 30		
Lieut. J. Simonson	Arsenal, Rome, N. Y		795 92				795 92	789 05	6 87	Do. do. do.
Lieut. J. Monroe	Arsenal, New York		1,284 89				1,284 89	1,225 72	59 17	Do. do. do.
Lieut. T. Baird	Arsenal, Frankford, Pa		1,391 83			2,540 00	3,931 83	3,914 11	17 73	Do. do. do.
Major S. Churchill	Arsenal, Pittsburg, Pa		8,797 10			7,665 96	16,463 06	15,030 65	1,432 41	Do. do. do.
Captain N. Baden	Arsenal, Baltimore, Md		2,101 15				2,101 15	2,102 47	1 68	Do. do. do.
Lieut. W. F. Bell and Major W. Wade	Arsenal, Greenleaf's Point, D. C		15,071 49	13,000 00	$3,000 00	27 82	31,099 31	30,916 66	182 65	Do. do. do.
Captain D. T. Welch and Lieut. R. B. Lee	Arsenal, Richmond, Va		2,764 91				2,764 91	1,801 25	963 66	Captain Welch died in August, 1825, leaving this balance due to the U. States. The account has been transferred to the Agent of the Treasury for collection.
Captain R. L. Baker	Arsenal, Fortress Monroe, Va		2,723 58		1,500 00		4,223 58	4,223 58		
Major M. M. Payne	Arsenal, Augusta, Ga		5,200 00	473 29			5,673 29	5,200 46	472 83	Balance accounted for in the first quarter of 1826.
Lieut. J. A. Adams and Lieut. C. Ward	Arsenal, Baton Rouge, La		2,582 03	5,451 23		26 58	8,059 84	8,006 84	53 00	Do. do. do.
Lieut. J. Whistler	Arsenal, Bellefontaine		119 07				119 07	104 87	14 20	Do. do. do.
Captain S. Perkins	Arsenal, Detroit		725 00				725 00	662 15	62 85	Do. do. do.
Sundry contractors for small arms						165,834 13	165,834 13	165,834 13		Payments due on audited accounts.
Sundry persons for balances due on settlements			1,026 31			513 63	1,539 94	1,539 94		Do. do.
	Total	374,560 19	54,625 72	22,624 52	4,500 00	177,768 95	634,079 38	629,720 43	4,358 95	

ORDNANCE DEPARTMENT, *November* 28, 1826.

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

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B.

Statement of funds transmitted to the several armories and arsenals of the United States from January 1 to September 30, 1826, and the amount of accounts rendered from each during the same period.

Officers' names and stations.	Amount in officers' hands January 1, 1826.	Transmitted in the 1st, 2d, and 3d quarters of 1826.	Total.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1826.	Balances remaining in officers' hands October 1, 1826.	Remarks.
John Chaffee, armory, Springfield, Mass	$785 09	$135,000 00	$136,785 09	$134,103 64	$2,681 45	
William Broadus, armory, Harper's Ferry, Va	16 24	140,000 00	140,016 24	109,729 79	30,286 45	The accounts for the third quarter have not been received.
Lieut. W. T. Willard, arsenal, Vergennes, Vt	.....	3,000 00	3,000 00	2,688 00	312 00	
Major H. K. Craig, arsenal, Watertown, Mass	290 58	1,700 00	1,990 58	1,715 58	275 00	
Major G. Talcott, arsenal, Watervliet, N. Y	.....	34,193 35	34,193 35	33,684 19	509 16	
Lieut. J. Simonton and Lieut. J. H. Cooke, arsenal, Rome, New York	6 87	420 00	426 87	408 18	18 69	
Lieut. J. Monroe and Lieut. S. Ringgold, arsenal, New York	59 17	538 97	598 14	476 56	121 58	
Lieut. T. J. Baird, arsenal, Frankford, Pa	17 72	3,400 00	3,417 72	3,297 75	119 97	
Major S. Churchill, arsenal, Pittsburg, Pa	1,432 41	12,800 00	14,232 41	13,656 90	575 51	
Capt. N. Baden and Lieut. D. Tyler, arsenal, Baltimore, Maryland	1 68	2,070 00	2,071 68	2,003 17	68 51	
Major W. Wade, arsenal, Greenleaf's Point, D. C	182 65	24,002 00	24,184 65	23,766 50	418 15	
Capt. R. L. Baker, arsenal, Fortress Monroe, Va	.....	4,400 00	4,400 00	4,193 77	206 23	
Major M. P. Lomax, arsenal, Richmond, Va	.....	5,500 00	5,500 00	4,602 22	697 78	
Major M. M. Adams, arsenal, Augusta, Ga	472 83	2,200 00	2,672 83	2,348 25	324 58	
Lieut. J. A. Adams, arsenal, Baton Rouge, La	53 00	12,059 65	12,112 65	10,660 15	1,452 50	
J. Whistler, arsenal, Bellefontaine, Mo	14 20	50 00	64 20	22 63	41 57	
Lieut. M. Thomas, Lead Mines	124 61	3,620 00	3,744 61	2,315 76	1,428 85	
Capt. S. Perkins, arsenal, Detroit, M. T	62 85	300 00	362 85	362 85	.....	
Sundry persons for balances due on settlements	.....	1,883 29	1,883 29	1,183 29	.....	Payments due on audited accounts.
Total	3,519 90	388,137 26	391,657 16	351,919 18	39,737 98	

ORDNANCE DEPARTMENT, *November* 22, 1826.

GEORGE BOMFORD, *Brevet Colonel, on Ordnance Service.*

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C

Statement of work done at each of the armories and arsenals of the United States from October 1, 1825, to September 30, 1826.

	Muskets manufactured.	Ball screws manufactured.	Wipers manufactured.	Screwdrivers manufactured.	Spring vices manufactured.	Gun boxes made.	Packing boxes made.	Muskets cleaned and repaired.	Muskets, new, stocked.	Muskets oiled and cleaned.	Rifles cleaned and repaired.	Rifles oiled and cleaned.	Pistols cleaned and repaired.	Sabres cleaned and repaired.	Swords cleaned and repaired.	Sword belts made.	Gun slings made.	Sets infantry accoutrements cleaned and repaired.	Sets rifle accoutrements cleaned and repaired.	6-pounder travelling carriages, with equipments complete, made.	6-pounder garrison carriages, with equipments complete, made.	12-pounder travelling carriages, with equipments complete, made.	Caissons.	Mortar beds.	Cannon cleaned, oiled, and lacquered.	Howitzers cleaned, oiled, and lacquered.	Mortars cleaned, oiled, and lacquered.
Armory, Springfield, Massachusetts	15,500	1,550	15,500	15,500	1,400	317	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Armory, Harper's Ferry, Virginia	10,190	.....	31,827	53,112	.....	821	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arsenal, Watertown, Massachusetts	.....	.....	.....	.....	.....	15	.....	2,921	2	29	4	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	42	8	17
Arsenal, Watervliet, New York	.....	.....	.....	.....	.....	3	8	379	.....	22,760	.....	.....	3	.....	.....	.....	.....	5,390	.....	.....	.....	.....	.....	1	157	9	4
Arsenal, Rome, New York	.....	.....	.....	.....	.....	.....	.....	.....	.....	514	.....	.....	130	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arsenal, Frankford, Pennsylvania	.....	.....	.....	.....	.....	.....	93	.....	.....	32	.....	.....	.....	.....	350	.....	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arsenal, Pittsburg, Pennsylvania	.....	.....	.....	.....	.....	.....	120	5,581	282	11,656	139	235	.....	57	80	50	.....	213	.....	28	2	3	.....	.....	156	42	.....
Arsenal, Baltimore, Maryland	.....	.....	.....	.....	.....	.....	.....	745	7	650	.....	.....	4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arsenal, Washington, District of Columbia	.....	.....	.....	.....	.....	.....	188	62	.....	1,835	.....	51	.....	.....	35	.....	.....	.....	120	.....	.....	.....	7	1	.....	.....	.....
Arsenal, Richmond, Virginia	.....	.....	.....	.....	.....	.....	.....	340	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	155	.....	.....
Arsenal, Augusta, Georgia	.....	.....	.....	.....	.....	.....	.....	1,094	265	1,050	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arsenal, Baton Rouge, Louisiana	.....	.....	.....	.....	.....	.....	.....	95	.....	5,769	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	.....	.....
Fortress Monroe, Virginia	.....	.....	.....	.....	.....	.....	.....	177	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	26	.....	.....
Total	35,690	1,550	47,327	68,612	1,400	1,156	409	11,394	556	44,305	145	286	137	57	477	50	100	5,603	120	30	2	3	7	2	549	59	21

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C.—*Statement of work done at each of the armories and arsenals of the United States*—Continued.

	Travelling carriages painted and repaired.	Rammers and sponges made.	Worms and ladles made.	Bricoles made.	Gunner's haversacks made.	Gunner's belts made.	Sponge buckets made.	Water buckets made.	Portfire cases made.	Lead aprons and straps made.	Sets artillery harness made.	Fuze engine made.	Shot gauges made.	Instrument for verifying cannon made.	Machine for cutting elevating screws made.	Turner's lathe made.	Tubes cast.	Pounds musket and rifle balls cast.	Portfires made.	Rockets made.	Cannon cartridges made.	Musket cartridges made.	Rifle cartridges made.	Percussion primers made.	Shot and shells inspected.	Musket and rifle barrels proved.	Barrels powder proved.	Cannon shot stamped.
Armory, Springfield, Massachusetts																												
Armory, Harper's Ferry, Virginia																												
Arsenal, Watertown, Massachusetts			71																							13		
Arsenal, Watervliet, New York	1						2			9										121	27				13,128			
Arsenal, Rome, New York																												
Arsenal, Frankford, Pennsylvania		8				60														75				2,000		3,001	1,145	
Arsenal, Pittsburg, Pennsylvania		26	24	312	68	30		45	45	50							550	10,763	728	27	317							400
Arsenal, Baltimore, Maryland		49																		13						693		
Arsenal, Washington, District of Columbia	2	6	1	60	79		11		12	6	20	1	6	1	1	1				206	375	5,290	1,860				186	
Arsenal, Richmond, Virginia		15																										
Arsenal, Augusta, Georgia																												
Arsenal, Baton Rouge, Louisiana		6																						45,268				
Fortress Monroe, Virginia	15	24					1											4,869	1,006	221	1,696	96,300			985			506
Total	18	134	96	372	147	90	12	47	57	56	29	1	6	1	1	1	550	15,632	1,734	663	2,415	101,590	1,860	2,000	59,381	3,694	1,343	906

ORDNANCE DEPARTMENT, *November* 28, 1826.

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

D.

Statement of the arms, artillery, and equipments procured, and of the expenditures made under the act for arming and equipping the militia, from January 1 to September 30, 1826.

ARMS, ETC., PROCURED.

Muskets complete, 6,480.
Rifles complete, 3,280.
6-pounder travelling carriages, with equipments complete, 32.
12-pounder travelling carriages, with equipments complete, 3.
Flints, 2,005,000.

EXPENDITURES, VIZ:

Amount paid for arms, &c., procured	$137,778 50
Amount paid for inspection, packing boxes, storage, and distribution to the respective States	3,248 16
Total amount drawn from the treasury	141,026 66

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 28, 1826.

E.

Apportionment of arms to the militia for the year 1824, *under the law of* 1808 *for arming and equipping the whole body of the militia.*

States and Territories.	Date of the return.	Number of militia.	Number of arms apportioned.
Maine	1824	38, 221	528
New Hampshire	1824	28, 705	397
Massachusetts	1824	53, 842	744
Connecticut	1824	26, 288	363
Rhode Island	1824	10, 812	149
Vermont	1823	27, 653	382
New York	1824	152, 146	2, 102
New Jersey	1823	42, 300	585
Pennsylvania	1823	158, 512	2, 190
Delaware	1814	7, 451	103
Maryland	1824	40, 091	554
Virginia	1824	96, 709	1, 336
North Carolina	1824	58, 453	808
South Carolina	1820	28, 230	390
Georgia	1819	29, 661	410
Kentucky	1824	68, 013	939
Tennessee	1823	42, 715	590
Ohio	1824	99, 865	1, 380
Louisiana	1821	10, 189	141
Indiana	1823	15, 808	219
Mississippi	1812	5, 291	73
Illinois	1822	8, 521	118
Alabama	1820	20, 000	276
Missouri	1823	10, 000	138
Michigan	1822	1, 503	21
Arkansas	1824	2, 028	28
Florida (no return)	.....	.....	.....
District of Columbia	1824	2, 600	36
Total	.....	1, 085, 607	15, 000

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *Washington, November* 28, 1826.

Statement of the expenditures at the national armories, and of the arms, &c., made therein, during the year 1826.

	Expenditures.				Arms, &c., made.						
	For land, buildings, canals, repairs, and other permanent improvements.	For the manufacture of arms.	For miscellaneous expenses not embraced in the foregoing.	Total amount expended.	Muskets.	Screw-drivers.	Wipers.	Ball screws.	Spring vices.	Extra bayonets.	Arm chests.
Springfield, Massachusetts	$10,973 29	$168,118 92	$1,172 12	$180,264 33	15,500	15,500	15,500	1,550	1,550	.....	249
Harper's Ferry, Virginia	10,279 63	155,358 92	1,675 81	167,314 36	8,720	53,112	31,827	5,327	.....	4,050	888
Total	21,252 92	323,477 84	2,847 93	347,578 69	24,220	68,612	47,327	6,877	1,550	4,050	1,137

ORDNANCE DEPARTMENT, *Washington, February* 9, 1827.

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Statement in detail of the operations of the armory at Harper's Ferry, Virginia, viz:

Value of unwrought materials on hand January 1, 1826	$114, 037 44
Value of component parts of arms on hand January 1, 1826	60, 960 68
Total amount drawn from the treasury and expended during the year 1826	167, 314 36
	342, 312 48
Amount expended in permanent improvements, per foregoing statement	$10, 279 63
Amount expended in the manufacture of arms, viz:	
8,720 muskets, average cost of each $11 75 and a fraction	102, 528 56
5,327 ball screws, average cost of each 15 cents	799 05
31,827 wipers, average cost of each 13 cents	4, 137 51
53,112 screw-drivers, average cost of each 7 cents	3, 717 84
888 arm chests, average cost of each $2 25	1, 998 00
4,050 extra bayonets, average cost of each $1	4, 050 00
Amount expended for miscellaneous purposes, per foregoing statement	1, 675 81
Amount expended on account of 1,000 patent rifles in progress, but not yet completed	12, 871 92
Value of unwrought materials on hand December 31, 1826	111, 635 08
Value of component parts of arms on hand December 31, 1826	88, 619 08
	342, 312 48

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *Washington, February* 9, 1827.

From report by G. Bomford, Feb. 9, 1827.

Statement in detail of the operations of the armory at Springfield, viz:

Value of unwrought materials on hand January 1, 1826	$40, 717 58
Value of component parts of arms on hand January 1, 1826	112, 567 91
Total amount drawn from the treasury and expended during the year 1826	180, 264 33
	333, 549 82
Amount expended in permanent improvements, per foregoing statement	$10, 793 29
Amount expended in the manufacture of arms, viz:	
15,500 muskets, average cost of each $10 47	162, 285 00
15,500 screw-drivers, average cost of each 8 cents	1, 240 00
15,500 wipers, average cost of each 12½ cents	1, 937 50
1,550 spring vices, average cost of each 30 cents	465 00
1,550 ball screws, average cost of each 15 cents	232 50
249 arm chests, average cost of each $1 68	418 32
Amount expended for miscellaneous purposes, per foregoing statement	1, 172 12
Value of component parts of arms on hand December 31, 1826	114, 049 04
Value of unwrought materials on hand December 31, 1826	40, 777 05
	333, 549 82

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II.

ORDNANCE DEPARTMENT, *Washington, November* 27, 1827.

SIR: In compliance with your instructions, I have the honor to submit herewith a general report of the operations of this department during the past year.

Statement marked A exhibits an account of the moneys drawn from the treasury and remitted through this department during the year 1826, and shows the amount received, under each head of appropriation, by each disbursing officer; the amount of the accounts rendered by each; and the balance remaining in the hands of each, respectively, at the close of the year.

By this statement it is shown that the total amount remitted during the year 1826 was.....	$705,425 15
That the amount of the accounts rendered and settled during the same period was.....	693,126 11
Leaving an unexpended balance in the hands of the several disbursing officers at the close of the year of.....	12,299 04

The whole of which was accounted for in the first quarter of the present year.

Statement B exhibits an account of the moneys transmitted to the several disbursing officers of this department and to contractors during the three first quarters of the present year; by which it will be seen that the total amount transmitted was..... $592,480 11
The amount of accounts rendered was..... 581,893 46

Leaving in the hands of disbursing officers, on the 30th September last, an unexpended balance of..... 10,586 65

Which sum forms a part of that which will be expended and accounted for during the fourth quarter of the present year.

By these statements it is shown that all accounts for the ordnance service have been promptly rendered, and that all the money drawn from the treasury has been accounted for up to the 30th September—no case of defalcation having occurred.

Statement C exhibits an account of some of the principal articles made at the several arsenals and armories during the year ending September 30, 1827. By this statement it will appear that 25,700 new muskets, with their various appendages, have been made at the national armories, and that about 32,700 muskets and other small arms have been repaired at the arsenals; and also that 42 new gun-carriages have been made.

Statement D exhibits an account of the arms, artillery, and equipments procured, and of the expenditures made, under the act for arming and equipping the militia, during the year ending September 30, 1827; and shows the number of arms apportioned to the militia of each of the States and Territories during the year 1826. The arms procured are 9,960 muskets, 3,520 rifles, 26 artillery-carriages, and sundry equipments. The amount expended on this account during the same period was $196,797 07. The executive authorities of the several States have been informed of the number of arms apportioned, and of the balances due to each, up to the 31st of December last. They were, at the same time, informed that the arms were ready for distribution, and held subject to their respective requisitions. A considerable portion has been called for and delivered, and the remainder, in cases when called for, are in the course of delivery.

Statement E exhibits the general results of the operations of the public lead mines during the year ending on the 30th September, 1827; to which is appended a brief recapitulation of the operations at the mines during the time their superintendence has been confided to this department. By this statement it will appear that the lead made at those mines during the year ending on the 30th September last amounted to 6,092,560 pounds; and that the rent accruing during the same period was 609,256 pounds, of which more than half a million of pounds have been received and deposited in the public stores. The recapitulation will serve to show the progress of the mining business. The product of the last year at the Fever river mines was five times greater than that of the year preceding, while in Missouri the product has decreased one-third. The increase in the aggregate is, however, about threefold. The whole amount of lead made at the public mines in the five years past is about ten millions of pounds, nearly two-thirds of which was produced within the last year.

From this rapid extension of the business, it is not unreasonable to suppose that the annual product of the mines will soon reach ten millions of pounds, yielding to the public service one million pounds per annum. This supply of lead will be much greater than is required for the military service, and, it is presumed, will be quite sufficient to meet the demands of the naval service also.

Under the act of March 3, 1827, authorizing the establishment of an arsenal in the town of Augusta,

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Maine, a site has been selected and purchased; a permanent wharf has been constructed, and a road leading from it to the site of the buildings has, also, been made. The ground has been enclosed, and a considerable supply of building materials have been procured preparatory to an early commencement of the buildings next season.

I beg leave on this occasion to submit for consideration the expediency of establishing an arsenal somewhere contiguous to the northern coast of the Gulf of Mexico. The existing arsenals in the southern portion of the Union were established prior to the acquisition of Florida, and their location was adapted to the then existing boundaries of the United States. The annexation of Florida has greatly changed those boundaries, and given a new and very different character to our southern frontier. The most southern arsenals are, one for the sea-coast on the Atlantic, at Augusta, in Georgia, and one for the south-western frontier at Baton Rouge, in Louisiana. These were the most advanced positions which could be safely taken at the time they were selected. But they are neither of them conveniently situated for supplying the frontiers of the newly acquired Territory. The line of sea-coast between the rivers upon which these arsenals are situated (the Savannah and the Mississippi) is very extensive; and that part of it lying between the State of Louisiana and the southern extremity of Florida cannot be conveniently supplied from any of the arsenals now established. This part of our frontier is much exposed; a considerable portion of the army is now posted on it, and it is presumed that it will always require the presence of troops. It is for the supply of this extensive and exposed frontier that an additional arsenal is considered necessary. The location of the great southern naval depot in that quarter forms an additional reason for the establishment in that vicinity of a military depot also.

Whether the southern part of the States of Mississippi or Alabama, or the western part of the Territory of Florida, will afford the most eligible position for the site of an arsenal for the general purpose stated, this department is not prepared at this time to offer any decided opinion.

The expediency of a reorganization of the Ordnance department has heretofore been a subject of consideration, and I avail myself of this occasion to renew it.

This subject was under consideration in Congress at the last session, and a bill was reported and passed in the House of Representatives. The same bill was approved and reported by the committee charged with its consideration in the Senate, but the pressure of business at the close of the session prevented its being acted upon in that House. This favorable reception of the measure, and the sanction thus far given it, increases the conviction of its necessity, and justifies its being again presented. The further experience since had under the present system has but the more fully shown its disadvantages, and the more clearly confirmed the expediency of the change proposed.

As this subject has already been considered much in detail in former reports, I will now only briefly advert to some of the prominent considerations which have induced its submission.

The ordnance service as now provided for by the act of March 3, 1821, is performed by officers temporarily detached from the regiments of artillery. The average number engaged in this service at one time has been about thirty. The whole number which have been engaged in it for the six years past has been one hundred and twenty-four, and of these but *five* only have been continued through that period.

The duties of the Ordnance department as prescribed by law are to provide, to inspect, to preserve, to distribute, and to account for every description of ordnance, artillery carriages, small arms, and ammunition, required for the permanent defences of the country, or for its armies in the field. Its duties embrace also the arming and equipping of the whole body of the militia of the Union.

The appropriations made for effecting these objects have sometimes exceeded one million of dollars per annum; and during the last fourteen years they have amounted to more than twelve millions, making the average about $860,000 per annum. These large sums are expended not for articles for immediate use or consumption, but mostly for permanent objects—for articles of a durable character, which remain as a part of the great common stock and means of defence of the country. The value of this description of military property now in the immediate charge of the Ordnance department is at least ten millions of dollars. The value of the small arms alone exceeds six millions; and this estimate includes only that part of such property that is deposited at or connected with the armories and arsenals which are under the immediate and exclusive direction of ordnance officers.

These duties are of a class which are wholly distinct from those of any other branch of the military service. They are of a different character also in several important features, among which the following may be named: The annual expenditures of the several departments for subsisting, clothing, paying, quartering, and transporting the army, and for providing its medical and miscellaneous supplies, are mostly for objects which are transient, and which seldom extend much beyond the time present, and for articles which are soon consumed or expended, and disappear. The responsibilities of these several departments do not, therefore, extend much beyond the present application of the means confided to them for the current service. It is the Ordnance department alone which retains in its charge the accumulating product of its expenditures, for the preservation of which its officers are held responsible.

The ordnance service differs from other branches also in this: that its duties are less varied in a change from peace to war or from war to peace, and that it embraces the arming and equipping of the whole body of the militia as well as of the regular army. In short, it may be said of the ordnance service that it embraces the fabrication and the preservation of nearly all the military weapons of the country, whether for the militia or the regular army, and that all the most essential military *materiel* of the nation—that which constitutes its armament in peace and in war—is confided to its charge.

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The business of disbursing nearly a million of dollars annually and the preservation of ten millions value of military stores, considered merely as a matter of ordinary business transactions, must, to be well performed, be conducted by persons experienced in such business. But the duty of devising and determining the plans and models of all the various arms, artillery, and other military articles which are provided by the Ordnance department, is a business of a much more important character and requires much higher and more varied attainments in those who perform it. The qualifications requisite for a judicious performance of this branch of service, involving as it does a familiar acquaintance with many of the mechanic arts, together with a knowledge of the exact sciences, are to be attained only by long experience and zealous application joined with an aptitude to such pursuits. Suitable qualifications are therefore not to be expected in those who are but temporarily engaged in such duties, for to them can be presented no adequate motives for the zeal and perseverance which is indispensable to the acquisition of such attainments, even if it were possible to acquire them in the short space of time to which their service in the ordnance is usually limited.

The ordnance service differs not less from the service of the line of the army than from that of the several administrative departments of the staff before mentioned. Yet by the present law it is required to be performed solely by officers temporarily detached from the line. This branch of service, which differs so essentially from all other branches, and is of a character so peculiar to itself, that a separate and more permanent provision for it is believed to be indispensable to its proper performance and to be required by the best interests of the public service.

The utility of a separate organization for the engineer, quartermaster, commissary, and other departments has been fully demonstrated by experience and will not be questioned; and the expediency of extending the same principle to the ordnance service must be equally obvious. Any reasons which may be assigned for preferring a separate organization for any other branch of service must apply with equal force to the ordnance also. No sufficient reason can be perceived why the ordnance service alone should remain in a state of dependence upon temporary details from the line of the army, and be subject to all the fluctuations incident to and indispensable from such an unstable system.

The Ordnance department was first established in May, 1812, and was modified by several successive acts during the war until near its close, when (in February, 1815) an act was passed embodying all such provisions as the experience of the war had shown to be necessary. This act gave to the department its most improved form and continued in force until March, 1821, when, without its being repealed, the department was essentially changed, and in effect nearly abolished, by its being merged into the artillery regiments, although its duties remained unaltered.

The act of February, 1815, made the department consist of four field officers, ten captains, and thirty lieutenants, in all forty-four. This number may have been necessary at that period, but is greater than is now required. An amendment of this act, which would reduce the number of lieutenants from thirty to sixteen, and limit the number of enlisted men to two hundred and fifty, would effect the change desired. This would make the department consist of thirty officers, the smallest number, it is conceived, which would be capable of performing its duties. Or, in lieu of this amendment, the lieutenants may be omitted altogether and their places be supplied by temporary details from the line, as is now authorized. By this plan there would remain permanently attached to the ordnance service the four field officers and ten captains, upon whom in either case the most important and responsible duties of the department would mainly rest. And as there are now four supernumerary officers in the artillery regiments, the adoption of this plan would add but ten to the number of officers now in service, and would consequently be less expensive than the plan first suggested. But for the general reasons before stated, it is believed that the best interests of the public service demand an entire separation of the ordnance service from other branches of the army.

I have the honor to be, sir, your most obedient servant,

GEO. BOMFORD, *Brevet Colonel, on Ordnance service.*

Hon. JAMES BARBOUR, *Secretary of War.*

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A.

Statement of the money expended through the Ordnance department in the year 1826.

Officers' names.	Stations.	Amount of sums remitted, including the balances in the hands of agents, January 1, 1826. Appropriations. For national armories.	For the current expenses of the ordnance service.	For arsenals.	For arming and equipping the militia.	For armament of new fortifications.	For arsenal at Vergennes, Vt.	For arsenal at Augusta, Ga.	Total amount remitted.	Amount expended and accounted for.	Balance remaining in the hands of disbursing officers Dec. 31, 1826.	Remarks.
John Chaffee	Armory, Springfield, Mass	$182,340 14			$1,500 00				$183,840 14	$183,286 03	$554 11	Balance accounted for in the first quarter of 1827.
William Broadus and Col. R. Lee	Armory, Harper's Ferry, Va	175,128 71							175,128 71	167,341 37	7,787 34	Do. do.
Lieut. W. T. Willard	Arsenal, Vergennes, Vt						$6,400 00		6,400 00	6,400 00		
Major H. K. Craig	Arsenal, Watertown, Mass		$2,390 58						2,390 58	2,278 27	112 31	Do. do.
Major George Talcott	Arsenal, Watervliet, N. Y		17,400 06	$29,193 35					46,593 35	46,140 99	452 36	Do. do.
Lieut. J. Simonson and Lieut. J. H. Cooke	Arsenal, Rome, N. Y		611 87						611 87	595 83	16 04	Do. do.
Lieut. J. Monroe and Lieut S. Ringgold	Arsenal, New York city		698 14						698 14	698 14		
Lieut. T. J. Baird	Arsenal, Frankford, Pa		4,020 00		816 22				4,836 22	4,200 15	636 07	Do. do.
Major S. Churchill	Arsenal, Pittsburg, Pa		9,472 37	1,300 00	7,666 66				18,439 03	18,439 03		
Col. J. Bankhead and Lieut. D. Tyler	Arsenal, Baltimore, Md		3,271 68						3,271 68	3,164 63	107 05	Do. do.
Major W. Wade	Arsenal, Washington city		18,822 02	12,800 00		$1,000 00			32,622 02	32,622 02		Do. do.
Captain R. L. Baker	Arsenal, Fortress Monroe		4,315 89	1,400 00		1,600 00			7,315 89	7,080 22	235 67	Do. do.
Major M. P. Lomax	Arsenal, Richmond, Va		6,176 00						6,176 00	6,174 59	1 41	Do. do.
Major M. M. Payne	Arsenal, Augusta, Ga		3,372 83					$6,000 00	9,372 83	9,097 81	275 02	Do. do.
Lieut. J. A. Adams	Arsenal, Baton Rouge, La		8,359 65	6,181 32					14,540 97	14,180 93	360 04	Do. do.
Major J. Whistler	Arsenal, Bellefontaine, Mo		64 20						64 20	28 93	35 27	Do. do.
Lieut. M. Thomas	Arsenal, St Louis, Mo		4,655 41						4,655 41	2,976 47	1,678 94	Do. do.
Captain S. Perkins	Arsenal, Detroit, Mich. Ter		662 85						662 85	615 44	47 41	Do. do.
Sundry persons, for balances due on settlements			1,283 30		610 90	100 00		392 95	2,387 15	2,387 15		
Sundry contractors, for cannon, small arms, &c					177,355 18	8,062 93			185,418 11	185,418 11		
	Total	357,468 85	85,576 79	50,874 67	187,948 96	10,762 93	6,400 00	6,392 95	705,425 15	693,126 11	12,299 04	

ORDNANCE DEPARTMENT, *November* 27, 1827.

GEORGE BOMFORD, *Brevet Colonel, on Ordnance service.*

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B.

Statement of the money expended through the Ordnance department, during the first, second, and third quarters of the year 1827.

Officers' names.	Stations.	Amount in officers' hands January 1, 1827.	Transmitted in the 1st, 2d, and 3d quarters of 1827.	Total amount.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1827.	Balances remaining in officers' hands October 1, 1827.
John Chaffee	Armory, Springfield, Mass.	$554 11	$136,500 00	$137,054 11	$135,013 59	$2,040 52
William Broadus	Armory, Harper's Ferry, Va.	7,897 62	145,111 40	153,009 02	153,009 02	.....
Lieuts. W. T. Willard and J. M. Washington	Arsenal, Vergennes, Vt	.....	8,642 80	8,642 80	8,430 10	212 70
Lieut. John Hills	Arsenal, Augusta, Me	.....	2,000 00	2,000 00	1,595 99	404 01
Major H. K. Craig	Arsenal, Watertown, Mass.	112 31	2,350 00	2,462 31	2,184 54	277 77
Major G. Talcott	Arsenal, Watervliet, N. Y.	452 36	12,570 12	13,022 48	12,922 50	99 98
Lieut. D. D. Tompkins	Arsenal, Rome, N. Y.	16 04	1,100 00	1,116 04	1,032 38	83 66
Lieut. S. Ringgold	Arsenal, New York city	.....	528 58	528 58	528 58	.....
Captain T. J. Baird	Arsenal, Frankford, Pa.	636 07	6,300 00	6,936 07	6,946 07	.....
Major S. Churchill	Arsenal, Pittsburg, Pa.	.....	16,400 00	16,400 00	16,400 00	.....
Col. J. Bankhead	Arsenal, Baltimore, Md	107 05	4,296 00	4,403 05	3,297 86	1,105 19
Lieut. J. Symington	Arsenal, Washington city	.....	16,500 00	16,500 00	16,254 54	245 46
Capt. R. L. Baker and Lieut. W. H. Bell	Arsenal, Fortress Monroe, Va.	235 67	6,650 00	6,885 67	5,390 11	1,495 56
Major M. P. Lomax	Arsenal, Richmond, Va.	1 41	1,870 00	1,871 41	1,502 40	369 01
Major M. M. Payne	Arsenal, Augusta, Ga.	275 02	16,666 18	16,941 20	16,941 20	.....
Lieuts. J. A. Adams and W. W. Morris	Arsenal, Baton Rouge, La.	360 04	5,304 54	5,664 58	5,650 94	13 64
Major J. Whistler	Arsenal, Bellefontaine, Mo.	34 27	200 00	234 27	170 75	63 52
Lieut. M. Thomas	Arsenal, St. Louis, Mo	1,678 94	21,751 93	23,430 87	19,325 50	4,105 37
Capt. S. Perkins	Arsenal, Detroit, Mich. Ter.	47 41	250 00	297 41	227 15	70 26
Sundry contractors for cannon, small arms, &c.	.....	.....	170,153 65	170,153 65	170,153 65	.....
Sundry persons for balances due on settlement	.....	.....	4,926 59	4,926 59	4,926 59	.....
Total	.....	12,308 32	580,071 79	592,480 11	581,893 46	10,586 65

ORDNANCE DEPARTMENT, *November* 27, 1827.

GEORGE BOMFORD, *Brevet Colonel, on Ordnance service.*

C.

Statement of work done at the armories and arsenals of the United States from October 1, 1826, *to September* 30, 1827.

Muskets manufactured	25,700	6-pounder travelling carriages, with equipments complete, made	26
Screw-drivers manufactured	19,061	12-pounder travelling carriages, with equipments complete, made	9
Wipers manufactured	18,000	24-pounder casemate carriage made	1
Ball-screws manufactured	1,450	24-pounder howitzer carriages made	6
Spring vices manufactured	11,450	6-pounder travelling carriages repaired	5
Extra bayonets manufactured	3,790	12-pounder travelling carriages repaired	3
Flint-caps manufactured	16,136	24-pounder howitzer carriages repaired	2
Arm-chests made	998	Travelling forge carriage repaired	1
Muskets cleaned and repaired	27,209	10-inch mortar-bed, complete, made	1
Rifles cleaned and repaired	1,349	5½-inch mortar-bed repaired	1
Pistols cleaned and repaired	2,175		
Swords and sabres cleaned and repaired	1,978		

GEORGE BOMFORD, *Brevet Colonel, on Ordnance service.*

ORDNANCE DEPARTMENT, *November* 27, 1827.

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D.

Statement of the arms, accoutrements, &c., procured, and of the expenditures made, under the act for arming and equipping the militia, from October 1, 1826, to September 30, 1827, and of the arms apportioned to the several States and Territories for the year 1826.

ARMS, ETC., PROCURED.

Muskets	9,960
Rifles	3,520
Rifle flasks	1,998
Sets of rifle accoutrements	1,625
Sabre belts	156
Flints	1,200,000
Six-pounder travelling carriages, with implements, &c., complete	26

EXPENDITURES, VIZ:

Amount paid for arms, &c.	$188,091 84
Amount paid for inspection, packing boxes, storage, and distribution to the respective States and Territories	8,705 23
Total	196,797 07

APPORTIONMENT OF ARMS TO THE MILITIA FOR THE YEAR 1826.

States and Territories.	Date of the return.	Number of militia.	Number of arms apportioned.
Maine	1825	38,377	510
New Hampshire	1826	29,135	387
Massachusetts	1826	55,255	734
Connecticut	1826	25,764	342
Rhode Island	1826	9,956	132
Vermont	1823	27,653	367
New York	1825	149,409	1,985
New Jersey	1823	42,300	562
Pennsylvania	1823	158,512	2,105
Delaware	1814	7,451	99
Maryland	1826	40,091	533
Virginia	1826	100,206	1,331
North Carolina	1826	60,976	810
South Carolina	1826	36,429	484
Georgia	1819	29,661	394
Kentucky	1826	63,503	843
Tennessee	1823	42,715	567
Ohio	1826	110,188	1,464
Louisiana	1825	11,188	149
Indiana	1826	37,787	502
Mississippi	1812	5,291	70
Illinois	1823	8,521	113
Alabama	1824	21,061	280
Missouri	1823	12,000	159
Michigan	1822	1,503	20
Arkansas	1825	2,028	27
Florida, (no return)			
District of Columbia	1826	2,317	31
Total		1,129,277	15,000

GEORGE BOMFORD, *Brevet Colonel, on Ordnance service.*

ORDNANCE DEPARTMENT, *November 27, 1827.*

E.

Statement of the operations at the United States lead mines in the vicinity of Fever river and in Missouri from September 30, 1826, to September 30, 1827.

	Fever river.	Missouri.	Total.
Pounds of lead made	5,182,180	910,380	6,092,560
Pounds of lead which has accrued on rent	518,218	91,038	609,256
Rents remaining due September 30, 1826	4	26,736	26,740
Total of rents due in the year ending September 30, 1827	518,222	117,774	635,996
Pounds of lead received as rent in the year ending September 30, 1827	518,218	44,467	562,685
Rents remaining due September 30, 1827	4	73,307	73,311

G. BOMFORD, *Brevet Colonel, on Ordnance service.*

ORDNANCE DEPARTMENT, *November* 27, 1827.

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20TH CONGRESS.] No. 365. [1ST SESSION.

EXPENDITURES AT THE ARMORY AT HARPER'S FERRY FROM 1820 TO 1827, INCLUDING PURCHASES OF COAL AND GUN-STOCKS.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES JANUARY 22, 1828.

DEPARTMENT OF WAR, *January* 22, 1828.

SIR: In obedience to a resolution of the House of Representatives of the 14th instant, directing the Secretary of War "to furnish this House, as early as convenient, with a statement of the accounts of the superintendent of the United States armory at Harper's Ferry, from the 1st day of January, 1820, to the 1st December, 1827, particularly designating the amount of stone coal purchased, of whom purchased, and the price per bushel; the number of gun-stocks purchased, of whom purchased, and the price per stock, within the above-mentioned dates, for the use of the said armory," I have the honor of submitting a report from the Second Auditor of the Treasury, which contains the information called for in the resolution above-mentioned.

I have the honor to be your obedient servant,

JAMES BARBOUR.

The SPEAKER *of the House of Representatives.*

TREASURY DEPARTMENT, *Second Auditor's Office, January* 21, 1828.

SIR: In compliance with a resolution of the House of Representatives of the 14th instant I have the honor to transmit herewith a statement of the expenditures at the United States armory at Harper's Ferry, Virginia, between January 1, 1820, and September 30, 1827, particularly designating the amount of stone coal purchased, of whom purchased, and the price per bushel; also, the amount of gun-stocks purchased within that period, of whom purchased, and the price per stock.

Although the resolution calls for the statement to be made up to the 1st December last, it has been found impracticable to render it beyond the 30th of September, in consequence of the accounts of the armory not having been received for the fourth quarter of the last year.

I am, with great respect, sir, your most obedient servant,

WILLIAM LEE.

Hon. JAMES BARBOUR, *Secretary of War.*

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Statement of the expenditures made at the United States armory at Harper's Ferry, between January 1, 1820, and September 30, 1827, prepared in pursuance of a resolution of the House of Representatives of the 14th instant; particularly designating "the amount of stone coal purchased, and the price per bushel; the number of gun-stocks purchased, of whom purchased, and the price per stock;" also the number of rifle-stocks purchased during the same period.

STONE COAL.

Date of payment.	To whom paid.	No. of bushels.	Price per bushel.	Amount.
1820.				
Feb. 19	C. Albright	1,337	$0 42	$561 54
	J. Cook	672	42	282 24
16	G. Rowles	5,000	37	1,850 00
17	A. Riley	529½	34	180 03
March 14	G. & W. Hobletzell	4,055	37	1,500 35
21	Zuck & Newkirk	480	27	129 60
May 1	J. Hoye	912	44	401 28
15	J. Albright	500	42	210 00
June 30	G. & W. Hobletzell	2,945	37	1,089 65
Sept. 7	C. Albright	690	42	289 80
August 18	G. & W. Hobletzell	3,000	37	1,110 00
Nov. 24	do	540½	37	199 98
		20,661		7,804 47
1821.				
Feb. 9	M. Riser	150	37	55 50
12	S. Hobletzell	666	20	133 20
	J. Albright	180	25	45 00
	William Parker	651	20	130 20
13	do	429½	25	107 37
14	A. Raley	136	25	34 00
	J. Soyster	280	25	70 00
Feb. 14	C. Albright	500	$0 25	$125 00
	N. Bryan	80	25	20 00
17	N. Bernard	8,400	25	2,100 00
	J. H. Hoffman	597	20	119 40
28	John Boose	100	25	25 00
March 28	J. Hoffman	1,000	20	200 00
30	N. Bernard	8,000	25	2,000 00
	J. Albright	180	25	45 00
31	G. & W. Hobletzell	1,667	30	500 10
June 29	N. S. Bernard	6,119	25	1,549 75
April 23	J. Albright	180	25	45 00
May 28	M. Riser	2 0	37	74 00
	J. Hoffman	401	20	80 20
	N. Barnard	975	25	243 75
June 14	J. Strider	795	26	206 70
15	G. & W. Hobletzell	13,333½	30	4,000 05
16	Notley Bernard	6,400	25	1,600 00
18	G. & W. Hobletzell	2,797	30	839 10
Dec. 29	W. Ridgely	520	37	192 40
		54,737		14,540 72
1822.				
Jan. 18	C. Albright	850	20	170 00
Feb. 26	S. Hobletzell	105	23	24 15
	George Hobletzell	800	25	200 00
28	N. Bernard	1,049½	25	262 37
	do	4,600	25	1,150 00
March 7	J. Strider	899	25	224 75
30	J. Albright	200	25	50 00
May 29	C. Wager	522	25	130 50
April 9	C. Albright	823	25	205 75
16	J. A. Smith	640	25	160 00
24	G. Hobletzell	15,043	25	3,760 75
	N. Bernard	1,095	25	273 75
26	G. Hobletzell	2,877½	25	719 37
May 6	W. Mallory	852	25	213 00
	J. Haines	252	23	57 96
16	J. Wysong	1,391	25	347 75
August 28	G. & W. Hobletzell	5,425	23½	1,274 87
		37,424		9,224 97

Statement of the expenditures made at the United States armory at Harper's Ferry, &c.—Continued.

Date of payment.	To whom paid.	No. of bushels.	Price per bushel.	Amount.
1823.				
March 19	C. Albright	1,090	23	250 70
25	G. & W. Hobletzell	1,179	23	271 17
April 23	N. Bernard	534	23	122 82
May 10	J. McFarland	3,402	23	782 46
12	Lane & Smith	4,106	23	944 38
	J. Garrett	306	23	70 38
Dec. 31	William Bice	40	23	9 20
		10,657		2,451 11
1824.				
May 3	G. & W. Hobletzell	11,740	23	2,700 20
Feb. 21	S. Hobletzell	66	23	15 18
May 4	J. McFarland	3,015	23	693 45
26	S. Bevan	100	25	25 00
31	M. Rizer	330	23	75 90
June 30	Amos Raily	597	23	137 31
Sept. 21	Samuel Bevan	300	20	60 00
Nov. 3	B. W. Howard	622	23	143 06
		16,770		3,850 10
1825.				
March 4	Samuel Bevan	401	20	80 20
April 26	William Hobletzell	10,000	23	2,300 00
May 13	Philip Coons	70½	23	16 21
Sept. 1	Martin Rizer	500	23	115 00
10	John Delgam	500	23	115 00
		11,471½		2,626 41
1826.				
March 30	J. Wilt	693	23	159 39
31	J. McFarland	5,218	23	1,200 41
	J. Wilt	1,404	23	322 92
May 19	Riggs, Peabody & Co	2,716	23	624 68
9	Samuel Hobletzell	2,006	23	461 38
		12,037		2,768 51
1827.				
Jan. 31	J. J. Hoffman	100	$0 23	$23 00
Feb. 10	William Moore	30	23	6 90
9	G. Hughes	30	23	6 90
10	W. Roberts	30	23	6 90
	B. Perry	15	23	3 45
12	J. Seyster	66	23	15 18
10	....do.	132	23	30 36
March 1	John Neff	1,314	23	302 22
3	Isaiah Frost	606	23	139 38
	Martin Rizer	492	23	113 16
May 10	Jonathan Clary	4,356	23	1,001 88
15	S. Hobletzell & Payne	5,513	23	1,267 99
25	J. L. Hoffman	810	23	186 30
26	William Clinton	90	23	20 70
28	S. Hobletzell	2,154	23	495 42
	J. Frost	257	23	59 11
26	T. Dowden	652	23	149 96
June 2	J. Mummaw	50	23	11 50
July 10	M. Rizer	1,323	23	304 29
20	J. Frost	1,000	23	230 00
29	John Hoye	2,290	23	526 70
		21,310		4,901 30

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Statement of the expenditures made at the United States armory at Harper's Ferry, &c.—Continued.

Date of payment.	To whom paid	No. of stocks.	Price per stock.	Amount.
	MUSKET-STOCKS.			
1822				
May 11	J. A. Smith	960	$0 25	$240 00
June 5	ditto	400	25	100 00
15	ditto	316	25	79 00
29	W. O. Sprigg	400	25	100 00
July 4	J. A. Smith	1,800	25	450 00
August 21	ditto	1,023	25	255 75
July 4	W. O. Sprigg	1,100	25	275 00
August 28	B. Cushwa	1,089	25	272 25
" 22	ditto	100	25	25 00
Oct. 24	ditto	1,500	25	375 00
Dec. 7	ditto	1,229	25	307 25
Nov. 18	J. A. Smith	991	25	247 75
		10,908		2,727 00
1823.				
March 29	James Shepherd	600	25	150 00
May 12	J. Strider	1,147	25	286 75
15	J. Shepherd	1,200	25	300 00
26	J. Strider	241	25	60 25
22	J. Odorff	1,000	25	250 00
31	J. Nigh	400	25	100 00
June 30	Edward Schroeder	790	25	197 50
	George Paschall	314	25	78 50
	James Shepherd	622	25	155 50
August 27	J. Strider	399	25	99 75
	James Shepherd	2,316	25	579 00
Sept. 30	ditto	932	25	233 00
	Benjamin Cushwa	927	25	231 75
Nov. 22	James Shepherd	1,686	25	421 50
Dec. 10	J. Strider	496	25	124 00
20	B. Cushwa	465	25	116 25
25	G. B. Paschall	994	25	248 50
31	John Strider	479	25	119 75
	ditto	861	25	215 25
		15,869		3,967 25
1824.				
Feb. 5	John Strider	844	25	211 00
16	Daniel Borden	427	25	106 75
March 16	John Strider	600	25	150 00
17	ditto	3,400	25	850 00
18	George Paschal	912	25	228 00
19	John Strider	477	25	119 25
	Isaiah Fields	903	25	225 75
22	John Strider	894	25	223 50
May 12	B. Cushwa	850	25	212 50
17	John Strider	3,200	25	800 00
19	Isaiah Fields	197	25	49 25
20	John Strider	988	25	247 00
	James Shepherd	1,109	25	277 25
25	B. Cushwa	845	25	211 25
	M. Rizer	3,649	25	912 25
29	John Strider	280	25	70 00
31	ditto	1,208	25	302 00
	G. Paschal	800	25	200 00
June 30	John Strider	488	25	122 00
May 31	ditto	1,458	25	364 50
June 15	M. Rizer	879	25	219 75
16	T. Reeze	517	25	129 25
30	James Shepherd	1,845	25	461 25

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RECAPITULATION.

Quantity purchased in—	Bushels.	Amount.
1820	20,661	$7,804 47
1821	54,737	14,540 72
1822	37,424	9,224 97
1823	10,657	2,451 11
1824	16,770	3,850 10
1825	11,471½	2,626 41
1826	12,037	2,768 51
1827	21,310	4,901 30
	185,067½	48,167 59

Statement of the expenditures made at the United States armory at Harper's Ferry, &c.—Continued.

MUSKET-STOCKS.

Date of payment.	To whom paid.	No. of stocks.	Price per stock.	Amount.
1820.				
March 13	George Rowles	565	$0 30	$169 50
May 13	do	2,243	30	672 90
16	James Shepherd	506	30	151 80
June 13	George Rowles	1,534	30	460 20
15	Isaiah Field	500	30	150 00
30	James Shepherd	1,190	30	357 00
April 10	George Rowles	1,978	30	593 40
Sept. 20	James Shepherd	1,000	30	300 00
14	George Rowles	1,960	30	588 00
August 18	do	866	30	259 80
July 15	do	1,850	30	555 00
Nov. 20	do	781	30	234 30
17	James Shepherd	688	30	206 40
Oct. 25	J. A. Smith	405	30	121 50
		16,066		4,819 80

GUN-STOCKS.

1821.				
Jan. 29	J. A Smith	1,212	$0 30	$363 60
Feb. 5	James Shepherd	1,000	30	300 00
March 13	J. A. Smith	691	30	277 30
22	do	1,600	30	480 00
24	J. Shepherd	500	30	150 00
April 24	do	281	30	84 30
May 23	W. O. Sprigg	991	25	247 75
June 29	J. A. Smith	175	$0 30	$52 50
	John O Banion	209	30	62 70
May 16	J. A Smith	3,530	30	1,059 00
July 23	do	263	30	78 90
Sept. 22	do	335	30	100 35
	James Shepherd	781	30	234 30
August 11	do	1,670	30	501 00
9	J A. Smith	3,196	30	958 80
11	B Cushwa	1,000	25	250 00
July 20	J Fields	1,477	25	369 25
Oct. 25	J A Smith	984	30	295 20
Nov. 16	J. Odarffer	1,760	25	440 00
Dec. 26	J. A. Smith	662	30	198 60
29	Benjamin Cushwa	1,419	25	354 75
		23,736		6,788 30

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Statement of the expenditures made at the United States armory at Harper's Ferry, &c.—Continued.

Date of payment.	To whom paid.	No. of stocks	Price per stock.	Amount.
1824.				
July 13	John Strider	753	$0 25	$188 25
August 17	George Paschal	540	25	135 00
Sept 6	John Nigh	2,176	25	544 00
8	J. Fields	984	25	246 00
10	John Strider	390	25	97 50
13	James Shepherd	1,359	25	339 75
16	Adam Smith	276	25	69 00
21	John G. Wilson	352	25	88 00
Nov. 24	G. B. Paschal	793	25	198 25
26	James Shepherd	1,382	25	345 50
27	John Strider	637	25	159 25
Dec. 18	------do	1,182	25	295 50
		37,594		9,398 50
1825.				
March 3	M. K. Wartman	320	25	80 00
4	G. B. Paschal	311	20	62 20
	J. Shepherd	400	25	100 00
April 3	J. Strider	2,798	25	699 50
5	N. Bernard	500	20	100 00
19	B Cushwa	443	25	110 75
22	J. Shepherd	466	25	116 50
May 7	Robert Daniel	796	20	159 20
August 5	J. Shepherd	461	25	115 25
24	------do	460	25	115 00
Sept. 1	J. Strider	5,600	25	1,400 00
3	J. Shepherd	936	25	240 75
8	J. B. Wager	205	20	41 00
20	J. G. Wilson	378	20	75 60
28	M. Rizer	2,989	20	597 80
		17,090		4,013 55
1826.				
March 25	John Strider	2,060	25	515 00
31	Robert Daniel	857	20	171 40
	John Strider	599	25	149 75
June 21	S. Shepherd	344	25	86 00
April 28	J. Strider	1,425	20	285 00
26	J. Shepherd	434	25	108 50
		5,719		1,315 65
1827.				
March 7	Robert Daniel	424	20	84 80
31	------do	364	20	72 80
22	------do	657	20	131 40
May 16	Patrick McCarty	2,880	22	633 60
23	------do	1,598	22	351 56
August 4	N. Bernard	651	20	130 20
16	Robert Daniel	309	30	92 70
Sept. 21	Nathaniel Bernard	458	20	91 60
		7,341		1,588 66

RECAPITULATION.

Number of stocks purchased in 1820	16,066	$4,819 80
Number of stocks purchased in 1821	23,736	6,788 30
Number of stocks purchased in 1822	10,908	2,727 00
Number of stocks purchased in 1823	15,869	3,967 25
Number of stocks purchased in 1824	37,594	9,398 50
Number of stocks purchased in 1825	17,090	4,013 55
Number of stocks purchased in 1826	5,719	1,315 65
Number of stocks purchased in 1827	7,341	1,588 66
	134,323	34,618 71

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Statement of the expenditures made at the United States armory at Harper's Ferry, &c.—Continued.

RIFLE STOCKS.

Date of payment.	To whom paid.	No. of stocks.	Price per stock.	Amount.
1820.				
June 30	J. Shepherd	47	$0 30	$14 10
April 10	George Rowles	257	30	77 10
June 12	------do	419	30	125 70
May 13	------do	184	30	55 20
March 13	------do	86	30	25 80
Sept. 14	------do	455	30	136 50
August 18	------do	163	30	48 90
July 15	------do	307	30	92 10
Nov. 20	------do	53	30	15 90
17	------do	165	30	49 50
Oct. 25	J. A. Smith	51	30	15 30
1821.				
Jan. 29	------do	211	30	63 30
March 13	------do	225	30	67 50
April 24	J. Shepherd	208	30	62 40
May 16	J. A. Smith	23	30	6 90
July 23	------do	41	30	12 30
1823.				
Sept. 30	James Shepherd	90	31¼	28 12
1824.				
Feb. 6	------do	445	31¼	139 06
March 19	------do	434	31¼	135 62
May 6	------do	384	31¼	120 00
19	------do	177	31¼	55 31
1827.				
Sept. 29	Matthew Murray	746	25	186 50
27	Robert Daniel	350	30	105 00
		5,521		1,638 11

General statement of the amount expended at the United States armory at Harper's Ferry, Virginia, between the 1st January, 1820, and the 30th September, 1827, as appears from the accounts now on file in the Second Auditor's office.

Amount expended in the year 1820	$176,188 02
Do.....do.....1821	163,137 81
Do.....do.....1822	155,186 59
Do.....do.....1823	184,551 19
Do.....do.....1824	196,189 94
Do.....do.....1825	190,790 04
Do.....do.....1826	167,314 36
Amount expended in the 1st, 2d, and 3d quarters of the year 1827	155,664 00
Total amount	1,389,021 95

WILLIAM LEE.

TREASURY DEPARTMENT, *Second Auditor's Office, January* 21, 1828.

ORDNANCE DEPARTMENT, *March* 4, 1828.

SIR: In pursuance of an act concerning arsenals and armories, passed the 2d of April, 1794, I have the honor to transmit herewith a statement of the expenditure at the national armories, and of the arms, &c., made therein during the year 1827.

Very respectfully, I am, sir, your most obedient servant,

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service*

Hon. JAMES BARBOUR.

Statement in detail of the operations of the armory at Harper's Ferry.

Value of unwrought materials on hand January 1, 1827		$111, 635 08	
Of the above a portion has been sold at auction, the estimated value of which was	$12, 209 49		
The actual proceeds from the sale of which was	5, 451 17		
Difference being the amount overestimated January 1, 1827		6, 758 32	
			$104, 876 76
Value of component parts of arms on hand January 1, 1827		88, 619 08	
Of the above a portion has been sold at auction, the estimated value of which was	27, 623 25		
The actual proceeds from the sale of which was	2, 179 92		
Difference being the amount overestimated January 1, 1827		25, 445 33	
			63, 175 75
Amount drawn from the treasury and expended during the year 1827			195, 082 45
			363, 134 96
Amount expended in permanent improvements, per foregoing statement		7, 550 87	
Amount expended in the manufacture of arms, viz:			
12, 020 muskets, average cost of each $11 97 and a fraction		143, 957 08	
7, 475 screw-drivers, cost of each 7 cents		523 25	
24, 998 wipers, cost of each 13 cents		3, 249 74	
10, 000 spring vices, cost of each 30 cents		3, 000 00	
722 arm-chests, cost of each $2 25		1, 624 50	
Amount expended on Hall's rifles, which are not yet completed		40, 566 93	
Amount expended for preserving arms in store, and for miscellaneous purposes, not incidental to the manufacture of arms		2, 099 00	
Value of component parts of arms on hand December 31, 1827		56, 708 41	
Value of unwrought materials		103, 855 18	
			363, 134 96

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *March* 4, 1828.

From Report of Col. Go. Bomford, March 4,1828. 134

Statement in detail of the operations of the armory at Springfield.

Value of unwrought materials on hand January 1, 1827	$40, 777 05	
Value of component parts of arms	114, 049 04	
Total amount drawn from the treasury and expended during the year 1827	177, 350 54	
		$332, 176 63
Amount expended in permanent improvements, per foregoing statement	19, 822 28	
Amount expended in the manufacture of arms, viz :		
14, 500 muskets, average cost of each $10 49 and a fraction	152, 197 04	
14, 500 screw-drivers, 8 cents	1, 160 00	
41, 500 wipers, 12½ cents	1, 812 50	
1, 450 spring vices, 30 cents	435 00	
1, 450 ball screws, 15 cents	217 50	
824 arm chests, $1 68	1, 384 32	
Amount expended for preserving arms in store, and for miscellaneous purposes, not incidental to the manufacture of arms	1, 423 43	
Value of component parts of arms on hand December 31, 1827	107, 184 85	
Value of unwrought materials	46, 539 71	
		332, 176 63

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Statement of the expenditures at the national armories, and of the arms, &c., made therein during the year 1827

	EXPENDITURES.				ARMS, ETC., MADE.									
	For land, buildings, canals, repairs, and other permanent improvements.	For the manufacture of arms.	For miscellaneous expens's not embraced in the foregoing.	Total amount expended.	Muskets.	Hall's rifles.	For muskets.					For rifles.		
							Screw-drivers.	Wipers.	Spring vices.	Ball screws.	Arm chests.	Spring vices.	Screw-drivers.	Wipers.
Springfield, Massachusetts	$19,822 28	$156,217 63	$1,423 43	$177,463 34	14,500	.....	14,500	14,500	1,450	1,450	824	.....	.....	.....
Harper's Ferry, Virginia	7,550 87	185,432 58	2,099 00	195,082 45	12,020	1,000	7,475	24,998	10,000	.....	773	100	1,000	1,000
Total	27,373 15	341,650 21	3,522 43	372,545 79	26,520	1,000	21,975	39,498	11,450	1,450	1,596	100	1,000	1,000

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II.

ORDNANCE DEPARTMENT, *Washington, November* 21, 1828.

SIR: I have the honor to submit herewith a general report of the operations of this department during the past year.

Statement marked A exhibits an account of the moneys drawn from the treasury and remitted through this department during the year 1827 to disbursing officers and contractors, and also the amount of the accounts rendered, and the balance remaining in the hands of each at the close of the year. By this statement it appears that the remittances during the year 1827 amounted to $812, 424 98
That the accounts rendered and settled during the same period amounted to 802, 178 95

And that the unexpended balances remaining in the hands of the several disburing officers at the close of the year amounted to 10, 246 03

The whole of which was accounted for in the first quarter of the present year.

Statement B shows the amount of funds transmitted to the several disbursing officers of this department, and to contractors during the first three quarters of the present year, by which it will be seen that the total amount transmitted was $748, 381 70
And that the accounts rendered amounted to 723, 229 16

Leaving an unexpended balance in the hands of disburing officers on the 30th of September, of 25, 152 54

All the amounts due up to the 30th of September last have been rendered from all the armories and arsenals.

Statement C exhibits an account of some of the principal articles made at the several armories and arsenals during the year ending September 30, 1828, by which it will appear that 24,830 new muskets and 1,000 Hall's rifles, with their various appendages, have been made at the armories, and that 18,415 small arms have been cleaned and repaired, and 85 new gun-carriages have been made at the arsenals.

Statement D exhibits an account of the expenditures made, and of the arms, artillery, and equipments procured, under the act of 1808, for arming and equipping the militia during the year ending the 30th September, 1828, and also the number of arms apportioned to each of the States and Territories during the year 1827. The arms procured are: 11,220 muskets; 1,300 rifles; about 7,000 sets of accoutrements for small arms; 20 six-pound cannon, and 72 field artillery-carriages, with their various equipments. The amount expended on this account was $205,637 23.

Statement E exhibits the general results of the operations of the public lead mines during the year ending September 30, 1828; to which is appended a brief statement, showing the quantity of lead made at these mines in each year from 1821 to the present time.

By these statements it will be seen that the rents during the year past amounted to one million two hundred and thirty-one thousand one hundred and seventy-three pounds, an amount much greater than was anticipated in the last annual report. It appears also that the total quantity of lead made at the mines since 1821 is about twenty-two and a quarter millions of pounds; and that the product of the year past exceeds that of all preceding years. It is not expected, however, that the business will continue to increase with the rapidity that it has done for some years past. The number of persons now engaged in the business is so great that much competition and a reduced price for lead is the consequence. And it may therefore be estimated that the business has now nearly, if not quite, reached its maximum.

Under the act of the last session, authorizing the establishment of an arsenal on the waters of Mobile or Pensacola bays, an officer of this department has been employed during the past summer in exploring the section of country comprehended in the provisions of the act. Upon his report, and upon information obtained from a member of the board of engineers, from officers of the army, and from others who are well acquainted with the country, a site on the public lands at Mount Vernon, near Mobile river, in Alabama, has, with your sanction, been selected, and arrangements have been made for proceeding to erect the arsenal.

In conclusion, I beg leave to advert to the considerations submitted in the last annual report relative to a reorganization of this department. The measures then proposed have met with the approbation of your predecessors, and they were also approved by the committees of Congress to whom they were referred. But as the bills reported by the latter were not acted upon, I beg leave again respectfully to submit the subject for consideration.

I have the honor to be, sir, your most obedient,

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Hon. PETER B. PORTER, *Secretary of War.*

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A.

Statement of the money expended through the Ordnance department in the year 1827, *with amount of sums remitted, including the balances in the hands of agents on the* 1st *of January,* 1827.

Officers' names and stations.	Appropriations. For national armories.	For the current expenses of the ordnance service.	For arsenals.	For arming and equipping the militia.]	For armament of new fortifications.	For arsenal at Vergennes, Vermont.	For arsenal at Augusta, Georgia.	For arsenal at Augusta, Maine.	Total amount remitted.	Amount expended and accounted for.	Balance remaining in the hands of disbursing officers, December 31, 1827.	Remarks.
John Chaffee, armory, Springfield, Massachusetts	$182,270 39			$2,012 45					$184,282 84	$181,236 88	$3,045 96	Accounted for in 1st quarter 1828.
William Broadus, armory, Harper's Ferry, Virginia	204,756 52								204,756 52	204,756 52		
Lieutenant J. Hills, arsenal, Augusta, Maine								$4,500	4,500 00	4,373 47	126 53	Do. do.
Lieuts. W. T. Willard and J. M. Washington, arsenal, Vergennes, Vermont						$10,178 71			10,178 71	9,966 01	212 70	Do. do.
Major H. K. Craig, arsenal, Watertown, Massachusetts		$3,562 31		200 00					3,762 31	3,545 31	217 00	Do. do.
Major George Talcott, arsenal, Watervliet, New York		3,095 94	$12,608 48	3,570 12					19,274 54	18,543 44	731 10	Do. do.
Major D. D. Tompkins, arsenal, Rome, New York		1,616 04							1,616 84	1,596 20	19 84	Do. do.
Lieutenant Samuel Ringgold, arsenal, New York		1,246 93							1,246 93	1,246 93		
Capt. T. J. Baird and Lieut. C. M. Eakin, arsenal, Frankford, Pennsylvania		5,062 20		4,933 87					9,936 07	9,394 73	541 34	Do. do.
Major S. Churchill, arsenal, Pittsburg, Pennsylvania		10,088 50		10,600 00	$17 00				20,705 50	20,314 93	390 57	Do. do.
Colonel J. Bankhead, arsenal, Baltimore, Maryland		4,957 05		76 45	242 80				5,276 30	4,552 31	723 99	Do. do.
Lieutenant J. Symington, arsenal, Washington city		12,365 00	6,607 98	3,100 00	183 93				22,256 91	21,583 37	673 54	Do. do.
Captain R. L. Baker and Lieutenant W. H. Bell, Fortress Monroe		3,236 19			4,254 31				7,490 50	7,282 22	208 88	Do. do.
Majors M. P. Lomax and A. S. Brooks, Richmond, Virginia		2,342 27							2,342 27	1,939 71	402 56	Do. do.
Major M. M. Payne, Augusta, Georgia		4,341 20					$31,300		35,641 20	35,641 20		
Lieuts. J. A. Adams and W. W. Morris, Baton Rouge, Louisiana		7,072 61	3,476 49	215 12					10,764 22	8,679 02	2,085 20	Do. do.
Lieutenant M. Thomas, St. Louis, Missouri		4,178 94	19,251 93						23,430 87	22,617 57	813 30	Do. do.
Captain S. Perkins, Detroit, Michigan Territory		397 41							397 41	343 29	54 12	Do. do.
Sundry contractors for cannon, small arms, &c.				182,581 65	58,291 29				240,872 94	240,872 94		
Sundry persons for balances due on audited accounts	1,499 26	2,193 64							3,692 90	3,692 90		
Total	388,526 17	65,696 23	41,944 88	207,289 66	62,989 33	10,178 71	31,300	4,500	812,424 98	802,178 95	10,246 03	

ORDNANCE DEPARTMENT, *Washington, November* 21, 1828.

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

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B.

Statement of the money expended through the Ordnance department during the 1st, 2d, and 3d quarters of the year 1828.

Officers' names and stations.	Amount remitted in the 1st, 2d, and 3d quarters of 1828, and remaining in officers' hands at the end of the year.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1828.	Balances remaining in officers' hands October 1, 1828.
John Chaffee, armory, Springfield, Massachusetts	$139,045 96	$135,757 47	$3,288 49
Wm. Broadus, armory, Harper's Ferry, Virginia	159,700 00	157,823 84	1,876 16
Lieutenant J. M. Washington, Vergennes, Vermont	9,012 70	8,691 75	320 95
Lieutenant J. Hills, Augusta, Maine	24,126 53	22,805 70	1,320 83
Major H. K. Craig, Watertown, Massachusetts	2,617 00	2,617 00	.....
Major George Talcott, Watervliet, New York	40,727 80	36,079 18	4,648 62
Lieutenants D. D. Tompkins and J. S. Abeel, Rome, New York	1,289 84	1,197 74	92 10
Lieutenant S. Ringgold, New York	2,000 00	1,925 15	74 85
Lieutenants C. M. Eakin and C. Mellon, Frankford, Pennsylvania	21,251 34	21,251 34	.....
Major S. Churchill and Captain R. L. Baker, Pittsburg, Pennsylvania	26,715 13	26,377 75	337 38
Lieutenant Colonel J. Bankhead, Baltimore, Maryland	4,523 99	3,506 03	1,017 96
Lieutenant J. Symington, Washington, District of Columbia	19,473 54	19,444 42	29 12
Captain R. L. Baker and Lieutenant W. H. Bell, Fortress Monroe, Virginia	3,358 88	3,358 88	.....
Majors M. P. Lomax and A. S. Brooks, Richmond, Virginia	1,252 56	1,145 41	107 15
Major A. C. W. Fanning, Augusta, Georgia	17,615 95	17,068 29	547 66
Lieutenant J. A. Adams, Baton Rouge, Louisiana	12,635 20	6,482 25	*6,152 95
Lieutenant M. Thomas, St. Louis, Missouri	12,393 55	24,255 23	5,138 32
Captain S. Perkins, Detroit, Michigan Territory	414 12	414 12	.....
Daniel S. Gaillard, M. S. K., Charleston, South Carolina	200 00	.....	200 00
Sundry contractors for cannon, small arms, &c	233,027 61	233,027 61	.....
Total	748,381 70	723,229 16	25,152 54

* The accounts for the 3d quarter, received November 24, and this balance, is reduced to $2,686 97.

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *Washington, November* 21, 1828.

C.

Statement of work done at the armories and arsenals of the United States from October 1, 1827, *to September* 30, 1828.

MANUFACTURED.

Muskets	24,830
Hall's rifles	1,000
Screwdrivers	42,521
Wipers	41,539
Ball screws	1,439
Spring vices	1,600
Flint caps	25,039
Arm chests	2,178
Cartridge-boxes	13,349
Cartridge-box belts	6,442
Bayonet scabbards	10,355
Bayonet belts	11,200
Belt plates	8,859
Brushes and picks	5,145
Gun slings	9,413
Sword belts	770
Sabre belts	445
Pairs of holsters	166
Sets of rifle accoutrements	3,354
Rifle flasks	1,000
6-pounder travelling carriages, with equipments	72
6-pounder garrison carriages, complete	5
24-pounder garrison carriages, complete	6
Mortar beds	2
Gins	1
Gin falls	1

CLEANED AND REPAIRED.

Muskets	18,337
Rifles	54
Pistols	54
Swords and sabres	20
Infantry accoutrements, sets of	2,179
6-pounder travelling carriages	7
24-pounder howitzer carriages	2

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 21, 1828.

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D.

Statement of the arms, accoutrements, &c., procured and of the expenditures made, under the act for arming and equipping the militia, from October 1, 1827, to September 30, 1828, and of the arms apportioned to the several States and Territories for the year 1827.

Arms, &c., procured:			
Muskets	11,220	Cartridge-boxes	5,100
Rifles	1,300	Cartridge-box belts	3,481
Sets of rifle accoutrements	3,154	Bayonet scabbards	4,698
Flints	1,653,000	Bayonet belts	5,891
6-pounder iron cannon	20	Belt plates	5,851
6-pounder travelling carriages, with equipments complete	72	Sword belts	720
		Sabre belts	945
		Pairs of holsters	116

Expenditures, viz:	
Amount paid for arms, &c	$199,107 79
Amount paid for inspection, packing boxes, storage, and distribution to the States and Territories	6,529 44
Total	205,637 23

Apportionment of arms to the militia for the year 1827.

States and Territories.	Date of the return.	Number of militia.	Number of arms apportioned.
Maine	1827	40,209	499
New Hampshire	1827	30,169	374
Massachusetts	1827	54,935	682
Connecticut	1827	25,731	319
Rhode Island	1827	9,460	118
Vermont	1823	27,653	343
New York	1827	165,883	2,059
New Jersey	1823	42,300	525
Pennsylvania	1827	188,620	2,341
Delaware	1814	7,451	93
Maryland	1826	40,091	498
Virginia	1827	100,662	1,250
North Carolina	1827	60,660	753
South Carolina	1826	36,429	452
Georgia	1826	39,056	485
Kentucky	1827	70,266	872
Tennessee	1823	42,715	530
Ohio	1827	110,364	1,370
Louisiana	1827	12,274	152
Indiana	1827	38,841	482
Mississippi	1812	5,291	66
Illinois	1823	8,521	106
Alabama	1827	30,000	372
Missouri	1827	15,000	186
Michigan	1822	1,503	19
Arkansas	1825	2,028	25
Florida, (no return)			
District of Columbia	1826	2,317	29
Total		1,208,419	15,000

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 21, 1828.

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E.

Statement of the lead made at the United States lead mines annually from 1821 *to September* 30, 1828.

	Fever River.	Missouri.	Total.
Pounds of lead made from 1821 to September 30, 1823	335,130		335,130
Pounds of lead for the year ending September 30, 1824	175,220		175,220
Pounds of lead for the year ending September 30, 1825	664,530	386,590	1,051,120
Pounds of lead for the year ending September 30, 1826	958,842	1,374,962	2,333,804
Pounds of lead for the year ending September 30, 1827	5,182,180	910,380	6,092,560
Pounds of lead for the year ending September 30, 1828	11,105,810	1,205,920	12,311,730
Total	18,421,772	3,877,852	22,299,624

ORDNANCE DEPARTMENT, *November* 21, 1828.

E.

Statement of the operations at the United States lead mines in the vicinity of Fever river and in Missouri from September 30, 1827, *to September* 30, 1828.

	Fever River.	Missouri.	Total.
Pounds of lead made	11,105,810	1,205,920	12,311,730
Pounds of lead which have accrued as rent	1,110,581	120,592	1,231,173
Rents remaining due September 30, 1827	4	72,307	78,311
Total of rents due in the year ending September 30, 1828	1,110,585	193,899	1,304,484
Pounds of lead received as rents September 30, 1828	1,110,585	193,899	1,304,484
Rents remaining due September 30, 1828			

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *Washington, November* 21, 1828.

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20TH CONGRESS.] No. 398. [2D SESSION.

ON THE DISCHARGE OF A MECHANIC FROM THE ARMORY AT HARPER'S FERRY.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES JANUARY 31, 1829.

Mr. DRAYTON, from the Committee on Military Affairs, to whom was referred the memorial of Thomas Copeland, reported:

That the memorialist sets forth that, being a mechanic at the United States armory at Harper's Ferry, and witnessing there various acts of misconduct, ignorance, negligence, and fraud on the part of Mr. James Stubblefield, the superintendent of the armory, he conceived it to be his duty to communicate them to the Ordnance department, and accordingly did so; that "he holds in his possession the most explicit and flattering testimonials of his good character, capacity, and assiduity;" that nevertheless, on the 13th of May, 1827, he was dismissed from the public service; that, being utterly at a loss to account for his dismissal, he applied for redress to the Secretary of War and the President; but being unsuccessful in these applications, he therefore appeals to Congress, trusting "that it will cause such an inquiry to be made as in its judgment justice so loudly calls for and his present situation claims."

It appears that, in consequence of the above charges against Mr. Stubblefield, a court of inquiry was ordered on the 5th of April, 1827, consisting of Brevet Brigadier General Wool, Brevet Lieutenant Colonel Bankhead, and Captain C. H. Thurston, of the 1st regiment of artillery; that the court was directed "to examine and inquire into all matters of accusation which may be laid before it touching the official acts of the accused," James Stubblefield. The court, after a protracted session, and the minute and laborious examination of numerous witnesses, one of whom was the memorialist, pronounced its sentence on the 3d of May, 1827, from which the following extract is submitted:

"From the responsible situation of the accused, and the serious complexion of the charges, the court has endeavored to have as much and as respectable testimony as could be adduced; nor has it confided the investigation to the usual means of evidence alone, but has added, in the cases which would admit of it, that of personal observation. The result of that investigation is, that Mr Stubblefield has discharged his duties as superintendent with fidelity and integrity for twenty years; and that if, in the progress of this trial, some few instances of neglect of minor importance shall have been exposed, they are to be attributed to the state of things at the time, and to the necessity, in the multifarious duties of a superintendent, of confiding some things to the discretion and fidelity of subordinate agents."

In consequence of this decision of the court, the superintendent, by an order of the Secretary of War of the 8th of May, 1827, resumed the charge of the armory at Harper's Ferry, the Secretary at the same time directing "that the persons employed in the public service who have disseminated false and malicious reports or charges to the prejudice of that order and subordination which is necessary at so important an establishment be discharged." Under this order the memorialist was dismissed.

As Mr. Stubblefield has been acquitted of the charges preferred against him by a tribunal organized according to the Constitution and laws, the committee can discover no motive or reason for the interference of this House. It therefore recommends the adoption of the following resolution:

Resolved, That there is nothing contained in the memorial of Thomas Copeland which requires the interposition of Congress.

20TH CONGRESS.] No. 408. [2D SESSION.

ON THE CONDITION AND OCCUPANCY OF THE LAND BELONGING TO THE UNITED STATES AT THE ARMORY AT HARPER'S FERRY.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 2, 1829.

DEPARTMENT OF WAR, *February* 28, 1829.

SIR: I have the honor of transmitting herewith a report from the officer at the head of the Ordnance department, with the accompanying documents, in obedience to a resolution of the House of Representatives of the 14th ultimo, calling for information as to the "number of buildings" which have been "erected by private individuals on the government lands at Harper's Ferry; when erected; by whom and what authority they have been purchased; how many are yet in possession, and subject to the claims of the builders, and what is the amount demanded for each; what is the amount of rent annually received since the first of January, 1823, for each of said buildings, as also for any others owned by the government at that place, and from whom received."

I have the honor to be your obedient servant,

P. B. PORTER.

Hon. ANDREW STEVENSON, *Speaker of the House of Representatives.*

ORDNANCE DEPARTMENT, *Washington, February* 27, 1829.

SIR: In compliance with the resolution of the House of Representatives of the 14th ultimo, requiring information concerning the buildings on the government lands at Harper's Ferry, which you referred to this office, I have the honor to report:

That all the particulars required not being recorded in the books of this office, the resolution was referred to the superintendent of the armory at Harper's Ferry, and I have now the honor to submit copies of his reports which contain the information required by the resolution.

I have the honor to be, respectfully, sir, your obedient servant,

GEO. BOMFORD, *Brevet Colonel on Ordnance service.*

Hon. P. B. PORTER, *Secretary of War.*

UNITED STATES ARMORY, *Harper's Ferry, Virginia, February* 23, 1829.

SIR: In answer to your letter of the 16th ultimo, transmitting a resolution from the House of Representatives upon the subject of private buildings erected on the United States lands at this place, I herewith enclose the reports therein required.

There are three or four buildings erected on the hill between the two rivers not included in the report; one of them occupied by a Mrs. Beston as a female school establishment; three other small huts, occupied by free blacks, named as follows, viz: William Prim, Adam Jones, and Jack Wood, who perform the duties of sextons and grave-diggers; also two churches; all of which are located on a lot of four acres, reserved in the will of Robert Harper, deceased, the original proprietor, and under whom John Wager, who sold to the United States their lands at this place, derived his title, for the purpose of erecting a graveyard, church, &c.; an extract from which I enclose herewith, from which it will be seen that even had not the four-acre lot been appropriated to the purposes contemplated in Harper's will, the government could not legally have any control over it. There are also several dwellings situated on the lands of which the government own the right of perpetual wood cutting, the owners of which purchased the fee simple right. These houses are numbered in the statement furnished by Colonel Lee from No. 199 to 207.

In regard to the authority for purchasing buildings, improvements, &c., I have to observe that it has always been considered the duty of the superintendent to provide suitable accommodations for the workmen employed in the armory. This could only be done by building new buildings, or purchasing improvements already made. The latter of these alternatives was, in many instances, the more expedient, from death, removal, change of circumstances of the persons who made the improvements, or other similar causes. It frequently occurs, when good workmen, having married, or from other causes need dwellings, or additions to those previously occupied, that the armory funds will not, at the time, admit of expenditures being made for such purposes. They are, therefore, permitted, when able to do so, to make the improvements at their own charge, with the understanding that afterwards, when convenient to the armory, they shall be paid for the same, according to fair valuation.

The passing of such accounts from time to time, for many years past, by the accounting officers, has also been considered as approving the course pursued in this respect.

It will be seen that no rents have been yet collected upon the lots built on and occupied by private individuals not connected with the armory. This has resulted from the following state of things, viz: In some of the cases the leases have not yet been executed, and in none have the amounts of ground rent to be charged been ascertained. Diversity of opinion has occurred on this subject; and, on account of the uncertainty of the superintendent's power in such cases, it has not been considered advisable to agitate the question in what manner and how far the superintendent can coerce the settlement of claims to the United States on account of this armory, until the question was settled by advice of counsel, or otherwise, as the case might require; for, had the attempt been made, and failed, a vast deal of trouble and difficulty would have been encountered, which, in consequence of the course pursued, has been avoided.

In accordance with your letter of the 23d of last July, requiring me to obtain legal advice on this and other subjects, the questions of difficulty were immediately submitted to Moses T. Hunter, esq., the counsel usually employed in behalf of this armory, whose opinion was enclosed to you on the 14th of November last. By reference to that opinion, it will be seen that the subject is attended with very considerable difficulty, and the most advisable course to be pursued not yet clearly ascertained; when, however, such course is determined upon, there will be no difficulty in collecting the rents in arrears, as the parties from whom they are due are entirely solvent. It may be well to remark that each of the grants or permissions given to the individuals mentioned under the head of persons not connected with the armory to build on the public lands are decidedly advantageous to the interests of the armory, and required for the convenience and accommodation of the workmen therein employed, so much so that it is believed the United States have derived from them benefits equivalent to several thousand dollars, by thus destroying, in some measure, the imposition and oppressive monopoly which before prevailed, and which grew out of the fact that all of the real property at this place, except that of the United States, belonged to a single family, who exacted exorbitant rents from shopkeepers, mechanics, &c., even sometimes restricting them to particular kinds of business, who were thus, in their turn, compelled to charge the workmen employed in the armory corresponding rates for the ordinary means of subsistence, and thereby, in the end, rendering it necessary for the government to pay for work at prices higher than those for which it might otherwise have been done.

On a former occasion Mr. Calhoun, during the period that he was at the head of the War Department, and to whom this subject was referred, was clearly of opinion that the original purchase of the lands occupied by this armory, from John Wager, left it entirely discretionary with the government whether or not to permit merchants, shopkeepers, mechanics, and tradesmen of every description whatsoever, to erect buildings and pursue their different modes of business, on the public lands here, to any extent that the interests of the armory and the convenience of workmen therein employed might require.

Respectfully, your obedient servant,

JAMES STUBBLEFIELD.

Col. GEO. BOMFORD.

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Extract from the last will and testament of Robert B. Harper, deceased, executed on the 1st day of October, 1782.

"It is further my last will, that four acres of land, most convenient round my graveyard, shall be laid off by my executors, and be entirely appropriated to the use of a graveyard; and all my debts, due by bond, note, and book account, and all the rents now due from my ferry, be by my executor disposed of in the best manner towards erecting a graveyard and building a church on said four acres of land, and having a head and foot stone for my wife's grave, and likewise for my own."

A copy—teste,

A. HUNTER, *Clerk.*

Statement of the buildings erected by private individuals on the government lands at Harper's Ferry, Virginia.

Buildings erected by private individuals.				Buildings purchased by the government.			Buildings yet in the possession of the builders and their assigns.	
Description of buildings.	In what year erected.	By whom erected.	By what authority erected.	Amount paid for each.	Date of purchase or payment.	By what authority purchased.	No.	Amount claimed on each.
Cellar		Wm. Reed	Superintend't				1	$152 00
Do		Jacob Haines	do				2	153 00
Stone dwelling		Nathan Turk	do				3	79 00
Do		Thomas Welders	do				4	124 00
Wooden dwelling	1826	George Little	do				5	186 57
Do		C. C. Cameron	do				6	160 00
Do	1825	Jacob Ott	do				7	50 00
Cellar to dwelling		S. McDowell	do				8	65 00
Do		M. Britenbaugh	do				9	118 84
Wooden building		James Thrapp	do				10	52 00
Do	1810	J. A. Shafer	do				11	170 60
Do	1824	Jacob Beard	do				12	94 00
Do		Wm. Gannon	do				13	93 00
Do		John Marlatt	do				14	71 82
Do	1812	Abso. Vanvacter	do				15	209 81
Do	1824	Mrs. McBee	do				16	47 00
Do	1824	Joseph Davis	do				17	116 33
Do	1825	W. T. A. Pollock	do				18	352 72
Stone dwelling	1825	D. Crawford	do				19	268 07
Wooden dwelling	1824	Charles Staley	do				20	101 00
Do		Joshua Cox	do				21	100 00
Do	1825	R. Cruzen	do				22	299 98
Do	1825	John Duke	do				23	349 46
Do		Hugh McCoy	do				24	101 41
Do	1825	Mathias Spangle	do				25	162 00
Do	1819	John Griffiths	do				26	168 37
Do		David Adams	do				27	89 00
Do		Ashel Davis	do				28	238 45
Do	1825	T. McNulty	do				29	222 00
Do	1825	R. A Waters	do				30	154 00
Do	1825	Eman Engles	do				31	88 03
Stone dwelling		John C. Renseld	do				32	600 00
Brick dwelling	1824	Wm. McCoy	do				33	549 48
Wooden dwelling	1825	John Crutchly	do				34	150 00
Do		Jona. Anderson	do				35	220 84
Do	1820	Charles Button	do				36	150 00
Stone dwelling	1825	Wm. Smallwood	do	$400 00	1826	Superintend't	37	203 24
Wooden dwelling		Susan Downey	do				38	96 49
Do	1812	M. Zimmerman	do				39	350 00
Do	1820	John Butler	do				40	150 00
Wooden dwelling		John Johnson	Superintend't				41	$75 00
Do		James Merrick	do				42	75 00
Stone dwelling	1826	Jona. Irving	do				43	350 00
Wooden dwelling		John A. Smith	do	$100 00	1822	Superintend't	44	
Do		Joshua Cox	do	65 00	1822	do	45	
Do		Joel Norman	do	24 07	1823	do	46	
Do		George Rowles	do	22 00	1822	do	47	
Do		Wm. Adams	do	100 00	1823	do	48	
Do		Phil. Funk	do	122 86	1823	do	49	
Do		Charles Staley	do	16 17	1823	do	50	
Wooden building		R. Breeden's adm'r	do	50 00	1823	do	51	
Stone building		Amasa Mars	do	12 11	1823	do	52	
Brick building		Wm. Green	do	119 89	1823	do	53	

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Statement of buildings erected by private individuals, &c.—Continued.

Buildings erected by private individuals.				Buildings purchased by the government.			Buildings yet in the possession of the builders and their assigns.	
Description of buildings.	In what year erected.	By whom erected.	By what authority erected.	Amount paid for each.	Date of purchase or payment.	By what authority purchased.	No.	Amount claimed on each.
Wooden building		Joseph Barnes	do	33 93	1823	do	54	
Do		Reuben Stipes	do	24 36	1823	do	55	
Do		Jacob Ott	do	37 26	1823	do	56	
Do		Elisha Larkin	do	91 75	1823	do	57	
Do		George Zorger	do	35 20	1823	do	58	
Do		Carey Thompson	do	37 07	1823	do	59	
Do		Martin Hartman	do	78 87	1823	do	60	
Do		Richard King	do	163 08	1823	do	61	
Do		Frederick Riley	do	25 38	1823	do	62	
Do		Henry Stipes	do	215 85	1823	do	63	
Do		Charles H. Mills	do	43 03	1823	do	64	
Do		David Adams	do	109 50	1823	do	65	
Do		Levi Hall	do	46 67	1823	do	66	
Do		Thomas Stedman	do	56 56	1823	do	67	
Do		Samuel J. Lindsay	do	83 42	1823	do	68	
Do		Thomas Stipes	do	214 14	1823	do	69	
Do		Mary Seliz	do	806 73	1823	do	70	
Do		John Baylis	do	22 07	1823	do	71	
Do		Isaac Wood	do	109 75	1823	do	72	
Do		Joshua Riley	do	225 75	1823	do	73	
Do		James Coates	do	161 39	1823	do	74	
Stone building		Wm. Grisfield	do	34 94	1823	do	75	
Wooden building		Abram Berlin	do	57 84	1823	do	76	
Do		Wm. Adams	do	39 66	1823	do	77	
Do		Jacob Coons	do	209 04	1823	do	78	
Stone building		Andrew Board	do	37 60	1823	do	79	
Wooden building		Daniel Johnson	do	158 37	1823	do	80	
Brick building		John Holt	do	58 53	1823	do	81	
Wooden building		Ezekiel Stipes	do	66 54	1823	do	82	
Do		John Riley	do	27 53	1823	do	83	
Do		Philip Hoffman	do	339 37	1823	do	84	
Brick building		Meshac Kirby	do	266 66	1823	do	85	
Wooden building		Michael Melhorn	do	229 11	1824	do	86	
Do		Nathan Benton	do	39 40	1824	do	87	
Do		Asahel Davis	do	74 00	1824	do	88	
Do		Chs. Wintersmith	do	114 97	1824	do	89	
Brick building		Wm. Smallwood	do	80 00	1824	do	90	
Wooden building		Stetson Bisbee	do	91 43	1824	do	91	
Do		Charles Fouke	do	114 06	1824	do	92	
Do		Edm. Burke	do	32 45	1824	do	93	
Do		John Rockenbaugh	do	560 42	1824	do	94	
Stone building		Nathaniel French	do	38 10	1824	do	95	
Do		Roger Jones	do	13 03	1824	do	96	
Do		James Pryor	do	127 17	1824	do	97	
Brick building		Wm. McCoy	do	89 37	1824	do	98	
Wooden building		Thomas Stedman	do	92 90	1825	do	99	
Do		Nahum Patch	do	25 53	1825	do	100	
Stone building		Tim. Berrington	do	301 18	1825	do	101	
Do		John Donaldson	do	19 00	1825	do	102	
Do		Francis O'Neale	do	171 59	1825	do	103	
Brick building		John Wegginton	do	19 00	1826	do	104	
Wooden dwelling		John McFarland	do	171 59	1826	do	105	
Stone dwelling		Francis O'Neale	do	423 00	1826	do	106	
Brick dwelling		John Tully	do	12 00	1827	do	107	
Wooden dwelling		John Roderick	do	25 00	1827	do	108	
Do		Wm. McClure	do	7 23	1827	do	109	
Do		Wm. Phelan	do	25 00	1827	do	110	
Do		Elizabeth Keep	do	200 00	1827	do	111	
Do		Nathan Yeamans	do	296 03	1828	do	112	
Stone dwelling, intended as a ferry-house.	1826	George Harding	do			do	113	Estimated at 650 00

STATEMENT—Continued.—*Persons not connected with the armory.*

Buildings erected by private individuals.				Buildings yet in the possession of the builders and their assigns.	
Description of buildings.	In what year erected.	By whom erected.	By what authority erected.	Number.	Estimated value.
Stone storehouse and dwelling, brick dwelling and boarding house, and wooden warehouse.	1812	Potomac Navigation Co.	By agreement with the War Department, of which there is no document in this office.	1	$5,000 00
Wooden storehouse and dwelling	1816	Colonel Jamieson	Grant from the President of United States—no document in this office.	2	800 00
Stone, rough-cast, used as a dwelling-house, boarding-house, and butchery.	1826	Philip and David Coons.	From the Ordnance department to P. Coons, April 6, 1825.	3	2,500 00
Stone, rough-cast, used as dwelling and storehouse.	1826	John G. Wilson	On the faith of a letter from the Ordnance department to J. G. Wilson, March 23, 1825.	4	2,500 00
Frame house plastered outside, built for a dwelling house and printing office.	1826	John S. Gallagher.....	By permission of the superintendent.	5	600 00
Frame storehouse and rough-cast dwelling-house.	1826	Michael Garry.....	Grant from Ordnance department to superintendent, June 20, 1825.	6	2,500 00
Small temporary frame storehouse	1826	Michael K. Wartman..	By permission of the superintendent.	7	175 00

NOTES.

1. In regard to the omissions that occur in the column designated to show the dates at which the several buildings, improvements, repairs, &c., were made, I observe that many were made from time to time, as required by the convenience of the workmen, previous to 1823, at which time the first notice of them was taken; some were made at several different times; so that it is impracticable to ascertain the precise dates at which all of them were made.

2. Nos 16, 70, and 111, are widows of workmen formerly employed in the armory.

3. Lot No. 1, under the head of persons not connected with the armory, is situated on Shenandoah street, running back to the Shenandoah river. In front is a two-story stone dwelling-house and store, and in the rear a large two-story brick boarding-house, and on the river a large frame warehouse, formerly used by the Potomac Company for storing flour.

4. Lot No. 2, under same head, was granted by the President of the United States in 1815 to Colonel Jamieson, an officer of the United States army during the late war, to build upon it a store and dwelling-house, and is at present so used.

5. Lot No. 3, under same head, is situated on the Shenandoah river near the United States ferry. The house built upon it is a large stone building used as a boarding-house for the public workmen. One of the occupants is employed as a watchman at the armory; the other is an enterprising butcher, who furnishes much the greater part of the meat consumed by the armory workmen.

6. Lot No. 4, under same head, is situated on Shenandoah street. The house built upon it is a large stone building; the site was formerly occupied by a large rock, in the side of the hill, which required a large expenditure of money to remove it.

7. Lot No. 5, under same head, is situated on Shenandoah street. The building erected upon it was built for the purpose and, until lately, occupied as a printing office, and, as such, considered highly important, jobs of printing being frequently required for armory purposes.

8. Lot No. 6, under same head, is situated on the street leading up the hill towards Charlestown.

9. Lot No. 7, under same head, is situated on the hill between the two rivers. The house upon it is a very small temporary frame house, that may at any time be easily removed.

10. Lots numbered in the above report from 1 to 113 being improvements made by persons connected with the armory, or for purposes connected with the armory, no rents are ever charged, the interest of the money invested being considered equivalent to the ground rent.

I certify the above report to be correct according to its purport, and according to the best of my knowledge and belief.

JAMES STUBBLEFIELD, *Superintendent.*

UNITED STATES ARMORY, *Harper's Ferry, Virginia, February* 22, 1829.

Statement of rents, &c.—Continued.

From whom collected.	1823.	1824.	1825.	1826.	1827.	1828.
M. Britenbang	$8 00	16 00	$16 00	$16 00	$16 00	$16 00
Thomas Earnshaw	4 00					
William Read	8 00	16 00	16 00	12 00		
Frederick Stephenson	4 00	2 00				
David Claspey	4 00	4 00	4 00	2 00	4 00	4 00
Asahel Davis	4 00	12 50	2 50			
John Crutchly	3 00	4 50	3 00			
John Best	3 00	6 00	7 50	4 50		3 00
John H. Hall	15 00	37 50	7 50			
Nathaniel French	8 00	20 00	16 00	16 00	12 00	12 00
Pelatiah Thompson	4 00	8 00	16 00	12 00	12 00	20 00
William Burke	4 00	8 00	4 00	16 00	18 00	20 00
Jacob Coons	6 00	12 00	6 00	3 00		
Jeffrey Carlisle	2 00	5 00	4 00	4 00	4 00	4 00
Thomas Spriggs	2 00	5 00	4 00	2 00	4 00	4 00
George Compton	3 00	7 50	5 50	3 00	6 00	7 50
Ignatius McItee	3 00					
Michael Cooke	6 00	6 00	9 00		2 00	
Joseph Hoffman		18 00	3 00	3 00	12 00	
Nahum W. Patch		12 00				
James Fisher	8 00	16 00	16 00	16 00	16 00	12 00
Michael Derry		2 00				9 00
Levi Steadman		4 50	6 00	6 00	7 50	9 00
Henry Miller		12 00	3 00	5 00	20 00	20 00
Robert Dirke		16 00	17 00	20 00	20 00	20 00
Samuel Hobbs		16 00	12 00	12 00	16 00	16 00
John Mallory		4 00				
Benjamin Wintzell		12 00	6 00	18 00	12 00	12 00
James Hughes		7 50				
Charles Staley		20 00	20 00			
David Adams		6 00	4 50	6 00	6 00	6 00
Martin Hartman		8 00	6 00	8 00	8 00	6 00
Thomas Mallory		12 00	9 00	5 00	8 00	6 00
Samuel McDowell		16 00	16 00	16 00		
Richard Martin		16 00				
Jacob Coons, 3d		1 50	3 00			
Christopher Kreps		9 00	12 00	12 00	12 00	12 00
Daniel Border		24 00	24 00	6 00		
Meshac Kirby		12 00	12 00	9 00	12 00	18 00
Joshua Reily		7 50	10 00	7 50	7 50	7 50
Edmund Barber		3 00				
Michael Milhorn		15 00	16 00	12 00	16 00	16 00
Thomas Stipes	3 00	16 00	16 00	12 00	12 00	8 00
Jacob Coons, jr				3 00		
George Rowles,		5 00				
Timothy Steadman		1 50	3 00	6 00	6 00	6 00
John Tally		9 00	10 50	6 00		
Alva Keep		9 00	12 00	6 00		
John G. Unseld		6 00	4 00	12 00		
M. F. A. Pollock		6 00	4 00	4 00	1 00	
Alexander Nunamaker		4 50	6 00	1 50	3 00	4 50
John Garrett		16 00				
James Thropp		9 00	12 00	12 00	12 00	12 00
Joseph Baylis		2 00				
Jacob Engles		4 00	6 00	6 00	8 00	8 00
George Hawkin		3 00		18 00	6 00	6 00
Abraham Rodrock		1 50	6 00	4 50	6 00	6 00
William Crusin		5 00	4 50	6 00	6 00	6 00
Singleton Chambers		4 00	5 00	18 00	10 00	8 00
Charles Fouke		10 00	10 00	20 00		
James Green		3 00				
George Bryson		10 00	20 00	25 00		
Jacob Board		4 50	4 50			
Levi Hall		5 00	9 00	3 00	3 00	
Samuel Cox		10 00	10 00	20 00	20 00	15 00
Jonah M. Tompkins	4 00	8 00	6 00			
Archibald McClelland		6 00	12 00	12 00	12 00	
John Spangler		4 50		1 50	6 00	6 00
James Merrick		18 00	12 00	9 00	12 00	12 00
Thornton Warner		1 00				
Thomas Russell		4 00	16 00	12 00	12 00	20 00
Francis Leisha		4 00	8 00	8 00	2 00	2 00
John Claspey		2 50				
Hiram Pryor		4 00				
John Reiley		3 00		6 00	2 00	
Joseph Reiley		2 50				
John Piles			12 00	12 00	5 50	23 00
Joseph Martin			4 00			
David Hoffman			6 00			

ASP-MA-IV

Statement of rents collected on dwelling-houses belonging to the United States armory, Harper's Ferry, Virginia, and occupied by workmen employed in the said armory, from the year 1823 until the close of 1828; and the names of persons from whom collected.

From whom collected.	1823.	1824.	1825.	1826.	1827.	1828.
Philip Hoffman	$8 00	$24 00	$6 00	$6 00	$24 00	$24 00
George Mallory	8 00	16 00	4 00	4 00	16 00	16 00
Edward Wager	12 00	.....	.....	.....	.....	.....
Charles C. Cameron	5 00	7 50	3 00	.....	.....	.....
Charles H. Mills	5 00	11 50	12 00	9 00	.....	.....
William D. Moore	6 00	12 00	12 00	9 00	.....	.....
John Shubridge	3 00	6 00	6 00	6 00	6 00	6 00
Hezekiah Butt	3 00	4 50	6 00	6 00	6 00	6 00
John Rodorock	4 00	4 00	2 00	10 50	6 00	6 00
James Green	6 00	9 00	9 00	.....	.....	.....
John Rohinbaugh	10 00	20 00	20 00	20 00	20 00	20 00
John Marlatt	7 50	15 00	11 25	15 75	16 00	12 00
Michael Crowl	8 00	16 00	12 00	12 00	14 00	16 00
Ezekiel Stipes	3 00	8 00	8 00	8 00	8 00	8 00
Oswin Sturdy	3 00	.....	.....	.....	8 00	8 00
John Donaldson	8 00	8 00	24 00	5 00	.....	.....
Isaac Wood	8 00	20 00	20 00	.....	18 75	22 50
Timothy Herrington	8 00	16 00	16 00	19 00	15 00	20 00
Jacob Ott	6 00	14 00	14 00	14 00	14 00	14 00
John Wiggington	3 00	6 00	6 00	6 00	12 50	4 00
Jacob Haines	8 00	12 00	16 00	16 00	13 00	4 00
Levi Hall	4 00	5 50	3 00	3 00	6 00	.....
Evan Lindsay	8 00	.....	.....	.....	.....	.....
Hiram Kerney	8 00	16 00	12 00	.....	.....	.....
William Ferrells	6 00	12 00	12 00	6 00	.....	.....
Absolom Vanvacter	6 00	15 00	12 00	9 00	9 00	3 00
Samuel Thropp	8 00	16 00	12 00	20 00	12 00	8 00
William Green	8 00	20 00	5 00	.....	.....	.....
William Mallory	8 00	6 00	2 00	15 00	6 00	9 00
John Coons	6 00	12 00	.....	.....	.....	.....
Joseph Barnes	4 00	.....	14 00	20 00	18 00	16 00
William Simpson	4 00	6 00	2 00	.....	.....	.....
William Nunamaker	3 00	1 50	.....	20 00	18 00	16 00
Peter Hoffman	4 50	12 00	3 00	6 00	9 00	18 00
Henry Stipes	3 00	12 00	4 00	.....	.....	.....
Reuben Stipes	3 00	2 00	6 00	10 00	4 00	.....
Daniel Little	5 00	.....	.....	.....	.....	.....
Alexander Wintzell	6 00	.....	.....	.....	.....	.....
John Holt	4 00	10 00	10 00	10 00	7 50	12 50
John Claspey	5 00	7 50	10 00	7 50	.....	.....
William McClure	8 00	6 00	4 00	6 00	4 00	8 00
William Smallwood	6 00	12 00	6 00	12 00	16 00	12 00
James Reily	6 00	9 00	12 00	12 00	12 00	12 00
Charles Wintersmith	8 00	18 00	15 00	20 00	20 00	20 00
George Zoger	8 00	15 00	15 00	20 00	8 00	.....
John Baylis	4 00	2 00	11 00	2 00	.....	.....
Thomas Hall	4 00	.....	.....	.....	.....	.....
William Mockbee	6 00	12 00	12 00	9 00	10 00	8 00
Daniel Hinkles	10 00	20 00	20 00	10 00	.....	.....
Frederick Reily	6 00	15 00	12 00	9 00	10 00	8 00
William Chambers	3 00	6 00	8 00	.....	9 00	9 00
Nathan Benton	4 00	8 00	8 00	8 00	8 00	8 00
Joshua Cox	4 00	8 00	8 00	8 00	6 00	8 00
Thomas Dakin	6 00	12 00	12 00	12 00	12 00	12 00
John Sickofuse	5 00	2 50	.....	.....	.....	.....
William Adams	5 00	12 00	12 00	12 00	12 00	9 00
Richard King	4 00	18 00	13 50	18 00	13 50	9 00
John Baden	2 00	8 00	6 00	8 00	.....	.....
Nathan Turk	6 00	13 00	12 00	16 00	16 00	8 00
Elisha Larkin	2 50	10 50	16 00	12 00	10 00	.....
Samuel Avis	10 00	14 00	12 00	9 00	12 00	12 00
William Gannon	8 00	12 00	12 00	20 00	12 00	12 00
Daniel Johnston	10 00	20 00	20 00	20 00	15 00	20 00
Ebenezer Cox	10 00	10 00	5 00	.....	.....	.....
Orson Bestor	10 00	15 00	.....	.....	.....	.....
James Steadman	4 00	.....	.....	.....	.....	.....
Anthony Belsterling	6 00	16 00	12 00	12 00	12 00	12 00
James Coates	5 00	17 00	15 00	16 00	12 00	16 00
Michael Compp	6 00	12 00	12 00	12 00	12 00	12 00
Daniel Cramer	8 00	16 00	16 00	15 00	16 00	4 00
William Sappington	6 00	18 00	18 00	18 00	18 00	18 00
Nathan Yeamans	8 00	12 00	16 00	16 00	16 00	8 00
William Phelan	4 00	10 00	8 00	3 00	6 00	6 00
George Little	6 00	12 00	16 00	8 00	12 00	.....
Roger Jones	8 00	4 00	.....	.....	.....	.....
James Pryor	8 00	12 00	12 00	.....	.....	.....

Statement of rents, &c.—Continued.

From whom collected.	1823.	1824.	1825.	1826.	1827.	1828.
Raleigh Coons			$3 00			
Shadrack Penn			9 00	$10 00	$8 00	$4 00
Amasa W. Mars			16 00	16 00	16 00	16 00
Benjamin Stipes			12 00	16 00	16 00	12 00
John Chambers			6 00	9 00	8 33	12 00
John Baylis			2 00	6 00	8 00	6 00
Jacob Shough			5 00	9 00		
Daniel Crawford			3 00	6 00	6 00	6 00
Joseph Griffith			6 00	12 00	3 00	
Zadock Butt			6 00	12 00	8 00	6 00
Robert Blanchard			6 00	12 00	12 00	12 00
Amos Sigler			6 00	12 00	12 00	12 00
John Thropp			3 00			
Jeremiah Stevens			4 00	8 00	6 00	10 00
Philip Cramer			4 00	8 00		
Ad. Rhulman				12 00	12 00	4 00
Richard A. Waters				15 00	11 25	6 00
Richard Crusin				6 00		
Edmond Chambers				7 00	12 00	12 00
Zachariah Garnes				7 00	4 00	6 00
Mathias Spangler				10 00	8 00	8 00
Charles F. Clewell				6 00	8 00	8 00
Stedson Bisbee				20 00	12 00	
John Weaning				15 00	12 00	3 00
Joseph Davis				6 00		
John Best				3 00	6 00	6 00
Daniel McFaden				15 00	18 00	16 00
William Bateman				3 00	12 00	12 00
Paul Washburn					13 50	
George Nunamaker				3 00	3 00	
James Shubridge					12 00	6 00
George Engles					8 00	6 00
Thomas Steadman					6 00	15 00
Joseph Spencer				1 50	3 00	
Horatio Hobbs					9 00	3 00
John Cable					6 00	4 50
George H. Butler					1 00	
James Clarke				5 00	20 00	20 00
John Avis					2 00	
Jacob Foreman					12 00	16 00
John Chapman					4 00	3 00
James Near					9 00	
Allen McBee				4 50	4 00	4 00
Jacob Mong					5 00	
Abraham Berlin					6 00	1 50
Isaac Jackson					2 00	4 00
Joseph Taylor					1 50	
Hiram McBride					2 00	4 00
William Spencer					4 50	4 50
Ferdinand Stephenson					12 00	21 00
Samuel Kilham					6 00	12 00
William Yeamans				3 00	4 00	14 00
Washington Busey					8 00	16 00
Eli B. Cogsill					2 00	4 00
Edwin Tucker					6 00	12 00
George Brua					8 00	
John Bowers					2 50	7 50
Berryman Brua						12 00
James Cooke						6 00
Joseph Wright						1 00
Erasmus Bell						3 00
John Hall						2 00
Frederick Houk						2 50
Thomas Melvin						4 00
Israel Parsons						5 00
	$568 50	$1,331 50	1,316 75	1,409 75	$1,395 83	$1,322 00

I hereby certify the above statement to be correct according to its purpose.

FEBRUARY 1, 1829.

JAMES STUBBLEFIELD.

Report 1 Army rent roll, 1823-28

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20TH CONGRESS.] No. 409. [2D SESSION.

EXPENDITURES AT AND OPERATIONS OF THE ARMORIES DURING THE YEAR 1828.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 2, 1829.

DEPARTMENT OF WAR, *March* 2, 1829.

SIR: In pursuance of an act of Congress of the 2d of April, 1794, concerning arsenals and armories, I have the honor to transmit herewith a statement of the expenditures at the United States armories, and of the arms, &c., made therein, during the year 1828.

I have the honor to be, very respectfully, your obedient servant,

P. B. PORTER.

The Hon. SPEAKER *of the House of Representatives.*

Statement of the expenditures at the national armories, and of the arms, &c., made therein during the year 1828.

	Expenditures.					Arms, &c., made.					
	For lands, buildings, canals, repairs, and other permanent improvements.	For the manufacture of muskets.	For the manufacture of Hall's rifles.	For miscellaneous purposes not embraced in the foregoing.	Total amount expended.	Muskets.	Screwdrivers.	Wipers.	Bull screws.	Spring vises.	Arm chests.
Springfield, Mass.....	$13,476 99	$172,152 20	.....	$1,448 12	$187,077 31	15,500	15,500	15,500	1,550	1,550	721
Harper's Ferry, Va.....	12,033 00	134,161 18	$49,624 11	1,457 82	197,276 11	10,000	35,679	25,000	.....	.....	1,164
Total.....	25,509 99	306,313 38	49,624 11	2,905 94	384,353 42	25,500	51,179	40,500	1,550	1,550	1,885

Statement in detail of the operations of the army at Harper's Ferry

Value of unwrought materials on hand January 1, 1828.....	$103, 855 18	
Value of component parts of arms.....	56, 708 41	
Total amount drawn from the treasury and expended during the year 1828..	197, 276 11	
		357, 839 70
Amount expended in permanent improvements, per foregoing statement.....	12, 033 00	
10,000 muskets, average cost of each $12 40½.....	124, 052 19½	
35,679 screwdrivers, at 7 cents	2, 497 53	
25,000 wipers, at 13 cents.....	3, 250 00	
1,164 arm chests, at $2.....	2, 328 00	
Amount expended on Hall's rifles, which are not yet completed.....	49, 624 11	
Amount expended for preserving arms, and for miscellaneous purposes not incidental to the manufacture of arms.....	1, 457 82	
Value of unwrought materials on hand December 31, 1828.....	103, 088 77¾	
Value of component parts of arms.....	59, 508 26¾	
		357, 839 70

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

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From Report of Col. Geo. B omford, March ?, 1829.

Statement in detail of the operations of the armory at Springfield.

Value of unwrought materials on hand January 1, 1828	$46, 539 71	
Value of component parts of arms	107, 184 85	
Total amount drawn from the treasury and expended during the year 1828	187, 070 81	
		$340, 801 87
Amount expended in permanent improvements, per foregoing statement	13, 476 99	
Amount expended in the manufacture of arms, viz:		
15,500 muskets, average cost of each $10 54 and a fraction	163, 450 00	
15,500 screwdrivers, at 8 cents	1, 240 00	
15,500 wipers, at 12½ cents	1, 937 50	
1,550 spring vices, at 30 cents	465 00	
1,550 ball screws, at 15 cents	235 50	
721 arm chests, at $1 80	1, 927 80	
Amount of parts of arms furnished contractors, and for rolled iron sent to Harper's Ferry, not used in the manufacture of arms at this armory	439 86	
Amount expended for preserving arms, and for miscellaneous purposes not incidental to the manufacture of arms	1, 448 12	
Value of unwrought materials on hand December 31, 1828, per inventory	46, 066 30	
Value of component parts of arms	110, 744 80	
		340, 801 87

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REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE DEPARTMENT, *Washington, November* 30, 1829.

SIR: I have the honor to submit herewith a general report of the operations of this department during the past year:

Statement marked A exhibits an account of the moneys drawn from the treasury and remitted through this department during the year 1828 to disbursing officers and contractors, and also the amount of the accounts rendered and the balance remaining in the hands of each at the close of the year. By this statement it appears that the remittances during the year 1828 amounted to	$990,520 27
That the accounts rendered and settled during the same period amounted to	977,819 24
And that the unexpended balances remaining in the hands of the several disbursing officers at the close of the year amounted to	12,701 03

The whole of which was accounted for in the first quarter of the present year.

Statement B shows the amount of funds transmitted to the several disbursing officers of this department and to contractors during the first three quarters of the present year, by which it will be seen that the total amount transmitted was	$737,569 56
And that the accounts rendered amounted to	701,151 51
Leaving an unexpended balance in the hands of disbursing officers, on the 30th September, of	36,418 05

All the accounts due up to the 30th of September last have been received from all the armories and arsenals.

Statement C exhibits an account of some of the principal articles made at the several armories and arsenals during the year ending 30th September, 1829, by which it will appear that 25,970 new muskets, with their various appendages, have been made at the armories; and that 5,875 small arms have been cleaned and repaired, and about 12,000 sets of accoutrements for small arms and 92 new gun-carriages have been made at the arsenals.

Statement D exhibits the number and description of arms, artillery, and other ordnance supplies issued by this department to the army and to the marine corps during the year ending 30th September, 1829, by which it will be seen that 3,109 small arms, (of which 1,500 new muskets and 321 Hall's rifles were furnished to the marine corps,) 36 gun-carriages, and about 1,500 sets of accoutrements for small arms, are among the principal articles issued.

Statement E exhibits an account of the expenditures made, and of the arms and artillery carriages and equipments procured under the act of 1808 for arming and equipping the militia during the year ending the 30th September, 1829. The arms procured are, 11,100 muskets; 1,960 rifles; about 6,900 sets of accoutrements for small arms, and 71 field artillery carriages, with their various equipments. The amount expended on this account was $219,074 57.

Statement F exhibits an account of the arms apportioned to each of the several States and Territories for the year 1828, and of the artillery, arms, and other military equipments distributed to the militia during the year ending September 30, 1829.

Statement G exhibits the general results of the operations of the public lead mines during the year ending 30th September, 1829, to which is appended a brief statement showing the quantity of lead made at these mines in each year from 1821 to the present time. By these statements it will be seen that the rents during the year past amounted to 1,454,131 pounds, exceeding those of the previous year upwards of 220,000 pounds.

I beg leave on this occasion to renew a proposition for the re-establishment of this department as a separate branch of the public service. This subject has been heretofore submitted to Congress, and has received the favorable consideration and support of the committees to which it has been referred. Bills for effecting the object have been proposed, and one of them was passed by the House of Representatives, but for want of time was laid over unacted upon in the Senate.

Believing it to be very important to the interests of the public service that a measure of the kind proposed should be adopted, I respectfully submit the subject again, and have to solicit for it such consideration and support as it may appear to merit.

The current service of this department involves an expenditure of nearly one million of dollars per annum, and the preservation of arms, artillery, ammunition, and other military stores to an amount of about twelve millions of dollars, together with the arming and equipping of the whole body of the militia of the United States. Under the present law these important duties are performed by persons who are only temporarily assigned to them; and since the passage of the law in 1821 one hundred and forty different officers have been assigned to their performance. That duties of this description could be more advantageously performed by persons in the constant practice of them appears too obvious to require extended remarks.

For a more detailed exposition of the views which are entertained upon this subject, I beg leave to refer to a printed report contained in the first volume of State Papers, 1st session, 20th Congress, document 1, page 94.

I have the honor to be, sir, your most obedient servant,

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Hon. JOHN H. EATON, *Secretary of War.*

Nov. 30, 1829

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A.

Statement of the money expended through the Ordnance department in the year 1828.

Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS, JANUARY 1, 1828. Appropriations. For national armories.	For arming and equipping the militia.	For arsenals.	For armament of new fortifications.	For the current expenses of the ordnance service.	Total amount remitted.	Amount expended and accounted for.	Balances remaining in the hands of disbursing officers Dec. 31, 1828.
Armory, Springfield, Mass.	$191,327 37	$1,000 00	.....	.....	.....	$192,327 37	$190,481 18	$1,846 19
Armory, Harper's Ferry, Va.	198,303 36	.....	.....	.....	$270 00	198,573 36	197,752 90	820 46
Arsenal, Augusta, Me	.....	.....	$41,054 67	.....	.....	41,054 67	41,054 67	.....
Arsenal, Vergennes, Vt.	.....	.....	9,312 70	.....	1,200 00	10,512 70	9,993 61	519 09
Arsenal, Watertown, Mass.	.....	82 19	.....	.....	3,484 81	3,567 00	3,351 90	215 10
Arsenal, Watervliet, N. Y.	.....	11,840 23	24,396 70	.....	12,010 20	48,247 13	46,764 56	1,482 57
Arsenal, Rome	.....	.....	.....	.....	1,604 84	1,604 84	1,571 93	32 91
Arsenal, New York	.....	.....	.....	.....	3,300 58	3,300 58	3,186 19	114 39
Arsenal, Frankford, Pa.	.....	7,844 80	.....	.....	18,123 01	25,967 81	25,406 79	561 02
Arsenal, Pittsburg, Pa.	.....	19,789 60	.....	.....	18,255 87	38,045 47	37,334 26	711 21
Arsenal, Baltimore, Md.	.....	.....	900 00	$300 00	3,833 99	5,033 99	4,782 75	251 24
Arsenal, Washington, D. C.	.....	12,497 65	3,000 00	1,600 00	8,739 86	26,037 51	25,959 41	78 10
Arsenal, Fort Monroe, Va	.....	.....	.....	4,100 00	2,632 55	6,732 55	4,787 76	1,944 79
Arsenal, Richmond	.....	.....	.....	.....	1,779 99	1,779 99	1,631 99	148 00
Arsenal, Augusta, Ga.	.....	.....	29,476 55	.....	3,480 95	32,957 50	32,163 72	793 78
Arsenal, Baton Rouge, La.	.....	750 00	8,334 45	.....	7,852 15	16,936 60	14,783 37	2,153 23
Arsenal, St. Louis, Mo.	.....	.....	19,218 19	.....	9,935 36	29,153 55	28,839 00	314 55
Arsenal, Detroit, Mich. Ter.	.....	.....	.....	.....	612 38	612 38	612 38	.....
Sundry contractors for cannon, small arms, &c.	.....	155,851 90	.....	145,244 71	.....	301,096 61	301,096 61	.....
Sundry persons for balances due on audited accounts.	714 40	.....	.....	.....	6,264 26	6,978 66	6,264 26	714 40
Total	390,345 13	209,656 37	135,693 26	151,444 71	103,380 80	990,520 27	977,819 24	12,701 03

ORDNANCE DEPARTMENT, *November* 30, 1829.

GEORGE BOMFORD, *Brevet Colonel, on Ordnance Service.*

B.

Statement of the money expended through the Ordnance department during the first, second, and third quarters of the year 1829.

Stations.	Amount transmitted in the first, second, and third quarters of 1829, and remaining in officers' hands at the end of the year 1828.	Amount of accounts rendered in the first, second, and third quarters of 1829.	Balances remaining in officers' hands October 1, 1829.
Armory, Springfield, Massachusetts	$139,028 78	$138,486 56	$542 22
Armory, Harper's Ferry, Virginia	156,649 97	156,203 98	445 99
Arsenal, Augusta, Maine	39,000 00	38,783 99	216 01
Arsenal, Vergennes, Vermont	4,219 09	4,219 09	.....
Arsenal, Watertown, Massachusetts	4,677 10	4,270 73	406 37
Arsenal, Watervliet, New York	28,014 33	22,679 29	5,335 04
Arsenal, Rome, New York	1,482 92	1,451 60	31 32
Arsenal, New York, New York	2,174 39	2,164 86	9 53
Arsenal, Frankford, Pennsylvania	19,011 02	18,900 72	110 30
Arsenal, Pittsburg, Pennsylvania	38,147 16	29,514 59	8,632 57
Arsenal, Baltimore, Maryland	1,211 24	1,141 44	69 80
Arsenal, Washington, District of Columbia	20,264 12	20,247 51	16 61
Arsenal, Fortress Monroe, Virginia	4,194 79	4,192 96	1 83
Arsenal, Richmond, Virginia	4,050 59	4,008 82	41 77
Arsenal, Augusta, Georgia	6,006 45	4,483 33	1,523 12
Arsenal, Baton Rouge, Louisiana	17,465 35	14,515 72	2,949 63
Arsenal, St. Louis, Missouri	25,314 56	12,216 79	13,097 77
Arsenal, Detroit, Michigan Territory	625 00	560 44	64 56
Arsenal, Mount Vernon, Alabama	16,200 00	14,268 45	1,931 55
Sundry contractors for cannon, small arms, &c.	203,648 59	203,648 59	.....
Lead mines	3,550 00	2,615 28	934 72
Sundry payments on audited accounts	2,634 11	2,576 77	57 34
Total	737,569 56	701,151 51	36,418 05

ORDNANCE DEPARTMENT, *November 30*, 1829.

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

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C.

Statement of work done and articles procured at the armories and arsenals of the United States from October 1, 1828, to September 30, 1829.

MADE AND PROCURED.

25,970 muskets, complete.
32,864 screw-drivers.
70,792 flint caps.
31,500 wipers.
1,650 ball screws.
4,792 spring vices.
1,751 arm chests.
10,714 cartridge-boxes.
10,654 cartridge-box belts.
10,905 bayonet scabbards.
10,322 bayonet belts.
1,284 sword belts.
880 sabre belts.
131 cavalry cartridge-boxes.
796 holsters, pairs.
14 rifle pouches and belts.
7,928 belt plates.
2,006 rifle flasks.
1 4-pounder field artillery carriage, with equipments complete.
79 6-pounder field artillery carriages.
2 12-pounder field artillery carriages.
8 24-pounder howitzer carriages.
1 24-pounder casemate carriage.
1 mortar carriage.
3 shot, truck, and sling carts.
386 brass nave boxes.
4 sets shot gauges.
19 sets verifying instruments for cannon.
4 artillery percussion locks.
4,596 percussion primers.
815 cannon wads.
84,570 musket cartridges.
100 lacquer for cannon, gallons.
149 sponges.
355 port fires.
2 press screws.
4,399 priming tubes, filled.
10,099 cartridge bags, flannel.
2,516 gun slings.
7,958 brushes and picks.

REPAIRED.

5,716 muskets.
124 rifles.
30 pistols.
5 blunderbusses.
35 gun slings.
12 field artillery carriages.
26 garrison carriages.
49 rammers and sponges.
88 ladles and worms.

GEORGE BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 30, 1829.

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D.

Statement of artillery, small arms, accoutrements, and other ordnance stores, issued to the troops and the marine corps of the United States, from October 1, 1828, to September 30, 1829.

1	6-pounder brass cannon.
10	6-pounder iron cannon.
23	6-pounder field carriages, with equipments complete.
4	12-pounder field carriages, with equipments complete.
7	18-pounder siege carriages, with equipments complete.
1	24-pounder siege carriage, with equipments complete.
1	8-inch howitzer carriage, with equipments complete.
3	caissons.
2	mortar beds.
51	sponges.
1	powder measures (sets.)
1	powder funnels (sets.)
1,120	port fires.
66	bricoles.
12	prolongs.
1,562	wads.
14	gunners' haversacks.
1	gin and fall.
2	gin blocks.
2	sets rocket moulds, with drifts complete.
54	pounds slow matches.
8	pounds twine.
1,082	6-pounder cannon balls.
150	12-pounder cannon balls.
556	24-pounder cannon balls.
150	spherical case-shot.
985	cannister shot, fixed.
715	6-pounder strapped shot, fixed.
6	pounds tow.
30	pounds thread.
347	yards flannel.
30	gallons pitch.
60	gallons lacquer, for cannon
63	gallons linseed oil.
3	gallons sperm oil.
1,178	24-pounder shells.
142	8-inch shells.
100	6-pounder cannisters.
100	6-pounder cannister blocks.
100	6-pounder cannister bottoms.
1,934	pounds musket bullets.
952	pounds cartridge paper.
2,785	muskets, complete.
322	Hall's rifles, complete.
2	pistols, complete.
27	sergeants' and musicians' swords.
1,200	cartridge-boxes.
931	cartridge-box belts.
1,668	bayonet scabbards.
757	bayonet belts.
692	gun slings.
1,838	brushes and picks.
1,222	belt plates.
62	screw-drivers.
89	wipers.
30	ball screws.
21	spring vices.
17	sword belts.
321	sets rifle accoutrements, (Hall's.)
28,300	flints.
28,595	pounds powder.
234,460	musket cartridges.
14,154	priming tubes.
11,945	cartridge bags, flannel.
100	pounds sulphur.
30	pounds antimony.
184	pounds charcoal.
280	pounds pul. nitre.
95	pounds white lead.
6	pounds lampblack.
5	gallons spirits turpentine.
6	paint brushes.
1	chest carpenter's tools, complete.
5	drums.
4	fifes.

Note.—Of the above articles 1,500 muskets, 321 Hall's rifles, 321 sets of rifle accoutrements, 100 cartridge-boxes, and 100 cartridge-box belts, have been issued to the marine corps.

GEORGE BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 30, 1829.

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E.

Statement of the arms, accoutrements, &c., procured, and of the expenditures made under the act for arming and equipping the militia from October 1, 1828, to September 30, 1829.

11,100 muskets.
1,600 rifles.
360 rifles, repeating.
3,006 rifle-flasks.
3,900 sets of infantry accoutrements.
910 sabre belts.
105 pairs of holsters.
71 6-pounder field artillery carriages, with equipments complete.

Expenditures, viz:

Amount paid for arms, &c	$211,449 18
Amount paid for inspection, packing boxes, storage, and distribution to the States and Territories	7,625 39
	219,074 57

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 30, 1829.

F.

Apportionment of arms to the militia for the year 1828, *under the act of* 1808 *for arming and equipping the whole body of the militia.*

States and Territories.	Date of the return.	No. of militia.	No. of arms apportioned.	Remarks.
Maine	1828	41,136	509	
New Hampshire	1828	28,440	352	
Massachusetts	1828	54,344	673	
Connecticut	1828	27,990	346	
Rhode Island	1828	9,675	120	
Vermont	1823	27,653	343	
New York	1828	172,293	2,133	
New Jersey	1823	42,300	524	
Pennsylvania	1828	177,741	2,200	
Delaware	1814	7,451	92	
Maryland	1826	40,091	496	
Virginia	1828	100,707	1,247	
North Carolina	1828	58,843	728	
South Carolina	1826	36,429	451	
Georgia	1826	39,056	483	
Kentucky	1827	70,266	870	
Tennessee	1823	42,715	529	
Ohio	1828	111,773	1,384	
Louisiana	1828	12,447	154	
Indiana	1828	42,852	530	
Mississippi	1812	5,291	65	
Illinois	1823	8,521	105	
Alabama	1827	30,000	371	
Missouri	1828	18,000	223	
Michigan	1822	1,503	19	
Arkansas	1825	2,028	25	
Florida				No return.
District of Columbia	1828	2,272	28	
Total		1,211,817	15,000	

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 30, 1829.

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Statement of the arms and military equipments distributed to the militia from October 1, 1828, to September 30, 1829.

40 6-pounder brass cannon, with carriages complete.
46 6-pounder iron cannon, with carriages complete.
10,220 muskets, complete.
1,000 rifles, complete.
1,560 pistols, complete.
521 repeating rifles, (Ellis.)
480 swords.
480 sword belts.
1,404 sabres.
1,404 sabre belts.
4,297 sets of infantry accoutrements.
1,000 sets of rifle accoutrements.
380 pairs of holsters, and
80 cavalry cartridge-boxes. The whole being equal in value to 18,768 muskets.

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 30, 1829.

G.

Statement of the operations of the United States lead mines in the vicinity of Fever river and in Missouri, from September 30, 1828, to September 30, 1829.

	Fever river.	Missouri.	Total.
Pounds of lead made	13, 343, 150	1, 198, 160	14, 541, 310
Pounds of lead which have accrued as rents	1, 334, 315	119, 816	1, 454, 131
Rents remaining due September 30, 1828	.....	.....	.....
Total of rents due in the year ending September 30, 1829	1, 334, 315	119, 816	1, 454, 131
Pounds of lead received as rent in the year ending Sept. 30, 1829.	1, 268, 366	119, 816	1, 388, 182
Rents remaining due September 30, 1829	65, 949	.....	65, 949

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 30, 1829.

Statement of the lead made at the United States lead mines, annually, from 1821 *to September* 30, 1829.

	Fever river.	Missouri.	Total.
Pounds of lead made from 1821 to September 30, 1823	335, 130	....	335, 130
Pounds of lead made for the year ending September 30, 1824	175, 220	....	175, 220
Pounds of lead made for the year ending September 30, 1825	664, 530	386, 590	1, 051, 120
Pounds of lead made for the year ending September 30, 1826	958, 842	1, 374, 962	2, 333, 804
Pounds of lead made for the year ending September 30, 1827	5, 182, 180	910, 380	6, 092, 560
Pounds of lead made for the year ending September 30, 1828	11, 105, 810	1, 205, 920	12, 311, 730
Pounds of lead made for the year ending September 30, 1829	13, 343, 150	1, 198, 160	14, 541, 310
Total	31, 764, 922	5, 076, 012	36, 840, 934

ORDNANCE DEPARTMENT, *November* 30, 1829.

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ORDNANCE DEPARTMENT, *Washington, November* 30, 1829.

SIR: I beg leave to submit herewith an estimate for additional appropriations for the service of the year 1830, marked H. Most of these items have been heretofore submitted in the annual estimates. But that form of submitting them being considered irregular by the Committee of Ways and Means, they were struck out of the appropriation bills and referred to another committee. By the delay thus occasioned, the matters submitted have remained unacted on. They are now therefore submitted separately from the annual estimates.

In explanation of the several items submitted, the following remarks are offered.

National armories.—Under this head the usual sum of $360,000 is inserted in the general estimate, and is necessary to continue the fabrication of arms upon the same scale as has been usual for many years past.

The additional sums required in this estimate are for additions and improvements of a permanent character. It has been customary, heretofore, to make improvements of this kind to a limited extent from time to time, as the necessities of the armories required, from the annual appropriations. But as those now required are extensive, they cannot be made from the ordinary appropriation without materially diminishing the ordinary product of arms. As it is considered proper to continue the usual operations of the armories, and, at the same time, to make the improvements suggested, which are very necessary to the advantageous operation of the works, additional appropriations are necessary.

The five and a half acres of land proposed to be purchased at Springfield armory adjoins the land heretofore purchased. The original purchase was restricted to a very narrow slip on the margin of the stream where the water-works are placed. Much inconvenience is occasioned by this limited space, and the superintendent of the armory has sometimes been obliged to rent a part of the land. The owner of this land has hitherto been unwilling to dispose of it, except at an extravagant price. But circumstances have recently placed it in a position to be obtained at a reasonable rate; and the superintendent has secured it by a provisional agreement, which expires at the end of the next session of Congress.

The additional ground proposed to be purchased at Harper's Ferry armory is similarly situated in many respects. A plat of it is annexed, an inspection of which will show its connexion with the works there, and the importance of its being possessed by the United States. The price asked for this small tract is very high. But as the possession of it is of much importance to the public works, and as it has been ascertained that it cannot be obtained for a less sum, the item is respectfully submitted.

The erection of a new fire-proof arsenal at Springfield armory is necessary, because the storeroom is now so limited as to oblige the storage of arms in frame buildings, where property of great value is necessarily exposed to the dangers of fire.

With respect to the purchase of additional land at the Watertown arsenal I have to state that when that site was purchased its northern boundary was limited by a public road, which has since grown into disuse by the making of another road near it. The accompanying sketch exhibits the position of the tract proposed to be purchased; and it will be seen that the public buildings are situated near to one of the boundaries of the public ground. By extending the public land on that side it will secure the public buildings from the danger to be apprehended from the erection of private edifices in their immediate vicinity. It is for this purpose, and for giving a more convenient access to the public highway, that the purchase is necessary. If it be made, the old road will be included in it, as it is kept open now merely to afford a passage from the arsenal to the public highway.

Armament of new fortifications.—The amount annually appropriated for this object, for a few years past, has been $100,000. The additional sum now submitted is $150,000, making a total, if granted, of $250,000 per annum.

The amount hitherto appropriated appears to have been predicated on an estimate prepared in pursuance of a resolution of the House of Representatives, passed in December, 1821. That resolution required an estimate, to be limited to the new fortifications *then* completed or in progress. The estimate thus limited amounted to nearly one million of dollars; and it was proposed to provide that amount by an annual appropriation of $100,000 for ten years. This basis was subsequently adopted, and four appropriations, of $100,000 each, have been made.

But since that estimate was prepared a number of new fortifications have been commenced, and several of those formerly commenced have been completed. A statement of all the new fortifications, including those completed and those in progress, is submitted herewith, marked I. This statement exhibits in detail the number of pieces of ordnance, their calibre and description, which are required at each fortification, and the probable time when each will be completed. And it will be seen that all the works now commenced, it is expected, will be completed in 1832, and that they will require a total of 2,587 pieces of ordnance.

I submit also an estimate of the cost of the ordnance mentioned, together with the gun-carriages and equipments necessary for them; and also a supply of cannon balls and shells, marked K. The number of balls and shells stated in the estimate allows to each cannon one hundred of the former, and to each mortar fifty of the latter. This is a moderate allowance, and would not be considered sufficient for a time.

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of war.

By this estimate it will be seen that, in addition to former appropriations, the amount yet necessary to provide a suitable armament for the fortifications mentioned is about two millions of dollars. And it is supposed that they will be completed and ready for the reception of their guns in the year 1832. To provide the requisite armament, with an annual appropriation no larger than that heretofore made, will require a period of twenty years, or until the year 1850. This would leave a portion of these fortifications unarmed, and consequently defenceless, for a period of eighteen years. With an annual appropriation of the amount now proposed, viz: $250,000, all the fortifications now completed or commenced may be fully equipped in eight years. This would extend the completion of the armaments five years beyond the time of completing the fortifications.

It should be observed that the fortifications referred to in these remarks are those only which are now erecting or have been recently finished, and have no reference to any of the projected works which have not yet been commenced. It will be seen, by reference to the statement before mentioned, that this class of works, if constructed according to the plans of the board of engineers, will require about four thousand pieces of ordnance. These are not included in the estimate or calculations now submitted.

It is presumed that a portion of these works will be commenced when those now in progress shall have been completed; as many of them are enumerated in what the board of engineers denominate the *first class*, or those most necessary to be *first constructed*, and are designed for the protection of Boston, Baltimore, and other important positions, for which no new defences have yet been provided.

It is, therefore, probable that new fortifications, which are not included in the present estimate, will be completed and in a condition to require their armaments before those which are now in progress shall be fully supplied. But whether any new works be commenced or not, the amount of the estimate now submitted will be necessary for several years. And even with that amount the supplies of ordnance will not keep pace with the finishing of new fortifications.

Saltpetre and brimstone.—No purchase of these articles has been made since 1816, nor is any now required for immediate use. The amount inserted in the estimate for this object is submitted under a conviction that it is of great importance to the public interest that provision should be made for securing an ample supply of these articles at the present time. Saltpetre and brimstone are both obtained from foreign countries. The quantity required to meet the current demands for domestic consumption in the United States is supplied entirely by importations from abroad.

The price of crude saltpetre, in the seaports of the United States, for eight or ten years past has varied from five to eight cents per pound. The fair average price may be stated at six and a half or seven cents. The price of brimstone, during the same period, may be stated at two and a half cents per pound.

The prices paid for crude saltpetre during the late war, in 1812, 1813, and 1814, averaged about thirty-nine cents per pound, being six times greater than the average of the last ten years. The price of brimstone, during the same period of war, was nine or ten cents per pound, being about quadruple the present price. These prices are ascertained by reference to government contracts and purchases during the war, and by transcripts from the books of extensive manufacturers, embracing a period of twenty-five years.

At the commencement of the war, in 1812, there was on hand in the government stores about one and a half million pounds of crude saltpetre. The quantity purchased for the public service during the war amounted to about the same number of pounds; and this cost about thirty-nine cents per pound. Thus it appears that the stock of crude saltpetre provided by the government, previous to and during the war, amounted to about three millions of pounds, and, at the prices then paid for it, cost about one million dollars more than the same quantity would now cost.

The quantity of brimstone necessary to be used in working into gunpowder 3,000,000 pounds of saltpetre is about half a million pounds. The cost of this, at the prices paid during the war, would be about $35,000 more than the cost at present prices. But, great as the difference appears between the prices of war and of peace, it is not as a measure of economy alone that the expediency of making the provision suggested is recommended. The more important consideration of national security is materially concerned in it. Saltpetre is an article of the most imperious necessity in war. And the experience of the last proves that it is not to be obtained in sufficient quantities from domestic sources. The principal dependence must be on foreign supplies. The hazard of depending on these in time of war, when the commerce of the country may be interrupted or cut off, must be obvious.

In order to exhibit the views of those best acquainted with this subject, I beg leave to submit an extract from a communication recently received from Callender Irvine, Commissary General of Purchases, the officer who procured all the saltpetre and gunpowder provided during the late war.

The Commissary General says: "Of the importance to the nation of laying up an abundant supply of nitre in time of peace, and of the great economy of doing so, no man can be more sensible than I am—the results of my experience, and recollection of the difficulty of procuring that article during the late war at the prices paid for it.

"At the commencement of the late war there was little nitre, of foreign produce, in our country, and it became necessary to draw upon our own resources, and to husband the stock that had been previously provided by the government, *as a reserve*, as much as possible. But for the knowledge of the fact that government had in depot a considerable quantity of nitre, the holders of that article would have advanced the price of it much beyond that which was paid; and it is obvious that, under other circumstances, they would have coerced the government into their own terms."

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I beg leave to add, also, extracts from a communication of Messrs. E. J. Dupont & Co., who have been very extensive purchasers of saltpetre and manufacturers of gunpowder for twenty-five years past. They remark that: "The caves of Kentucky, which had furnished the principal supply until 1814, were then generally exhausted; the richest had been worked and could produce no more. The saltpetre manufacturers had to work caves of an inferior quality, and at a greater expense; the supply from Kentucky was rapidly decreasing, and the works for extracting saltpetre were then extended to the caves of Tennessee and Missouri, which would soon also have been exhausted forever, as the saltpetre manufacturers of the west would never have taken the trouble to replace the lixiviated earth in the caves, to become there again, in course of time, impregnated with saltpetre, as it is practiced in the *nitrieres artificielles* of France and Switzerland.

"In relation to the price of saltpetre in 1812, 1813, and 1814, it is also to be observed that, at the time war was declared, the government had in store a large quantity of saltpetre and brimstone, say about a million and a half of pounds of saltpetre, which had been secured under the provident administration of Mr. Jefferson; had it not been for this supply, and had the government been under the necessity of hurrying its purchases at the beginning of the war, the competition between the agents of the government and the manufacturers would inevitably have caused a considerable difference in the market price."

From the foregoing observations it will be seen that the supply of saltpetre, which had been procured by the government previous to the war, had a material influence in preventing the still higher advance in the price of the article, and in enabling the government to keep up the necessary supplies of gunpowder. Without this provident supply, and even with this aid, had the war continued another year, serious embarrassments must have been felt in obtaining an adequate supply on any terms.

The quantity of saltpetre and of brimstone which would be proper to provide and lay up in depot for future emergencies cannot be very precisely stated. The stock ascertained to have been provided for the last war may, however, be assumed as not too great. Taking this as a basis, we have for saltpetre 3,000,000 lbs. and for brimstone 500,000 lbs. as the quantity for which provision should be made.

Nitre in its crude state, especially if stored in damp situations, is subject to deliquescence and to a diminution of quantity from this cause; but if refined and placed in dry storerooms it is liable to no injury of this kind, and may be safely preserved free from any risk of loss or damage; and in this condition it is in readiness to be converted into gunpowder at very short notice whenever required. Upon these considerations it is proper that saltpetre should be preserved in a refined state. The process of refining, by freeing the crude article from impurities, lessens its weight from ten to fifteen per cent. This diminution of weight, together with the expense of refining, will make the cost of refined saltpetre about ten cents per pound.

The quantity of saltpetre necessary to be provided has been stated to be three million pounds. There is now on hand about half a million pounds, leaving yet to be provided 2,500,000 pounds. The cost of this, at ten cents per pound, will be $250,000. The quantity of brimstone to be in due proportion to the nitre is 500,000 pounds, which, at two and a half cents per pound, will cost $12,500—making in all the sum of $262,500 as the amount required to procure the proposed supply of nitre and brimstone.

An annual appropriation of the amount now submitted, viz: $40,000, will enable the government to procure the required supply in seven or eight years.

It may be proper to add, in conclusion, that the foregoing remarks are limited to the military service alone, and do not include any allowance for the gunpowder which may be required for the navy.

I have the honor to be, sir, your most obedient servant,

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Hon. J. H. EATON, *Secretary of War.*

[Here followed the *plat* and *sketch* referred to in the foregoing letter.]

II.

Estimate for additional appropriations for the service of the Ordnance department for the year 1830.

For the national armory at Springfield, viz:		
For the purchase of 5½ acres of land	$2,200	
For the erection of a new fire-proof arsenal	16,000	
		$18,200
For the national armory at Harper's Ferry, viz:		
For extending the walls and embankments which convey the water from the Potomac river to the works	$9,300	
For erecting a forging shop and tilt-hammer	4,000	
For erecting a new workshop	2,500	
For erecting ten dwelling-houses for workmen	10,000	
For slating roofs of present workshops	3,200	
For the purchase of one acre of ground adjoining the workshop and canal	5,000	
		34,000
Total for national armories		52,200
For arsenal, viz:		
For the purchase of five acres of land adjoining the arsenal at Watertown, Massachusetts		500
For the armament of new fortifications, viz:		
For an addition to the amount usually appropriated for this object		150,000
For the purchase of saltpetre and brimstone, viz:		
For procuring gradually a supply of saltpetre and brimstone, to be laid up in store for future use		40,000
Total amount submitted		242,700

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 30, 1829.

I.

Statement of the armament required for the new fortifications, including those recently completed and those now in progress.

Fortifications.	At what time they were or will be completed.	Armament required.						
		Cannon.				Carronades, 32-pounders.	Heavy mortars.	Total.
		32-pounders.	24-pounders.	18-pounders.	Total.			
Lafayette, New York	Completed	72			72			72
Washington, Maryland	Completed	28	62	24	114		6	120
Delaware, Delaware	Completed	80	70	84	234	28	10	272
At Rigolets, Louisiana	Completed	33	15		48	10	6	64
At Chef Menteur, Louisiana	Completed	33	15		48	10	6	64
At Mobile Point, Alabama	1830	76		42	118		10	128
Jackson, Louisiana	1830	54		33	87		10	97
Hamilton, New York	1830	70			70	68	10	148
At Oak island, North Carolina	1830	50	20		70	12	8	90
Macon, North Carolina	1830	30	8		38	8	4	50
Monroe, Virginia	1831	305			305	6	60	371
Calhoun, Virginia	1832	216			216			216
Adams, Rhode Island	1832	302			302	38	20	360
At Savannah, Georgia	1832	127			127		16	143
At Pensacola, Florida	1832	175	25		200	28	20	248
At Charleston, South Carolina	1832	140			140		4	144
Total of the works completed and in progress		1,791	215	183	2,189	208	190	2,587
Add for works, the plans for which have been drawn, but which have not yet been commenced		2,225	890	445	3,560	242	243	4,045
Total, including all works now projected		4,016	1,105	628	5,749	450	433	6,632

ORDNANCE DEPARTMENT, *November*, 1829.

G. BOMFORD, *Brevet Colonel, on Ordnance* [illegible] *vice.*

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21st Congress.] No. 415. [1st Session.

ON THE EXPEDIENCY OF MERGING THE MARINE CORPS INTO THE INFANTRY OR ARTILLERY OF THE ARMY, AND ON THE PROPER ORGANIZATION OF THE ORDNANCE DEPARTMENT OF THE ARMY.

COMMUNICATED TO THE SENATE DECEMBER 29, 1829.

War Department, *December* 29, 1829.

Sir: Your letter of the 24th, requesting to have prepared the outline of a plan whereby to merge the marine corps in the army, was received and referred to the major general. He has made a report accompanied by two bills, which are here enclosed for your consideration. The one proposes to unite the corps with the infantry, the other with the artillery; your experience and observation will determine which is the preferable plan.

It is also matter of consideration if the Ordnance department does not require attention on that subject; Colonel Bomford's communication to me will explain matters fully and in detail. There are some differences between his proposition and that presented by the major general, a greater number of companies being proposed by the former than by the latter plan. Which is best is for you to consider.

Very respectfully,

J. H. EATON.

Col. Thomas H. Benton, *Chairman of the Military Committee, Senate United States.*

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B.

AN ACT to merge the marine corps into the artillery and to form a corps of ordnance.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passing of this act it shall be lawful for the President of the United States to merge the marine corps into the artillery and to constitute a corps of ordnance.

Sec. 2. *And be it further enacted*, That the artillery of the United States shall consist of four regiments. Each regiment shall be composed of one colonel, one lieutenant colonel, and one major, one adjutant, to be taken from the lieutenants, one sub-adjutant, and two chief musicians, each with the pay and emoluments of a cadet; and ten companies, each company to consist of one captain, two first lieutenants, and two second lieutenants, one sergeant major, one quartermaster sergeant, two sergeants, four corporals, two musicians, four artificers, and fifty-six privates; two of which companies shall be designated and equipped as light artillery.

Sec. 3. *And be it further enacted*, That there be organized a corps of ordnance, to consist of one colonel, one lieutenant colonel, one major, six captains, twelve first and twelve second lieutenants, and the same number of enlisted men as are now authorized by law for the ordnance department.

Sec. 4. *And be it further enacted*, That the said corps of artillery and ordnance, when so formed, shall be subject to the rules and articles of war as are now or hereafter may be established, and to the same pay, forage, subsistence, and emoluments as are now allowed to the officers of ordnance; that the commanders of companies and the adjutants be entitled to receive the allowance of extra pay and forage as now authorized by law; and that the non-commissioned officers, musicians, artificers, and privates, receive the same pay, rations, and clothing, as are now allowed by law to the non-commissioned officers, musicians, artificers, and privates of artillery, and shall also be entitled to the same provision for wounds and disabilities, the same provision for widows and children, and the same benefits and allowances, in every respect, not inconsistent with the provisions of this act, as are authorized by the act of the 16th of March, 1802, entitled "An act fixing the military peace establishment;" that they shall be recruited in the same manner, and with the same limitations; and that the bounty to the recruit, and the compensation to the recruiting officer, shall be the same as allowed by the act of the 12th of April, 1808.

Sec. 5. *And be it further enacted*, That the said regiments of artillery and corps of ordnance, when so organized, and the regiments of infantry now in the service of the United States, or any part or detachment of them, may be, at the discretion of the President of the United States, ordered to serve on board any of the public ships or vessels-of-war, or in the dock yards or other naval establishments of the United States, in like manner as the troops heretofore composing the marine corps were liable to serve; and during such service they shall be subject to such rules and discipline as the President of the United States may adopt for their government, and shall be entitled to the same advantages and shares of salvage and prize money as the officers and men of the marines serving on shipboard were heretofore entitled by law, regulation, or custom.

Sec. 6. *And be it further enacted*, That the officers of marines, when thus merged into the artillery, shall take rank according to the dates of their respective commissions in the line of the marine corps, preserving to those who may possess it their brevet rank, and be placed in every respect on the same footing with regard to rank and command with the other officers of artillery.

Sec. 7. *And be it further enacted*, That the lieutenant colonel commandant of marines shall take rank in the above

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Estimate of the additional expense which would be occasioned by the enactment of the bill herewith submitted.

Pay of one colonel, per annum		$2,228 00
Pay of one lieutenant colonel, per annum		1,879 00
Pay of two majors, each $1,626		3,252 00
Pay of ten captains, each $1,055		10,550 00
Total amount for pay of fourteen officers		17,909 00
From which deduct the pay of the four supernumerary captains, discontinued by the bill, each $1,055	$4,220 00	
The appointment of fourteen officers would supersede the same number who are now serving by detail, the extra pay of whom is as follows, viz:		
One colonel, per annum	$180 00	
Three majors, each $120	360 00	
Six captains, each $120	720 00	
Two 1st lieutenants, each $40	80 00	
Two 2d lieutenants, each $100	200 00	
	1,540 00	
To be deducted		5,760 00
Total amount of additional expense		12,149 00

As no addition will be made to the number of "double ration posts" by the passage of the bill, no allowance for double rations is included in the estimate. Neither is the pay of enlisted men included. These men would consist entirely of artificers and laborers, and would be employed as such, and whatever number may be enlisted, they would supersede a like number of hired artificers and laborers.

Memorandum of arsenals and other posts where officers are employed on ordnance service.

Ordnance Office, Washington.

Principal arsenals.

1. Watervliet, near Troy, New York.
2. Washington, District of Columbia.
3. Pittsburg, Pennsylvania.

Important arsenals.

4. Augusta, Maine
5. Watertown, Massachusetts.
6. Frankford, Pennsylvania.
7. Richmond, Virginia.
8. Augusta, Georgia.
9. Mount Vernon, Alabama.
10. Baton Rouge, Louisiana.
11. St. Louis, Missouri.

Minor depots.

12. Vergennes, Vermont.
13. Rome, New York.
14. Detroit, Michigan.
15. New York harbor.
16. Pikesville, near Baltimore, Maryland.
17. Charleston, South Carolina.

Fort Monroe, Virginia.
Galena, Illinois.

Total number of posts, 20.

An officer is employed at Fort Monroe in constructing its armament. At Galena an officer is engaged in superintending the United States lead mines. Two officers are employed in inspecting ordnance at the founderies, which occupies a large portion of their time. They serve at arsenals also.

Number and grade of officers now serving on ordnance duty.

Colonels	1
Majors, (all of whom are brevet lieutenant colonels)	3
Captains, (five of whom are brevet majors)	6
Brevet captains	2
Lieutenants	24
Total	36

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ORDNANCE DEPARTMENT, *December* 19 1829.

SIR: In the annual report of the 30th ultimo I took occasion to advert briefly to a proposition heretofore submitted for a reorganization of this department. The measure has uniformly received the favorable consideration and support of your predecessors, and of the committees of Congress, to which it was referred; and bills for effecting the object have been reported, one of which passed the House of Representatives. The approval and sanction thus far given to it adds to the strength of the previous conviction that a measure of the kind proposed is very important to the interests of the public service. I therefore beg leave to renew the subject, and to submit the facts and considerations in relation to it which were exhibited in former reports.

The ordnance service, as now provided for by the act of March 3, 1821, is performed by officers temporarily detached from the regiments of artillery. The average number engaged in this service at any one time has been about thirty The whole number which have been engaged in it, for eight years past, has been 149; and of these but *four* only have been continued throughout that period.

The duties of the Ordnance department, as prescribed by law, are to provide, to inspect, to preserve, to distribute, and to account for every description of ordnance, artillery carriages, small arms, and ammunition required for the permanent defences of the country, or for its armies in the field. Its duties embrace, also, the arming and equipping of the whole body of the militia in the United States.

The appropriations made for effecting these objects have sometimes exceeded one million of dollars per annum; and during the last sixteen years they have amounted to about fourteen millions—making the average about $863,000 per annum.

These large sums are expended not for articles for immediate use or consumption, but mostly for permanent objects—for articles of a durable character—which remain as a part of the great common stock and means of defence of the country. The value of this description of military property, now in the immediate charge of the Ordnance department, is at least eleven millions of dollars. The value of the small arms alone exceeds six millions. And this estimate includes only that part of such property as is deposited at or connected with the armories and arsenals which are under the immediate and exclusive direction of ordnance officers.

These duties are of a class which are wholly distinct from those of any other branch of the military service. They are of a different character, also, in several important features, among which the following may be named: The annual expenditures of the several departments for subsisting, clothing, paying, quartering, and transporting the army, and for providing its medical and miscellaneous supplies, are mostly for objects which are transient, which seldom extend much beyond the time present, and for articles which are soon consumed or expended, and disappear. The responsibilities of these several departments do not, therefore, extend much beyond the present application of the means confided to them for the current service. It is the Ordnance department alone which retains in its charge the accumulating product of its expenditures, for the preservation of which its officers are held responsible.

The ordnance service differs from other branches, also, in this: that its duties are less varied in a change from peace to war, or from war to peace, and that it embraces the arming and equipping of the whole body of the militia as well as of the regular army.

These duties are not less important in time of peace than they are in war. In the latter the distribution or the furnishing of supplies would be greater, but the former is the proper one for procuring them For it is in time of peace that the treasury can most conveniently furnish the requisite means, and it is then that the supplies can be obtained on the most favorable terms. Whether an army, large or small, is or is not maintained in time of peace affects very little the current service of the ordnance, for the main purpose of this is to make provision for the future; and this service would necessarily be continued if the army was entirely abolished.

It is, besides, the only branch of the United States military service which has any immediate or beneficial connexion with the militia. Of all the various attempts which have been made, from the first Congress down to the present time, to impart vigor and efficiency to the great body of the militia, none have proved effective except that which provides for *arming* them. The interests of the militia, of that which has not inaptly been called the great bulwark of the nation, are therefore connected with the measure proposed. It may, in short, be said of the ordnance service that it embraces the fabrication and the preservation of all the military weapons of the country, whether for the militia or for the regular army; and that all the essential military *materiel* of the nation, that which constitutes its armament in peace and its reliance in war, is confided to its supervision.

The business of disbursing nearly a million of dollars annually, and the preservation of eleven millions value of military stores, considered merely as a matter of ordinary business transactions, must, to be well performed, be conducted by persons experienced in such business. But the duty of devising and of deciding on the plans and models of all the various arms, artillery and other military equipments which are provided by the Ordnance department, is a matter of a much more important character, and requires much higher and more varied attainments in those who perform it. The qualifications requisite for a judicious performance of this branch of service, involving as they do a familiar acquaintance with the exact sciences and with mechanical philosophy, both theoretical and practical, are to be attained only by long experience and zealous application, joined with an aptitude to such pursuits. Suitable qualifications are, therefore, not to be expected in those who are but temporarily engaged in such duties; for to them can be presented no adequate motives for the zeal and perseverance which are indispensable to the acquisition of such attainments, even if it were possible to acquire them in the short space of time to which their service in the ordnance is usually limited.

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The utility of a separate organization for the Engineer, Quartermaster, Commissary, and other departments, has been abundantly demonstrated by experience, and it is presumed will not now be questioned. The expediency of extending the same principle to the ordnance service must be equally obvious. If we suppose, for example, that officers, without previous preparation or experience in the business, were required to prepare plans for permanent fortifications and to construct them, or to lay out routes for railroads and canals, the ruinous consequences of it would soon be manifested; yet no higher degree of skill or experience is requisite in the performance of these duties than is required in the correct discharge of those which are assigned to the ordnance.

The ordnance service differs not less from the line of the army than from that of the several administrative departments above mentioned. Yet, by the present law, it is required to be performed solely by officers temporarily detached from the line. And, as before stated, about 150 different officers have been so detached for the performance of ordnance duty, a large proportion of whom consisted of junior lieutenants. The embarrassments occasioned by these fluctuating changes may be exemplified by noting those which recently occurred at a single post. The proper commander left the arsenal soon after the beginning of a quarter, and transferred to his successor the balance of funds from the previous quarter, and the military stores in depot. To the second commander additional funds were transmitted, which did not reach him until he also had departed, and was four hundred miles distant. The third commander also left the post and placed the public property under the charge of the surgeon, who, in turn, was relieved by a fifth. Funds were again transmitted, the former having been repaid into the treasury; but before they reached the post the fifth commander to whom they were directed had been superseded by the sixth, and the quarter had expired, leaving the workmen employed at the post unpaid. These changes were all unknown to the department which is charged with the direction of the duties of the post, and is responsible for them, until after each had occurred.

The ordnance service differs so essentially from all other branches of the military service, and is of a character so peculiar to itself, that a separate and more permanent provision for it is believed to be indispensable to its correct performance, and to be demanded by the best interests of the public service. Any reasons which may be assigned for preferring a separate organization for any other branch of service must apply with equal force to the ordnance also.

No sufficient reason can be perceived why the ordnance service alone should remain in a state of dependence upon temporary details from the line of the army, and be subject to all the fluctuations incident to, and inseparable from, such an unstable system.

The Ordnance department was first established in May, 1812, but was modified and extended by several successive acts during the war, until near its close, when it was entirely remodelled by the act of February 8, 1815. This act embodied all such provisions as the experience of the war had shown to be necessary, the duties of the department were much extended and more accurately defined, and were so adapted to the demands of the public service, as to guard against the inconvenience of the past, and to insure efficiency for the future.

This act, which gave the department its most approved form, continued in force until March, 1821, when, without its being repealed, the department was essentially changed and in effect nearly abolished by its being merged in the artillery regiments, although its duties and responsibilities remain unaltered.

The reasons which were assigned for blending the ordnance with the artillery service were, that the officers of the latter might thereby be enabled to acquire some practical knowledge of artillery constructions. The advantages anticipated in this respect, it is believed, have not been realized to any considerable extent. But, whatever may be the benefits resulting from this feature, they may be secured by limiting its operation to the junior grades. By making a separate and permanent provision of the senior officers of the ordnance service, for those upon whom its most responsible trusts would necessarily devolve, and by providing that the junior officers shall be detailed from the regiments, the measure would combine the advantages of both plans.

The act of February, 1815, made the department consist of four field officers, ten captains, and thirty lieutenants—in all forty-four. If this act be so amended as to attach permanently to the ordnance service the four field officers and ten captains, and to substitute for the thirty lieutenants an authority to detail from the artillery such number as may be necessary for ordnance service and instruction, all that is now proposed will be accomplished.

No inconvenience will be felt in the artillery service because of a portion of its lieutenants being detached, for an excess of officers in this grade was provided by the act of March 2, 1821, and for the express purpose, as was stated in the documents relating to that act, of furnishing assistants for ordnance service.

In order to exhibit in a more condensed form the general views above expressed, and the legislative provisions necessary for effecting them, I have taken the liberty of presenting them in the form of a bill, which is herewith respectfully submitted. To the bill is appended a few explanatory remarks and an estimate of the additional expenses which the passage of it would occasion.

It will be perceived that this bill proposes to attach permanently to the ordnance service four field officers and ten captains. But as it will discontinue the four supernumerary captains authorized by existing laws, its effect, if enacted, will be to add ten officers only to the number which now compose the military establishment.

A less number than fourteen officers, it is believed, would be insufficient for discharging the principal duties of the department. There are seventeen arsenals, eleven of which are important ones, and require each one ordnance officer at least. Beside these, the office at the seat of government, the inspection of ordnance, &c., at the founderies, and of small arms at the armories, and the supervision of the armaments constructing for the new fortifications, will require three at least.

The annexed memorandum of the arsenals and other stations, where officers are serving on ordnance duty, and the number and grade of officers who are now so employed, will serve to show the necessity for the number of officers proposed in the bill.

I have the honor to be, respectfully, your obedient servant,

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Hon. John H. Eaton, Secretary of War

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A BILL to amend an act entitled "An act for the better regulation of the Ordnance department," approved February 8, 1815.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act, the Ordnance department shall consist of one colonel, one lieutenant colonel, two majors, and ten captains, and as many enlisted men as the public service may require, not exceeding two hundred and fifty.

SEC. 2. *And be it further enacted*, That all officers and enlisted men authorized by this act shall be subject to the Rules and Articles of War, and that the officers shall be appointed from the present military establishment, and vacate their places in their respective regiments, and shall receive the pay and emoluments now received by officers who perform ordnance duties.

SEC. 3. *And be it further enacted*, That the first section of the act hereby amended, and so much of the second section of the act entitled "An act to reduce and fix the military peace establishment of the United States," approved March 2, 1821, as provides one supernumerary captain to each regiment of artillery to perform ordnance duty, and so much of the fourth section of the same act as merges the Ordnance department in the artillery and reduces the number of enlisted men, be, and the same are hereby, repealed: *Provided*, Nothing contained in this act shall be construed to prevent the said supernumerary captains from retaining their rank in the army, nor to divest the President of the United States of authority to select from the regiments of artillery such number of lieutenants as may be necessary to perform ordnance duties.

Remarks.

The purpose of the bill, as drawn, is to restore the act of February, 1815, so modified, however, as to exclude the thirty lieutenants and to limit the number of enlisted men. The first section is designed to effect this.

The second section makes those who may compose the department subject to the Rules and Articles of War, and directs the manner in which the appointments are to be made.

The third section is designed to repeal all such parts of previous acts as conflict with the provisions of the bill, continuing, however, the authority to select lieutenants for ordnance duty.

Pay and emoluments of artillery and ordnance officers, exclusive of double rations.

Artillery.	Colonel.	Lieut. colonel.	Major.	Captain.	1st lieutenant.	2d lieutenant.
Pay per month	$75 00	$60 00	$50 00	$40 00	$30 00	$25 00
Subsistence	36 50	30 41⅔	24 33⅓	24 33⅓	24 33⅓	24 33⅓
Forage	32 00	24 00	24 00	.....	.....	.....
Servants' pay	10 00	10 00	10 00	5 00	5 00	5 00
Servants' subsistence	12 16⅔	12 16⅔	12 16⅔	6 08⅓	6 08⅓	6 08⅓
Servants' clothing	5 00	5 00	5 00	2 50	2 50	2 50
Total per month	170 66⅔	141 58⅓	125 50	77 91⅔	67 91⅔	62 91⅔
Total per annum	2,048 00	1,699 00	1,506 00	935 00	815 00	755 00
Additional for ordnance per annum	180 00	180 00	120 00	120 00	40 00	100 00
Total for ordnance per annum	2,228 00	1,879 00	1,626 00	1,055 00	855 00	855 00

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PORTLAND, *December* 22, 1829.

DEAR GENERAL: In reply to your inquiries as to my opinion in relation to a reorganization of the Ordnance department, you will recollect that the subject has been some time before Congress, and that a bill passed the House of Representatives, I believe, two years ago, which came up to the Senate and was referred to the Committee on Military Affairs, the main purpose of which was to separate the ordnance service from the line of the army by making it a separate corps. Under the present law the ordnance duties are performed by officers temporarily detailed from the regiments of artillery, who, after a short time of service, return to their regiments, and their places in the ordnance service are supplied by others.

As a member of the Military Committee, my attention was necessarily drawn to this subject. At first I was opposed to any change, as I thought it important that a knowledge of ordnance duties should be made familiar to as many of the officers of the line of the army as possible; besides, I did not like frequent changes in the law upon the subject. Subsequent reflection, some discussion, and a more careful examination of the subject, however, convinced me that it is very important that something should be done to place the ordnance service on a more stable footing. I consider the Ordnance department extremely important, as it relates to the defence and security of our country; large appropriations are annually made for this service, I believe to the amount of eight or nine hundred thousand dollars, (I speak from memory only.) The arms, artillery, and other military supplies provided by those appropriations are laid up in the arsenals for future service. I believe some of the documents represent the supplies already deposited to amount to something like eleven million of dollars. The proper preservation of this vast amount of property is of itself a highly responsible trust. The other branches of the military service have but little responsibility compared with this branch. The appropriations for paying, subsisting, clothing, quartering and transporting the army are, when expended, at an end; in these cases the responsibility ceases with the expenditure and a settlement of the accounts, the money is expended, and nothing visible remains. Not so with the ordnance service; the great object in this department is to create, prepare, deposit, and preserve cannon, mortars, gun-carriages, and arms of every description, and, indeed, every other article which can be prepared and preserved, necessary for the use of an army in a time of war, not only for the use of the regular army, but for the militia when called into actual service. The amount of property in charge of this branch of the military service must therefore be immense and increasing, and the responsibility of those who have it in charge must be great. I therefore think frequent changes in this department should be avoided, to do which a change seems to me now necessary that it may be placed on a footing more permanent. A bill similar, or nearly so, to the one which passed the House of Representatives would, I think, effect the object desired, and I doubt whether it would be more expensive than the present system. But it should furnish as many permanent officers of the department as the arsenals and the other service in the department would require. I am opposed to increasing the expense of the army in a time of peace, but I would adopt this and every other measure necessary to preserve the property of the government which has been or may be prepared and collected for a time of war; otherwise, your ordnance and military stores, &c., which have been collected at great expense, will be destroyed or rendered useless; the discovery of which may be made at the commencement of a war, at a moment when they may be wanted for the defence of the country. I therefore repeat that, in my opinion, such a change should be made as to secure the object for which the department was created.

I am, with much respect, your humble servant,

JOHN CHANDLER.

General JAMES W. RIPLEY.

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21st Congress.] No. 436. [1st Session.

ON THE CLAIM OF THE WIDOW OF THE SUPERINTENDENT OF HARPER'S FERRY ARMORY (WHO WAS MURDERED FOR THE PERFORMANCE OF HIS DUTY) FOR PECUNIARY AID FROM THE UNITED STATES.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES FEBRUARY 19, 1830.

Mr. Drayton, from the Committee on Military Affairs, to whom was referred the petition of Mrs. Matilda B. Dunn, reported:

That the petitioner is the widow of Thomas B. Dunn, late superintendent of the United States armory at Harper's Ferry, who was recently killed by a person formerly a workman at that establishment, whom the superintendent had refused to continue in his employment. The petitioner represents that her husband died in narrow circumstances, (a fact which was sufficiently proved;) she therefore prays that Congress will grant her a sum of money to aid her in the support of herself and her family, consisting of two small children,

The committee being of opinion that the application of the petitioner could not be granted without the exercise of a power which the Constitution has not vested in Congress, therefore recommend the adoption of the following resolution:

Resolved, That the petitioner have leave to withdraw her petition and documents.

To the Senate and House of Representatives of the United States of America in Congress assembled:

The petition of Matilda B. Dunn respectfully showeth: That some time during the last summer her husband, the late Thomas B. Dunn, was appointed superintendent of the United States armory at Harper's Ferry; that he was engaged in the discharge of the duties of his station until Friday, the 29th day of January, when he was assaulted in his office and murdered.

Your petitioner is convinced, from her knowledge of her husband's concerns, that he has left your petitioner and her two fatherless children in very humble circumstances in life.

Your petitioner does not hesitate to affirm that her husband was, during his continuance in office, faithful in the discharge of his duties to his country. From these considerations, your petitioner hopes that her situation will claim the favorable attent[illegible] of Congress.

MATILDA B. DUNN.

Harper's Ferry, *Jefferson county, Va., Febr[illegible]y* 8, 1830.

To the honorable the Senate and House of Representatives of the United States of America in Congress assembled:

The undersigned, citizens of Jefferson county and State of Virginia, respectfully represent: That they have been for some time past acquainted with the late Colonel Thomas B. Dunn, superintendent of the United States armory at Harper's Ferry; they state that he was cruelly murdered on Friday, the 29th day

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of January last, while sitting in his office. A number of us, whose names are hereto annexed, were witnesses to some of the circumstances attending the bloody transaction. They can state with the utmost truth that, so far as they have been enabled to judge, Colonel Dunn was a truly faithful public servant, and in private life a most estimable man. By the death of Colonel Dunn the general government has been deprived of a truly valuable officer, and society of one of its most useful members. So far as the undersigned are capable of judging, (and many of us are more or less acquainted with his circumstances in life,) they feel warranted in stating that Colonel Dunn has left his bereaved family without the means necessary to render them comfortable in life. Mrs. Dunn, an amiable and much respected female, is in a languishing condition. She is the mother of two amiable and lovely children. From the considerations above mentioned, the undersigned sincerely hope that the bereaved and agonized family of Colonel Dunn will claim the favorable attention of Congress, and the undersigned, as in duty bound, will every pray, &c.

THE COMMONWEALTH vs. EBENEZER COX —*Charge of murder.*

JEFFERSON COUNTY, ss:

FEBRUARY 15, 1830.

The following is a copy of the depositions in the above case, viz:

Armstead Beckham, being sworn, deposeth and saith that on the day which Colonel Dunn was murdered he had business with Major Stephenson in "*the upper office;*" that whilst in said office with said Stephenson he heard some one enter "*the lower office,*" presumed by witness to be Colonel Dunn; in about five minutes after he heard a sudden noise and a shriek; witness hastened down, and saw Ebenezer Cox walking off from the office. Witness threw open the door and saw the corpse of Colonel Dunn lying on his back upon the floor, a gun lying beside it about fifteen inches from it, and a large *wound* in the side. Cox was about thirty-five or forty feet from the door of the office; the gun was about fifteen inches off from a large wound in the side of Colonel Dunn. The witness gave the alarm of murder, and Cox continued walking off. Witness cross-examined, said he knew of no threats (except by rumor) that the prisoner had ever made against Colonel Dunn. Witness thinks that Colonel Dunn was killed by large duck shot. He also judges by the prisoner's expressions that he did not like the deceased. Witness said he had seen the prisoner with a musket with brass mounting frequently.

James Stephenson, being sworn, deposeth and saith that on the 29th of last month he was in the office in which he is employed, when Mr. Beckham came in to see him; they were conversing when Mr. Dunn came in and stirred the fire; in a few minutes after they heard a sudden noise, it was a dull heavy sound, like as if the house was falling; Mr. Beckham being more active than himself reached Mr. Dunn's office before him, and exclaimed Mr. Dunn was murdered! Witness did not see Cox.

Philip Strider, being sworn, deposeth and saith that on the day of the murder he went to see Mr. Dunn; he took a stand in the street so that he could see his office door and his house door; in a few minutes after he saw Cox enter the door with something under his cloak which made the right side stick out; in a very short time he heard the report of a gun, which he took to be the proving of a barrel; Cox came out, drew the door to with his right hand, drew his cloak around him, and walked away. Instantly Mr. Beckham came from the upper office, opened Mr. Dunn's office door, and then gave the alarm that Colonel Dunn was murdered.

William Smallwood, being sworn, deposeth and saith that on the day of the murder he was going to the armory; passed Mr. Dunn's office, near to which he met Ebenezer Cox, with a musket on his shoulder; passed on about thirty yards; stopped to converse with Mr. Adams, with whom he was in company, and in a short time heard the report of a gun; turned round and saw Cox coming away from the office, within thirty yards of the office; shortly after Mr. Beckham walked round the office and gave the alarm that Mr. Dunn was murdered; he returned to the office went in, and found Mr. Dunn lying on his back, with a large wound, and a gun lying on the floor near to and towards the wound. Witness says it was the same gun he had first seen Cox with, that was in the office, and he knew it by a white mark on the breech, like as if something had been marked on or scraped off of the wood.

Samuel D. Harding, being sworn, deposeth and saith that on the day of the murder he was in company with Cousaid, at Carter's door; he went down to Mr. Keyes's store; stood in sight of Mr. Dunn's office; saw Cox coming down towards the office, go in, and as Cox went in saw the muzzle of a gun sticking out from his cloak; he closed the door, and immediately a gun was heard discharged, and Cox then came out, closed the door after him, wrapped the cloak around him, and walked off; presently Mr. Beckham gave the alarm; he went into the office and saw Mr. Dunn lying on his back, dead, with one foot confined under the plate of the stove. Mr. Beckham said that Cox had murdered Colonel Dunn. Witness says Cox had no gun when he came out of the office.

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Mr. Handskey, being sworn, deposeth and saith that on Thursday previous to the murder Cox was at witness's house; Cox spoke abusively of Mr. Dunn; witness took Mr. Dunn's part; Cox said he had been to Brien's works, and said he would go back and apply to Mr. Dunn for work, and if he would not give it to him he damned himself that he would make an alteration; Cox had a gun, which was the same, he thought, that was found lying by the side of Colonel Dunn's body after being murdered. Witness laughed with Cox about *making an alteration*, and said he supposed the alteration would be to leave the place. Cox said, "I don't say nothing," but seemed to look scornful.

Johnson Garrett, being sworn, deposeth and saith that on the day of the murder he was going to a blacksmith shop; found Cox at the shop about eleven or one o'clock; Cox seemed dissatisfied; was swearing, and said if some circumstance did not take place he be damned if he would not commit murder before night.

John A. Schaeffer, being sworn, deposeth and saith that on the day of the murder, about five minutes after bell-ringing, was passing by Mr. Dunn's office, and in proceeding he met Mr. Cox within five steps of the office, after hearing the report of the gun; witness spoke to Mr. Cox, and thought Cox appeared very much terrified. Mr. Beckham ran towards the office, and asked the witness what was the matter. Mr. Beckham opened the office door, looked in, and then exclaimed, "My God! Mr. Dunn is murdered." Shortly after Mr. Beckham exclaimed, "Ebenezer Cox has murdered Colonel Dunn! Stop the murderer!"

Mr. Adams, being sworn, deposeth and saith that on the day of the murder, returning from his dinner in company with Mr. Smallwood, and within about eight or ten steps of Mr. Dunn's office, met Cox with a gun on his shoulder; Cox passed on, and witness and Smallwood stopped to converse, and whilst con-

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versing heard a report of a gun; turned his face towards the office, saw no one, and in a short time after heard Mr. Beckham giving an alarm that Mr. Dunn was murdered; stop Ebenezer Cox, the murderer.

Singleton Chambers, being sworn, deposeth and saith that on the day of the murder he was in his shop, and shortly after heard Mr. Dunn was murdered; understood that Cox had committed the murder; went in pursuit of Cox, and found him concealed under a shed that covers a water wheel.

Henry Bideman, being sworn, deposeth and saith that he borrowed the gun from Cox, and on the day before the murder Cox came and got it back. Witness says it is the same gun found by the body of Colonel Dunn; witness says he saw Cox load the gun with buckshot.

Reuben Stipes, being sworn, deposeth and saith that he went in search of Cox; found him concealed under the water wheel, where it was so dark that he could scarcely see him at first, with a cloak over his head; witness caught him, dragged him out, and said, come out here you rascal. Cox said, what do you want? Witness replied, you know what you have done. Well, said prisoner, come on, I am fond of fun. Witness asked the prisoner how he felt—if he did not feel miserable? No, said the prisoner, I wish you felt as well satisfied as I do.

A copy. Teste:

S. J. CRAMER, *C. J. C.*

VIRGINIA, *Jefferson county, sct:*

I, Samuel J. Cramer, clerk of the county court of Jefferson, do certify that Ebenezer Cox was on this day examined by the said court for the murder of Thomas B. Dunn; that on the said examination he was found guilty, and sent on for further trial; and that the aforegoing is a true copy of the depositions of the witnesses sworn on behalf of the Commonwealth, and now filed and made a part of the record.

In testimony whereof I have hereunto set my hand and caused the public seal of my office to be [L. S.] affixed this 15th day of February, 1830, and in the 54th year of this Commonwealth.

S. J. CRAMER.

WAR DEPARTMENT, *February* 10, 1830.

GENTLEMEN: To your application asking if any relief can be extended to Mrs. Dunn and her children, whose husband was lately murdered at Harper's Ferry, I answer that no discretion or authority attaches to this department to enable a compliance with so proper and benevolent a request. It is suggested to you to bring the application before Congress. When they are informed that he was a valuable and faithful officer; that in the line of and in the discharge of his duty he was assassinated, leaving little or nothing for the support of his wife and children, I have full confidence the appeal to their justice and benevolence will not be made in vain. Precedents in support of the application do exist.

Very respectfully,

J. H. EATON.

MESSRS. GEORGE B. BALCH and GEORGE B. BEALL.

We, the undersigned, do certify that it is our belief that the death of the late superintendent of the United States armory at Harper's Ferry, Virginia, Colonel Thomas B. Dunn, arose out of circumstances connected with a strict discharge of his duty as superintendent of that armory, and that it would not have occurred at that time but for those circumstances.

Given under our hands this 17th day of February, 1830.

JOHN H. HALL.
WILL BROADUS.
A. BECKHAM.
WM. GRAHAM.
J. STEPHENSON.
HENRY WARD.
M. THOMPSON.

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21ST CONGRESS.] No. 446. [1ST SESSION.

ON THE CLAIM OF DANIEL JOHNSON, APPRENTICED TO THE SUPERINTENDENT OF THE ARMORY AT HARPER'S FERRY, FOR INJURIES FROM THE NON-PERFORMANCE OF THE CONTRACT.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 26, 1830.

Mr. DRAYTON, from the Committee on Military Affairs, to whom was referred the petition of Daniel Johnson, reported:

That the petitioner sets forth that, on the 16th September, 1800, he was bound, by indentures of apprenticeship, to the then superintendent of the United States armory at Harper's Ferry, to learn the trade of an armorer, from the date of his indentures until he should attain the age of 21 years; that he was entitled, under his indentures, to board, clothing, and lodging, and a certain portion of education, and, at the expiration of his service, to two suits of clothes; that he remained during the whole period of his apprenticeship, the duties of which he diligently and faithfully performed, without the benefit of any education, and without receiving the two suits of clothes to which he was entitled; he therefore prays that Congress would grant to him either the amount which accrued to the United States from his manual labor whilst he was at the armory, as a compensation for the injury which he has sustained from the non-performance of its contract on the part of the government, or at least that a sum of money may be awarded to him equivalent to what his schooling for a reasonable time would cost, and to the price of two suits of clothes.

The facts alleged by the petitioner, which are established by the clearest testimony, exhibit a case of peculiar injury and injustice towards him. Immediately after leaving Harper's Ferry he married, and shortly became the father of a family, for whose support he was compelled to give so unremitting an attention to his business as to be deprived of the opportunity of devoting any leisure time to the acquisition of even reading and writing, the mere elements of education. Under these circumstances, the committee consider the petitioner entitled at least to a sum of money equal to what would have been expended by him, after he had quitted the armory, upon his schooling, clothing, board and lodging, for one year, and also to the cost of two suits of clothing; for which amount they therefore report a bill.

For schooling, clothing, board and lodging, for one year, at $12 a month	$144 00
For the cost of two suits of clothing	50 00
	194 00

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21ST CONGRESS.] No. 447. [1ST SESSION.

STATEMENT OF THE EXPENDITURES AT THE UNITED STATES ARMORIES, AND OF THE ARMS MANUFACTURED THEREIN, DURING THE YEAR 1829.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 26, 1830.

DEPARTMENT OF WAR, *March* 25, 1830.

SIR: In pursuance of an act of Congress of the 2d April, 1794, concerning arsenals and armories, I have the honor to transmit herewith a statement of the expenditures at the United States armories, and of the arms, &c., manufactured therein, during the year 1829.

Very respectfully,

JNO. H. EATON.

Hon. ANDREW STEVENSON, *Speaker of the House of Representatives.*

ORDNANCE DEPARTMENT, *Washington, March* 23, 1830.

SIR: In pursuance of an act concerning arsenals and armories, passed April 2, 1794, I have the honor to transmit herewith a statement of the expenditures at the national armories, and of arms made therein, during the year 1829.

It will be perceived that the operations of the Springfield armory during the past year have been very successfully conducted, yielding a greatly augmented product of arms at a diminished cost. The operations of the Harper's Ferry armory during the same period have not been alike successful or satisfactory. Its product of arms is somewhat lest than usual, and the cost of them is greater than that of former years.

It is due to the memory of the late superintendent, Thomas B. Dunn, whose life fell a sacrifice to the zeal with which he labored to resuscitate the energies of the establishment, to state that the armory was under his control for a portion of the year only, and that its results, as exhibited in the report, are not attributable to his administration of it.

There is cause to believe that the actual cost of the arms made was not so excessively great as is stated in the report, but that some portion of the amount charged on those made in the last year was properly chargeable on those made in previous years. It will be perceived that large deductions have been made on account of the errors in former statements, occasioned by over estimates of the value of stock remaining on hand and omitting to notice the debts due on it. The value of the stock now on hand has been ascertained by disinterested persons, and may, therefore, be considered accurate.

It is considered proper further to remark, that from the unhealthiness of the position of the Harper's Ferry armory, as compared with that of Springfield, the cost of the arms made at the former will, from that cause, always be somewhat greater than at the latter.

I have the honor to be, sir, respectfully, your obedient servant,

G. BOMFORD, *Brevet Colonel, on Ordnance service.*

Hon. JOHN H. EATON, *Secretary of War.*

Statement in detail of the operations of the armory at Springfield.

ARMORY, DR.

To value of unwrought materials on hand the 1st January, 1829	$46,066 30	
To value of component parts of arms on hand the 1st January, 1829	110,744 80	
To total amount drawn from the treasury and expended during the year 1829	182,683 19	
To value of supplies received from Harper's Ferry armory	1,000 00	
To value of 3,000 lbs. powder received from military store for the use of the armory, at 20 cts	600 00	
To value of 8,000 lbs. lead received from military store for the use of the armory, at 4 cts	320 00	
		$341,414 29

CR.

By amount expended in permanent improvements, per foregoing statement	$6,655 82	
By arms and equipments made, viz:		
16,500 muskets, average cost of each $10 02 and a fraction	165,371 63	
16,500 screw-drivers, at 8 cents	1,320 00	
31,500 wipers, at 12½ cents	3,937 50	
1,650 ball-screws, at 15 cents	247 50	
4,650 spring vices, at 30 cents	1,395 00	
934 gun boxes, at $1 80	1,681 20	
By value of supplies furnished the Harper's Ferry armory	796 29	
By amount expended in preserving arms, and for miscellaneous purposes not incidental to the manufacture of arms	1,278 25	
By value of unwrought materials on hand 31st December, 1829, per inventory	50,296 79	
By value of component parts of arms on hand 31st December, 1829, per inventory	108,434 31	
		$341,414 29

Statement of the expenditures made at the national armories, and of the arms, &c., made therein during the year 1829.

	Expenditures.					Arms, &c., made.					
	For lands, buildings, canals, repairs, and other permanent improvements.	For the manufacture of arms.	For the manufacture of Hall's rifles.	For miscellaneous purposes, not embraced in the foregoing.	Total amount expended.	Muskets.	Screw-drivers.	Wipers.	Ball-screws.	Spring vices.	Arm chests.
Springfield, Massachusetts	$6,655 82	$174,749 12	.....	$1,278 25	$182,683 19	16,500	16,500	31,500	1,650	4,650	934
Harper's Ferry, Virginia	14,789 15	130,444 96	$40,000 00	3,612 37	188,846 48	8,895	3,653	.....	.....	.....	837
Total	21,444 97	305,194 08	40,000 00	4,890 62	371,529 67	25,395	20,153	31,500	1,650	4,650	1,771

Statement in detail of the operations of the armory at Harper's Ferry.

ARMORY, DR.

To value of component parts of arms on hand 1st January, 1829, as per last annual report		$59,508 26¾	
From which deduct this sum, being the amount of over-valuation of the articles on hand 1st January, 1829		5,930 72	$53,577 54¾
To value of unwrought materials on hand 1st January, 1829, as per last annual report		103,088 77¾	
From which deduct the amount of debts due on the 1st January for articles delivered and included in the inventory of that date, but which remained to be paid for in 1829	$25,248 46		
Also this sum, being the amount of over-valuation of the articles on hand 1st January, 1829	14,438 45		
Also the difference in value of a portion of the materials, which are unserviceable, but which were reported as serviceable in the inventory of last year	2,908 30		
		42,595 21	60,493 56¾
To total amount drawn from the treasury, and expended during the year 1829			188,846 48
To value of supplies received from the Springfield armory			796 29
To value of 2,000 lbs. powder, received from arsenals for the use of the armory, at 20 cents			400 00
To value of 22,025 lbs lead, received from arsenals for the use of the armory, at 4 cents			881 00
			304,994 88½

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ARMORY, CR.

By amount expended in permanent improvements, per foregoing statement		$14,789 15
By arms and equipments made, viz:		
8,895 muskets, average cost of each $15 13 and a fraction		134,656 43
3,653 screw-drivers, average cost of each 8 cents		292 24
837 gun-boxes, average cost of each $1 86		1,556 82
By value of supplies furnished the Springfield armory	$1,000 00	
By value of supplies furnished to arsenals	112 00	
		1,112 00
By amount expended for preserving arms, and for miscellaneous purposes, not incidental to the manufacture of arms		3,612 37
By amount expended on Hall's rifles, which are not yet completed		40,000 00
By value of component parts of arms on hand 31st December, 1829		63,537 90$\frac{3}{4}$
By value of unwrought materials on hand 31st December, 1829		45,437 96$\frac{3}{4}$
		304,994 88$\frac{1}{2}$

Statement in detail of the expenditures on Hall's rifles.

DR.

To value of component parts of arms on hand 1st January, 1829, per inventory		$32,909 22
To value of unwrought materials on hand 1st January, 1829, per inventory		3,937 14
To amount of expenditures during the year 1829, being the total amount of payments made by the paymaster on account of the rifles, viz:		
For materials	$14,166 87	
For pay to workmen	25,833 13	
		40,000 00
		76,846 36

CR.

By amount expended in permanent improvements	$22,810 39
By value of component parts of arms on hand 31st December, 1829	48,778 47
By value of unwrought materials on hand 31st December, 1829	5,246 00
By value of component parts of rifles sent to Fortress Monroe	11 50
	76 846 36

G. BOMFORD, *Bvt. Col., on Ordnance service.*

ORDNANCE DEPARTMENT, *Washington, March* 22, 1830.

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REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 30, 1830.

SIR: I have the honor to submit herewith a general report of the operations of this office during the year past.

Statement marked A exhibits an account of the moneys drawn from the treasury and remitted through this office during the year 1829 to disbursing officers and contractors; and also the amount of accounts rendered, and the balance remaining in the hands of each at the close of the year. By this statement it appears that the remittances during the year 1829 amounted to $991,496 48
That the accounts rendered and settled during the same period amounted to 957,094 55

And that the unexpended balances remaining in the hands of the several disbursing officers at the close of the year amounted to 34,401 93

Statement B shows the amount of funds transmitted to the several disbursing officers of this department and to contractors during the three first quarters of the present year, by which it will be seen that the total amount transmitted was $708,087 91
And that the accounts rendered amounted to 620,423 25

Leaving an unexpended balance in the hands of disbursing officers on the 30th September of.. 87,664 66

Statement C exhibits an account of some of the principal articles made at the several armories and arsenals during the year ending 30th September, 1830; by which it will appear that 26,125 new muskets, with their various appendages, have been made at the armories, and that 20,956 small arms have been cleaned and repaired; 2,101 holsters, about 700 sets of accoutrements for small arms, and 90 new gun-carriages, have been made at the arsenals.

Statement D exhibits the number and description of arms, artillery, and other ordnance supplies issued by this department to the army and to the engineer department during the year ending 30th September, 1830; by which it will be seen that 965 small arms, 16 gun-carriages, and about 1,000 sets of accoutrements for small arms are among the principal articles issued to the army; 937,700 pounds of lead were issued to the engineer department.

Statement E exhibits an account of the expenditures made, and of the arms and artillery carriages and equipments procured, under the act of 1808 for arming and equipping the militia, during the year ending 30th September, 1830; from which it will appear that the arms procured are 11,240 muskets, 361 repeating and Hall's rifles, 2,101 holsters, and 86 field artillery carriages, with their various equipments; and that the amount expended was $187,520 39.

Statement F exhibits an account of the arms apportioned to each of the several States and Territories for the year 1829, and of the artillery arms and other military equipments distributed to the militia during the year ending September 30, 1830.

Statement G exhibits the general results of the operations of the public lead mines during the year ending 30th September, 1830; to which is appended a brief statement, showing the quantity of lead made at these mines in each year from 1821 to the present time. By these statements it will be seen that the rents which accrued during the year past amount to 563,567 pounds, being 890,564 pounds less than the rents of the previous year. The quantity of lead made at the public mines during the last year was 5,322,058 pounds, being less than the product of the previous year by 6,209,252 pounds. This falling off in the quantity of lead made is to be attributed to the low price which the article has borne in the market for two years past. The same cause has diminished the rents, but these have been further reduced by the lower rates at which rents have been charged since the 1st of January last.

The quantity of lead which has accrued to the United States for the rent of the mines during the year past, if sold in the market, would barely suffice for paying the expenses of collection.

It is not probable that any considerable extension of the mining operations will be made for years to come, for it is now satisfactorily ascertained that our mines have yielded, for a few years past, a much larger supply than the consumption of the country requires; and, unless a market for the excess be found in foreign countries, it is not to be expected that even the present rate of production can be sustained. During the past year a great number of miners have abandoned the business because the low price of lead did not afford an adequate compensation for the labor of procuring it.

It appears, upon a careful examination of the treasury statements for a number of years past, that the whole quantity of lead, in all its various forms, which was imported during a period of ten years, commencing with 1819, amounted to an average, per annum, of ..... 7,835,923 pounds.
And that during the same period the quantity exported averaged ..... 1,338,218 "

Leaving for domestic consumption an average of ..... 6,497,705 "

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Which consisted of the following kinds, viz:		
1st. white and red lead and litharge	2,786,639	"
2d. Pig, bar, and sheet lead, and lead pipes	2,855,828	"
3d. shot	855,238	"
Average quantity derived from importations of foreign lead	6,497,705	"

Prior to the year 1828 the product of the public mines had not been so considerable as materially to affect the market; but during that year the product was suddenly increased to more than 12,000,000 pounds, and during the same year the excess of importation was 8,603,439 pounds, exceeding the average of previous years more than two millions. This, with the product of the public mines, supplied the market with an unexpected excess of fourteen millions of pounds, being equal to a supply for two years in advance. During the year 1829 the public mines yielded fourteen and a half millions pounds, and the importation exceed. There was an excess of exports in that year of nearly one and a half millions.

The average annual product of the public mines during the last three years is 12,728,366 pounds, being almost double the quantity usually received from foreign countries prior to the year 1829.

The lead mines of Missouri were offered at public sale in October last under the act of March 3, 1829. The section of country in which the mines on the Upper Mississippi are situated having been ceded to the United States by the treaty of Prairie du Chien, of August, 1829, and the value of these mines having been fully developed, it is believed that the time has arrived for surveying and selling these lead mine lands. It is supposed that the principal object of reserving these lands from sale was to prevent a monopoly of them while their extent and value were but little known to the public. They have now been so extensively wrought, and are at present so well known, that this object has been accomplished; and no reasons can be perceived why a survey and sale of them should be longer deferred.

Independent of the mineral riches of these lands, the climate is represented as remarkably salubrious, and the soil as fruitful and well adapted to support a dense population; and it may be considered of national importance to encourage the settlement of this remote and exposed frontier. I would, therefore, recommend that measures be taken for causing these lands to be surveyed and sold.

I have the honor to be, sir, your most obedient,

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Hon. J. H. EATON, *Secretary of War.*

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A.

Statement of the moneys expended through the Ordnance department in the year 1829, *with amount of sums remitted, including the balances in the hands of agents on January* 1, 1830.

Stations.	Appropriations.						Amount expended and accounted for.	Balances remaining in the hands of disbursing officers December 31, 1829.
	For current expenses of the ordnance service.	For arming and equipping the militia.	For arsenals.	For armament of fortifications.	For national armories.	Total amount remitted.		
Armory, Springfield, Massachusetts	.....	$2,430 11	.....	.....	$182,429 00	$184,859 11	$184,160 28	[illegible]
Armory, Harper's Ferry, Virginia	.....	.....	.....	.....	189,398 84	189,398 84	188,951 21	[illegible]
Arsenal, Kennebec	.....	.....	$50,000 00	.....	.....	50,000 00	49,419 54	[illegible]
Arsenal, Watertown	$3,865 10	94 19	1,700 00	.....	.....	5,659 29	5,171 03	[illegible]
Arsenal, Champlain	864 11	.....	4,000 00	.....	.....	4,864 11	4,729 26	[illegible]
Arsenal, Watervliet	19,600 00	6,937 14	710 95	$8,000 00	.....	35,248 09	31,789 03	[illegible]
Arsenal, Rome	1,886 49	.....	.....	.....	.....	1,886 49	1,886 49	.....
Arsenal, Alleghany	13,846 43	14,100 00	13,200 00	.....	.....	41,146 43	40,300 94	[illegible]
Arsenal, Frankfort	18,761 96	3,999 06	.....	.....	.....	22,761 02	22,693 55	[illegible]
Arsenal, Pikesville	1,305 34	.....	50 00	250 00	.....	1,605 34	1,593 92	[illegible]
Arsenal, Washington	15,676 51	13,800 00	2,301 26	886 73	.....	32,664 50	32,090 43	[illegible]
Arsenal, Bellona	6,247 98	.....	.....	.....	.....	6,247 98	5,520 14	[illegible]
Arsenal, Augusta	5,441 54	.....	1,664 91	.....	.....	7,106 45	5,901 66	[illegible]
Arsenal, Mount Vernon	.....	.....	23,235 50	.....	.....	23,235 50	23,235 50	.....
Arsenal, Baton Rouge	8,687 67	440 62	9,830 26	.....	.....	18,958 55	16,415 54	[illegible]
Arsenal, St. Louis	6,413 92	.....	27,441 02	.....	.....	33,854 94	14,248 32	[illegible]
Depot, Detroit	685 00	.....	.....	.....	.....	685 00	674 62	[illegible]
Depot, New York	3,099 82	.....	.....	.....	.....	3,099 82	3,099 82	.....
Fort Monroe	1,409 29	4,731 00	.....	.....	.....	6,140 29	5,746 03	[illegible]
Lead mines	6,206 00	.....	.....	.....	.....	6,206 00	3,656 23	[illegible]
Sundry contractors for cannon and small arms	.....	180,076 40	.....	125,735 24	.....	305,811 64	305,811 64	.....
Sundry persons for balances due on audited accounts	10,057 09	.....	.....	.....	.....	10,057 09	9,985 32	[illegible]
	124,054 25	221,877 52	134,133 90	139,602 97	371,827 84	991,496 48	957,094 55	[illegible]

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington, November* 30, 1830.

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B.

Statement of the money expended through the Ordnance department during the first, second, and third quarters of the year 1830.

Stations.	Amount transmitted in the first, second, and third quarters of 1830, and remaining in officers' hands at the end of the year 1829.	Amount of accounts in the first, second and third quarters of the year 1830.	Balances remaining in officers' hands October 1, 1830.
Armory, Springfield, Massachusetts, Charles Howard	$160,898 83	$154,113 87	$6,784 93
Armory, Harper's Ferry, Va., William Broadus*	135,058 09	96,698 11	38,359 98
Arsenal, Kennebec, Lieutenant John Hills	5,468 64	5,468 64	.....
Arsenal, Watertown, Major H. K. Craig	3,458 21	3,458 21	.....
Arsenal, Champlain, Lieutenant J. M. Washington	134 85	134 85	.....
Arsenal, Watervliet, Major George Talcott	32,160 06	28,854 50	3,305 56
Arsenal, Rome, Captain James S. Abeel	1,296 43	1,273 09	23 34
Arsenal, Alleghany, Major R. L. Baker	23,645 49	20,661 58	2,983 91
Arsenal, Frankfort, Captain Charles Mellon	7,267 47	6,876 63	390 84
Arsenal, Pikesville, Lieutenant Colonel James Bankhead	1,206 42	804 40	402 02
Arsenal, Washington, Lieutenant [illegible]ymington	22,074 07	21,625 60	448 47
Arsenal, Bellona, Lieutenant Colonel A. S. Brooks and Lieutenant Williamson	4,827 84	4,533 90	293 94
Arsenal, Augusta, Lieutenant Colonel A. C. W. Fanning	4,804 79	4,093 24	711 55
Arsenal, Mount Vernon, Lieutenant Walter Smith	35,100 29	29,409 88	5,690 41
Arsenal, Baton Rouge, Lieutenant Robert Anderson	8,260 61	6,280 61	1,980 00
Arsenal, St. Louis, Lieutenant Martin Thomas	22,018 02	.....	22,018 02
Arsenal, St. Louis, Lieutenant W. Wheelwright	2,350 00	1,429 32	920 68
Depot, Detroit, Captain Samuel Perkins and Lieutenant J. Howard	566 18	503 35	62 83
Depot, New York, Lieutenant Samuel Ringgold	1,266 69	1,266 69	.....
Fort Monroe, Lieutenant W. H. Bell	9,164 26	8,540 59	623 67
Lead mines, Captain Thomas C. Legate	8,849 77	6,234 63	2,615 14
Lead mines, Daniel S. Gaillard and Lieutenant Kensley	66 79	17 45	49 34
Sundry contractors for cannon and small arms	215,023 44	215,023 44	.....
Sundry payments on audited accounts	3,120 67	3,120 67	.....
	708,087 91	620,423 25	87,664 66

*The paymaster at Harper's Ferry armory died on the 2d October last. The accounts for the third quarter have not yet been received.

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C.

Statement of work done and articles procured at the arsenals and armories of the United States, from October 1, 1829, to September 30, 1830.

MADE AND PROCURED.

Muskets, complete	26,125
Screw-drivers	16,500
Wipers	16,600
Ball-screws	1,650
Spring vices	1,650
Flint caps	60,765
Arm chests	2,300
Pattern pistol	1
Cartridge-boxes	151
Cartridge-box belts	129
Bayonet scabbards	233
Bayonet belts	129
Cavalry cartridge-boxes	533
Belt plates	6,206
Triers	2,101
Cap pouches	53
Sabre belts	1,894
Brushes and picks	5,008
Musket flints	670,000
6-pounder field carriages, with equipments complete	86
18-pounder casemate carriages	2
24-pounder casemate carriage	1
Mortar carriage, with ammunition lumber	1
Mortar ballistic pendulum	1
Ammunition carts and truck wagons	2
Grape case boxes	76
Cavalry percussion locks	4
Percussion primers	5,364
Cannon wads	750
Sponges	218
Sponge fringe, yards	1,657
Lacquer for cannon, gallons	89
Priming tubes filled	5,795
Ginfalls	2
Wheelbarrows	2
Cannon cartridges	2,199
Musket cartridges	16,270
Cartridge bags, fla	3,185
Portfires	1,063
Sets of timber for 6-pounder field carriages	413
Sets of timber for 24-pounder casemate carriages	73

REPAIRED.

Muskets	7,166
Muskets cleaned and oiled	13,606
Rifles	50
Pistols	134
Cannon and howitzers cleaned and lacquered	659
Cannon balls cleaned and lacquered	6,336
6-pounder field carriages repaired and painted	2
18-pounder field carriage repaired and painted	1
Truck wagon	1
Sponges and rammers	71
Budge barrels	40
Powder barrels	213

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Ordnance Office, *Washington, November* 30, 1830.

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D.

Statement of artillery, small arms, accoutrements, and other ordnance stores issued to the troops and the engineer department of the United States, from October 1, 1829, to September 30, 1830.

6-pounder iron cannon	7	Non-commissioned officers' swords	107
6-pounder field carriages, with equipments complete	11	Sword belts	109
		Cartridge-boxes	882
12-pounder field carriages, with equipments complete	4	Cartridge-box belts	611
		Bayonet scabbards	909
10-inch siege mortar and bed, with equipments complete	1	Bayonet belts	613
		Belt-plates	434
Sponges and rammers	10	Brushes and picks	921
Sponges	28	Gun-slings	742
Portfires	1,108	Screw-drivers	483
Priming tubes, filled	7,680	Ball-screws	89
Tube pouches	6	Wipers	441
Bricoles	74	Spring vices	45
Tarpaulins for guns	11	Flints	6,500
Gunners' belts, complete	8	Cannon powder, pounds	13,300
Linstocks	8	Musket powder, pounds	1,400
Portfire stocks	8	Musket cartridges	40,480
Slow match, pounds	65	Cannon cartridges	3,268
Twine, pounds	16	Cartridge bags, flannel	2,526
32-pounder cannon balls	377	Lead, pounds	937,700
24-pounder cannon balls	400	Refined nitre, pounds	550
12-pounder cannon balls	400	Antimony, pounds	53
6-pounder cannon balls	600	Beeswax, pounds	70
6-pounder strapped shot	673	Rosin, pounds	70
6-pounder canister shot	25	Tow, pounds	23
Loose grapeshot, pounds	1,048	Cannon cartridge paper, pounds	210
8-inch shells	88	Musket cartridge paper, pounds	200
24-pounder shells	163	Rocket paper, pounds	440
Musket bullets, pounds	1,387	Wrapping paper, pounds	20
Muskets complete	940	Flannel, yards	556
Rifles, complete	25		

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington, November 30, 1830.*

E.

Statement of the arms, accoutrements, &c., procured, and of the expenditures made, under the act for arming and equipping the militia, from October 1, 1829, to September 30, 1830.

ARMS, ETC., PROCURED.			
Muskets, complete	11,240	6-pounder field carriages, with equipments complete	86
Rifles, repeating	161		
Rifles, Hall's	200	EXPENDITURES, VIZ:	
Sets of infantry accoutrements	141	Amount paid for arms, &c.	$182,530 82
Sabre belts	2,855	Amount paid for inspection, packing boxes, storage, and distribution to the States and Territories	4,989 57
Belt-plates	2,706		
Holsters	2,101		187,520 39
Cavalry cartridge-boxes	533		
6-pounder iron cannon	22		

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington, November 30, 1830.*

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F.

Apportionment of arms to the militia for the year 1829, *under the act of* 1808 *for arming and equipping the whole body of the militia.*

States and Territories.	Date of the return.	Number of militia.	Number of arms apportioned.	Remarks.
Maine	1829	41,136	502	
New Hampshire	1829	28,900	353	
Massachusetts	1829	54,311	663	
Connecticut	1829	21,777	266	
Rhode Island	1829	9,649	118	
Vermont	1823	27,653	338	
New York	1829	188,145	2,297	
New Jersey	1829	39,171	478	
Pennsylvania	1828	177,741	2,170	
Delaware	1814	7,451	91	
Maryland	1829	45,281	553	
Virginia	1829	100,881	1,232	
North Carolina	1829	60,143	734	
South Carolina	1826	36,429	445	
Georgia	1827	39,056	477	
Kentucky	1829	73,141	893	
Tennessee	1823	42,715	522	
Ohio	1829	115,376	1,409	
Louisiana	1828	12,447	152	
Indiana	1829	40,000	488	
Mississippi	1812	5,291	65	
Illinois	1822	8,521	104	
Alabama	1829	30,000	366	
Missouri	1829	18,000	220	
Michigan	1822	1,503	18	
Arkansas	1825	2,028	25	
Florida				No return.
District of Columbia	1829	1,756	21	
Total		1,228,502	15,000	

Statement of the arms and military equipments distributed to the militia from the 1st *of October,* 1829, *to the* 30*th of September,* 1830.

2 6-pounder brass cannon, with carriages complete.
26 6-pounder iron cannon, with carriages complete.
5,613 muskets, complete.
3,277 rifles, complete.
20 rifles, (Hall's) complete.
3,962 pistols, complete.
240 swords.
2,004 sabres.
2,244 sword and sabre belts.
1,123 sets of infantry accoutrements.
1,465 sets of rifle accoutrements.
2,004 pairs of holsters.
310 cavalry cartridge-boxes.
275 bayon abbards, belts and plates.
The whole t equal in value to 15,017 muskets.

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington November* 30, 1830.

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G.

Statement of the operations of the United States lead mines in the vicinity of Fever river and in Missouri, from September 30, 1829, to September 30, 1830.

	Fever river.	Missouri.	Total.
Pounds of lead made	8,323,998	8,060	8,332,058
Pounds of lead which have accrued as rent	563,001	566	563,567
Rents remaining due September 30, 1829	65,949		65,949
Total of rents due in the year ending September 30, 1830	628,950	466	629,516
Pounds of lead received as rent in the year ending September 30, 1830	504,214	566	504,780
Rents remaining due September 30, 1830	124,736		124,736

NOTE.—No returns received from Missouri, except for the quarter ending September 30, 1830.

21st Congress.] No. 484. [2d Session.

STATEMENT OF THE EXPENDITURES AT THE UNITED STATES ARMORIES AND THE ARMS MANUFACTURED THEREIN DURING THE YEAR 1830.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 2, 1831.

DEPARTMENT OF WAR, *March* 2, 1831.

SIR: In pursuance of an act of Congress of the 2d April, 1794, concerning arsenals and armories, I have the honor to transmit herewith a statement of the expenditures at the United States armories, and of the arms, &c., manufactured therein during the year 1830.

Very respectfully,

J. H. EATON.

Hon. ANDREW STEVENSON, *Speaker of the House of Representatives, U. S.*

Statement of the expenditures made at the national armories, and of the arms, &c., made therein during the year 1830.

	Expenditures.					Arms, &c., made.						
	For lands, buildings, canals, repairs, and other permanent improvements.	For the manufacture of arms.	For the manufacture of Hall's rifles.	For miscellaneous purposes, not embraced in the foregoing.	Total amount expended.	Muskets.	Screw-drivers.	Wipers.	Bull screws.	Spring vises.	Flint cups.	Arm-chests.
Springfield, Massachusetts....	$3,602 22	$182,309 95	.....	$1,611 83	$187,524 00	16,500	16,500	16,500	1,650	1,650	16,500	1,660
Harper's Ferry, Virginia.....	14,431 93	117,540 19	$32,377 06	1,218 24	165,567 42	10,130	.....	.....	.....	.....	51,575	564
Total.....	18,034 15	299,850 14	32,377 06	2,830 07	353,091 42	26,630	16,500	16,500	1,650	1,650	68,075	1,224

Operations in 1830:

Statement in detail of the operations at the armory at Springfield.

DR.

To value of component parts of arms on hand January 1, 1830	$108, 434 31	
To value of unwrought materials on hand January 1, 1830	50, 296 79	
To total amount received from the treasury and expended during the year 1830	187, 524 00	
To value of 3,100 pounds powder received from the storekeeper for the use of the armory, at 20 cents	620 00	
To value of 4,006 pounds lead received from the storekeeper for the use of the armory, at 4 cents	160 24	
		$347, 035 34

CR.

By amount expended in permanent improvements, per foregoing statement		$3, 602 22	
By arms and equipments made, viz:			
16,500 muskets, average cost of each $10 99 and a fraction		181, 438 58	
16,500 screw-drivers, average cost of each 8 cents		1, 320 00	
16,500 wipers, average cost of each 12½ cents		2, 062 50	
1,650 ball screws, average cost of each 15 cents		247 50	
1,650 spring vices, average cost of each 30 cents		495 00	
16,500 spare lead flint caps, average cost of each 1 cent		165 00	
1,660 gun boxes, average cost of each $2		3, 320 00	
By value of supplies furnished the Harper's Ferry armory	$493 68		
By value of supplies furnished to arsenals	1, 348 20		
		1, 841 88	
By amount expended in preserving arms, and for miscellaneous purposes not incidental to the manufacture of arms		1, 611 83	
By amount of supplies furnished for inspecting contract arms		28 86	
By value of component parts of arms on hand December 31, 1830		99, 919 11	
By value of unwrought materials on hand December 31, 1830		50, 982 86	
			$347, 035 34

1830 operations:

Statement in detail of the operations at the armory at Harper's Ferry.

DR.

To value of component parts of arms on hand January 1, 1830		$63, 537 91	
To value of unwrought materials on hand January 1, 1830	$45, 437 97		
From which deduct the amount of debts due on the 1st January for articles delivered and included in the inventory of that date, but which remain to be paid for in 1830	9, 208 92		
		36, 229 05	
To total amount drawn from the treasury and expended during the year 1830		165, 567 42	
To value of supplies received from the Springfield armory		493 68	
To value of 2,000 pounds powder received from arsenals for the use of the armory, at 20 cents		400 00	
			266, 228 06

CR.

By amount expended in permanent improvements, per foregoing statement		14, 431 93	
By arms and equipments made, viz:			
10,130 muskets, average cost of each $11 25 and a fraction		114, 005 23	
564 gun boxes, average cost of each $2 16		1, 218 24	
51,575 flint caps, average cost of each 1 cent		515 75	
By amount expended in preserving arms, and for miscellaneous purposes not incidental to the manufacture of arms		1, 344 69	
By amount expended on Hall's rifles, which are not yet completed		32, 377 06	
By value of component parts of arms on hand December 31, 1830		49, 890 09	
By value of unwrought materials on hand December 31, 1830		52, 445 07	
			266, 228 06

Statement in detail of the expenditures on Hall's rifles.

DR.

To value of component parts of arms on hand January 1, 1830		$48, 778 47	
To value of unwrought materials on hand January 1, 1830		5, 246 00	
To amount expended during the year 1830, being the total amount of payments made by the paymaster on account of the rifles, viz:			
For materials	$9, 161 07		
For pay of workmen	23, 215 99		
		32, 377 06	
			86, 401 53

CR.

By amount expended in permanent improvements		11, 559 31	
By value of component parts of arms on hand December 31, 1830		66, 533 96	
By value of unwrought materials on hand December 31, 1830		8, 110 94	
By value of supplies furnished contractors for small arms		145 00	
By amount expended for miscellaneous purposes not incidental to the manufacture of rifles		52 32	
			86, 401 53

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington, March* 2, 1831.

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REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 21, 1831.

SIR: In compliance with your instructions of the 20th August last, I have the honor to submit herewith a general report of the operations of this department.

Statement A exhibits an account of all public moneys remitted from the treasury through this office to disbursing officers and contractors in the year 1830, the amount expended and accounted for by these officers, and the balances unexpended and remaining in their hands on the 31st December, 1830.

It will appear from this statement that the remittances during the year 1830, amounted to	$938,727 56
That during the same period the accounts rendered and settled amounted to	893,877 30
And that the balances remaining unexpended in the hands of disbursing officers on the 31st December, 1830, amounted to	44,850 26

Statement B exhibits the total amount of funds remitted to disbursing officers of this department and to contractors during the three first quarters of the present year. It will

therein appear that the amount remitted during that period was	625,123 10
And that the accounts rendered amounted to	568,500 01
Leaving an unexpended balance in the hands of disbursing officers on the 30th September, 1831, of	56,623 09

Statement C exhibits an account of some of the principal articles manufactured and repaired at the several arsenals and armories in the year ending with the 30th of September, 1831. By this it will be seen that 110 gun carriages and equipments, 997 holsters, and about 850 sets of accoutrements for small arms, have been made at the arsenal; that 16,741 small arms have been cleaned and repaired; and that 26,481 muskets, and their appendages, have been manufactured at the national armories.

Statement D exhibits an account of the artillery, small arms, accoutrements, and other ordnance stores, issued by this department to the army and marine corps of the United States during the year ending with the 30th September, 1831. In this it will appear that 34 field gun-carriages, 33 field guns, 2,209 muskets, complete, and about 700 sets of accoutrements for small arms, are among the principal articles issued.

Statement E exhibits an account of the arms, accoutrements, artillery, artillery equipments procured, and of the expenditures made under the act of 1808, for arming and equipping the militia during the year ending with the 30th September, 1831.

By which it will appear, among other articles, that the artillery procured amounted to 58 6-pounder cannon, 103 field carriages, with equipments complete, 150 sets of timber for gun-carriages, and that the number of small arms procured amounted to 10,230 stands of muskets and rifles. The amount expended for this object being $181,940 20.

Statement F is an apportionment of arms to the militia of the several States and Territories and of the District of Columbia for the year 1830; showing also the quantity of arms and military equipments distributed to the militia from the 1st of October, 1830, to the 30th September, 1831.

Statement G exhibits a general account of the public lead mines from 1821 to the 30th September, 1831, a period embracing the whole time during which they have been in charge of this department. It will appear by this statement that the whole productive amount of the lead mines while in charge of this department up to the 30th September, 1831, has been 51,622,072 pounds.

Statement H exhibits a detailed account of the operations of the lead mines during the year ending with the 30th of September, 1831, by which it will be seen that the total amount of lead manufactured during that period has been 6,449,080 pounds.

I have the honor to be, sir, respectfully, your obedient servant,

G. BOMFORD, *Brevet Colonel, on Ordnance service.*

Hon. LEWIS CASS, *Secretary of War.*

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A.

Statement of the money expended through the Ordnance department in the year 1830.

Officers' names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS JANUARY 1, 1830. Appropriations. National armories.	Current expenses of the ordnance service.	Arsenals.	Armament of fortifications.	Arming and equipping the militia.	For the purchase of land.	For building new arsenal.	For extending walls and embankm'ts.	For erecting ten additional dwelling houses for workmen.	Total amount.	Amount expended and accounted for.	Balances remaining unexpended, in the hands of disbursing officers, December 31, 1830.
Charles Howard	Armory, Springfield, Massachusetts.	$190,657 77				$1,283 15	$2,200 00	$14,000 00			$208,140 92	$208,030 46	$110 46
William Broadus	Armory, Harper's Ferry, Virginia	144,329 45				163 00			$9,300 00		152,792 45	150,868 01	2,924 44
D. Bedinger	do. do.	46,452 25				500 00				$2,757 33	49,709 58	42,761 88	6,947 70
Lieutenant John Hills	Arsenal, Kennebeck, Maine		$145 00	$6,053 64							6,198 64	6,198 64	
Major H. K. Craig	Arsenal, Watertown, Massachusetts		2,097 25	1,310 96			450 00				3,858 21	3,852 93	5 28
Lieutenant J. M. Washington	Arsenal, Champlain, Vermont		773 55	538 70							1,312 25	1,282 86	29 39
Major G. Talcott	Arsenal, Watervliet, New York		10,592 10	11,000 00	$5,332 38	12,835 58					39,760 06	37,605 20	2,154 86
Captain J. S. Abeel	Arsenal, Rome, New York		1,700 00								1,700 00	1,700 00	
Major R. L. Baker	Arsenal, Alleghany, Pennsylvania		7,619 27	8,188 23		12,700 00					28,507 50	26,771 12	1,736 38
Captain C. Mellon	Arsenal, Frankford, Pennsylvania		3,626 31	2,350 00		2,622 63					9,598 94	9,598 94	
Colonel J. Bankhead	Arsenal, Pikesville, Maryland		977 22		250 00						1,227 22	1,227 22	
Lieutenant J. Symington	Arsenal, Washington City	1,852 69	11,784 97	7,365 62	419 42	14,898 30					36,321 00	36,307 38	13 62
Colonel A. S. Brooks and Lieut. J. Williamson	Arsenal, Bellona, Virginia		6,327 84		106 08						6,433 92	6,164 63	269 29
Colonel A. C. W. Fanning	Arsenal, Augusta, Georgia		4,370 06	1,084 73							5,454 79	5,329 59	125 20
Lieutenant M. Thomas	Arsenal, St. Louis, Missouri		2,236 52	17,370 10	2,411 40						22,018 02		22,018 02
Lieutenant W. Wheelwright	do. do.		2,800 00	850 00							3,650 00	3,532 62	117 38
Lieutenant W. Smith	Arsenal, Mount Vernon, Alabama			47,572 00							47,572 00	41,995 11	5,576 89
Lieutenant R. Anderson	Arsenal, Baton Rouge, Louisiana		5,063 05	4,000 00							9,063 05	7,536 43	1,526 62
Captain J. Perkins and Lieut. J. Howard	Depot, Detroit, Michigan Territory		688 21								688 21	688 21	
Lieutenant S. Ringgold and Capt. S. Perkins	Depot, New York		1,716 69								1,716 69	1,597 51	119 18
Lieutenant W. H. Bell	Fortress Monroe, Virginia		1,183 47	226 31	9,554 48						10,964 26	10,225 22	739 04
D. S. Gaillard	Depot, Charleston, South Carolina		46 24								46 24	28 30	17 94
Captain T. C. Legate	Lead mines, Missouri		8,849 77								8,849 77	8,431 20	418 57
Sundry contractors for cannon and small arms					119,997 04	161,273 28					281,270 32	281,270 32	
Settlements on audited accounts		260 00	244 82			368 70					873 52	873 52	
Total		382,552 16	72,842 34	107,910 29	138,070 80	207,644 64	2,650 00	14,000 00	9,300 00	2,757 33	938,727 56	893,677 30	44,850 26

ORDNANCE OFFICE, Washington, November 21, 1831.

GEO. BOMFORD, *Brevet Colonel, on Ordnance service.*

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C.

Statement of work done and articles procured at the arsenals and armories of the United States from October 1, 1830, to September 30, 1831.

MADE AND PROCURED.

Muskets, complete	26,510
Cadet muskets	331
Screw-drivers	17,837
Wipers	17,898
Ball-screws	1,652
Spring vices	1,695
Flint caps	36,496
Arm chests	1,661
Cartridge-box belts	900
Bayonet scabbards	3,300
Bayonet belts	900
Belt plates	1,596
Cavalry cartridge-boxes	1,391
Holsters	997
Sabre belts	890
Sword belts	781
Sword scabbards	12
6-pounder field carriages, with equipments complete	103
24-pounder casemate carriages, complete	7
24-inch mortar beds	2
Rammers and sponges	31
Ladles and worms	11
Sponges	44
Percussion locks	6
Percussion primers	746
Priming wire boxes	235
Cartridge wads	2,874
Cartridges for cannon, gallons	78
Friction tubes	19,324
Hand cart	1
Ammunition cart	1
Wagons	1
Limbers	3
Sets of artillery harness	44
Ammunition kegs	30
Musket cartridges	33
Cannon cartridges	142,470
Cartridge bags, flannel	1,669
Portfires	5,543
Rifle bullets, pounds	940
Musket bullets, pounds	117
6-pounder canister shot	2,617
6-pounder cannon balls	394
6-pounder tin canisters	10,119
Shot blocks	267
Copper powder measures	439
Sets of timber for 6-pounder field carriages	2
Sets of timber for 24-pounder casemate carriages	150
	75

REPAIRED.

Muskets	6,416
Muskets cleaned and oiled	9,716
Rifles	537
Pistols	44
Swords and sabres	28
Cannon and howitzers cleaned and lacquered	580
Cannon balls cleaned and lacquered	1,230
6-pounder carriages painted and repaired	13
12-pounder carriages painted and repaired	6
3-pounder carriages painted and repaired	36
Sling carts painted and repaired	2
Wagon painted and repaired	1
Ammunition chests	68
Portfire locks	3
Linstocks	3
Powder barrels coopered and repaired	192

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Ordnance Office, *Washington November* 21, 1831.

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D.

Statement of the artillery, small arms, accoutrements, and other ordnance stores, issued to the troops and the marine corps of the United States from October 1, 1830, to September 30, 1831.

12-pounder iron cannon	2
12-pounder field carriages, complete	3
6-pounder iron cannon	29
6-pounder field carriages, complete	29
24-pounder howitzer	1
24-pounder howitzer carriage, complete	1
6-pounder caisson	1
Sponges and rammers	10
Sponges for cannon	27
Sponge covers	10
Sheepskins for sponges	42
Sponge tacks	1,000
Portfires	985
Tubes filled	7,850
Bricoles	44
Prolongs	2
Gunners' belts, complete	4
Powder-horns	4
Tarpaulins for guns	10
Linstocks	12
Portfire stocks	12
Slowmatch, pounds	148
Gunners' haversacks	12
Twine, pounds	64
Flax, pounds	50
Tow, pounds	50
Beeswax, pounds	21
Magazine lanterns	5
Ginfalls and handspikes	2
Ladles and worms	2
Tompions	8
Lead aprons	6
Sponge and tar buckets	6
Drag ropes	14
6-pounder cannon balls	300
12-pounder cannon balls	200
12-pounder strapped shot	400
12-pounder canister shot	200
6-pounder strapped shot, fixed	800
6-pounder canister shot, fixed	850
6-pounder tin canisters	200
6-pounder shot blocks	200
6-pounder bags for grapeshot	200
24-pounder shells	100
10-inch shells	100
Sets artillery harness	8
Muskets, complete	1,878
Cadet muskets	331
Artillery swords	6
Sergeant and musicians' swords	64
Cartridge-boxes	781
Cartridge-box belts	422
Bayonet scabbards	845
Bayonet belts	717
Brushes and picks	503
Gun slings	288
Sword belts	8
Hall's rifles	25
Wipers	83
Screw-drivers	146
Ball-screws	75
Spring vices	22
Musket flints	20,960
Cannon powder, pounds	7,800
Musket powder, pounds	1,150
Rifle powder, pounds	500
Cannon cartridges	750
Musket-ball cartridges	129,400
Musket blank cartridges	55,000
Cartridge bags, flannel	4,800
Rifle bullets, pounds	200
Signal rockets	50
Refined sulphur, pounds	200
Pulverized charcoal, pounds	184
Refined nitre, pounds	125
Antimony, pounds	50
Camphor, pounds	15
Glue, pounds	10
Chalk, pounds	10
Flannel, yards	650
Cannon cartridge, rocket, and portfire paper, pounds	700
Pitch, barrel	1
Rosin, pounds	100
Paints, assorted, pounds	426
Putty, pounds	6
Spirits of turpentine, gallons	31
Linseed and neatsfoot oil, gallons	65
Lacquer for cannon, gallons	39
Paint brushes, assorted	31
Composition brushes, assorted	30
Alcohol, gallons	10
Sides of harness leather	5
Chest of carpenter's tools	1
Copper hammers	2
Copper adzes	3
Copper dippers	22
Copper drivers	1
Copper pans	6
Copper funnels	15
Copper powder measures	3
Fuse drifts	4
Fuse chargers	8
Fuse and rocket mallets	30
Laboratory knives	36
Iron squares	3

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E.

Statement of the arms, accoutrements, &c., procured, and of the expenditures made, under the act for arming and equipping the militia, from October 1, 1830, to September 30, 1831.

ARMS, ETC., PROCURED.

Muskets, complete	9,030
Rifles, (Hall's)	1,200
Cartridge-box belts	900
Bayonet scabbards and belts	900
Sword and sabre belts	1,671
Belt plates	1,596
Holsters	997
Cavalry cartridge-boxes	1,391
6-pounder iron cannon	58
6-pounder cannon balls	2,928
6-pounder field carriages, with equipments complete	103
10-inch mortar beds	2
Sets of timber for 6-pounder carriages	150
Sets of artillery harness	20

EXPENDITURES, VIZ:

Amount paid for arms, &c.	$174,931 23
Amount paid for inspection, packing boxes, storage, and distribution to the States and Territories	7,008 97
	181,940 20

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington, November* 21, 1831

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G.

Statement of lead made at United States lead mines annually from 1821 *to September* 30, 1831.

	Fever river.	Missouri.	Total.
Pounds of lead made from 1821 to September 30, 1823	335,130		335,130
Pounds of lead made for the year ending September 30, 1824	175,220		175,220
Do do do 1825	664,530	386,590	1,051,120
Do do do 1826	958,842	1,374,962	2,333,804
Do do do 1827	5,182,180	910,380	6,092,560
Do do do 1828	11,105,810	1,205,920	12,311,730
Do do do 1829	13,343,150	1,198,160	14,541,310
Do do do 1830	8,323,998	8,060	8,332,058
Do do do 1831	6,381,900	67,180	6,449,080
Total	46,470,820	5,151,252	51,622,072

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE DEPARTMENT, *November* 21, 1831.

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F.

Apportionment of arms to the militia for the year 1830, *under the act of* 1808, *for arming and equipping the whole body of the militia.*

States and Territories.	Date of return.	Number of militia.	Number of arms apportioned.	Remarks.
Maine	1829	41, 136	489	
New Hampshire	1830	29, 149	346	
Massachusetts	1830	49, 560	589	
Connecticut	1830	24, 893	296	
Rhode Island	1830	9, 600	114	
Vermont	1824	27, 653	329	
New York	1830	188, 615	2, 241	
New Jersey	1829	39, 171	465	
Pennsylvania	1828	177, 741	2, 112	
Delaware	1814	7, 451	89	
Maryland	1830	46, 113	548	
Virginia	1830	101, 054	1, 201	
North Carolina	1830	61, 785	734	
South Carolina	1830	49, 512	588	
Georgia	1827	39, 056	464	
Kentucky	1830	63, 602	756	
Tennessee	1830	60, 887	724	
Ohio	1830	125, 159	1, 487	
Louisiana	1829	14, 808	176	
Indiana	1829	40, 000	475	
Mississippi	1830	13, 724	163	
Illinois	1823	8, 521	101	
Alabama	1829	30, 000	357	
Missouri	1830	7, 838	93	
Michigan	1822	1, 503	18	
Arkansas	1825	2, 028	24	
Florida	.....	.....	.....	No return.
District of Columbia	1829	1, 756	21	
Total	.....	1, 262, 315	15, 000	

Statement of the arms and military equipments distributed to the militia from October 1, 1830, *to September* 30, 1831.

5½-inch brass mortar	1	Non-commissioned officers' swords	100
6-pounder iron cannon, with carriages and equipments complete	47	Cavalry sabres	1, 461
6-pounder caissons	14	Rifle accoutrements, sets	1, 263
Artillery harness, sets	20	Infantry accoutrements, sets	7, 020
Muskets, complete	22, 575	Sabre belts	1, 261
Rifles, complete	6, 463	Sword belts	510
Pistols, complete	2, 913	Holsters	860
Artillery swords	821	Cavalry cartridge-boxes	840

G. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington, November* 21, 1831.

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H.

Statement of the operations of the United States lead mines in the vicinity of Fever river and in Missouri, from September 30, 1830, to September 30, 1831.

	Fever river.	Missouri.	Total.
Pounds of lead made	6,381,900	67,180	6,449,080
Pounds of lead which have accrued as rent*	319,095	3,359	322,454
Rents remaining due September 30, 1830	124,736		124,736
Total rents due in the year ending September 30, 1831	443,831	3,359	447,190
Pounds of lead received as rent in the year 1831	271,627	3,359	274,986
Rents remaining due September 30, 1831	172,204		172,204

* Rents reduced from 10 to 5 per cent. on the amount of lead made by order of the Secretary of War, January 15, 1830.

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

ORDNANCE OFFICE, *Washington, November* 21, 1831.

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ORDNANCE OFFICE, *Washington, October* 28, 1831.

SIR: I beg leave respectfully to submit to your consideration the propriety of a reorganization of this department at some period during the approaching session of Congress. The facts and reasons going to show the importance and necessity of this measure have been communicated to your predecessors on various occasions since the year 1827, and have as constantly received the attentive and favorable consideration of the Executive and of the various military committees of the Senate and of the House of Representatives, to whom the subject has been referred.

Nor have the views of this department, as to the necessity of a more efficient organization, undergone any change since the date of my last report on this subject to your immediate predecessor, a copy of which is herewith transmitted, accompanying the bill reported at the last session of Congress by the Military Committee of the House of Representatives, and which is therein referred to as embodying the views of this department on the subject of the proposed reorganization.

Appended to the report herewith forwarded is a statement of the additional expense which would arise under the provisions of the bill herein referred to, should it pass into a law; also a memorandum of the arsenals, depots, and other posts where officers are employed on ordnance service, accompanied by a statement of the number and grades of officers now serving in this department.

I have the honor to be, sir, respectfully, your obedient servant,

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Hon. LEWIS CASS, *Secretary of War.*

ORDNANCE OFFICE, *Washington, November* 30, 1830.

SIR: In compliance with your instructions to report on the resolution of the House of Representatives, dated April 26, 1830, I have the honor to submit the following remarks:

The propositions contained in the resolution refer to the line of the army, and to all the several departments of the military service. It has, however, been considered proper to limit this report to such matters as concern the Ordnance department alone, for the reason that the officers who are charged with the direction of the other branches of service are much better prepared, by experience and merited distinction, to report on all those points which concern their respective departments.

In reference to the question, "whether any reduction in the number of officers in the army of the United States can be made without injury to the public service," I have the honor to state that, by the present laws, no more than *four* officers are specially provided for the performance of ordnance duties, viz: the four supernumerary captains of the artillery regiments. For any additional officers which the ordnance service may require, a contingent provision is made in the law, by giving to the President of the United States authority to detach from the regiments of artillery such number as may be necessary for this service.

The officers who serve in the Ordnance department, and who may be considered as composing it, consist of the four captains provided by law, and such others as may, from time to time, be detailed from the artillery. The number of the latter is not prescribed by law or by regulation, and is not constant, but varying, according to the necessities of the service, and is generally about thirty. But whether this number be large or small, it has no effect to increase or diminish the whole number in service, as the change is effected by a mere transfer from one branch of service to another.

The entire abolition of the department would, therefore, make the military establishment consist of only four officers less than at present.

In order that an opinion may be formed of the number of officers required for the performance of ordnance duties, it appears to be proper that the character, extent, and responsibility of those duties should be briefly stated.

The duties are defined by law, and consist in providing, preserving, distributing, and accounting for every description of artillery, small arms, and all the munitions which may be required for the fortresses of the country, the armies in the field, and for the whole body of the militia of the Union. In these duties are comprised that of determining the general principles of construction, and of prescribing in detail the models and forms of all military weapons employed in war. They comprise, also, the duty of prescribing the regulations for the proof and inspection of all these weapons, for maintaining uniformity and economy in their fabrication, for insuring their good quality, and for their preservation and distribution.

The extent of these duties may be perceived by referring to the fact that, for carrying into effect the several purposes here stated, Congress has appropriated, for many years past, nearly one million of dollars annually; and that, in order to fulfil these purposes, extensive operations are conducted at the following establishments, viz: two national armories, nine private armories, four cannon foundries, fourteen national arsenals, four ordnance depots, and an extensive region of public lead mines. These establishments are situated in the different parts of the Union, and they employ more than one thousand men, consisting chiefly of artificers and mechanics. They are all conducted under the general supervision, and (with the exception of the private armories,) under the immediate and special direction of the Ordnance depart-

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To this brief outline of the character and extent of ordnance duties, it seems proper to add a few remarks on the responsibilities which are involved in their proper discharge. These are, in some material respects, peculiar to this branch of service alone, and do not exist in any other branch of the military service. The appropriations for the ordnance service are applied to the productions of arms and other military supplies of a durable character, which are stored in depot for future service, and are reserved to meet the future exigencies and defence of the country. They are not consumed and extinguished in the current service of the day, like most of those which are obtained by the expenditures of other branches of the military establishment. The value of ordnance supplies now in depot which have been accumulated under former appropriations exceeds eleven million dollars, and the value is constantly augmenting at the rate of nearly one million dollars per annum. This branch of service is, therefore, responsible that all the various munitions of war are provided in due proportion to the wants of the service, and are constructed on the most approved models and of suitable quality; that the whole body of the militia be efficiently armed and equipped to the fullest extent of the means appropriated to that object; that large annual disbursements be faithfully made and promptly accounted for; that they be applied to authorized purposes, and no other; and that they produce a just and substantial equivalent in military supplies of enduring value to the country, and that the accumulating product of these expenditures be securely preserved and duly accounted for.

From this brief statement of ordnance duties, it will be perceived that a greater number than four officers is necessary for the performance of them; and as this number is all which the ordnance service adds to the aggregate of the whole military establishment, it follows that it cannot be reduced without injury to the service. A reduction of the number of officers serving in the Ordnance department by details from the regiments would not lessen, in any degree, the aggregate of the army, and is, therefore, considered as not being within the scope of the inquiry contained in the resolution.

But as it is necessary that a considerable number of officers should always be detached from their regiments for ordnance service, it is also necessary that those regiments should possess an excess in order to be able to supply this demand without deranging the regimental service. The regiments of artillery from which alone officers for ordnance service can now be drawn are provided with *five* officers for each company, while the infantry companies, consisting of nearly the same number of men, are provided with three only. This excess in the artillery regiments was provided expressly for the purpose of enabling them to furnish the details for ordnance service, as appears by the plan reported by the Secretary of War on the 12th of December, 1820, in pursuance of an order of the House of Representatives. This report is published in State Papers, vol. 1, 2d session 16th Congress, Document No. 21. It stated that the number of officers allotted to each company of artillery was greater than the regimental service required.

A reduction in the artillery regiments to an extent equal to the number usually detached from them for ordnance service, and a permanent assignment to the latter of an equal number, it is believed, would be advantageous to both branches of service. A measure of this kind would leave four officers in each company for regimental duties, and would provide a sufficient number for ordnance service.

In reference to that clause of the resolution which calls for "a plan of the most efficient organization of the army" I beg leave to state that so much of the present organization of the army as provides for the ordnance service is considered defective, and the public interests require that a more efficient system should be provided for this branch of service.

The principle on which the present system rests, that of furnishing officers for ordnance service by temporary details from the regiments, is inapplicable to duties of that character, more especially to such of them as are performed by senior officers who direct and control the most important part of them. From the general character of these duties, as described in a former part of this report, it may be readily perceived that experienced officers are necessary for their proper performance. They differ from those which are practiced in other branches of service. No other department is charged with the duty of devising and determining the plans and models of military weapons, nor with the supervision of extensive mechanical operations and fabricating establishments. No other performs any duties in immediate connexion with, or for promoting the efficiency of, the whole body of the militia, and none other is charged with the care and preservation of a vast amount of munitions of war; the responsibility of the ordnance, in this respect, being greater than that of all the other departments united. It is, besides, the only department, except the Engineer, whose duties are but little affected by any change from peace to war, or from war to peace, whose services have no immediate connexion with the line of the army, and whose duties would remain the same whether the peace establishment be large or small, or be entirely abolished. From the peculiarities of this service the experience acquired in other branches can be of little avail in this; yet, by the present system, its duties are required to be performed solely by officers detached for short periods from the regiments. And, since 1821, when this system was adopted, these duties, which include the disbursement of more than seven million of dollars, have been distributed among one hundred and sixty different officers, a large portion of whom were necessarily without previous experience in them.

The embarrassments incident to these fluctuating changes may be exemplified by relating those which occurred at a single post in one quarter of a year. Soon after the commencement of a quarter the proper commander transferred to his successor the balance of public funds, and the military stores on hand, and left the arsenal. Funds for the current service of the quarter were transmitted to the second commander, but did not reach him until he also had departed and was four hundred miles distant. The third commander also left the post and placed it under the surgeon, who, in his turn, was relieved by a

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fifth. Funds were again transmitted, the former having been repaid into the treasury; but before they reached the post, the fifth commander to whom they were sent had been superseded by a sixth, and the quarter had expired, leaving the workmen employed at the post unpaid. These changes were all unknown to the department which is charged with directing the services of the post and is responsible for them until after each had occurred.

The several departments for subsisting, clothing, paying, healing, quartering, and transporting the army, and for constructing the military defences of the country, have each a separate and stable organization. The department for *arming* them alone remains subject to the fluctuations and embarrassments of an unstable system. Experience has fully demonstrated the wisdom of the laws which gave stability to the other departments, and an extension of the same principle to the ordnance service would doubtless prove alike beneficial.

Plans for a more efficient organization of the ordnance on a basis similar to that of other departments have at different times been submitted, and have received the consideration of the proper committees of Congress, who have uniformly sanctioned them by reporting bills for carrying them into effect. One of the bills thus reported passed one house, but was laid over at the close of the session in the other, for want of time to act upon it.

The bill reported by the Committee on Military Affairs of the House of Representatives at the last session (No. 77) contains all the provisions which are considered essential for giving to this branch of service an efficient organization. It is believed, however, that some additional provisions would be found useful. I beg leave, therefore, respectfully to suggest that provision be made for appointing one sergeant for each military post, whose duty it should be to receive and preserve the ordnance, arms, ammunition, and other military stores at the post; and, under the direction of the commander, to issue and account for the same under such rules as shall be prescribed by the Secretary of War. It is suggested, also, that the appointments be made by the Secretary of War from among those sergeants who have served in the army eight years at least, four of which to have been served in the grade of non-commissioned officer, and who shall produce certificates of faithful service and good moral character from their regimental and company commanders. It is also proposed that the sergeants thus appointed shall receive five dollars per month in addition to the pay which is or may be allowed to any company sergeant.

In reference to this proposition, it appears proper to state, by the 3d section of the act of March 30, 1814, provision was made for appointing a junior lieutenant of each company of artillery, a *conductor of artillery*, whose duty it was made to receive and account for all military stores furnished for the use of the company, for which service he was to be allowed ten dollars extra per month. The act of March, 1815, fixing the peace establishment, continued the provision. It was also continued in the act of April 20, 1818, which remodelled the artillery. But as no such provision was contained in the act of March, 1821, which reduced the peace establishment, the office of conductor of artillery then ceased. And as the law was silent as to the performance of this duty, the Army Regulations have since confided it to the respective commanders of posts. This, however, has been found inconvenient in practice. It obliges the commanders to devote much of their time to the care and preservation of the military stores of the posts, and to making up the quarterly returns of them. This requires attention to numerous little details, which, in reference to the other and appropriate duties of a commander, are comparatively of minor importance. By relieving the commanders of posts from this duty, and confiding it specially to a subordinate, (subject, however, to the directions of the former,) whose attention would not be diverted from it by more important avocations, more personal attention could be given to the care and preservation of valuable military stores, and it is believed the duty would be better performed.

The plan suggested, that of appointing experienced and faithful sergeants to this duty, would present to the meritorious of that grade an incentive to good conduct, and at the same time afford the means of rewarding it; and it is believed that the measure would have a beneficial influence upon the rank and file of the army.

It should be observed that this measure is proposed to be applicable to the forts or posts which are garrisoned by the troops, and not to extend to the arsenals. The care of the public stores at the latter is confided to ordnance officers, but no ordnance officers are stationed at garrisoned posts, nor do they exercise any immediate control of the military stores there deposited.

Respectfully submitted.

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

Hon. J. H. EATON, *Secretary of War.*

A copy.

GEO. BOMFORD, *Brevet Colonel, on Ordnance Service.*

OCTOBER 28, 1831.

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TWENTY-FIRST CONGRESS, FIRST SESSION, H. R. 77.

JANUARY 6, 1830.—Read twice, and committed to a Committee of the Whole House to-morrow.

Mr. DRAYTON, from the Committee on Military Affairs, reported:

A BILL providing for the organization of the Ordnance department.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act, the Ordnance department shall consist of one colonel, one lieutenant colonel, two majors, and ten captains, and as many enlisted men as the public service may require, not exceeding two hundred and fifty.

SEC. 2. *And be it further enacted*, That the first section of the act, passed on the 8th of February, 1815, entitled "An act for the better regulation of the Ordnance department," and so much of the second section of the act entitled "An act to reduce and fix the military peace establishment of the United States," passed the 2d of March, 1821, as provides for one supernumerary captain to each regiment of artillery to perform ordnance duty, and so much of the 4th section of the same act as merges the Ordnance department in the artillery, and reduces the number of enlisted men, be, and the same are hereby, repealed: *Provided*, That nothing contained in this act shall be so construed as to divest the President of the United States of authority to select from the regiments of artillery such a number of lieutenants as may be necessary for the performance of the duties of the Ordnance department.

SEC. 3. *And be it further enacted*, That all officers and enlisted men authorized by this act shall be subject to the Rules and Articles of War; and that the officers shall receive the pay and emoluments now allowed to officers who perform ordnance duties.

Pay and emoluments of artillery and ordnance officers, exclusive of double rations.

Artillery.	Colonel.	Lieutenant colonel.	Major.	Captain.	First lieutenant.	Second lieutenant.
Pay per month	$75 00	$60 00	$50 00	$40 00	$30 00	$25 00
Subsistence	36 50	30 41⅔	24 33⅓	24 33⅓	24 33⅓	24 33⅓
Forage	32 00	24 00	24 00			
Servants' pay	10 00	10 00	10 00	5 00	5 00	5 00
Servants' subsistence	12 16⅔	12 16⅔	12 16⅔	6 08⅓	6 08⅓	6 08⅓
Servants' clothing	5 00	5 00	5 00	2 50	2 50	2 50
Total per month	170 66⅔	141 58⅔	125 50	77 91⅔	67 91⅔	62 91⅔
Total per annum	2,048 00	1,699 00	1,506 00	935 00	815 00	755 00
Additional for ordnance per annum	180 00	180 00	120 00	120 00	40 00	100 00
Total for ordnance per annum	2,228 00	1,879 00	1,626 00	1,055 00	855 00	855 00

Estimate of the additional expense which would be occasioned by the enactment of the bill herewith submitted.

The whole expense which would be created by the enactment of the bill, viz:

For the pay of 1 colonel, per annum	$2, 228 00
For the pay of 1 lieutenant colonel, per annum	1, 879 00
For the pay of 2 majors, (each $1,626,) per annum	3, 252 00
For the pay of 10 captains, (each $1,055,) per annum	10, 550 00
Total... 14 officers. Total expense	17, 909 00

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Actual expense of fourteen officers on account of service in the Ordnance department.

For the pay of four captains of ordnance, (authorized by the law of March 2, 1821, fixing the military peace establishment,) each $1,055 per annum	$4, 220 00
For the pay of ten officers of the line on account of ordnance service, and whose regular pay would not be affected by the bill, viz:	
One lieutenant colonel, per annum	180 00
Two majors, (each $120,) per annum	240 00
Three captains, (each $120,) per annum	360 00
Two first lieutenants, (each $40,) per annum	80 00
Two second lieutenants, (each $100;) per annum	200 00
Actual expense of these 14 officers on account of ordnance service	5, 280 00
Whole expense which would be created by the provisions of the bill	17, 909 00
Additional expense which would be created by the provisions of the bill	12, 629 00

Memorandum of arsenals and other posts where officers are employed on ordnance service.

Ordnance office, Washington.

Principal arsenals.

Arsenals, viz:
1. Watervliet, near Troy, New York.
2. Washington, District of Columbia.
3. Pittsburg, Pennsylvania.

Important arsenals.

4. Augusta, Maine.
5. Watertown, Massachusetts.
6. Frankford, Pennsylvania.
7. Richmond, Virginia.
8. Augusta, Georgia.
9. Mount Vernon, Alabama.
10. Baton Rouge, Louisiana.
11. St. Louis, Missouri.

Minor depots.

12. Vergennes, Vermont.
13. Rome, New York.
14. Detroit, Michigan Territory.
15. New York harbor.
16. Pikesville, near Baltimore, Maryland.
17. Charleston, South Carolina.

Fortress Monroe, Virginia; Galena, Illinois; number of posts, 19.
An officer is employed at Fortress Monroe in conducting its armament.
At Galena an officer is engaged in superintending the United States lead mines.
Two officers are employed in inspecting ordnance at the founderies, which occupies a large portion of their time. They serve at arsenals also.

Number and grades of officers now serving on ordnance duty.

Lieutenant colonel, (colonel by brevet,)	1
Majors, (one of these is a brevet colonel, and the other a brevet lieutenant colonel,)	2
Captains, (two of these are brevet lieutenant colonels, and four are brevet majors,)	7
Brevet captains	2
Lieutenants	24
Total	36

22d CONGRESS.] No. 519. [1st SESSION.

ANNUAL STATEMENT OF THE EXPENDITURES AT, AND ARMS MADE IN, THE NATIONAL ARMORIES IN 1831.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 15, 1832.

DEPARTMENT OF WAR, *March* 10, 1832.

SIR: In pursuance of an act of Congress of the 2d of April, 1794, concerning arsenals and armories, I have the honor to transmit herewith a statement of the expenditures of the United States armories, and of the arms, &c., manufactured therein during the year 1831.

I have the honor to be, very respectfully, your obedient servant,

LEWIS CASS.

HON. ANDREW STEVENSON, *Speaker of the House of Representatives.*

Statement of the expenditures made at the national armories, and of the arms, &c., manufactured therein, during the year 1831.

	Expenditures.					Arms, &c., manufactured.								
	For lands, buildings, canals, repairs, and other permanent improvements.	For the manufacture of arms.	For the manufacture of Hall's rifles.	For miscellaneous purposes, not embraced in the foregoing.	Total amount expended.	Muskets.	Cadet muskets.	Screw-drivers.	Wipers.	Ball screws.	Spring vices.	Flint cups.	Arm chests.	Carbines repaired
Springfield, Mass.....	$9,244 86	$183,336 51	.....	$1,737 34	$194,318 61	16,200	300	16,540	16,538	1,620	1,655	16,540	1,183	31
Harper's Ferry, Va....	18,237 33	129,919 67	$38,745 28	608 85	187,511 13	11,160	.....	.....	.....	.....	.....	7,454	274	....
	27,482 19	313,256 18	38,745 28	2,346 19	381,829 74	27,360	300	16,540	16,538	1,620	1 655	23,994	1,457	31

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Springfield, Mass.....	$9,244 86	$183,336 51	.....	$1,737 34	$194,318 61	16,200	300	16,540	16,538	1,620	1,655	16,540	1,183	31
Harper's Ferry, Va....	18,237 33	129,919 67	$38,745 28	608 85	187,511 13	11,160	.....	.....	.....	.....	.....	7,454	274	....
	27,482 19	313,256 18	38,745 28	2,346 19	381,829 74	27,360	300	16,540	16,538	1,620	1 655	23,994	1,457	31

Operations in 1831

Statement in detail of the operations of the armory at Springfield, Massachusetts.

ARMORY, DR.

To value of component parts of arms on hand 1st January, 1831		$99,919 11	
To value of unwrought materials on hand 1st January, 1831		50,982 86	
To this amount expended during the year, comprising all the payments made by the paymaster	$194,318 61		
From which deduct amount of sales of refuse articles sold at auction	$1,125 80		
For rents of houses received from workmen	951 20		
	2,077 00		
		192,241 61	
To value of 2,256 pounds of powder received from the storekeeper for proving musket barrels, at 20 cents		451 20	
To value of 4,046 pounds of lead received from the storekeeper for proving musket barrels, at 4 cents		161 84	
			$343,756 62

Statement in detail of the operations of the armory at Springfield, Massachusetts.

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		192,241 61	
To value of 2,256 pounds of powder received from the storekeeper for proving musket barrels, at 20 cents		451 20	
To value of 4,046 pounds of lead received from the storekeeper for proving musket barrels, at 4 cents		161 84	
			$343,756 62

CR.

By amount expended in permanent improvements, per foregoing statement	$9,244 86	
By arms and equipments made, viz:		
16,200 muskets, average cost of each $11 $44\frac{768}{1620}$	185,335 68	
300 cadet muskets, average cost of each $30	9,000 00	
31 carbines, repaired and fitted with bayonets, average cost of each $5	155 00	
16,540 screw-drivers, average cost of each 8 cents	1,323 20	
16,538 wipers, average cost of each $12\frac{1}{2}$ cents	2,067 25	
1,620 ball-screws, average cost of each 15 cents	243 00	
1,655 spring-vices, average cost of each 30 cents	496 50	
16,540 flint-caps, average cost of each 1 cent	165 40	
1,183 gun-boxes, average cost of each $2 20	2,602 60	
By value of supplies furnished the Harper's Ferry armory	338 82	
By amount expended in preserving arms, and for miscellaneous purposes, not incidental to the manufacture of arms	1,737 34	
By amount of supplies furnished for inspecting contract arms	165 53	
By amount of arms and appendages furnished the Ordnance office as samples	252 50	
By value of component parts of arms on hand 31st December, 1831	81,919 66	
By value of unwrought materials on hand 31st December, 1831	48,709 28	
		$343,756 62

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Statement in detail of the operations of the armory at Harper's Ferry, Virginia.

ARMORY, DR.

To the value of the component parts of arms on hand 1st January, 1831		$49,890 09
To the value of unwrought materials on hand 1st January, 1831		52,445 07
To this amount expended during the year, comprising all the payments made by the paymaster	$187,511 13	
From which deduct amount of rents of houses received from the workmen	2,226 58	
		185,284 55
To value of supplies received from the Springfield armory		338 82
To value of 3,000 pounds of powder received from arsenals for the use of the armory, at 20 cents		600 00
		$288,558 53

CR.

By amount expended in permanent improvements, per foregoing statement		$18,237 33
By arms and equipments made, viz:		
11,160 muskets, average cost of each $11 09$\frac{3475}{11160}$		123,799 15
7,454 flint-caps, average cost of each 1 cent		74 54
274 gun-boxes, average cost of each $2 02$\frac{14}{274}$		553 62
By value of supplies furnished to arsenals		87 60
By amount expended in preserving arms, and for miscellaneous purposes, not incidental to the manufacture of arms		608 85
By amount expended in inspecting contract arms		71 60
By amount on Hall's rifles, which are not yet completed		38,745 28
By value of component parts of arms on hand 31st December, 1831		51,388 36
By value of unwrought materials on hand 31st December, 1831		54,992 20
		$288,558 53

NOTE.—Cost of the muskets manufactured at the national armories, viz:

	At Springfield.	At Harper's Ferry.
For the year 1829	$10 02	$15 13
For the year 1830	10 99	11 25
For the year 1831	11 44	11 09
	32 45	37 47
Mean cost at each	10 $81\frac{2}{3}$	12 49

Statement in detail of the expenditures on Hall's rifles.

DR.

To value of component parts of arms on hand 1st January, 1831		$66,533 96
To value of unwrought materials on hand 1st January, 1831		8,110 94
To amount expended during the year, comprising the total amount of payments made by the paymaster on account of the rifles, viz:		
For materials	$12,272 69	
For pay of workmen	26,472 59	
	38,745 28	
		$113,390 18

CR.

By amount expended in permanent improvements	$11,647 15
By value of component parts of arms on hand 31st December, 1831	90,294 09
By value of unwrought materials on hand 31st December, 1831	11,249 04
	$113,390 18

GEORGE BOMFORD, *Brevet Colonel, on Ordnance service.*

ORDNANCE OFFICE, *Washington, March* 8, 1832.

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22D CONGRESS.] No. 520. [1ST SESSION.

STATEMENTS OF THE OFFICERS, ARSENALS, AND DEPOTS UNDER THE DIRECTION OF THE ORDNANCE DEPARTMENT.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 19, 1832.

Statements from the Ordnance department in relation to the number of officers, arsenals, and depots belonging to that department.

ORDNANCE OFFICE, *Washington, March* 19, 1832.

SIR: In answer to the resolutions of the House of Representatives of the 15th instant, referred to this department, I have the honor to enclose herewith two statements, marked A and B, embracing part of the information called for by the resolution.

In regard to such part of this information as is not therein referred to, I beg leave to state, in answer to so much of the second resolve as directs the Secretary of War "to state the number and rank of the commissioned officers and other agents which, in his opinion, the public service requires, and no more, to be stationed at each of the public arsenals," that the public service of this department requires the following officers, viz: one colonel, one lieutenant colonel, two majors, ten captains, eighteen lieutenants, and five storekeepers; making a total of thirty-seven commissioned officers and storekeepers.

In reference to so much of the second resolve as directs the Secretary of War to report "whether, in his opinion, there be any arsenals which might not, consistently with the public good, be abandoned or transferred to the State in which it is located," I beg leave to remark that, as public business is necessarily transacted at all the United States arsenals and depots, either in the repairs of arms, the preparation and delivery of supplies of ordnance stores to the army and the militia, or in the construction of gun-carriages and the manufacture of all the implements and machines of artillery; the abandonment, therefore, of any of these arsenals, or their transfer to the State wherein they are located, is considered by this department as a measure which would be injurious to the public service.

I have the honor to be, sir, respectfully, your obedient servant,

G. BOMFORD, *Brevet Colonel, on Ordnance service.*

Hon. LEWIS CASS, *Secretary of War.*

Statement in answer to the first resolve of the Hon. Mr. Williams, of March 15, 1832.

Number of officers on duty in the Ordnance department, December 31, 1831.	Rank.					Regiment of artillery.	Period of service in the Ordnance department up to Dec. 31, 1831.	Particular duties they severally performed on December 31, 1831.
	Lieutenant colonel.	Majors.	Captains.	First lieutenants.	Second lieutenants.			
George Bomford, (brevet colonel)	1					1st regiment	From March 2, 1821	Chief of the Ordnance department.
W. Wade, (brevet major)			1			4th regiment	do	On furlough.
W. H. Bell				1		do	*From August 1, 1823	Assistant to the chief of the department.
J. A. de Laguel					1	2d regiment	From February 9, 1808	Making drawings of arsenals, magazines, gun-carriages, &c.
J. L. Lock					1	do	From August 20, 1831	Do. do. do.
H. K. Craig, (brevet major)			1			3d regiment	From June 1, 1821	In command of the arsenal at Watertown.
George Talcott, (brevet major)			1			2d regiment	From March 2, 1821	In command of the arsenal at Watervliet.
D. H. Vinton				1		3d regiment	From March 31, 1831	On duty at the arsenal at Watervliet.
R. C. Smead					1	4th regiment	From March 6, 1828	Do. do.
J. S. Abeel, (brevet captain)				1		2d regiment	do	In command of the arsenal at Rome.
E. L. Baker, (brevet major)			1			1st regiment	†From March 2, 1821	In command of the arsenal at Pittsburg.
E. Harding				1		2d regiment	From March 6, 1828	On duty at the arsenal at Pittsburg.
A. Beckley				1		4th regiment	do	Do. do.
J. R. Walbach, (brevet colonel)		1				1st regiment	From December 3, 1830	In command of the arsenal at Frankford.
D. Van Ness				1		do	From March 6, 1828	On duty at the arsenal at Frankford.
J. Bankhead, (brevet lieut. colonel)		1				3d regiment	From July 17, 1828	In command of the arsenal at Pikesville, and inspector of ordnance.
R. D. A. Wade				1		do	From April 16, 1831	On duty at the arsenal at Pikesville.

* Except a few months in 1831.

† Except a few months in 1823 and 1824.

No. 7.

REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 24, 1832.

SIR: In obedience to your orders of 20th August last, I have the honor to transmit a report of the general result of the proceedings and operations of this department between the 1st of October, 1831, and the 30th September, 1832, embracing also a view of its fiscal concerns, as they have transpired during the greater period between the 1st of January, 1831, and the 30th September, 1832.

The papers marked A and B present a general view of these concerns during the last-mentioned period, as well in regard to the amounts of the expenditures under the several heads of appropriations as in reference to their objects, and to the various ordnance stations where they have been made.

The first of these (A) shows the whole amount of funds remitted from the treasury to disbursing officers and contractors in this department during the year 1831 to have been $811,400 77; that the portion of that sum which was expended and accounted for during the same period amounted to $752,458 65; and that at the close of that year there remained unexpended and in the hands of disbursing officers the sum of $58,942 12, a balance which, it may be proper to remark, was promptly liquidated by the responsible disbursing officers early in the first quarter of 1832.

Statement B exhibits the total amount of funds remaining in the hands of disbursing officers at the close of the year 1831, and which have been remitted to them and to contractors during the first, second, and third quarters of the year 1832. This amount will be seen to have been $648,737 49, and the portion of this sum expended, and for which accounts have been rendered during the same period, will be seen in the same statement to have amounted to $602,881 81, the unexpended balance exhibited in the same statement as being in the hands of disbursing officers at the close of the third quarter of 1832 having been $45,885 68.

Statement C presents a view of the general result of the operations at the several arsenals and armories of the United States in the manufacture, repair, and purchase of some of the principal articles of ordnance, ordnance stores, and building materials. It exhibits the result of these operations to the extent to which they have been completed during the year between the 1st of October, 1831, and the 30th September, 1832, indicating, among other articles of ordnance and ordnance stores which have been fabricated or procured, the following, viz: of artillery, 133 32-pounder iron cannon, 11 24-pounder casemate and barbette-carriages, with implements complete, and 93 field-carriages, with implements complete; of small arms manufactured at the national armories, 27,453 muskets, complete, 3,490 Hall's rifles; of accoutrements for small arms, about 3,000 sets for infantry, 4,000 sets for riflemen, and 1,000 sets for cavalry.

Statement D shows the extent of the operations during the year between the 1st October, 1831, and the 30th September, 1832, which have occurred in procuring ordnance and ordnance stores, under the act of 1808, for arming and equipping the militia of the States and Territories. This statement presents also a view of the expenditures under the act which have resulted during the same period in procuring the stores, amounting, for all objects, to $173,569 26. It exhibits, among other articles of ordnance stores procured, 84 field-carriages, with their implements complete; 8,000 muskets complete; 740 Hall's rifles; about 2,400 sets of infantry accoutrements; 3,151 sets of rifle accoutrements, and 2,087 pairs of holsters.

Statement F exhibits the amount of ordnance and ordnance stores, valued in muskets, which have been apportioned for the year 1831 to the several States and Territories, under the act of 1808, for arming and equipping the militia, this apportionment being founded on the most recent returns of the strength of the militia, as made by the adjutants general of the militia of the States to the adjutant general of the army.

Statement F shows the several articles of ordnance and ordnance stores which have been distributed to the militia of the States and Territories during the year between the 1st of October, 1831, and the 30th September, 1832, the distribution being in accordance with the last apportionment, and with the balances due on apportionments made prior to that of the year 1831. In this statement will be perceived, among other articles distributed, 17 pieces of field artillery; 23 field-carriages and equipments, complete; 21,070 muskets, rifles, carbines, and pistols; 2,739 artillery and cavalry swords; 5,767 sets of accoutrements for small arms, and 1,100 sets of cavalry accoutrements.

Statement G presents a view of the amount of munitions of war issued by this department during the year between the 1st of October, 1831, and the 30th September, 1832, to the army, to the militia in the service of the United States, to the Engineer department, and to the State of South Carolina on the last war account. These issues, it will be perceived, have been unusually large, a circumstance which has proceeded principally from the necessity of arming and equipping considerable bodies of the militia acting in the service of the United States on the occasion of the late Indian disturbances on the northwestern frontier.

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Statement H presents a view of the result of the operations of the United States lead mines for a period of ten years, ending with the 30th September, 1832, during which time, it is perceived by the statement, that about 56,000,000 pounds of lead have been manufactured at the mines, and that in the year ending with the 30th September, 1832, there were manufactured but 4,281,876 pounds, an amount falling short of that of the preceding year by 2,167,204 pounds. This deficiency is explained partly from the fact that during the last year no lead had been drawn, as in preceding years, from the mines of Missouri, no leases having been granted in Missouri since the passage of the act of March 3, 1829, authorizing the sale of all the mineral lands in that State, and the amounts of all such as had not expired at the date of that act having been settled, and partly from the early commencement of the last winter, which arrested the operations on the Upper Mississippi much earlier in the season than usual. But the deficiency must be attributed mainly to the general derangement and interruption of business during the greater part of the last summer in consequence of the war with the Indians on that frontier.

I have the honor to be, sir, respectfully, your obedient servant,

GEORGE BOMFORD, *Colonel of Ordnance.*

Hon. LEWIS CASS, *Secretary of War.*

AMERICAN STATE PAPERS, MILITARY AFFAIRS, V, p.71 94206

V

A.

Statement of the money expended through the Ordnance department in the year 1831.

names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS JANUARY 1, 1831. Appropriations. National armories.	Current expenses of the ordnance service.	Arsenals.	Armament of fortifications.	Arming and equipping the militia.	For the purchase of land.	For building new arsenal.	For extending walls and embankm'ts.	Erecting forging and tilt-hammer shop.	Erecting dwelling-houses.	Total amount.	Amount expended and accounted for.	Balances remaining unexpended, in the hands of disbursing officers, December 31, 1831.
.....	Armory, Springfield, Massachusetts.	$196,064 80	.....	.....	.....	$3,108 46	.....	$2,000 00	.....	.....	.....	$201,173 26	$198,390 35	$2,782 91
.....	Armory, Harper's Ferry, Virginia ...	185,762 52	$304 50	.....	.....	276 25	.....	.....	$8,000 00	$6,500 00	$9,635 00	210,478 27	187,911 94	22,566 33
l Lieutenant J. Hill	Arsenal, Kennebec, Maine.....	.....	3,000 00	$4,021 24	.....	40 00	.....	.....	.....	.....	.....	7,061 24	6,967 93	93 31
.....	Arsenal, Watertown, Massachusetts.	.....	1,940 00	71 45	.....	11 12	$25 01	.....	.....	.....	.....	2,047 58	1,954 62	92 96
shington	Arsenal, Champlain, Vermont	.....	764 39	500 00	.....	.....	.....	.....	.....	.....	.....	1,264 39	1,171 41	92 98
.....	Arsenal, Watervliet, New York.....	.....	9,625 84	16,358 02	$2,271 00	17,900 00	.....	.....	.....	.....	.....	46,154 86	42,953 73	3,201 13
.....	Arsenal, Rome, New York	.....	2,400 00	.....	.....	.....	.....	.....	.....	.....	.....	2,400 00	2,387 03	12 97
.....	Arsenal, Alleghany, Pennsylvania...	.....	6,654 00	10,130 00	.....	11,332 24	.....	.....	.....	.....	.....	28,116 24	23,439 78	4,676 46
h.....	Arsenal, Frankford, Pennsylvania...	.....	2,476 09	600 00	.....	3,339 00	.....	.....	.....	.....	.....	6,415 09	5,459 81	955 28
.....	Arsenal, Pikesville, Maryland.....	.....	880 00	.....	300 00	20 00	.....	.....	.....	.....	.....	1,200 00	1,075 10	124 90
ton.....	Arsenal, Washington City.....	.....	10,530 05	967 00	1,682 56	13,661 06	.....	.....	.....	.....	.....	26,840 67	21,543 42	5,297 25
son and M. C. Buck....	Arsenal, Bellona, Virginia.....	.....	5,223 90	.....	106 08	.....	.....	.....	.....	.....	.....	5,329 98	5,228 66	101 32
ning.....	Arsenal, Augusta, Georgia.....	.....	4,752 10	53 10	.....	235 56	.....	.....	.....	.....	.....	5,040 76	5,040 76	.....
Lieut. W. Wheelwright	Arsenal, St. Louis, Missouri.....	.....	3,022 70	16,198 65	.....	150 00	.....	.....	.....	.....	.....	19,301 35	16,846 53	2,454 82
.....	Arsenal, Mount Vernon, Alabama...	.....	.....	39,676 89	.....	.....	.....	.....	.....	.....	.....	39,676 89	35,243 91	4,432 98
.....	Arsenal, Baton Rouge, Louisiana...	.....	4,772 04	1,389 58	.....	144 83	.....	.....	.....	.....	.....	6,306 45	4,757 12	1,549 33
.....	Depot, Detroit, Michigan Territory..	.....	1,485 00	.....	.....	.....	.....	.....	.....	.....	.....	1,485 00	1,289 21	195 79
Lieutenant S. Ringgold..	Depot, New York.....	.....	1,580 91	.....	.....	11,450 00	.....	.....	.....	.....	.....	13,030 91	7,807 79	5,223 12
and Lieut. B. Huger ...	Fortress Monroe, Virginia.....	.....	4,739 42	.....	6,604 63	.....	.....	.....	.....	.....	.....	11,344 05	7,109 05	4,235 00
.....	Depot, Charleston, South Carolina..	.....	217 94	.....	.....	.....	.....	.....	.....	.....	.....	217 94	172 25	45 69
.....	Lead mines.....	.....	5,668 57	.....	.....	.....	.....	.....	.....	.....	.....	5,668 57	4,860 98	807 59
cannon and small arms.	.....	.....	.....	.....	57,703 65	110,612 76	.....	.....	.....	.....	.....	168,316 41	168,316 41	.....
d accounts.....	.....	.....	694 24	.....	63 78	1,772 84	.....	.....	.....	.....	.....	2,530 86	2,530 86	.....
.....	.....	381,827 32	70,731 69	89,895 93	68,731 70	174,054 12	25 01	2,000 00	8,000 00	6,500 00	9,635 00	811,400 77	752,458 65	58,942 12

GEO. BOMFORD, *Colonel of Ordnance.*

CE, *Washington, November* 24, 1832.

B.

Statement of the money expended through the Ordnance department during the first, second, and third quarters of the year 1832.

Stations.	Amount transmitted in the first, second, and third quarters 1832, and remaining in officers' hands at the close of the year 1831.	Amount of accounts rendered in the first, second, and third quarters of the year 1832.	Balances remaining in officers' hands October 1, 1832.
Armory, Springfield, Massachusetts	$156,301 71	$145,975 95	$10,325 76
Armory, Harper's Ferry, Virginia	171,595 15	163,197 62	8,397 53
Arsenal, Kennebec, Maine	6,331 94	5,009 51	1,322 43
Arsenal, Watertown, Massachusetts	2,196 35	2,103 65	92 70
Arsenal, Champlain, Vermont	740 98	740 98	.....
Arsenal, Watervliet, New York	35,763 39	31,458 48	4,304 91
Arsenal, Rome, New York	1,468 09	1,469 09	.....
Arsenal, Alleghany, Pennsylvania	29,444 48	25,607 64	3,836 84
Arsenal, Frankford, Pennsylvania	8,427 91	8,427 91	.....
Arsenal, Pikesville, Maryland	805 10	805 10	.....
Arsenal, Washington City	23,253 26	19,160 84	4,092 42
Arsenal, Bellona, Virginia	2,728 32	2,320 73	407 59
Arsenal, Augusta, Georgia	1,850 00	1,427 01	422 99
Arsenal, Mount Vernon, Alabama	16,282 98	14,456 86	1,826 12
Arsenal, Baton Rouge, Louisiana	3,089 33	2,139 60	949 76
Arsenal, St. Louis, Missouri	7,947 19	5,418 54	2,528 65
Depot, Detroit, Michigan Territory	3,652 53	1,512 34	2,140 19
Depot, New York	18,473 12	14,103 64	4,369 48
Depot, Charleston, South Carolina	45 69	.....	45 66
Fortress Monroe, Virginia	11,295 00	11,146 63	148 37
Lead mines	2,637 59	1,993 31	644 28
Sundry contractors for cannon and small arms	143,345 46	143,345 46	.....
Sundry payments on audited accounts	1,061 92	1,061 92	.....
Total	648,737 49	602,881 81	45,855 68

ORDNANCE OFFICE, *Washington, November* 24, 1832.

GEO. BOMFORD, *Colonel of Ordnance.*

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C.

Statement of work done and articles procured and repaired at the arsenals and armories of the United States, from October 1, 1831, to September 30, 1832.

MADE AND PROCURED.

42-pounder iron cannon	1
32-pounder iron cannon	133
Muskets, complete	26,453
Muskets, without bayonets	1,000
Muskets, for cadets	13
Rifles, (Hall's patent)	3,490
Screw-drivers	22,667
Wipers	21,452
Ball-screws	1,920
Spring vices	12,791
Flint caps	39,332
32-pound casemate carriage	1
6-pound field carriages	90
24-pound howitzer carriages	3
24-pound sea-coast carriages	10
10-inch mortar beds	2
6-pound caisson	1
Sponges and rammers	131
Worms and staves	158
Tompions, assorted	121
Implement straps	183
Cannon wads, assorted	1,918
Handspikes, assorted	24
Prolongs	46
Bricoles	713
Portfire cases	230
Tube boxes or pouches	243
Gunners' haversacks	326
Sponge buckets	32
Sponge covers	109
Linstocks	49
Portfire stocks	86
Travelling forge, complete	1
Cartridge-boxes	3,051
Cartridge-box belts	2,151
Bayonet scabbards	6,528
Bayonet belts	2,514
Brushes and picks	4,623
Rifle pouches and belts	4,550
Cavalry cartridge-boxes	1,184
Sabre belts	1,831
Belt plates	7,491
Holsters, pairs	1,388
Canister bottoms	143
Canisters	900
Shot blocks	2,807
Portfires	1,930
Fuses, filled	400
Rockets	613
Quick-match, pounds	10
Slow-match, pounds	54
Flannel cartridges	4,491
Cartridge bags, flannel	4,257
Paper bags with flannel bottoms	783
Priming tubes, filled	21,819
32-pounder cannon balls	395
Strapped shot, fixed	1,024
Canister shot, fixed	504
Grape shot, loose, pounds	50
Canister shot, loose, pounds	5,214

Musket-ball and buck-shot cartridges	384,395
Musket cartridges, blank	58,979
Bullets, musket, pounds	11,322
Bullets, rifle, pounds	540
Elevating machines	4
Rimmers, assorted	11
Gins	2
Gin falls	3
Sling-cart	1
Shot gauges	33
Shell gauges	16
Shot frames	13
Lacquer for cannons, gallons	78
Rocket moulds	5
Arm-chests	467
Ammunition kegs	463
Packing boxes	445
Iron, bar and sheet, pounds	98,147
Steel, pounds	1,032
Brass, pounds	765
Copper, pig, bar, and sheet, pounds	61,129
Tin, block	12,020
Oak timber, feet	8,200
Cypress timber, feet	626
Oak plank, feet	71,460
Ash plank, feet	6,054
Pine plank, feet	195,034
Pine timber hewn, feet	67,996
Walnut plank, feet	4,410
Gun-carriage timber, sets	61
Shingles	48,250
Bricks	356,000
Lime, bushels	4,066
Junk, pounds	4,312
Copper pans	9
Copper powder measures	36
Copper scoops	14
Fire engines	13
Pumps	2

REPAIRED.

Muskets	3,562
Muskets cleaned and oiled	2,330
Rifles	550
Hall's patent rifles	57
Pistols	206
Gun-carriages	10
Travelling forge	1
Screw-drivers	17,712
Wipers	17,712
Ball-screws	1,771
Spring vises	1,784
Sets accoutrements	124
Sponges and rammers	90
Ladles and worms	39
Ammunition kegs	10
Powder barrels	80
Water casks	5
Arm chests	36
Wagon	1
Carts	

D.

Statement of the arms, accoutrements, &c., procured, and of the expenditures made, under the act for arming the militia, from October 1, 1831, to September 30, 1832.

ARMS, ETC., PROCURED.

Muskets, complete	8,000
Rifles, (Hall's,) complete	740
Cartridge-boxes	2,399
Cartridge-box belts	2,374
Bayonet scabbards	3,639
Bayonet belts	2,514
Belt plates	5,930
Sabre belts	2,432
Rifle accoutrements, sets	3,151
Rifle flasks	1,600
Holsters, pairs	2,087
Cavalry cartridge-boxes	1,882
6-pounder field carriages, with equipments complete	84
Sets of timber for 6-pounder field carriages	140
Copper and tin for the fabrication of brass field cannon, pounds	73,149
6-pounder cannon balls	421

EXPENDITURES, ETC.

Amount paid for arms, &c	$165,597 66
Amount paid for inspection, packing-boxes, storage, and distribution of the arms, &c., to the several States and Territories	7,971 60
	173,569 26

G. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November 24, 1832.*

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E.

Apportionment of arms to the militia for the year 1831, *under the act of* 1808, *for arming and equipping the whole body of the militia.*

States and Territories.	Date of return.	Number of militia.	No. of arms apportioned in muskets.
Maine	1831	41, 136	472
New Hampshire	1831	28, 992	332
Massachusetts	1831	48, 319	554
Connecticut	1831	24, 518	281
Rhode Island	1831	9, 600	110
Vermont	1824	27, 653	317
New York	1830	188, 615	2, 163
New Jersey	1829	39, 171	449
Pennsylvania	1831	182, 285	2, 090
Delaware	1827	9, 229	106
Maryland	1831	46, 259	531
Virginia	1831	101, 488	1, 164
North Carolina	1831	66, 552	763
South Carolina	1830	49, 512	569
Georgia	1830	42, 832	491
Kentucky	1831	70, 590	810
Tennessee	1830	60, 982	699
Ohio	1831	126, 471	1, 450
Louisiana	1829	14, 808	170
Indiana	1829	40, 000	459
Mississippi	1830	13, 724	157
Illinois	1831	27, 386	314
Alabama	1829	30, 000	344
Missouri	1830	7, 838	90
Michigan	1831	5, 476	63
Arkansas	1825	2, 028	23
Florida	1831	827	9
District of Columbia	1829	1, 756	20
Total	.....	1, 308, 047	15, 000

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 24, 1832.

F.

Statement of the ordnance and ordnance stores distributed to the militia, under the act of April 1808, *from October* 1, 1831, *to September* 30, 1832.

8-pounder brass cannon	2	Pistols	5, 345
6-inch brass howitzers	2	Carbines	120
6-pounder iron cannon	12	Sabres	2, 428
24-pounder iron howitzer, with carriage and equipments complete	1	Swords	311
		Sets of infantry accoutrements	4, 792
12-pounder field carriages, and equipments complete	4	Sets of rifle accoutrements	975
		Sabre belts	1, 843
6-pounder field carriages, with equipments complete	18	Cavalry cartridge-boxes	1, 243
		Holsters, pairs	1, 118
Muskets, complete	12, 470	Sword belts	400
Rifles, complete	3, 135		

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 24, 1832.

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G.

Statement of the artillery, small arms, accoutrements, and other ordnance stores, issued to the troops, the Engineer department, and to the State of South Carolina, on the late war account, from October 1, 1831, to September 30, 1832.

24-pounder iron cannon	8
12-pounder iron cannon	3
6-pounder iron cannon	4
10-inch seacoast mortar and bed	1
10-inch siege mortar and bed	1
24-pounder iron howitzers	2
24-pounder casemate, and barbette carriage, complete	8
24-pounder howitzer carriages, with implements, &c., complete	2
12-pounder field carriages, with implements, &c., complete	8
6-pounder field carriages, with implements, &c., complete	14
6-pounder caissons	2
Travelling forge	1
Sling cart	1
Ammunition wagons	2
Powder wagon	1
Sponges for cannon	123
Bricoles	132
Prolongs	18
Gunner belts, complete	12
Tarpaulins for guns	18
Linstocks	10
Portfire stocks	10
Gunners' haversacks	19
Gins and falls	2
Tompions	40
Sponges and rammers	22
Ladles and worms	5
Handspikes	4
Sponge covers	24
Gunners' quadrants	3
Artillery harness, sets	48
32-pounder cannon balls	351
24-pounder cannon balls	824
24-pounder canister shot	390
12-pounder cannon balls	300
6-pounder cannon balls	354
12-pounder strapped shot	353
6-pounder strapped shot	639
12-pounder grape and canister shot	196
6-pounder grape and canister shot	441
10-inch shells	150
24-pounder shells	150
Fuses assorted	630
Fuse saws	3
Fuse setters	5
Fuse rasps	4
Fuse mallets	3
Copper adze and driver	1
Muskets complete	8,444
Rifles.....do	1,185
Carbines, complete	129
Pistols.....do	2,492
Sergeants' and musicians' swords	28
Cavalry sabres	1,273
Cartridge-boxes	6,874
Cartridge-box belts	6,874
Bayonet scabbards	5,940
Bayonet belts	6,411
Gun slings	1,635
Brushes and picks	5,689
Sets of rifle accoutrements	403
Rifle flasks	500
Sword belts	22
Sabre belts	1,500
Holsters, pairs	1,200
Cavalry cartridge-boxes	1,600
Musket flints	87,686
Rifle and pistol flints	22,000
Cannon powder, pounds	15,405
Musket powder, pounds	7,907
Rifle powder, pounds	3,400
Cannon cartridges	2,066
Musket cartridges	694,082
Cartridge bags, flannel	4,027
Flannel, yards	100
Cannon cartridge, musket cartridge, and portfire paper, pounds	431
Portfires	2,285
Priming tubes	9,800
Slowmatch, pounds	296
Refined nitre, pounds	150
Pulverized sulphur, pounds	80
Percussion primers	1,598
Musket bullets, pounds	3,100
Buck-shot, pounds	139
Signal rockets	50
Lead, pounds	290,100
Twine, pounds	23
Lacquer for cannon, gallons	97
Paints, assorted, pounds	439
Linseed and neatsfoot oil, gallons	22
Spirits of turpentine, gallons	3
Paint brushes, assorted	27
Shell hooks	4
Copper funnels	6
Sets of powder measures	2
Budge barrels	2
Shot gauges, sets	2
Set of carpenter's tools, complete	1
Set of blacksmith's tools, complete	1
Iron swivels	2
Balls for swivels	150
Timber for skids for cannon, feet	438
Junk wads	1,216

G. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 24, 1832

22D CONGRESS.] No. 550. [2D SESSION.

STATEMENT OF THE ARMS MADE, AND EXPENSES INCURRED, AT THE NATIONAL ARMORIES IN 1832.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES FEBRUARY 28, 1833.

DEPARTMENT OF WAR, *February* 23, 1833.

SIR: I have the honor to transmit a statement of the expenditures incurred, and of the arms manufactured at the national armories, in the year 1832, prepared in conformity with the provisions of the act of April 2, 1794.

With great respect, I am, sir, your obedient servant,

LEWIS CASS,

HON. ANDREW STEVENSON, *Speaker of the House of Representatives.*

Statement of the expenditures made at the national armories, and of the arms, &c., manufactured therein, during the year 1832.

	Expenditures.					Arms, &c., manufactured.										
	For buildings, canals, and other permanent improvements.	For the manufacture of arms.	For the manufacture of Hall's rifles.	For miscellaneous expenses not embraced in the foregoing.	Total amount expended.	Muskets.	Hall's rifles, without bayonets.	Screw-drivers.	Wipers.	Ball screws.	Spring vises.	Flint cups.	Arm chests.	Carbines repaired and fitted with new bayonets.	Ammunition flasks.	Bullet moulds.
Springfield, Mass...	$6,442 58	$175,006 81	.....	$1,200 19	$182,649 58	13,600	.....	13,600	21,200	1,360	1,360	13,600	579	220	....	....
Harper's Ferry, Va.	18,408 68	153,318 88	$50,692 17	674 26	223,293 99	12,000	4,360	4,360	4,360	.....	436	6,632	137	.....	20	436
	24,851 26	232,325 69	50,692 17	1,874 45	405,943 57	25,600	4,360	17,960	25,550	1,360	1,796	20,232	716	220	20	436

Statement in detail of the operations of the armory at Springfield, Massachusetts, 1832

ARMORY, DR.

For value of component parts of arms on hand, 1st January, 1832		$81,919 66
For value of unwrought materials on hand, 1st January, 1832		48,709 28
For this amount expended during the year, comprising all the payments made by the paymaster	$182,649 58	
From which deduct the amount of rent of houses received from workmen	952 45	
		181,697 13
For value of 2,200 lbs. of powder received from the storekeeper, for proving musket barrels, at 20 cents		$440 00
For value of 5,039 lbs. of lead received from storekeeper, for proving musket barrels, at 4 cents		201 56
		312,967 63

ARMORY, CR.

By amount expended for permanent improvements per foregoing statement		$6,442 58
Arms and equipments made, viz:		
13,600 muskets, average cost of each	$11 66 9263/13600	158,668 63
13,600 screw-drivers	8	1,088 00
21,200 wipers	12½	2,650 00
1,360 ball screws	15	204 00
1,360 spring vises	30	408 00
13,600 lead flint caps	1	136 00
579 arm chests	2 20	1,273 80
For amount expended in preserving arms and for miscellaneous purposes, not incidental to the manufacture of arms		1,200 19
amount of supplies furnished for inspecting contract arms		525 63
By amount of arms and appendages furnished the Ordnance office as samples		200 00
By amount expended in repairing and fitting 220 carbines, with bayonets		642 40
By value of 2 sets verifying instruments at $125 each		250 00
By value of component parts of arms on hand, 31st December, 1832		90,447 05
By value of unwrought materials		48,831 35
		312,967 63

1832 operations

Statement in detail of the operations of the armory at Harper's Ferry, Virginia.

ARMORY, DR.

For value of component parts of arms on hand, 1st January, 1832		$51,388 36
For value of unwrought materials on hand, 1st January, 1832		54,992 20
For this amount expended during the year, comprising all the payments made by the paymaster	$223,293 99	
From which deduct the amount received for rent of houses from the workmen	2,490 87	
		220,803 12
For value of supplies received from the Washington arsenal, viz:		
3,000 lbs. of powder at 20 cents	600 00	
4,028 lbs. of lead at 4 cents	161 12	
20,000 musket flints at $2 50 per M	50 00	
		811 12
		327,994 80

ARMORY, CR.

By amount expended in permanent improvements per foregoing statement		$18,408 68
Arms and equipments made, viz:		
12,000 muskets, average cost of each	$11 62$\frac{11813}{12000}$	139,550 13
6,632 flint caps at	1	66 32
137 arm chests at	1 95$\frac{133}{137}$	268 38
By amount expended in preserving arms and for miscellaneous purposes, not incidental to the manufacture of arms		674 26
By amount expended in the manufacture of Hall's rifles		50,892 17
By value of supplies furnished the Allegheny arsenal		413 40
By value of component parts of arms on hand, 31st December, 1832		55,386 39
By value of unwrought materials on hand, 31st December, 1832		62,335 07
		327,994 80

Statement in detail of the expenditures on Hall's rifle.

DR.

For value of component parts of arms on hand, 1st January, 1832		$90,294 09
For value of unwrought materials on hand, 1st January, 1832		11,249 04
For amount expended during the year, comprising the total amount of payments made by the paymaster on account of Hall's rifles, viz:		
For materials	$16,530 92	
For pay of workmen	34,361 25	
		50,892 17
For value of 10,000 lbs. lead received from the Washington arsenal at 4 cents per lb		400 00
		152,835 30

CR.

By amount expended in permanent improvements		$15,938 16
By arms and equipments made, viz:		
4,360 rifles, without bayonets, at $13 01 $\frac{33}{100}$ each		56,756 86
4,360 screw-drivers	7¼	316 10
4,360 wipers	19	828 40
436 bullet moulds	40	174 40
436 spring vices	24	104 64
20 ammunition flasks	1 25	25 00
By value of component parts of arms on hand, December 31, 1832		64,425 62
By value of unwrought materials on hand, December 31, 1832		14,266 12
		152,835 30

ORDNANCE OFFICE, *Washington, February* 23, 1833.

G. BOMFORD, *Colonel of Ordnance.*

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ASP-HA-V
225-226

No. 8.

REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 15, 1833.

SIR: In obedience to your order of the 30th August last, I have the honor to transmit a report of the general result of the proceedings and operations of this department between October 1, 1832, and September 30, 1833.

The papers marked A and B present a general view of these concerns during the last-mentioned period, as well in regard to the amounts of the expenditures under the several heads of appropriations as in reference to their objects and to the various ordnance stations where they have been made.

The first of these (A) shows the whole amount of funds remitted from the treasury to disbursing officers and contractors in this department during the year 1832 to have been..... $869,820 36
That the portion of that sum which was expended and accounted for during the same period amounted to..... 836,816 00

And that at the close of that year there remained unexpended and in the hands of disbursing officers the sum of..... 33,004 36

A balance which it may be proper to remark was promptly liquidated by the responsible disbursing officers early in the first quarter of 1833.

Statement B exhibits the total amount of funds remaining in the hands of disbursing officers at the close of the year 1832, and which have been remitted to them and to contractors during the first, second, and third quarters of the year 1833. This amount will be seen to have been..... $806,714 28
And the portion of this sum expended, and for which accounts have been rendered, during the same period will be seen in the same statement to have amounted to..... 732,661 05

The unexpended balance exhibited in the same statement as being in the hands of disbursing officers at the close of the third quarter of 1833 having been..... 74,053 23

Statement C presents a view of the general result of the operations at the several arsenals and armories of the United States in the manufacture, repair, and purchase of some of the principal articles of ordnance, ordnance stores, and building materials. It exhibits the result of these operations to the extent to which they have been completed during the year between October 1, 1832, and September 30, 1833, indicating among other articles of ordnance and ordnance stores which have been fabricated or procured, the following, viz:

Of artillery: 212 32-pounder cannon; 1 42-pounder casemate carriage; 1 32-pounder casemate carriage; 9 24-pounder casemate carriages; 17 24-pounder barbette carriages; 5 10-inch sea-coast mortar beds; 77 field artillery carriages, complete.

Of small arms manufactured at the national armories: 25,291 muskets, complete; 3,290 Hall's rifles.

Of accoutrements for small arms: about 4,550 sets for infantry, 2,031 sets for riflemen, and 1,260 sets for cavalry.

Statement D shows the extent of the operations during the year between October 1, 1832, and September 30, 1833, which have occurred in procuring ordnance and ordnance stores, under the act of 1808, for arming and equipping the militia of the States and Territories. This statement presents also a view of the expenditures under the act, which have resulted during the same period in procuring the stores, amounting for all objects to $231,144 05.

It exhibits among other articles of ordnance stores procured, 67 field carriages with their implements, complete; 11,180 muskets, complete; 1,500 Hall's rifles; 4,549 sets infantry accoutrements; 1,900 sets rifle accoutrements; and 1,085 (pair) holsters.

Statement E exhibits the amount of ordnance and ordnance stores, valued in muskets, which have been apportioned for the year 1832 to the several States and Territories, under the act of 1808, for arming and equipping the militia—this apportionment being founded on the most recent returns of the strength of the militia as made by the adjutant general of the militia of the several States to the adjutant general of the army.

Statement F shows the several articles of ordnance and ordnance stores which have been distributed to the militia of the States and Territories during the year between October 1, 1832, and September 30, 1833.

Statement G presents a view of the quantity of the munitions of war issued by this department during the year between October 1, 1832, and September 30, 1833, to the army and the engineer department. In this it will appear that 28 24-pounder iron cannon and carriages, with equipments complete, 497 small arms, and 1,135 sets of infantry accoutrements, are among the principal articles issued.

Statement H exhibits the operations of the public lead mines during the year ending September 30, 1833; and statement I the quantity of lead made at these mines in each year from the year 1821 (when their superintendence was transferred from the Treasury to the War Department) to September 30, 1833.

By these statements it will appear that the quantity of lead manufactured during the last year amounts to..... 7,941,792 lbs.
Which exceeds the production of the preceding year by..... 3,659,916 "
That the rents which have accrued during the past year amount to..... 472,645 "
Being an excess over the production of the last year of..... 233,747 "

That the whole quantity of lead manufactured at the mines since their control has been transferred to the War Department amounts to..... 63,845,740 "
And that the rents which have accrued since that period amount to..... 5,246,839 "
Of this quantity—
First. There have been issued to the engineer department to be used in the construction of the fortifications..... 2,021,702 "
Second. There are due to the United States, yet to be collected..... 211,094 "
Third. There are deposited in store at the mines..... 131,277 "
And the remainder, amounting to..... 2,882,766 "
has been issued at various periods since 1821, from the stores of the mines, for service at the armories, arsenals, and depots.

Although from this statement the utility of the mines to the government is obvious, yet the retaining possession of the lands on which they are situated is scarcely a secondary consideration when contrasted with the benefits to be derived from their permanent settlement by persons engaged in the various pursuits of life. As such settlement appears to be universally desired by the inhabitants of the mineral regions, and as it is confidently believed that the sale of the lands would cause the country to be immediately and densely settled by a population which would give confidence and security to the frontier settlement, I would therefore respectfully recommend that the earliest measures be taken for the sale of the mineral lands, and that the rights of pre-emption be secured to the present occupants.

Should it not, however, be the present policy to the government to dispose of the mineral lands, some further legislation in regard to mining will be necessary, as the act of the 3d of March, 1807, containing all the authority on the subject of lead mines, has no reference to those of copper, yet discoveries of copper ore have been recently made in the Territory of Michigan and elsewhere, and are now beginning to attract attention. And if it be thought desirable to ascertain their value, which can alone be done by practical operation, a law authorizing the mines to be leased will be necessary.

The lead mine region has been extended to the west bank of the Mississippi and greatly enlarged by the treaty of September 21, 1832, with the Sac and Fox Indians. The lands ceded by that treaty embrace the mines hitherto denominated "Dubuque's Mines," which are supposed to be rich in mineral ore, although as yet they have been but partially wrought

The operations at the national armories and at the various arsenals of construction and deposit during the past year have been conducted with improved ability and economy, and have been followed by the most satisfactory results. This may be also said with regard to the business of collecting the materials and erecting the necessary workshops, storehouses, and magazines on the sites adopted for the arsenal in Florida on the Apalachicola, and for the arsenal in the Territory of Michigan near the city of Detroit, which were authorized by the acts of the 5th of April and of the 28th June, 1832.

The former of these arsenals will occupy a healthful eminence on the left bank of the Apalachicola, near the junction of the Flint and Chattahoochee, and at the distance of about sixty-five miles from the mouth of the Apalachicola. It will have all the advantages of steamboat navigation to the sea-coast, and all the facilities of transportation presented by the great mail route passing the site of the arsenal and traversing the Territory from St. Augustine to Pensacola.

The new arsenal in the Territory of Michigan will be situated upon a high sandy ridge on the right bank of the river Rouge, and on the great road from the city of Detroit to Chicago. It will be built at the distance of ten miles from Detroit, and at about fifteen miles to that city by the river Rouge, which is navigable to the site of the arsenal during nine months of the year. These two arsenals are principally intended as places of deposit and repair, but they will be constructed in such a manner as to enable their operations to be so extended (whenever any emergency shall require it) as to make them also places of construction.

The arsenal on the river Rouge will be a source for supplying munitions of war to the militia and military posts of the Northwest and Michigan Territories, and to the militia of the northern parts of the States of Illinois, Indiana, and Ohio. It is intended to replace the old depot of munitions of war, hitherto inconveniently situated in the city of Detroit, and which will be abandoned so soon as the new arsenal buildings are sufficiently advanced to receive the munitions now in depot.

The superior facilities for the transportation of munitions of war which are afforded at all seasons from the city of New York to the various important points of the sea-coast; the fact that the communication by the North river with the great great arsenal at Watervliet is annually closed by ice during four months of the year, joined to the absolute necessity of new buildings having due reference in their construction to the new fortifications now progressing within the harbor of New York, render it necessary to establish a small depot on Governor's island, from which supplies might be furnished to the south when the North river is closed, and which would also be adequate to all the exigencies of the service within the harbor.

The position of the St. Louis arsenal, in the State of Missouri, near the city of St. Louis, on the right bank of the Mississippi, and the advantages of communication afforded by that river and its tributary streams for the supply of munitions of war to the States on the Upper and Lower Mississippi, render it necessary that this arsenal should be one of the largest class, and that it should be accommodated with the enlarged means which are proportioned to its great natural advantages, and suited to the accomplishment of all the purposes of construction, repair, and deposit. The general arrangements for its completion have been made, and the funds necessary for the year 1834 have been asked for in the estimate.

Of the appropriation of $100,000 for the armament of the new fortifications, which has been annually made since the year 1827, the sum of $85,000 has been allotted to the founderies during each of the two last years, for the manufacture of cannon and artillery projectiles; while the balance ($15,000) of the appropriation during each of those years has been assigned for the manufacture of gun-carriages, mortar beds and their equipments, for the sea-coast, and for procuring the necessary supply of timber for seasoning, that, in the event of any emergency, the operations at the arsenals for the armament of the fortresses may be extended without unnecessary delay. By this assignment of the appropriation it will yield annually about one hundred and eighty cannon of the heavier calibres, thirty-one cast gun carriages

It has been determined to apply a partial armament of one heavy battery to all the new fortifications which may be occupied by the army, and in the accomplishment of this object Fort Jackson, commanding the passes of the Mississippi to New Orleans, and Forts Wood and Pike, controlling those to that city by Lake Pontchartrain, have been armed each with one battery of twenty-four pounders, the same having been also effected with regard to Fort Monroe, Virginia, and to Fort Moultrie and Castle Pinckney, in the harbor of Charleston, South Carolina.

The very superior pattern, manufacture, and material of these armaments enable them to fulfil all the conditions of sea-coast defence which are required by the construction of the new fortifications.

The complete armament and equipment of the corps of artillery and infantry have been effected during the last and the present year, with small arms and accoutrements of the most recent and improved pattern, and of a superior quality of material and manufacture.

It is inferred from your letter to this office of the 23d ultimo, and from the results of the investigations you have directed to be made into the processes and practical effects of the existing system for the settlement of the property accounts of this department, that you are now assured of its inadequacy and of the utter impossibility of its attaining, without additional legislative aid, that vigor and efficiency which are so necessary to prevent extensive waste and ruin in the vast and increasing amount of public property which is intrusted to the agents of this department.

I have now the honor to submit, agreeably to your orders of the 23d ultimo, such views as may have a tendency to remedy the serious inconveniences to which your attention has been directed.

It is well known that the high state of perfection which has been attained in the settlement of all accounts of disbursements is mainly attributable to the beneficial operation of the "act concerning the disbursement of public money," approved January 31, 1823, and to that of the "act to prevent defalcation on the part of the disbursing agents of the government, and for other purposes," approved January 25, 1828. A law, therefore, applicable to the settlement of the property accounts of the Ordnance department, and similar in its provisions to this last, together with the adoption of the regulations on this subject which you have directed to be drawn up and submitted to the board of ordnance, would remedy all defects in the existing system for the settlement of the property accounts.

I have the honor to state that the new regulations which you directed to be drawn up in this office for the government of the Ordnance department have been completed, agreeably to your general instructions, after diligent investigation of the subject, and, it is hoped, in such manner as to combine all the advantages of experience and general knowledge which may be required to govern the extensive operations of this department with the necessary system, and to impress them with the requisite energy and efficiency.

Agreeably to your orders, the proposed regulations have been submitted to a board of experienced field officers of the corps of ordnance, the result of whose deliberations, after having been reviewed in this city, together with the regulations drawn up in this office, were submitted on the 1st instant for the action of the board of ordnance now assembled in this city, and of which the major general commanding the army is president. I have the honor to be, sir, your obedient servant,

GEO. BOMFORD, *Colonel of Ordnance.*

Hon. LEWIS CASS, *Secretary of War.*

218 Nov. 15, 1833 ASP MA-V P228

A.

Statement of the money expended through the Ordnance department in the year 1832.

Officers' names.	Stations.	Amount of sums remitted, including the balances in the hands of agents January 1, 1832.											Amounts expended and accounted for.	Balances remaining unexpended in the hands of the disbursing officers, December 31, 1832.
		Appropriations.												
		National armories.	Current expenses of the ordnance service.	Arsenals.	Arsenal in Florida.	Amount of fortifications.	Arming and equipping the militia.	Extending walls and embankments.	Erecting forging shop.	Erect'g dwelling-houses	Slating roofs of work-shops.	Total amount.		
Charles Howard	Armory, Springfield, Massachusetts	$183,309 50					$4,613 73		$2,755 37			$187,923 23	$187,028 25	$894 98
Daniel Bedinger	Armory, Harper's Ferry, Virginia	212,680 17					204 65	$4,300 00		$3,714 38	$3,200 00	226,854 57	224,141 79	2,712 78
Captain C. Mellon	Arsenal, Kennebec, Maine		$1,373 31	$5,130 00			6 48					6,509 79	6,257 02	252 77
Major H. K. Craig	Arsenal, Watertown, Massachusetts		2,086 38	1,900 00			129 27					4,115 65	3,633 94	481 71
Lieut. J. M. Washington	Arsenal, Champlain, Vermont		926 13	20 41								946 54	946 54	
Lieut. Colonel G. Talcott	Arsenal, Watervliet, New York		19,033 23	10,055 76		$167 41	11,947 29					41,263 69	37,376 35	3,887 34
Captain J. S. Abeel	Arsenal, Rome, New York		1,969 09									1,969 09	1,969 09	
Major R. L. Baker	Arsenal, Alleghany, Pennsylvania		10,478 43	7,769 92			18,726 38					36,974 73	32,766 54	4,208 19
Lieut. Colonel J. B. Walbach and Lieut. Colonel W. J. Worth	Arsenal, Frankford, Pennsylvania		5,758 05	4,374 65			1,142 58					11,275 28	10,641 14	634 14
Lieut. Col. J. Bankhead and Lieut. R. D. A. Wade	Arsenal, Pikesville, Maine		637 20			137 70						774 90	625 20	149 70
Captain J. Symington	Arsenal, Washington City		8,067 75	9,050 00		4,194 08	9,788 42					31,100 25	30,736 24	364 01
M. C. Buck	Arsenal, Bellona, Virginia		3,019 32									3,019 32	2,950 47	68 85
Lieut. Col. A. C. W. Fanning	Arsenal, Augusta, Georgia		2,070 00	150 00								2,220 00	1,678 17	541 83
Lieut. R. B. Lee and Lieut. W. Wheelwright	Arsenal, St. Louis, Missouri		4,801 17	8,810 01			150 00					13,761 18	13,397 05	364 13
Capt. W. Smith and Capt. J. A. J. Bradford	Arsenal, Mount Vernon, Alabama			16,021 06								16,021 06	16,021 06	
Lieut. F. L. Jones and Lieut. R. Anderson	Arsenal, Baton Rouge, Louisiana		2,889 57	547 12			145 77					3,582 46	2,739 67	842 79
Lieut. J. Howard	Depot, Detroit, Michigan Territory		972 53	2,900 00								3,872 53	2,394 18	1,478 35
Captain S. Perkins	Depot, New York		2,725 86	1,200 00			25,017 26					28,943 12	22,637 31	6,305 81
Captain B. Huger	Depot, Fort Monroe		5,261 72	5,260 00		8,898 28						19,420 00	13,513 38	5,906 62
D. S. Gaillard	Depot, Charleston, South Carolina		345 69									345 69	188 47	157 22
Captain J. Hills	Mount Vernon, Florida				$5,000 00							5,000 00	1,561 44	3,435 06
Captain T. C. Legate	Lead mines, Galena, Illinois		2,920 59									2,920 59	2,606 01	315 08
Sundry persons for cannon and small arms						82,875 35	135,854 43					218,729 78	218,729 78	
Settlements on audited accounts		1,043 43	1,143 07				90 41					2,276 91	2,276 91	
Total		397,033 10	76,539 09	73,188 93	5,000 00	96,272 82	207,816 67	4,300 00	2,755 37	3,714 38	3,200 00	869,820 36	836,816 00	33,004 36

Ordnance Office, *Washington, November* 15, 1833.

GEO. BOMFORD, *Colonel of Ordnance.*

219 NOV. 15, 1833 ASP-MA-V 229

B.

Statement of the money expended through the Ordnance department during the first, second, and third quarters of the year 1833.

Stations.	Amount transmitted in the first, second, and third quarters of 1833, and remaining in officers' hands at the close of the year 1832.	Amount of accounts rendered in the first, second, and third quarters of the year 1833.	Balances remaining in officers' hands October 1, 1833.
Armory, Springfield, Massachusetts	$161,987 14	$141,632 14	$20,355 00
Armory, Harper's Ferry, Virginia	183,500 31	174,613 93	8,886 38
Arsenal, Kennebec, Maine	5,938 77	2,548 25	3,390 52
Arsenal, Watertown, Massachusetts	5,900 21	3,456 23	2,443 98
Arsenal, Champlain, Vermont	310 00	310 00	.....
Arsenal, Watervliet, New York	35,287 34	34,350 28	937 06
Arsenal, Rome, New York	1,500 00	1,469 67	30 33
Arsenal, Alleghany, Pennsylvania	22,633 19	17,947 56	4,685 63
Arsenal, Frankford, Pennsylvania	12,512 93	10,411 02	2,101 91
Arsenal, Pikesville, Maryland	649 70	545 41	104 29
Arsenal, Washington City	21,416 02	20,366 85	1,049 17
Arsenal, Bellona, Virginia	1,229 85	1,218 83	11 02
Arsenal, Augusta, Georgia	541 83	220 20	321 63
Arsenal, St. Louis, Missouri	15,737 73	12,599 78	3,137 95
Arsenal, Mount Vernon, Alabama	13,300 00	6,142 04	7,157 96
Arsenal, Baton Rouge, Louisiana	2,347 79	1,526 29	821 50
Arsenal, Florida, Florida Territory	30,338 56	22,704 21	7,634 35
Depot, Detroit, Michigan Territory	24,910 55	24,910 55	.....
Depot, New York	35,637 58	28,906 65	6,730 93
Depot, Fort Monroe	20,736 62	17,290 78	3,445 84
Depot, Charleston, South Carolina	3,595 73	3,586 00	9 73
Lead mines, Galena, Illinois	4,536 58	3,738 53	798 05
Sundry contractors for cannon and small arms	196,634 11	196,634 11	.....
Settlements on audited accounts	5,531 74	5,531 74	.....
Total	806,714 28	732,661 05	74,053 23

ORDNANCE OFFICE, *Washington, November* 15, 1833.

GEO. BOMFORD, *Colonel of Ordnance.*

220 NOV. 15, 1833

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C.

Statement of work done, and articles procured and repaired, at the arsenals and armories of the United States, from October 1, 1832, to September 30, 1833, inclusive.

MADE AND PROCURED.

6-pounder brass cannon	1
32-pounder iron cannon	212
24-pounder iron cannon	1
6-pounder iron cannon	2
Muskets, complete	36, 471
Hall's rifles, complete	1, 520
Hall's rifles, without bayonets	3, 270
Swords, artillery	1, 100
Screw-drivers	12, 309
Wipers	21, 341
Ball-screws	3, 681
Spring vices	1, 209
Flint caps	33, 688
42-pounder casemate carriage	1
32-pounder casemate carriage	1
24-pounder casemate carriages	9
24-pounder barbette carriages	17
12-pounder field carriages	4
6-pounder field carriages	65
10-inch sea-coast mortar beds	5
8-inch howitzer carriage	1
5½-inch howitzer carriages	2
6-pounder caissons	8
Iron truck wheels	46
Iron traverse wheels	53
Cartridge-boxes	6, 985
Cartridge-box belts	5, 445
Bayonet scabbards	5, 471
Bayonet belts	5, 358
Brushes and picks	3, 100
Gun slings	2, 500
Rifle flasks	6, 251
Rifle accoutrements, sets of	2, 031
Artillery sword belts	3, 016
Cavalry cartridge-boxes	1, 309
Sabre belts	1, 845
Belt plates	4, 284
Holsters, pairs of	1, 115
Flannel cartridges	5, 521
Cartridge bags, flannel	9, 627
Cartridge bags, paper, with flannel bottoms	1, 779
32-pounder cannon balls	7, 440
24-pounder cannon balls	4
6-pounder cannon balls	6, 435
Grape-shot, pounds	3, 693
Canister shot, pounds	563
Strapped shot, fixed, number	1, 455
Canister shot, number	696
Grape-shot, number	4, 510
Musket-ball and buckshot cartridges	16, 540
Musket cartridges, blank	250, 401
Musket bullets, pounds	7, 500
Rifle and pistol bullets, pounds	4, 300
Rockets	1, 212
Sponges and rammers	270
Worms and staves	120
Ladles and staves	70
Tompions	136
Lead aprons	84
Tarpaulins	6
Priming horns	24
Handspikes	91
Prolongs	45
Bricoles	1, 043
Implement straps	210
Portfire cases	16
Portfire clippers	35
Tube pouches or boxes	5
Gunners' haversacks	13
Sponge buckets	92
Sponge covers	292
Linstocks	69
Portfire stocks	192
Gunners' belts	8
Thumbstalls	50
Cannon wads	3, 185
Cannon scrapers	8
Garrison water-buckets	42
Budge barrels	51
Verifying instruments for cannon and small arms	19
Oak for gun-carriages, sets of	103
Oak for caissons, sets of	25
Oak for carriages, feet of	4, 409
Shingles	125, 055
Bricks	523, 461
Slates	6, 863
Lime, bushels	8, 027
Cement, bushels	410
Staves, number of	100
Hoop poles, number of	500
Flannel, yards	2, 241
Canvas, yards	85
Duck, Russia, yards	264
Brown Holland, yards	379
Fire-engines	4
Leading-hose for fire-engines, feet of	400
Lathe, turner's	1
Buffing wheels	5
Kettles, iron	6
Boats	2
Leather of kinds, pounds	3, 297
Leather for accoutrements, hides of	426
Skins, deer, number	5
Skins, calf, number	80
Skins, morocco, number	36
Skins, sheep, number	17
Buff leather, hides of	800
Saddles	12

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Fuses, filled	1,730
Priming tubes, filled	18,626
Priming tubes, empty	31,549
Portfires	1,584
Shot blocks	507
Quickmatch, pounds	23
Slowmatch, pounds	50
Elevating machines	9
Elevating arcs and indexes	12
Casemate traverse boards	19
Percussion locks, cannon	24
Percussion primers	5,859
Percussion powder, pounds	5
Shot gauges	28
Shot frames	3
Copper powder measures	15
Cartridge formers	5
Rocket and tube moulds	14
Bullet moulds	313
Gins	7
Gin falls	7
Gin blocks	14
Slings for gin falls	40
Sling carts	4
Wagons	2
Carts	5
Wheelbarrows	10
Arm chests	399
Ammunition kegs	7
Packing boxes	769
Lacquer for cannon, gallons	208
Tar, barrels of	20
Penthouses	27
Iron, bar, &c., pounds	919,109
Iron, scrap, pounds	45,678
Iron, cast, pounds	46,409
Steel, pounds	56,418
Copper, pounds	4,796
Tin, pounds	3,131
Brass castings, pounds	2,841
Powder, pounds	2,913
Sulphur, pounds	246
Timber of sorts, feet	113,315
Plank of sorts, feet	727,776
Scantling, feet	184,515
Plank, cypress, feet	3,779
Cypress timber, cubic feet	2,268
Cypress timber for gun-carriages, sets of	70

REPAIRED.

Muskets	3,881
Muskets cleaned and oiled	30,423
Hall's rifles	6
Rifles, common	33
Rifles half stocked	63
Rifles cleaned and oiled	515
Pistols	37
Cavalry sabres	122
Pieces of ordnance cleaned and lacquered	284
Cannon balls lacquered, &c.	8,047
Case shot lacquered, &c.	408
Star shot lacquered	40
Canister shot lacquered	8,059
Pass boxes	32
Cartridge-boxes	877
Cartridge-box belts	319
Bayonet-scabbards	226
Bayonet belts	760
Sword belts	45
Sabre belts	370
Gun slings	123
Brushes and picks	164
Belt plates	210
Holsters, pairs	77
Powder, barrels	82
Powder, pounds	1,900
Flannel cartridges	408
Wagons	2
Carts	4
Wheelbarrows	3
Packing boxes	87
Gun-carriages	53
Caissons	4
Old files, re-cut	1,065
Screw-drivers	1,000
Wipers	1,120
Ball-screws	600
Spring vices	380
Sets of accoutrements	125
Sponges and rammers	10
Gins	3
Gin falls	4
Gin blocks	14
Ladles and worms	7
Worms and staves	9
Ammunition kegs	25
Travelling forge	1

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 15, 1833.

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D.

Statement of the arms, accoutrements, &c., procured, and of the expenditures made under the act for arming and equipping the militia, from the 1st October, 1832, to the 30th September, 1833.

ARMS, ETC., PROCURED.

Muskets, complete	11 [illegible]
Rifles, Hall's, complete	2 [illegible]
Sets of infantry accoutrements	4,54[illegible]
Sets of rifle accoutrements	1,09[illegible]
Rifle flasks, copper	6,251
Belt plates	2,611
Artillery swords	1,109
Artillery sword belts	3,016
Sabre belts	1,720
Cavalry cartridge-boxes	1,307
Holsters, pairs	1,055
Hides of buff leather	800
Six-pounder iron cannon	1
Six-pounder cannon balls	6,435
Six-pounder field carriages, with equipments, complete	63
Twelve-pounder field carriages, with equipments	4
Six-pounder field carriages, timber, sets	47

Expenditures, viz:	
Amount paid for arms, &c. procured	$229,692 51
Amount paid for inspection, packing boxes, storage, and distribution of the arms, &c. to the several States and Territories	2,051 54
	231,144 05

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 15, 1833.

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E.

Apportionment of arms to the militia for the year 1832, under the act of 1808, for arming and equipping the whole body of the militia.

States and Territories.	Date of return.	Number of militia.	No. of arms apportioned in muskets.
Maine	1832	40, 006	455
New Hampshire	1832	28, 025	319
Massachusetts	1832	46, 796	533
Connecticut	1832	26, 034	296
Rhode Island	1832	5, 950	69
Vermont	1824	25, 581	291
New York	1832	186, 223	2, 122
New Jersey	1829	39, 171	447
Pennsylvania	1832	182, 285	2, 077
Delaware	1827	9, 229	105
Maryland	1832	46, 450	530
Virginia	1832	102, 971	1, 173
North Carolina	1832	65, 754	750
South Carolina	1832	51, 112	582
Georgia	1831	42, 832	488
Kentucky	1832	65, 852	750
Tennessee	1832	72, 991	832
Ohio	1832	132, 161	1, 506
Louisiana	1829	14, 808	169
Indiana	1832	53, 913	614
Mississippi	1830	13, 724	156
Illinois	1831	27, 386	312
Alabama	1829	22, 446	255
Missouri	1830	5, 326	61
Michigan	1831	5, 476	62
Arkansas	1825	2, 028	23
Florida	1831	827	9
District of Columbia	1832	1, 249	14
Total		1, 316, 615	15, 000

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 15, 1833

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F.

Statement of the ordnance and ordnance stores distributed to the militia under the act of April, 1808, *from the* 1*st October*, 1832, *to the* 30*th September*, 1833.

		Equal in value to muskets.
5	six-pounder iron cannon and carriages, with equipments, &c., complete	154
100	rifles	123
143	Hall's rifles	193
544	muskets, complete	544
1,220	pistols	751
610	sabres	281
400	artillery swords	131
1,047	sets rifle accoutrements	176
60	sabre belts	3
60	pair holsters	14
100	sets accoutrements for Hall's rifles	12
50	sets infantry accoutrements	9
100	artillery sword belts	9
60	cavalry cartridge-boxes	2
	Total	2,402

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 15, 1833.

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G.

Statement of the artillery, small arms, accoutrements, and other ordnance stores issued to the troops and the engineer department, from October 1, 1832, to September 30, 1833.

24-pounder iron cannon	28
6-pounder iron cannon	3
24-pounder casemate carriages, complete	12
24-pounder barbette carriages, implements, &c., complete	16
6-pounder field carriages, implements, &c., complete	3
Sponges for cannon	76
Bricoles	92
Prolongs	6
Tarpaulins for guns	2
Linstocks	13
Portfire stocks	13
Gunners' haversacks	8
Gins and falls	5
Sponges and rammers	19
Ladles and worms	4
Handspikes	14
24-pounder cannon balls	606
24-pounder canister shot, stands of	100
12-pounder cannon balls	100
6-pounder cannon balls	400
24-pounder grape-shot, stands of	100
18-pounder grape-shot	100
18-pounder canister shot	100
12-pounder grape-shot	100
12-pounder canister shot	100
6-pounder grape-shot	300
6-pounder canister shot	100
Sheet brass, pounds	2
Bar copper, pounds	10
Fuse saws, number	2
Fuse setters, number	2
Fuse rasps, number	2
Fuse mallets, number	2
Gunners' gimlets, number	4
Gunners' hammers, number	3
Copper adzes and drivers, number	3
Muskets, completed	264
Rifles, completed	180
Sergeants' and musicians' swords	3
Cavalry sabres	50
Cartridge-boxes	6
Cartridge-box belts	3
Bayonet scabbards	37
Bayonet scabbard belts	3
Gun slings	3
Brushes and picks	33
Sets of infantry accoutrements	1,135
Sword belts	3
Belt plates	6
Musket flints	16,650
Cannon powder, pounds	10,700
Musket powder, pounds	900
Cannon cartridges	24
Musket cartridges	196,250
Cartridge bags, flannel	4,540
Flannel, yards	25
Cannon cartridge, musket cartridge, and portfire paper, pounds	225
Portfires	436
Priming tubes	16,500
Slowmatch, pounds	126
Pulverized sulphur, pounds	100
Fuses, number	50
Pulverized charcoal, pounds	100
Litharge, pounds	5
Lampblack, pounds	11
Paper cartridge bags, flannel bottoms	600
Whiting, pounds	20
Cast steel, pounds	10
Cannon scrapers, number	2
Files, number	18
Signal rockets	100
Lead, pounds	532,042
Twine, pounds	9
Lacquer for cannon, gallons	23
Paints, assorted, pounds	14
Linseed and neatsfoot oil, gallons	34
Spirits of turpentine, gallons	8
Paint brushes	27
Shell hooks	2
Copper funnels, set	1
Powder measures, number	13
Shot gauges, sets	7
Plank, two-inch, feet of	200
Nails, pounds	6
Priming horns, complete	58

Copper tacks	1,200
Portfire cases	7
Thum-bstalls	15
Tube pouches	10
Lead, red, pounds	5
Lead, white, pounds	269
Cartridge formers, sets	2
Musket bullet moulds	3
Bullet clipper	1
Priming tubes, empty	4,000
Mealed powder, pounds	200
Scissors, pairs	24
Laboratory knives	12
Scales and weights	1
Yarn, pounds	50
Beeswax, pounds	28
Antimony, pounds	10
Whiskey, gallons	10
Pitch, barrels	1
Compasses, pairs	2
Sieves	4
Portfire clippers	8
Junk wads	200

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 15, 1833.

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II.

Statement of the operations of the United States lead mines in the vicinity of Fever river, from the 30th September, 1832, to the 30th September, 1833.

Pounds of lead made during the year	7, 941, 792
Pounds of lead which have accrued as rent the present year	472, 645
Rent lead remaining due September 30, 1832	132, 183
Total of rents due in the year ending September 30, 1833	604, 828
Pounds of lead received as rent in the year ending September, 1833	393, 734
Rents remaining due September 30, 1833	211, 094

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 15, 1833.

I.

Statement of the lead made annually at the United States lead mines from the year 1821, *when their superintendence was transferred from the Treasury to the War Department, to the 30th September,* 1833.

Periods.	Fever river.	Missouri.	Total.
	Pounds.	*Pounds.*	*Pounds.*
Lead made from 1821 to September 30, 1823	335, 130	.....	335, 130
Lead made in the year ending September 30, 1824	175, 220	.....	175, 220
Do.....do.....do.....1825	664, 530	386, 590	1, 051, 120
Do.....do.....do.....1826	958, 842	1, 374, 962	2, 333, 804
Do.....do.....do.....1827	5, 182, 180	910, 380	6, 092, 560
Do.....do.....do.....1828	11, 105, 810	1, 205, 920	12, 311, 730
Do.....do.....do.....1829	13, 343, 150	1, 198, 160	14, 541, 310
Do.....do.....do.....1830	8, 323, 998	8, 060	8, 332, 058
Do.....do.....do.....1831	6, 381, 900	67, 180	6, 449, 080
Do.....do.....do.....1832	4, 281, 876	.....	4, 281, 876
Do.....do.....do.....1833	7, 941, 792	.....	7, 941, 792
Total	58, 694, 488	5, 151, 252	63, 845, 740

NOTE.—The total amount of rent accruing for the above periods is 5,246,839 pounds.

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 15, 1833.

23D CONGRESS.] No. 578. [1ST SESSION.

ANNUAL STATEMENT OF THE ARMS MADE AND EXPENSES INCURRED AT THE NATIONAL ARMORIES IN 1833.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES APRIL 12, 1834.

WAR DEPARTMENT, *April* 10, 1834.

SIR: I have the honor to transmit a statement of the expenditures incurred and the arms manufactured at the national armories in the year 1833, prepared in conformity with the provisions of the act of April 2, 1794.

Very respectfully, your most obedient servant,

LEW. CASS.

HON. ANDREW STEVENSON, *Speaker of the House of Representatives.*

ORDNANCE OFFICE, *Washington, April* 9, 1834.

SIR: In pursuance of an act concerning arsenals and armories, passed April 2, 1794, (5th section,) I have the honor to transmit herewith statements of the expenditures at the national armories, and of the arms, &c., manufactured therein during the year 1833.

I have the honor to be, sir, respectfully, your obedient servant,

GEO. BOMFORD, *Colonel of Ordnance.*

HON. LEWIS CASS, *Secretary of War.*

Statement of the expenditures made at the national armories, and of the arms, &c., manufactured therein during the year 1833.

	Expenditures.					Arms, &c., manufactured.									
	For buildings, canals, and other permanent improvements.	For the manufacture of arms.	For the manufacture of Hall's rifles.	For miscellaneous expenses, not embraced in the foregoing.	Total amount expended.	Muskets.	Rifles, (Hall's.)	Bright-drivers.	Wipers.	Flint caps.	Ball-screws.	Spring-vises.	Arm-chests.	Bullet-moulds—rifle.	Ammunition flasks—rifle.
Springfield, Mass....	$5,659 72	$172,938 92	.....	$319 54	$178,918 18	12,400	.....	11,600	17,400	12,400	1,240	1,240	110	.....	20
Harper's Ferry, Va..	36,022 91	133,436 85	$38,348 55	1,192 08	209,000 39	12,000	3,670	3,682	18,100	17,084	.....	367	102	367	....
	41,682 63	306,375 77	38,348 55	1,511 62	387,918 57	24,400	3,670	15,282	36,500	29,484	1,240	1,607	212	367	20

Opera tions in 1833:

DR. *Statement in detail of the operations of the armory at Springfield.* CR.

To value of component parts of arms on hand January 1, 1833, per last annual report	$90,447 05		By amount expended for permanent improvements, per foregoing statement	$5,659 72
From which deduct this sum, being the amount (as subsequently reported) in the aggregate more than was actually on hand	22,371 00		Arms and equipments made, viz:	
		$68,076 05	12,400 muskets, average cost of each $12 70$\frac{14723}{12400}$	157,627 22
To value of unwrought materials on hand January 1, 1833, per last annual report	48,831 35		11,600 screw-drivers, average cost of each 8 cents	928 00
From which deduct this sum, being the amount (as subsequently reported) in the aggregate more than was actually on hand	2,451 32		17,400 wipers, average cost of each 12½ cents	2,175 00
		46,380 03	1,240 ball-screws, average cost of each 15 cents	186 00
To this amount expended during the year, comprising all the payments made by the paymaster	182,736 73		1,240 spring-vises, average cost of each 30 cents	372 00
From which deduct the amount of rents of houses received from workmen, $879 26, and for sales of refuse articles sold at auction in October, 1833, $2,939 29	3,818 55		12,400 lead flint caps, average cost of each 1 cent	124 00
		178,918 18	110 arm-chests, average cost of each $2 16$\frac{40}{100}$	238 00
To value of 2,442 pounds of powder received from the storekeeper for proving musket-barrels, at 20 cents		488 40	By amount expended in preserving arms, and for miscellaneous purposes, not incidental to the manufacture of arms	319 54
To value of 6,959 pounds lead for proving musket-barrels, at 4 cents		278 36	By value of supplies furnished the Frankford and Fort Monroe arsenals	510 20
			By value of component parts of arms on hand December 31, 1833	84,112 22
			By value of unwrought materials on hand December 31, 1833	41,889 12
		294,141 02		294,141 02

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DR. *Statement in detail of the operations of the armory at Harper's Ferry, Virginia.* CR.

To value of component parts of arms on hand January 1, 1833		$55,386 39	By amount expended in permanent improvements, per foregoing statement		$36,022 91
To value of unwrought materials on hand January 1, 1833		62,335 07	Arms and equipments made, viz:		
To this amount expended during the year, comprising all the payments made by the paymaster	$209,000 39		12,000 muskets, average cost of each $11 80$\frac{7215}{12000}$		141,672 15
From which deduct the amount of rents of houses received from the workmen	2,176 12		15,440 wipers, average cost of each 12½ cents		1,930 00
		206,824 27	12 screw-drivers, average cost of each 7 cents		84
To value of supplies received from the Washington and Pikesville arsenal, viz:			17,084 flint caps, average cost of each 1 cent		170 84
5,000 pounds pig lead, at 4 cents.	$200 00		102 arm-chests, average cost of each $2 10$\frac{49}{214}$		214 49
1,945 pounds of powder, at 20 cents	389 00		By amount expended in preserving arms, and for miscellaneous purposes, not incidental to the manufacture of arms		1,192 08
1,000 rough musket-stocks, at 25 cents	250 00		By amount expended in the manufacture of Hall's rifles		38,348 55
		839 00	By value of component parts of arms on hand December 31, 1833		51,406 06
			By value of unwrought materials on hand December 31, 1833		54,392 81
			By value of supplies furnished the Alleghany arsenal		34 00
		325,384 73			325,384 73

DR. *Statement in detail of the expenditures on Hall's rifles.* CR.

To value of component parts of arms on hand January 1, 1833		$64,425 62	By amount expended in permanent improvements		$2,852 22
To value of unwrought materials on hand January 1, 1833		14,266 12	Arms and equipments made, viz:		
To amount expended during the year, comprising the total amount of payments made by the paymaster on account of Hall's rifles, viz:			3,670 rifles, at $14 45$\frac{154}{3670}$ each		53,033 04
For materials	$10,437 23		3,670 screw-drivers, at 7¼ cents each		266 07
For pay of workmen	27,911 32		3,670 wipers, at 19 cents each		697 30
		38,348 55	367 bullet-moulds, at 40 cents each		146 80
To value of supplies received from the Washington arsenal, viz:			367 spring-vises, at 25¼ cents each		92 67
200 pounds powder, at 20 cents	$40 00		20 ammunition flasks, at $1 25 each		25 00
5,000 flints, at $2 50 per thousand.	12 50		By amount of component parts of arms on hand December 31, 1833		44,637 35
		52 50	By amount of unwrought materials on hand December 31, 1833		15,342 34
		117,092 79			117,092 79

ORDNANCE OFFICE, *Washington, April* 9, 1834.

GEO. BOMFORD, *Colonel of Ordnance.*

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No. 7.

REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 18, 1834.

SIR: In obedience to your order of the 15th August last, I have the honor to transmit a report of the general result of the proceedings and operations of this department between the 1st of October, 1833, and the 30th September, 1834.

The papers marked A and B present a general view of these concerns during the last-mentioned period, as well in regard to the amounts of the expenditures under the several heads of appropriations as in reference to their objects, and to the various ordnance stations where they have been made.

The first of these (A) shows the whole amount of funds remitted from the treasury to disbursing officers and contractors in this department during the year 1833, to have been..... $1, 028, 606 09
That the portion of that sum which was expended and accounted for during the same period amounted to..... 963, 222 79

And that at the close of that year there remained unexpended and in the hands of disbursing officers, the sum of..... 65, 383 30
A balance which, it may be proper to remark, was promptly liquidated by the responsible disbursing officers early in the first quarter of 1834.

Statement B exhibits the total amount of funds remaining in the hands of disbursing officers at the close of the year 1833, and which have been remitted to them and to contractors during the first, second, and third quarters of the year 1834. This amount will be seen to have been $834, 825 79
And the portion of this sum expended, and for which accounts have been rendered during the same period, will be seen in the same statement to have amounted to 766, 701 36

The unexpended balance exhibited in the same statement as being in the hands of disbursing officers at the close of the third quarter of 1834, having been 67, 824 43

Statement C presents a view of the general result of the operations at the several arsenals and armories of the United States, in the manufacture, repair, and purchase of the principal articles of ordnance, ordnance stores, and building materials. It exhibits the result of these operations to the extent to which they have been completed during the year between the 1st of October, 1833, and the 30th of September, 1834, indicating, among other articles of ordnance and ordnance stores which have been fabricated or procured, the following, viz:

Of artillery, 213 32-pounder cannon, 3 12-pounder and 3 6-pounder cannon, 3 24-pounder and 3 12-pounder howitzers, 10 32-pounder and 6 24-pounder casemate carriages, 6 10-inch mortar beds, and 44 field artillery carriages.

Of small arms manufactured and procured, viz: 26,126 muskets and 2,120 (Hall's) rifles, made at the national armories; and at the private factories, 1,030 carbines, (Hall's,) 300 rifles, (Hall's,) 11,140 muskets, and 2,900 artillery swords.

Of accoutrements for small arms, about 1,440 sets for infantry, 1,050 sets for riflemen, and 1,320 sets for cavalry.

Statement D shows the extent of the operations during the year, between the 1st of October, 1833, and the 30th of September, 1834, which have occurred in procuring ordnance and ordnance stores, under the act of 1808, for arming and equipping the militia of the States and Territories. This statement presents also a view of the expenditures under the act, which have resulted during the same period in procuring the stores, amounting, for all objects, to $190,539 36.

It exhibits, among other articles of ordnance stores procured, 26 field-carriages, with their equipments complete; 11,140 muskets, 300 (Hall's) rifles, 2,900 artillery swords, 1,200 sets of infantry accoutrements, 800 sets of rifle accoutrements, 1,950 sabre and sword belts, and 1,141 (pair) holsters.

Statement E exhibits the amount of ordnance and ordnance stores, valued in muskets, which have been apportioned for the year 1833, to the several States and Territories, under the act of 1808, for arming and equipping the militia. This apportionment being founded on the recent returns of the strength of the militia, as made by the adjutant general of the militia of the several States, to the adjutant general of the army.

Statement F shows the several articles of ordnance and ordnance stores which have been distributed to the militia of the States and Territories during the year, between the 1st of October, 1833, and the 30th of September, 1834.

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Statement G presents a view of the munitions of war issued by this department during the year, between the 1st of October, 1833, and the 30th of September, 1834, to the army. In this it will appear that 4 24-pounder cannon and carriages, 5 10-inch mortars, with their beds, 17 field cannon, with their carriages complete, 750 pistols, 750 carbines complete, 750 sets of accoutrements for the dragoons, 750 sabres, 695 swords, and 204 sets of infantry accoutrements, are among the principal articles issued.

Statement H exhibits the operations of the lead mines for the year ending the 30th September, 1834; and statement I, the amount of lead made at these mines in each year, from the year 1821 to the 30th of September, 1834.

By these statements it will appear that the lead made during the present year amounts to ..... 7, 971, 579 pounds.

Excess over the last year	29, 787	"
Total amount of lead made from 1821 to September 30, 1834	71, 817, 319	"
Total amount of rent lead accruing for the above period	5, 699, 631	"
Amount of rent lead due the United States September 30, 1834, yet to be collected.	322, 802	"

The mining operations have been successfully continued on the west bank of the Mississippi, in the country ceded to the United States by the Sac and Fox Indians, and should not the recent sales of lands in the mineral regions, and the locations made for the Indians there, materially interfere with the interests and operations of the mining establishments, the product of these mines may reasonably be expected to be greatly increased hereafter.

I take pleasure in being able to state that the most satisfactory results have been attained this year in the manufacturing operations at the national armories, and at the various arsenals of construction and repairs throughout the country.

The due execution of a just system of accountability for the immense material of war in the arsenals and magazines of the Union, and in the hands of the army, and the continual application of the most improved means of preservation to this material, have enabled the concerns of this department to attain an unusual degree of perfection. It is confidently expected that they will be still more benefited by the salutary operations of the new ordnance regulations adopted by the President on the 1st of May, 1834, but which could not be published to the army until the 19th of September last.

As regards the building operations progressing in this department at the St. Louis, Mount Vernon, Appalachicola, and Detroit arsenals, and at the New York depot, I have the honor to state that they have proceeded to the extent of the last annual appropriations for those objects, and have been conducted in the most efficient and satisfactory manner by the several superintending officers.

I have the honor to be, sir, respectfully, your obedient servant,

GEO. BOMFORD, *Colonel of Ordnance.*

Hon. LEWIS CASS, *Secretary of War.*

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A.

Statement of the money expended through the Ordnance department in the year 1833.

Officers' names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS JANUARY 1, 1833. Appropriations.												
		National armories.	Current expenses of the ordnance service.	Arsenals.	For an arsenal in Florida.	Armament of fortifications.	Arming and equipping the militia.	For thirty-six double racks.	For addit'l machinery.	Building of workshop for grinding and polishing.	Erection of two dwelling houses.	Walls and embankments.	Erecting forging-shop.	Erection of dwelling-houses.
.....	Armory, Springfield, Massschusetts..	$182,806 98	.....	.....	.....	.....	$1,413 11	$4,500 00	$3,500 00	$6,000 00	$7,000 00	.....	.....	.....
.....	Armory, Harper's Ferry, Virginia ...	182,815 57	.....	.....	.....	.....	1,404 65	.....	.....	.....	.....	$1,402 06	$2,044 41	$10,011 78
l J. W. Ripley.....	Arsenal, Augusta, Maine	.....	$1,753 57	$4,915 26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Arsenal, Watertown, Massachusetts.	.....	1,898 25	263 46	.....	.....	8,837 00	.....	.....	.....	.....	.....	.....	.....
.....	Arsenal, Fort Monroe, Virginia	.....	4,261 30	5,793 54	.....	$14,241 78	.....	.....	.....	.....	.....	.....	.....	.....
and C. Ward.....	Arsenal, Vergennes, Vermont.....	.....	365 00	560 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
t.....	Arsenal, Watervliet, New York.....	.....	10,440 61	13,211 56	.....	146 80	10,988 37	.....	.....	.....	.....	.....	.....	.....
d Lieut. H. S. Mallory	Arsenal, Rome, New York.....	.....	1,900 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
d Lieut. A. Beckley	Arsenal, Pittsburg, Pennsylvania....	.....	7,015 35	5,414 60	.....	.....	11,071 17	.....	.....	.....	.....	.....	.....	.....
rth	Arsenal, Frankford, Pennsylvania...	.....	5,239 77	5,991 04	.....	400 00	1,892 12	.....	.....	.....	.....	.....	.....	.....
e, D. Tyler, and W. Maynadier	Arsenal, Pikesville, Maryland.....	.....	809 70	.....	.....	7,556 84	.....	.....	.....	.....	.....	.....	.....	.....
A. Mordecai, and R. Bache	Arsenal, Washington, D. C.....	166 00	10,181 96	3,200 00	.....	.....	3,058 73	.....	.....	.....	.....	.....	.....	.....
.....	Arsenal, near Richmond, Virginia...	.....	1,619 85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fanning and Lieut. D. S. Herring....	Arsenal, Augusta, Georgia.....	.....	626 61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Arsenal, Mount Vernon, Alabama...	.....	300 00	15,746 35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Arsenal, Apalachicola, Florida.....	.....	.....	24,443 00	$18,438 56	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Arsenal, Baton Rouge, Louisiana....	.....	1,896 52	825 49	.....	.....	30 90	.....	.....	.....	.....	.....	.....	.....
l Capt. J. Symington	Arsenal, St. Louis, Missouri.....	.....	4,857 86	15,270 46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Arsenal, Detroit, Michigan Territory.	.....	900 00	25,310 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
ipt. J. L. Smith.....	Depot, New York city.....	.....	2,029 44	8,824 22	.....	.....	29,028 15	.....	.....	.....	.....	.....	.....	.....
its. James Allen and H. S. Mallory..	Depot, Charleston, S. C.....	.....	3,522 60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Lead mines, Galena, Illinois.....	.....	5,136 58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
non and small arms.....	.....	.....	.....	.....	.....	116,662 16	153,218 72	.....	.....	.....	.....	.....	.....	.....
ccounts.....	.....	.....	2,026 32	568 59	.....	.....	25 00	.....	.....	.....	.....	.....	.....	.....
.....	.....	365,788 55	66,711 29	130,338 12	18,438 56	139,007 58	223,957 92	4,500 00	3,500 00	6,000 00	7,000 00	1,402 06	2,044 41	10,011 78

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A.—*Statement of the money expended through the Ordnance department in the year* 1833—Continued.

Officers' names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS JANUARY 1, 1833. Appropriations. Slating roofs of work-shops.	Repair and extension of the Potomac dam.	Enlargem't of the canal.	Repairing the walls of four workshops.	Construction of new water-wheels and machinery.	Purchase of the right of water-power on the Shenandoah river.	Purchase of forty-five acres of land.	Purchase of one square acre of land.	More perfect defence of the frontiers.	Purchase of swords and accoutrements.	Total amount.	Amounts expended and accounted for.	Balances remaining unexpended in the hands of the disbursing officers, December 31, 1833.
Howard	Armory, Springfield, Massachusetts	$2,819 52	$3,374 55	$10,000 00	$1,500 00	....	....	....	....	....	....	$208,220 09	$199,057 78	$9,162 31
edinger	Armory, Harper's Ferry, Virginia	....	....	....	....	$8,400 40	$2,600 00	....	....	....	....	226,372 54	210,809 24	15,563 30
C. Mellon and Capt. J. W. Ripley	Arsenal, Augusta, Maine	....	....	....	....	....	....	....	....	....	....	6,668 83	5,646 36	1,022 47
K. Craig	Arsenal, Watertown, Massachusetts	....	....	....	....	....	....	....	....	....	....	10,928 71	8,547 81	2,380 90
B. Huger	Arsenal, Fort Monroe, Virginia	....	....	....	....	....	....	....	....	....	....	24,296 62	22,470 11	1,826 51
H. Vinton and Lieut. C. Ward	Arsenal, Vergennes, Vermont	....	....	....	....	....	....	....	....	....	....	925 00	353 58	571 42
olonel G. Talcott	Arsenal, Watervliet, New York	....	....	....	....	....	....	$9,000 00	....	....	....	43,787 34	43,750 51	36 83
nes Abeel and Lieut. H. S. Mallory	Arsenal, Rome, New York	....	....	....	....	....	....	....	....	....	....	1,900 00	1,876 05	23 95
L. Baker and Lieut. A. Beckley	Arsenal, Pittsburg, Pennsylvania	....	....	....	....	....	....	....	$3,500 00	....	....	27,001 12	23,972 30	3,028 82
ol. W. J. Worth	Arsenal, Frankford, Pennsylvania	....	....	....	....	....	....	....	....	....	....	13,512 93	12,245 19	1,267 74
nts R. D. A. Wade, D. Tyler, and W. dier	Arsenal, Pikesville, Maryland	....	....	....	....	....	....	....	....	....	....	809 70	652 50	157 20
Symington, A. Mordecai, and R. Bache	Arsenal, Washington, D. C	....	....	....	....	....	....	....	....	....	....	24,163 53	23,280 64	882 89
C. Buck	Arsenal, near Richmond, Virginia	....	....	....	....	....	....	....	....	....	....	1,619 85	1,491 25	128 60
. C. W. Fanning and Lt. D. S. Herring	Arsenal, Augusta, Georgia	....	....	....	....	....	....	....	....	....	....	626 61	626 61	.....
Harding	Arsenal, Mount Vernon, Alabama	....	....	....	....	....	....	....	....	....	....	16,046 35	9,634 04	6,412 31
J. Hills	Arsenal, Apalachicola, Florida	....	....	....	....	....	....	....	....	....	....	42,881 56	32,094 26	10,787 30
L. Jones	Arsenal, Baton Rouge, Louisiana	....	....	....	....	....	....	....	....	....	....	2,752 91	1,896 52	856 39
Anderson and Capt. J. Symington	Arsenal, St. Louis, Missouri	....	....	....	....	....	....	....	....	....	....	20,128 32	12,737 96	7,390 36
Howard	Arsenal, Detroit, Michigan Territory	....	....	....	....	....	....	....	....	....	....	26,210 55	26,210 55	.....
B. Perkins and Capt. J. L. Smith	Depot, New York city	....	....	....	....	....	....	....	....	$5,811 25	....	45,963 06	42,275 42	3,417 64
Bache, Lieuts. James Allen, and H. ory	Depot, Charleston, South Carolina	....	....	....	....	....	....	....	....	....	....	3,522 60	3,407 95	114 65
T. C. Legate	Lead mines, Galena, Illinois	....	....	....	....	....	....	....	....	....	....	5,136 58	4,784 87	351 71
ersons for cannon and small arms	....	....	....	....	....	....	....	....	....	....	....	269,880 88	269,880 88	.....
nts on audited accounts	....	....	....	....	....	....	....	....	....	....	$2,900 50	5,520 41	5,520 41	.....
Total	....	2,819 52	3,374 55	10,000 00	1,500 00	8,400 00	2,600 00	9,000 00	3,500 00	5,811 25	2,900 50	1,028,606 09	963,222 79	65,383 30

ANCE OFFICE, *Washington, November* 18, 1834.

GEO. BOMFORD, *Colonel of Ordnance.*

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B.

Statement of the money expended through the Ordnance department during the first, second, and third quarters of 1834.

Stations.	Amount transmitted in the first, second, and third quarters of 1833, and balance remaining in officers' hands at the close of the year 1833.	Amount of accounts rendered in the first, second, and third quarters of the year 1834.	Balances remaining in officers' hands October 1, 1834.
Armory, Springfield, Massachusetts	$171,156 98	$150,005 49	$21,150 86
Armory, Harper's Ferry, Virginia	191,414 56	87,136 37	4,278 19
Arsenal, Augusta, Maine	12,382 47	9,037 72	3,344 75
Arsenal, Watertown, Massachusetts	21,130 68	14,547 23	6,583 45
Arsenal, Fort Monroe, Virginia	15,032 51	13,717 16	1,315 35
Arsenal, Vergennes, Vermont	1,206 42	1,206 42	.....
Arsenal, Watervliet, New York	39,574 58	35,486 55	4,088 03
Arsenal, Rome, New York	1,423 95	1,371 77	52 18
Arsenal, Pittsburg, Pennsylvania	15,973 32	12,725 26	6,248 06
Arsenal, Frankford, Pennsylvania	19,434 72	16,738 54	2,696 18
Arsenal, Pikesville, Maryland	1,392 20	1,041 64	350 56
Arsenal, Washington, D. C	17,707 89	14,759 80	2,948 09
Arsenal, near Richmond, Virginia	1,024 60	1,024 60	.....
Arsenal, Augusta, Georgia	214 47	75 43	139 04
Arsenal, Mount Vernon, Alabama	17,112 81	12,299 94	4,812 87
Arsenal, Apalachicola, Florida	36,187 30	32,950 10	3,237 20
Arsenal, Baton Rouge, Louisiana	1,805 71	1,447 62	358 09
Arsenal, St. Louis, Missouri	35,214 36	32,712 74	2,501 62
Arsenal, Detroit, Michigan Territory	26,368 45	26,368 45	.....
Depot, New York city	12,486 64	9,184 41	3,302 23
Depot, Charleston, South Carolina	540 65	404 26	136 39
Lead mines, Galena, Illinois	4,001 71	3,720 42	281 29
Sundry persons for cannon and small arms	188,551 14	188,551 14	.....
Settlements on audited accounts	188 37	188 37	.....
Total	834,825 79	766,701 36	67,824 43

ORDNANCE OFFICE, *Washington, November* 18, 1834.

GEO. BOMFORD, *Colonel of Ordnance.*

23D CONGRESS.] No. 609. [2D SESSION.

ANNUAL STATEMENT OF THE ARMS MADE AND EXPENSES INCURRED AT THE NATIONAL ARMORIES IN 1834.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 3, 1835.

WAR DEPARTMENT, *March* 2, 1835.

SIR: I have the honor to transmit a statement of the expenditures incurred and the arms manufactured at the national armories in the year 1834, prepared in conformity with the provisions of the act of April 2, 1794.

Very respectfully, your most obedient servant,

LEW. CASS.

HON. JOHN BELL, *Speaker of the House of Representatives.*

Statement of the expenditures made at the national armories, and of the arms, &c., manufactured therein, during the year 1834.

	Expenditures.				
	For buildings, canals, and other permanent improvements.	For the manufacture of arms.	For the manufacture of Hall's rifles.	For miscellaneous expenses not embrac'd in the foregoing.	Total amount expended.
Springfield, Massachusetts	$12,295 44	$171,889 41	----------	$388 18	$184,573 03
Harper's Ferry, Virginia	45,038 16	133,822 04	$40,000 00	1,550 28	220,410 48
Total	57,333 60	305,711 45	40,000 00	1,938 46	404,983 51

	Arms, &c., manufactured.										
	Muskets, complete.	Hall's rifles.	Screw-drivers.	Wipers.	Ball screws.	Spring vices.	Flint caps.	Arm chests.	Bullet moulds.	Flasks for rifles.	Belts for rifles.
Springfield, Massachusetts	14,000	------	14,706	22,063	1,458	2,032	15,400	------	------	------	------
Harper's Ferry, Virginia	12,000	970	25,941	22,360	6,896	47	6,000	74	47	4,734	1,040
Total	26,000	970	40,647	44,423	8,354	2,079	21,400	74	47	4,734	1,040

Statement in detail of the operations of the armory at Harper's Ferry, Virginia.

Dr.

For value of component parts of arms on hand December 31, 1833		$51,406 06	
For value of unwrought materials on hand December 31, 1833		54,392 81	
For this amount expended during the year, comprising all the payments made by the paymaster	$223,839 18		
From which deduct the amount of rents received	3,428 70		
		220,410 48	
For value of supplies received from the Washington arsenal, viz:			
2,152 pounds of powder, at 20 cents per pound	$430 40		
10,000 pounds of lead, at 4 cents per pound	400 00		
		830 40	
			$327,039 75

Cr.

By amount expended in permanent improvements, per foregoing statement		$45,038 16	
Arms and equipments made, viz:			
12,000 muskets, complete, average cost of each $11 $66\frac{6168}{12000}$	$139,981 58		
21,400 wipers, average cost of each 13 cents	2,784 60		
6,896 ball screws, average cost of each 15 cents	1,034 40		
6,000 flint caps, average cost of each 1 cent	60 00		
25,001 screw-drivers, average cost of each 7 cents	1,750 07		
74 arm-chest, average cost of each $2 $14\frac{14}{74}$	158 50		
		145,769 15	
By this amount expended in preserving arms, and for miscellaneous purposes not incidental to the manufacture of arms		1,550 28	
By amount expended in the manufacture of Hall's rifles		40,000 00	
By value of supplies furnished the Allegheny arsenal		167 00	
By value of component parts of arms on hand December 31, 1834		40,491 14	
By value of unwrought materials on hand December 31, 1834		54,024 02	
			$327,039 75

G. BOMFORD, *Colonel of Ordnance.*

Ordnance Office, *Washington, March* 2, 1835.

Statement in detail of the operations of the armory at Springfield, Massachusetts.

DR.

For value of component parts of arms on hand December 31, 1833		$84,112 22	
For value of unwrought materials on hand December 31, 1833		41,889 12	
For this amount expended during the year, comprising all the payments made by the paymaster	$185,504 03		
From which deduct the amount of rents of houses received from workmen	931 00		
		184,573 03	
For value of 1,800 pounds of powder received from storekeeper, for proving musket barrels, at 20 cents		360 00	
For 4,004 pounds of lead received from storekeeper, for proving musket barrels, at 4 cents		160 16	
			$311,094 53

CR.

By amount expended for permanent improvements, per foregoing statement		$12,295 44	
Arms and equipments made, viz:			
14,000 muskets, complete, average cost of each $11 $05\frac{337}{1400}$	$154,703 37		
14,706 screw-drivers, average cost of each 8 cents	1,176 48		
22,063 wipers, average cost of each $12\frac{1}{2}$ cents	2,757 87		
1,458 ball screws, average cost of each 15 cents	218 70		
2,032 spring vices, average cost of each 30 cents	609 60		
15,400 lead flint caps, average cost of each 1 cent	154 00		
		159,620 02	
By this amount expended in preserving arms, and for miscellaneous purposes not incidental to the manufacture of arms		388 18	
By value of supplies furnished Fort Monroe arsenal and Fort Trumbull		180 68	
By value of component parts of arms on hand December 31, 1834		90,770 42	
By value of unwrought materials on hand December 31, 1834		47,839 79	
			$311,094 53

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No. 9.

REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 20, 1835.

SIR: In obedience to your order of the 4th of September last, I have the honor to transmit a report of the general result of the proceedings and operations of this department between the 1st of October, 1834, and the 30th September, 1835.

The papers marked A and B present a general view of these concerns during the last-mentioned period, as well in regard to the amounts of expenditures under the several heads of appropriations as in reference to their objects, and to the various ordnance stations where they have been made.

The first of these (A) shows the whole amount of funds remitted from the treasury to disbursing officers and contractors in this department during the year 1834, to have been..... $1, 039, 248 78
That the portion of that sum which was expended and accounted for during the same period amounted to..... 951, 239 89

And that at the close of that year there remained unexpended, and in the hands of disbursing officers, the sum of..... 88, 008 89

A balance which it may be proper to remark was liquidated by the responsible disbursing officers in the first quarter of 1835.

Statement B exhibits the total amount of funds remaining in the hands of disbursing officers at the close of the year 1834, and which have been remitted to them and to contractors during the first, second, and third quarters of the year 1835. This amount will be seen to have been..... $739, 919 68
And the portion of this sum expended, and for which accounts have been rendered during the same period, will be seen in the same statement to have amounted to..... 650, 216 31

The unexpended balance exhibited in the same statement as being in the hands of disbursing officers at the close of the third quarter of 1835 having been..... $89, 703 37

Statement C presents a view of the general result of the operations at the several arsenals and armories of the United States in the manufacture, repair, and purchase of the principal articles of ordnance, ordnance stores, and building materials. It exhibits the result of these operations to the extent to which they have been completed, during the year between October 1, 1834, and September 30, 1835, indicating, among other articles of ordnance and ordnance stores which have been fabricated or procured, the following, viz: of artillery, 98 32-pounder iron cannon; 3 12-pounder and 4 6-pounder iron cannon; 34 32-pounder casemate carriages, complete; 158 32-pounder casemate chasses; 3 24-pounder casemate, and 177 24-pounder barbette carriages, complete; 77 24-pounder casemate chasses; 33 field artillery carriages; 4 6-pounder caissons, and one travelling forge.

Of small arms manufactured and procured, viz: 22,506 muskets, complete, made at the national armories, and at the private factories, 7,540 muskets, complete; 1,060 rifles, (Hall's,) 2,000 artillery swords, and 1,840 cavalry sabres.

Of accoutrements for small arms: 750 sets for infantry, 500 sets of rifle accoutrements, 250 sets for cavalry, 2,400 sword belts, and 1,214 sabre belts.

Statement D shows the extent of the operations during the year between October 1, 1834, and September 30, 1835, which have occurred in procuring ordnance and ordnance stores under the act of 1808, for arming and equipping the militia of the States and Territories. This statement presents also a view of the expenditures under the act, which have resulted during the same period, in procuring the stores, amounting, for all objects, to $148,518 49. It exhibits, among other articles of ordnance stores procured, 26 field carriages, with their equipments, complete; 7,540 muskets, 1,060 rifles, (Hall's,) 2,000 artillery swords, 840 cavalry sabres, 2,374 sword and sabre belts, and 330 percussion cannon locks.

Statement E exhibits the amount of ordnance and ordnance stores which have been apportioned for the year 1834 to the several States and Territories under the act of 1808 for arming and equipping the militia, this apportionment being founded on the recent returns of the strength of the militia as made by the adjutant generals of the militia of the several States to the adjutant general of the army.

Statement F shows the several articles of ordnance and ordnance stores which have been distributed to the militia of the States and Territories during the year between October 1, 1834, and September 30, 1835.

Statement G presents a view of the munitions of war issued by this department during the year, between October 1, 1834, and September 30, 1835, to the army. In this it will appear that 89 32-pounder, 162 24-pounder, 6 12-pounder, 18 6-pounder iron cannon; 34 32-pounder casemate carriages, 36 24-pounder barbette carriages, 6 12-pounder and 19 6-pounder field carriages; 105 muskets; 750 dragoon sabres; 110 (Hall's) carbines; 67 rifles, and 196 sets of infantry accoutrements, are among the principal articles issued.

Statement H exhibits the operations of the lead mines for the year ending September 30, 1835, and statement I the amount of lead made at these mines in each year from the year 1821 to September 30, 1835.

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	Pounds.
By these statements it will appear that the lead made during the said year amounts to....	3, 754, 290
Total amount of lead made from 1821 to September 30, 1835.....	75, 571, 609
Total amount of rent lead accruing for the above period.....	5, 909, 216
Amount of rent lead due to the United States yet to be collected.....	493, 313

The returns of lead made during the last year exceed the returns of this year by 4,217,289 pounds. This has not been caused by a decrease in the manufacture of lead, but by the refusal of numbers of the smelters to make the required returns to the superintendent and pay in their rent lead. The grounds of their refusal are: first, that the act of March 3, 1807, contains no authority for collecting rent lead on a *license for smelting* lead ore; and, secondly, that any law authorizing the leasing of public land within the limits of a State is unconstitutional.

To test the validity of these objections suits have been ordered against some of the most prominent and influential of the delinquents, under a belief that the final adjudication of their cases would restore order, without resorting to further measures, or incurring additional expense.

There are, however, other views of this subject which it now becomes proper to state, viz:

The decision of a suit by the proper tribunal might settle the *constitutional* question in favor of a State, but the principles of that decision might not be applicable to the condition of a Territory. Should a decision be made which would bind the one and exonerate the other, the operation would be partial and unequal. In the sales of the public lands which have taken place in the mineral region it appears that conflicting interests have arisen which, probably, can only be adjusted by an entire sale of the mineral and timbered lands.

Such a course is therefore respectfully recommended as being best adapted to remove existing difficulties and promote the general prosperity of that section of the Union.

As regards the building operations progressing at the several arsenals, I have the honor to state that they have proceeded to the extent of the last annual appropriation for those objects, and have been conducted in the most efficient manner by the several superintending officers.

I beg leave to call your attention to the very inadequate compensation of the clerks of the Ordnance office, and to request that, for the performance of duties confessedly as arduous and important as those of any other bureau of the War Department, measures may be taken to put them upon a footing of equality, in respect to salary, with the clerks in the offices of the commissary general of subsistence and of the paymaster general.

I have the honor to be, sir, respectfully, your obedient servant,

GEO. BOMFORD, *Colonel of Ordnance.*

Hon. LEWIS CASS, *Secretary of War.*

A.—*Statement of the money expended through the ordnance department in the year* 1834.

Officer's name and station.	Amount of sums remitted, including the balances in the hands of agents on January 1, 1834. Appropriations.														
	National armories.	Current expenses of ordnance service.	Arsenals.	Armament of new fortifications.	Arming and equipping the militia.	For thirty-six double racks.	For additional machinery.	Erecting two dwelling-houses.	For building a pay office.	For the new arsenal.	Slating roofs and rebuilding water-wheel.	Erecting forging shop.	Slating roofs of four workshops.	Enlargement of the canal.	Repairing the walls of four workshops.
Charles Howard, armory, Springfield, Massachusetts	$186,773 93				$4,138 64	$3,063 00	$9,323 10	$2,730 65	$2,000 00	$7,800 00	$3,500 00	$8,044 41			
Daniel Bedinger, armory, Harper's Ferry, Virginia	182,962 17												$186 58	$14,998 27	$650 05
Capt. J. W. Ripley and Lieut. Robt. Anderson, arsenal, Augusta, Me.		$1,553 44	$10,899 03												
Major H. K. Craig, arsenal, Watertown, Massachusetts		2,616 55	1,628 00		15,396 63										
Captain Benjamin Huger, arsenal, Fort Monroe, Virginia		3,624 09	6,596 84	$40,531 58											
Captain Charles Ward, arsenal, Vergennes, Vermont		160 02	1,150 00												
Lieutenant Colonel George Talcott, arsenal, Watervliet, New York		17,936 83	14,650 00	300 00	7,900 00										
Captain H. S. Mallory, arsenal, Rome, New York		1,723 95													
Major R. L. Baker, arsenal, Pittsburg, Pennsylvania		7,424 18	5,788 22		4,196 42										
Lieut. Colonel W. J. Worth, arsenal, Frankford, Pennsylvania		5,294 53	17,650 00	880 00	1,273 21										
Lieutenant Wm. Maynadier, arsenal, Pikesville, Maryland		1,392 20													
Capt. Richard Bache & Marcus C. Buck, arsenal, Washington city		11,152 12	5,400 00	417 12	5,164 34										
Marcus C. Buck & Moses McArthur, arsenal near Richmond, Va.		1,124 60													
Capt. N. Baden & Lieut's Herring & Lagnelle, arsenal, Augusta, Ga.		1,050 00													
Captain Edward Harding, arsenal, Mount Vernon, Alabama		300 00	19,792 31												
Captain John Hills, arsenal, Apalachicola, Florida			39,453 30												
Lieut. F. L. Jones & Lieut. W. S. Newton, arsenal, Baton Rouge, La.		1,690 00	825 49		30 90										
Captain J. Symington, arsenal, St. Louis, Missouri		6,244 81	37,748 87		1,500 00										
Captain J. Howard, arsenal, Detroit, Michigan		368 32	27,337 36												
Major J. L. Smith and Capt. S. Perkins, depot, New York		1,623 28	7,724 60		1,325 76										
Lieut. James Allen and William L. Poole, depot, Charleston, S. C.		639 85													
Major T. C. Legate, lead mines, Galena, Illinois		5,501 72													
Sundry persons, for cannon and small arms				76,259 29	132,200 47										
Settlements on audited accounts	867 64	14 47	17 47												
Total	370,603 74	71,434 96	196,591 49	88,387 99	173,126 37	3,063 00	9,323 10	2,730 65	2,000 00	7,800 00	3,500 00	8,044 41	186 58	14,998 27	650 05

A.—*Statement of the money expended through the ordnance department in the year* 1834—Continued.

Officer's name and station.	Amount of sums remitted, including the balances in the hands of agents on January 1, 1834. Appropriations. Construction of new wheels and machinery.	Repair and extension of the public dam.	Erecting storehouses.	Completion of machinery.	Erecting dwelling-houses.	For the purchase of cannon.	More perfect defence of the frontier.	Purchase of (arms) accoutrements for South Carolina.	Purchase of (arms) accoutrements for mounted rangers.	Purchase of three acres of land on the Alabama river.	Arsenal at St. Louis.	Total amount.	Amount expended and accounted for.	Balances remaining unexpended in the hands of disburs'g officers, Dec. 31, 1834.
Charles Howard, armory, Springfield, Massachusetts												$219,329 32	$206,251 99	$13,077 33
Daniel Bedinger, armory, Harper's Ferry, Virginia	$2,105 10	$3,625 45	$4,000 00	$24,200 00	$4,020 33							244,792 36	225,736 08	19,056 28
Capt. J. W. Ripley and Lieut. Robt. Anderson, arsenal, Augusta, Me.												12,382 47	10,960 53	1,421 94
Major H. K. Craig, arsenal, Watertown, Massachusetts							$5,000 00	$2,141 50	$2,598 00			29,360 68	17,820 74	11,539 94
Captain Benjamin Huger, arsenal, Fort Monroe, Virginia												20,752 51	18,247 18	2,505 33
Captain Charles Ward, arsenal, Vergennes, Vermont												1,310 02	1,310 02	
Lieutenant Colonel George Talcott, arsenal, Watervliet, New York												40,786 83	39,180 01	1,606 82
Captain H. S. Mallory, arsenal, Rome, New York												1,723 95	1,709 37	14,58
Major R. L. Baker, arsenal, Pittsburg, Pennsylvania								3,989 50				21,398 32	17,270 26	4,128 06
Lieut. Colonel W. J. Worth, arsenal, Frankford, Pennsylvania												25,097 74	24,238 35	859 39
Lieutenant Wm. Maynadier, arsenal, Pikesville, Maryland												1,392 20	1,254 13	138 07
Capt. Richard Bache & Marcus C. Buck, arsenal, Washington city												22,133 58	20,075 80	1,057 78
Marcus C. Buck & Moses McArthur, arsenal near Richmond, Va.												1,124 60	1,115 93	8 67
Capt. N. Baden & Lieut's Herring & Lagnelle, arsenal, Augusta, Ga.												1,050 00	443 83	606 17
Captain Edward Harding, arsenal, Mount Vernon, Alabama									$1,800 50			21,892 81	15,748 22	6,144 59
Captain John Hills, arsenal, Apalachicola, Florida												39,453 30	37,885 22	1,568 08
Lieut. F. L. Jones & Lieut. W. S. Newton, arsenal, Baton Rouge, La.												2,546 39	2,034 39	512 00
Captain J. Symington, arsenal, St. Louis, Missouri											$8,500 00	53,993 68	33,888 95	20,104 73
Captain J. Howard, arsenal, Detroit, Michigan												27,705 68	27,705 68	
Major J. L. Smith and Capt. S. Perkins, depot, New York												10,673 64	7,856 26	2,817 38
Lieut. James Allen and William L. Poole, depot, Charleston, S. C.												639 85	600 12	39 73
Major T. C. Legate, lead mines, Galena, Illinois												5,501 72	4,719 70	782 02
Sundry persons, for cannon and small arms						$4,266 67	20,561 12					233,287 55	233,287 55	
Settlements on audited accounts												899 58	899 58	
Total	2,105 10	3,625 45	4,000 00	24,200 00	4,020 33	4,266 67	25,561 12	6,131 00	2,598 00	8,500 00	8,500 00	1,039,248 78	951,239 89	88,008 89

ORDNANCE OFFICE, *Washington, November* 20, 1835.

GEO. BOMFORD, *Colonel of Ordnance.*

AMERICAN STATE PAPERS. MILITARY AFFAIRS, V, 721.
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B.

Statement of the money expended through the Ordnance department during the first, second, and third quarters of 1835.

Stations.	Amount transmitted in the 1st, 2d, and 3d quarters of 1835, and balances remaining in officers' hands at the close of the year 1834.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of the year 1835.	Balances remaining in officers' hands October 1, 1835.
Armory, Springfield, Massachusetts	$141, 083 52	$120, 665 40	$20, 418 12
Armory, Harper's Ferry, Virginia	161, 918 18	144, 185 24	17, 732 94
Arsenal, Augusta, Maine	4, 826 94	4, 224 75	602 19
Arsenal, Watertown, Massachusetts	45, 773 84	43, 284 47	2, 489 37
Arsenal, Fort Monroe, Virginia	25, 928 51	20, 115 61	5, 812 90
Arsenal, Vergennes, Vermont	205 28	199 45	5 83
Arsenal, Watervliet, New York	50, 210 61	46, 219 73	3, 990 88
Arsenal, Rome, New York	1, 214 58	1, 214 58	.....
Arsenal, Pittsburg, Pennsylvania	22, 073 81	16, 738 87	5, 334 94
Arsenal, Frankford, Pennsylvania	26, 096 63	21, 691 60	4, 405 03
Arsenal, Pikesville, Maryland	1, 828 60	1, 777 69	50 91
Arsenal, Washington city	22, 274 90	17, 120 12	5, 154 78
Arsenal near Richmond, Virginia	110 62	110 62	.....
Arsenal, Augusta, Georgia	1, 098 17	1, 074 91	23 26
Arsenal, Mount Vernon, Alabama	16, 944 59	14, 081 03	2, 863 56
Arsenal, Apalachicola, Florida	26, 968 08	20, 920 24	6, 047 84
Arsenal, Baton Rouge, Louisiana	11, 007 70	6, 398 00	4, 609 70
Arsenal, St. Louis, Missouri	28, 342 60	25, 687 90	2, 654 70
Arsenal, Detroit, Michigan Territory	18, 591 99	17, 852 78	739 21
Depot, New York	8, 464 14	1, 812 10	6, 652 04
Depot, Charleston, South Carolina	596 53	481 36	115 17
United States lead mines, Galena, Illinois	4, 247 02	4, 247 02	.....
Sundry persons for cannon, gun-carriages, and small arms	117, 599 10	117, 599 10	.....
Settlements on audited accounts	2, 513 74	2, 513 74	.....
Total	739, 919 68	650, 216 31	89, 703 37

GEO. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 20, 1835.

NOTE.—The officer in charge of the Apalachicola arsenal died the 6th October last, and no cash accounts have been received from that post for the third quarter of 1835.

G. B.

2.42a 1836 Estimates ASP-MA-V p. 732

24TH CONGRESS.] No. 616. [1ST SESSION.

EXPLANATORY ESTIMATES FOR THE ORDNANCE DEPARTMENT FOR 1836, AND THE NUMBER, LOCATION, AND CONDITION OF HOSPITALS FOR THE USE OF THE ARMY.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES DECEMBER 29, 1835.

Estimate for the service of the Ordnance department for the year 1836.

A.—For the national armories			$330,000
B.—For the armament of fortifications, viz:			
Providing in part the cannon, howitzers, mortars, cannon balls, shells, gun-carriages, mortar-beds, &c., for the fortifications completed, and for those now erecting			200,000
C.—For the current expenses of the ordnance service, viz:			
Repairing small arms of the several arsenals and depots		$15,675	
Constructing and repairing field artillery carriages		11,450	
Ordinary repairs, to keep the public buildings in order at the several arsenals and depots		13,320	
Repairing and preserving military stores at the arsenals and fortifications		8,750	
Miscellaneous expenses at arsenals, including stationery, printing, fuel, forage for public horses, and other incidental expenses		10,000	
Providing ordinary military supplies for the army		9,150	
Expenses of the lead mines, viz:			
Compensation to the persons employed in collecting rents, receiving and distributing lead	$4,650		
Stationery, printing, fuel, forage for public horses, &c	1,475		
For building two warehouses and an office on the west bank of the Mississippi river	1,200		
		7,325	
			75,670
D.—For the purchase of gunpowder:			
For the purchase of 5,000 barrels of gunpowder, or materials for the same			100,000

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24TH CONGRESS.] No. 617. [1ST SESSION.

PROPOSAL OF THE SECRETARY OF WAR FOR AN APPROPRIATION FOR PAYING THE FLORIDA MILITIA CALLED OUT TO SUPPRESS INDIAN HOSTILITIES IN THAT STATE.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES JANUARY 5, 1836.

WAR DEPARTMENT, *January* 4, 1836.

SIR: Information has reached this department that hostilities have been commenced by the Seminole Indians in Florida. General Clinch has the command of the troops in that Territory, and has, subject to his orders, fourteen companies of the army, amounting to about seven hundred men. He has also been authorized to call upon the acting governor for such militia force as he may find necessary. Under this authority a considerable number have been ordered out and are now in the field. The means of making anything like a detailed estimate of the expenses are not within the reach of the department; but it is necessary that funds should be provided to meet the claims which will no doubt be presented without delay, and one of which has already been made. I have therefore the honor to propose that an appropriation may be made of the sum of eighty thousand dollars for the expenses attending the repression of the hostilities commenced by the Seminole Indians in Florida.

Very respectfully, your most obedient servant,

LEWIS CASS.

Hon. C. C. CAMBRELENG, *Chairman Committee Ways and Means, Ho. Reps.*

24TH CONGRESS.] No. 618. [1ST SESSION.

QUANTITY AND CONDITION OF THE ORDNANCE AND ORDNANCE STORES AND ARMS BELONGING TO THE UNITED STATES AT THE ARMORIES, ARSENALS, DEPOTS, AND FORTS; AND EXPENDITURES AT THE SEVERAL ARMORIES AND ARSENALS, AND FOR THE MANUFACTURE OF HALL'S RIFLES, FROM 1816 TO 1834.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES JANUARY 5, 1836.

WAR DEPARTMENT, *January* 2, 1836.

SIR: In compliance with the resolution of the House of Representatives of February 23, 1835, calling upon this department for certain information in regard to the condition of the ordnance and ordnance stores belonging to the United States, and the expenditures accruing therefrom, I have the honor to transmit two reports; the first from the colonel of ordnance, the second from the Second Auditor.

The latter shows the amount and objects of expenditure from 1816, when the office was established, to the close of 1834.

For the information required by the resolution for the period prior to 1816, I beg leave to refer to the document that accompanied the President's message of January 3, 1823,* in the second session of the 17th Congress, which may be found in the ninth volume of the State Papers, and which I request may be considered a part of this report.

Very respectfully, your most obedient servant,

LEWIS CASS.

Hon. JAMES K. POLK, *Speaker of the House of Representatives.*

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P738

ORDNANCE OFFICE, *Washington, December* 24, 1835.

SIR: I have the honor to transmit herewith the several statements, (marked from A to D, inclusive,) made in obedience to the resolution of the House of Representatives of the 23d February, 1835. They contain all the information called for as fully as can be obtained from the records of this office.

Statement A exhibits that part of the information called for by the following quotation from the resolution: "A statement showing the state and condition of the ordnance and ordnance stores under the control of the Ordnance department, the number and kinds of arms and accoutrements, and heavy ordnance on hand, specifying the number and kinds fit for service."

Statement B exhibits "the average cost of each kind of ordnance and small arms and accoutrements in each year."

Statement C exhibits the number of officers and workmen "employed at the respective armories and arsenals in each year;" and "the number of workmen, in each year, devoted to the manufacture of Hall's patent rifles."

Statement D exhibits "the number and kinds of arms produced;" and "the number of Hall's rifles annually produced, and the place where manufactured."

A copy of the resolution above-mentioned, copied in full on the succeeding page, is also transmitted. Those parts of it which are complied with by this office being designated by red lines, [printed in *italic.*]

I have the honor to be, sir, your most obedient servant,

G. BOMFORD, *Colonel of Ordnance.*

Hon. LEWIS CASS, *Secretary of War.*

TWENTY-THIRD CONGRESS, SECOND SESSION.

CONGRESS OF THE UNITED STATES.

IN THE HOUSE OF REPRESENTATIVES, *February* 23, 1835.

On motion of Mr. Mann, of New York,

Resolved, That the Secretary of War be requested to report to the next Congress, at the commencement of their first session, a statement showing *the state and condition of the ordnance and ordnance stores under the control of the Ordnance department, the number and kind of arms and accoutrements, and heavy ordnance on hand, specifying the number and kinds fit for service;* the amount of money expended in each year at the respective armories and arsenals, and the general objects of such expenditure, since their establishment; *the average cost of each kind of ordnance and small arms and accoutrements in each year,* showing the aggregate expense of buildings, implements, and machinery, devoted to the manufacture of arms at each armory; *the number of officers and workmen employed at the respective armories and arsenals in each year, and the number and kinds of arms produced,* the aggregate cost of the whole, and *the average cost of each description manufactured;* and showing, separately, the expenditure, for each year, of buildings, machinery, implements, workmen, and *their number, in each year, devoted to the manufacture of Hall's patent rifles; the number annually produced, and the place where manufactured; the average cost of each, including buildings, machinery, and all charges; and the number now belonging to the United States.*

Attest:

W. S. FRANKLIN, *Clerk.*

SPECIAL INDEX.

A statement showing the state and condition of the ordnance and ordnance stores under the control of the Ordnance department; the number and kind of arms and accoutrements, and heavy ordnance on hand, specifying the number and kinds fit for service.—(See "Statement A.")

The average cost of each kind of ordnance and small arms, and accoutrements in each year.—(See "Statement B.")

The number of officers and workmen employed at the respective armories and arsenals in each year.—(See "Statement C.")

The number and kinds of arms produced.—(See "Statement D.")

The average cost of each description manufactured.—(See "Statement B.")

Number of workmen devoted to the manufacture of Hall's patent rifles.—(See "Statement C.")

Number of Hall's patent rifles annually produced, and place where manufactured.—(See "Statement D.")

The other information called for by the resolution is furnished by the Second Auditor.

[a] For this document see volume 2 State Papers on Military Affairs, No. 236, page 472.

Statement of the average cost of small arms at the Springfield and Harper's Ferry armories, from the year 1795 *to* 1835.

Year.	Springfield.			Harper's Ferry.					Remarks.
	Muskets.	Rifles.	Wall pieces.	Muskets.	Rifles.	Pistols.	Indian guns.	Cadet muskets.	
1795	$12 06	$17 00	.....	$15 78	$17 00	$16 00	.....	.....	The information in possession of this department, on the subject of the cost of the manufacture of small arms at the national armories, between the years 1795 and 1821, is very imperfect. These establishments were not in charge of this department, but in that of the purveyor of public supplies, under the direction of the Secretary of War, until 1816, when they were put in charge of this department.
1796	.....	.....	.....	.....	.....	.....	.....	.....	
1797	.....	.....	.....	.....	.....	.....	.....	.....	
1798	.....	.....	.....	.....	.....	.....	.....	.....	
1799	.....	.....	.....	.....	.....	.....	.....	.....	
1800	12 06	17 00	.....	15 78	17 00	16 00	.....	.....	
1801	.....	.....	.....	.....	.....	.....	.....	.....	
1802	.....	.....	.....	.....	.....	.....	.....	.....	
1803	.....	.....	.....	.....	.....	.....	.....	.....	
1804	.....	.....	.....	.....	.....	.....	.....	.....	
1805	12 06	17 00	.....	15 78	17 00	16 00	.....	.....	
1806	.....	.....	.....	.....	.....	.....	.....	.....	
1807	.....	.....	$50 00	.....	.....	.....	.....	.....	
1808	.....	.....	.....	.....	.....	.....	.....	.....	
1809	.....	.....	.....	.....	.....	.....	.....	.....	
1810	12 06	17 00	.....	15 78	17 00	16 00	$13 00	.....	The average cost of the arms during the above period, (from 1795 to 1821, inclusive,) at the armories, from the best information that can be collected from the imperfect documents is, at Springfield, $12 06, and at Harper's Ferry, $15 78. It is to be remarked that this difference against Harper's Ferry arose from the high transportation occasioned by its then difficulty of access, the high prices of the necessaries of life, joined to the unhealthiness of its location.
1811	.....	.....	.....	.....	.....	.....	13 00	.....	
1812	.....	.....	.....	.....	.....	.....	.....	.....	
1813	.....	.....	.....	.....	.....	.....	.....	.....	
1814	.....	.....	.....	.....	.....	.....	.....	.....	
1815	12 06	17 00	.....	15 78	17 00	16 00	.....	.....	
1816	.....	.....	.....	.....	.....	.....	.....	.....	
1817	.....	.....	.....	.....	.....	.....	.....	.....	
1818	.....	.....	.....	.....	.....	.....	.....	.....	
1819	.....	.....	.....	.....	.....	.....	.....	.....	
1820	.....	.....	.....	.....	.....	.....	.....	.....	
1821	12 06	17 00	.....	15 78	17 00	16 00	.....	.....	
1822	11 35	.....	.....	11 76	.....	.....	.....	.....	
1823	11 45	.....	.....	11 62	.....	.....	.....	.....	
1824	11 27	.....	.....	14 26	.....	.....	.....	.....	
1825	10 50	.....	.....	11 56	.....	.....	.....	.....	
1826	10 47	.....	.....	12 43	.....	.....	.....	.....	
1827	10 49	.....	.....	11 63	.....	.....	.....	.....	
1828	10 54	.....	.....	12 40	.....	.....	.....	.....	
1829	10 02	.....	.....	15 13	.....	.....	.....	.....	
1830	10 98	.....	.....	11 25	.....	.....	.....	.....	
1831	11 44	.....	.....	11 25	.....	.....	.....	$30 00	
1832	11 66	.....	.....	11 62	.....	.....	.....	.....	
1833	11 80	.....	.....	11 80	.....	.....	.....	.....	
1834	11 05	.....	.....	11 66	.....	.....	.....	.....	

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p. 914

C.

Statement of the number of workmen employed at the respective arsenals in each year.

Stations.	1822.		1823.		1824.		1825.		1826.		1827.		1828.		1829.		1830.		1831.		1832.		1833.		1834.	
	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.	Hired.	Enlisted.
Pittsburg	8	10	14	9	15	8	30	7	33	9	49	7	48	9	69	9	47	9	33	9	36	10	23	28	17	33
Pikesville	4	2	4	5	6	5	5	5	9	5	9	3	9	5	4	5	3	5	3	4	2	5	1	5	3	5
Fort Monroe	....	....	....	....	....	....	4	....	4	....	4	3	5	3	7	3	8	4	7	3	24	3	26	6	23	16
Washington City	....	5	....	5	....	12	41	11	42	14	40	15	43	10	56	9	40	9	34	9	35	11	22	23	19	28
Frankford	....	4	....	4	....	4	....	5	....	3	3	3	3	4	3	4	5	4	4	4	8	4	5	18	15	21
Watervliet	6	8	8	8	13	8	19	8	21	8	23	6	43	7	54	8	51	8	45	8	46	8	40	18	35	31
Watertown	6	5	7	5	8	5	6	5	4	4	7	5	6	5	6	4	5	5	3	5	5	5	3	7	3	13
Baton Rouge	....	....	....	2	18	5	11	4	16	5	9	4	23	4	26	3	13	3	13	1	6	1	3	5	2	11
Rome	....	2	2	2	2	2	3	2	1	2	5	2	6	2	6	1	7	1	8	1	7	1	3	3	4	5
Vergennes	....	....	....	....	....	....	....	....	45	....	16	....	18	....	18	....	1	....	2	....	6	1	3	3	6	3
Augusta, Georgia	....	5	6	3	8	2	5	3	4	2	3	2	4	1	10	1	10	1	8	..	3	2	1	3	1	2
Richmond	....	5	....	2	....	2	2	1	7	1	12	1	3	....	12	....	6	....	14	....	4	....	6	....	5	....
New York	....	....	....	2	....	2	....	2	1	2	2	2	4	1	4	1	4	1	4	1	5	1	3	1	3	1
Detroit	....	2	...	....	....	....	1	....	6	....	5	....	2	....	4	....	3	....	3	....	5	2	54	5	38	5
St. Louis	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	1	5	1	16	2	16	2	12	16	16	20
Mount Vernon, Alabama	....	....	....	..	....	....	....	....	....	....	....	....	....	....	60	....	90	....	79	....	46	3	24	9	23	11
Kennebec	....	....	....	....	....	....	....	....	....	....	....	...	23	....	31	....	34	....	12	....	9	....	6	3	8	13
Florida	....	....	....	....	....	.	....	....	....	....	....	....	....	....		....	....	....	....	....	4	....	32	....	31	1
Charleston Depot	....	...	....	..	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	11	....	3	....

Number of officers employed at the respective arsenals in each year.

Stations.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.	1830.	1831.	1832.	1833.	1834.
Pittsburg	3	3	2	1	3	3	4	4	4	4	3	3	4
Pikesville	2	2	2	1	1	2	2	2	2	2	1	1	2
Fort Monroe	.....	.....	.....	2	2	2	2	2	2	2	1	2	2
Washington City	3	2	3	3	1	2	2	2	2	2	3	3	3
Frankford	2	2	2	2	2	2	2	2	2	2	1	2	2
Watervliet	4	4	3	4	4	4	4	3	3	3	3	3	4
Watertown	3	2	2	2	1	2	2	1	2	2	2	2	2
Baton Rouge	2	1	2	2	2	1	2	2	1	1	1	1	1
Rome	1	1	1	1	1	1	1	1	1	1	1	1	1
Vergennes	.....	.....	.....	.....	1	1	1	1	1	1	1	1	1
Augusta, Georgia*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richmond†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New York	2	1	1	1	1	1	1	1	1	1	1	1	2
St. Louis	.....	.....	.....	.....	1	1	2	2	2	2	3	1	2
Mount Vernon	.....	.....	.....	.....	...	.....	1	2	2	2	1	1	1
Kennebec	.....	.....	.....	.....	.....	.....	1	1	1	2	1	1	1
Florida	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1
Charleston	1	1	1	1	1	1	1	1	1	1	2	2	1
Bellefontaine	1	1	1	1	1	1	1	1	.....	.....	.....	.....	.....
Detroit	1	1	1	1	1	1	1	1	1	1	1	1	1

* A company of artillery has been stationed at this post since 1821.
† A company of artillery was stationed at this post from 1821 to 1831.

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Number of officers and workmen employed at the respective armories in each year from 1795 to 1834, inclusive.

Arsenals.	1795.	1796.	1797.	1798.	1799.	1800.	1801.	1802.	1803.	1804.	1805.	1806.	1807.	1808.	1809.	1810.	1811.	1812.	1813.	1814.	1815.	1816.	1817.	1818.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.	1830.	1831.	1832.	1833.	1834.
Springfield	28	34	66	140	150	150	100	75	75	75	75	75	100	100	215	210	214	240	225	215	235	240	250	236	251	262	265	256	268	265	268	272	268	265	270	275	279	276	264	262
Harper's Ferry	....	....	....	....	....	....	...	28	20	37	51	67	71	87	153	197	209	210	208	210	202	222	231	237	242	253	234	237	253	260	272	231	239	217	205	196	242	272	249	255

Number of workmen devoted to the manufacture of Hall's patent rifles in each year from 1819 to 1834, inclusive.

Occupation.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.	1830.	1831.	1832.	1833.	1834.
On rifles and equipments	2¾	6½	7¾	5 1-3	12 1-4	16	10 1-2	13 1-4	32 11-12	31 5-6	21 1-12	26¼	35 7-12	39 11-12	37½	36
On buildings, tools, and machinery	2¼	11⅛	9	10 7-12	11 11-12	18 7-12	29 1-12	16 1-6	24 2-3	35	39 1-6	25¾	30 1-2	35	40	19 1-12

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D.

Number and kinds of arms produced in each year at Harper's Ferry armory.

Year.	Fabricated.																			Repaired.			
	Muskets.	Rifles.	Pistols.	Pattern muskets.	Pattern rifles.	Pattern pistols.	Wall pieces.	Harpoon guns.	Torpedo locks.	Torpedo lock-bores.	Cannon locks.	Verifying instruments.	Ball-screws.	Screw-drivers.	Bullet moulds.	Wipers.	Rifle chargers.	Spring vices.	Lead flint rods, extra.	Muskets.	Rifles and carbines.	Pistols and swords.	Value of repaired arms in new muskets.
From 1796 to January 1, 1821	119,911	19,718	4,088	30	19	18	7	4	40	25	6	.....	19,718	37,750	19,718	19,718	19,718	6,034	.....	11,469	780	581	3,208
1821.....do.....1822	10,000	.....	.....	32	.....	.....	.....	.....	.....	.....	.....	32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1822.....do.....1823	12,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,343	.....	.....	.....	.....	.....	.....	.....	.....	.....
1823.....do.....1824	10,559	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,722	5,922	.....	7,173	.....	3,172	84,771	.....	.....	.....	.....
1824.....do.....1825	14,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	500	26,926	.....	11,000	.....	.....	.....	.....	.....	.....	.....
1825.....do.....1826	8,720	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,927	53,112	.....	31,827	.....	.....	.....	.....	.....	.....	.....
1826.....do.....1827	12,020	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,576	.....	26,000	.....	.....	10,755	.....	.....	.....	.....
1827.....do.....1828	10,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35,679	.....	25,000	.....	10,100	7,440	.....	.....	.....	.....
1828.....do.....1829	8,915	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,653	.....	.....	.....	.....	50,383	.....	.....	.....	.....
1829.....do.....1830	10,130	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41,575	.....	.....	.....	.....
1830.....do.....1831	11,160	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,454	.....	.....	.....	.....
1831.....do.....1832	12,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	629	.....	.....	.....	.....
1832.....do.....1833	12,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	.....	15,440	.....	.....	17,084	.....	.....	.....	.....
1833.....doo.....1834	12,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23,001	.....	21,430	.....	.....	6,000	.....	.....	.....	.....
Total	263,615	19,718	4,088	62	19	18	7	4	40	25	6	33	34,163	206,974	19,718	157,578	19,718	19,306	232,091	11,469	780	581	3,208

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D—Continued.

Number and kinds of arms produced in each year at Springfield armory, and the number of Hall's patent rifles annually produced, and place where manufactured.

Year.	Muskets.	Pattern muskets.	Rifles.	Pistols.	Carbines.	Cadet muskets.	Muskets repaired.	Carbines repaired.	Ball-screws.	Screw-drivers.	Wipers.	Spring vices.	Flint cups.	Arm-chests.	Sets of verifying instruments.	Value of repaired arms in new muskets.	Number of rifles and sets of equipments manufactured at Hall's rifle factory.	Number of rifles manufactured at Middletown, Connecticut.
From 1796 to January 1, 1821	178,759	.....	250	1,000	1,202	.....	46,325	.....	2,600	38,000	.....	2,690	.....	.....	.....	11,540	.....	.....
1821.....do..... 1822	13,200	30	.....	.....	.....	.....	220	.....	1,440	13,200	2,200	1,320	.....	659	10	.....	.....	.....
1822.....do..... 1823	14,000	.....	.....	.....	.....	.....	.....	.....	1,400	14,000	15,831	1,400	.....	1,065	.....	.....	22	.....
1823.....do..... 1824	14,000	.....	.....	.....	.....	.....	.....	.....	1,400	14,000	15,100	1,400	.....	661	.....	.....	980	1,444
1824.....do..... 1825	15,000	.....	.....	.....	.....	.....	.....	.....	1,500	15,000	15,000	1,500	.....	237	.....	.....	.....	2,620
1825.....do..... 1826	15,000	.....	.....	.....	.....	.....	.....	.....	1,550	15,500	15,500	1,550	.....	249	.....	.....	.....	1,440
1826.....do..... 1827	14,500	.....	.....	.....	.....	.....	.....	.....	1,450	14,500	14,500	1,450	.....	824	.....	.....	1,000	1,500
1827.....do..... 1828	15,500	.....	.....	.....	.....	.....	.....	.....	1,550	15,500	15,500	1,550	.....	721	.....	.....	.....	.....
1828.....do..... 1829	16,500	.....	.....	.....	.....	.....	.....	.....	1,650	16,500	31,500	4,650	.....	934	.....	.....	.....	1,200
1829.....do..... 1830	16,500	.....	.....	.....	.....	.....	.....	.....	1,650	16,500	16,500	1,650	16,500	1,060	.....	.....	.....	600
1830.....do..... 1831	16,200	.....	.....	.....	.....	300	.....	31	1,620	16,540	16,538	1,655	16,540	1,183	.....	.....	.....	1,200
1831.....do..... 1832	13,600	.....	.....	.....	.....	.....	.....	220	1,360	13,600	21,200	1,360	13,600	579	.....	.....	4,360	1,340
1832.....do..... 1833	12,400	.....	.....	.....	.....	.....	.....	.....	1,240	11,600	17,400	1,240	12,400	110	.....	.....	3,670	900
1833.....do..... 1834	14,000	.....	.....	.....	.....	.....	.....	.....	1,458	14,706	22,063	2,032	15,400	.....	.....	.....	970	540
Total	369,659	30	250	1,000	1,202	300	46,545	251	21,668	229,146	218,832	25,447	74,440	9,082	10	11,540	11,002	11,780

TREASURY DEPARTMENT, *Second Auditor's Office, November* 16, 1835.

SIR: In compliance with the request contained in your letter of March 25, 1835, enclosing a copy of a resolution of the House of Representatives of February 23, 1835, calling for certain information respecting ordnance and ordnance stores, I have the honor to transmit herewith a statement exhibiting the amount of money expended in each year at the respective armories and arsenals, and the general object of such expenditure, from the year 1816, when the records of this office commence, to the end of 1834; together with the aggregate expense of the manufacture of arms at each armory, and the annual expenditure, as far as can be ascertained, for the manufacture of Hall's patent rifles.

Very respectfully, sir, your obedient servant,

W. B. LEWIS.

HON. LEWIS CASS, *Secretary of War.*

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Statement exhibiting the amount of money expended in each year at the respective armories and arsenals, and the general object of such expenditure, from the year 1816 *to the year* 1834, *inclusive; the aggregate expense of the manufacture of arms at each armory; and showing, separately, the annual expenditure for buildings, machinery, implements, and workmen devoted to the manufacture of Hall's patent rifles; prepared in pursuance of a resolution of the House of Representatives, dated February* 23, 1835.

Armories and arsenals.	1816.			1817.			1818.			1819.		
	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.
Springfield armory, at Springfield, Massachusetts	$2,472 00	$152,741 88	$155,213 88	$6,975 00	$150,015 06	$156,990 06	$3,000 00	$169,937 69	$172,937 69	$4,336 00	$168,307 77	$172,643 77
Harper's Ferry armory, at Harper's Ferry, Virginia	7,743 00	219,543 87	227,286 87	9,299 89	161,601 33	170,900 22	13,903 57	179,121 17	193,024 74	14,336 22	164,679 14	179,015 46
Kennebec arsenal, at Augusta, Maine												
Watertown arsenal, at Watertown, Massachusetts	46,422 92		46,422 92	37,671 37	5,791 65	43,463 02	38,671 86	14,589 88	53,261 74	24,583 61	6,026 67	30,610 28
Champlain arsenal, at Vergennes, Vermont					4,649 27	4,649 27		4,223 41	4,223 41		4,242 95	4,242 95
Watervliet arsenal, at Watervliet, New York	2,372 81	7,264 39	9,637 20	9,269 00	5,103 60	14,372 60	11,276 40	8,225 52	19,501 92		7,702 20	7,702 20
Rome arsenal, at Rome, New York	18,679 25	7,509 03	26,188 28	75 94	3,998 49	4,074 43	287 62	4,138 53	4,426 15	186 28	2,265 86	2,452 14
Allegheny arsenal, at Pittsburg, Pennsylvania	62,316 06	53,593 91	115,909 97	39,773 29	36,682 33	76,455 62	9,296 77	20,066 67	29,363 44	10,244 68	35,256 48	45,501 16
Frankford arsenal, at Frankford, Pennsylvania	17,259 57	27,310 65	44,600 22	25,512 44	15,004 11	40,516 55	4,855 85	9,574 27	14,430 12	10,065 00	11,493 08	21,558 08
Washington arsenal, at Washington city, District of Columbia	16,586 88	4,035 84	20,622 72	13,519 65	11,582 99	25,102 64	358 83	10,226 23	10,585 06	1,328 76	21,330 72	22,659 48
Bellona arsenal, at Richmond, Virginia	72,963 47		72,963 47	43,089 10	174 56	43,263 66	58,715 09	675 41	59,390 50	10,344 98	1,891 99	12,246 97
Augusta arsenal, at Augusta, Georgia	3,350 00		3,350 00	897 00	101 50	998 50	38,644 92		38,644 92	49,060 02		49,060 02
Pikesville arsenal, at Pikesville, Maryland	19,222 99	2,500 44	21,723 43	62,775 47	915 68	63,691 15	2,045 95	1,978 48	4,024 43		6,003 23	6,003 23
Mount Vernon arsenal, at Mount Vernon, Alabama												
Baton Rouge arsenal, at Baton Rouge, Louisiana					10,594 76	10,594 76		11,593 24	11,593 24	18,425 33	5,756 03	24,181 36
St. Louis arsenal, at St. Louis, Missouri											12 50	12 50
Newport arsenal, at Newport, Kentucky	3,063 97	5,935 10	8,999 07	1,306 22	7,817 54	9,123 76	130 05	2,888 70	3,018 75		1,782 16	1,782 16
Detroit depot, Detroit, Michigan Territory					3,667 16	3,667 16		3,782 98	3,782 98	8,751 17	3,078 64	11,829 81
New York depot, New York city, New York		13,163 97	13,163 97		3,092 45	3,092 45		4,092 00	4,092 00		12,927 92	12,927 92
Charleston depot, Charleston, South Carolina					3,317 88	3,317 88		4,830 85	4,830 85		4,282 57	4,282 57
Fort Monroe, Old Point Comfort, Virginia												
Apalachicola arsenal, at Chattahoochee, Florida												
Bellefontaine arsenal, at Bellefontaine, Missouri												

Statement exhibiting the amount of money expended in each year at the respective armories and arsenals, &c.—Continued.

Armories and arsenals.	1820.			1821.			1822.			1823.		
	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.
Springfield armory, at Springfield, Massachusetts	$9,174 75	$170,160 90	$179,335 65	$5,900 00	$167,696 92	$173,596 92	$8,405 41	$173,726 77	$182,132 18	$5,889 96	$176,098 07	$181,988 03
Harper's Ferry armory, at Harper's Ferry, Virginia	22,099 02	154,089 00	176,188 02	19,374 81	143,763 00	163,137 81	52,178 38	139,941 42	192,119 80	13,715 47	150,023 25	163,738 72
Kennebec arsenal, at Augusta, Maine	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Watertown arsenal, at Watertown, Massachusetts	10,784 89	7,196 85	17,981 74	.....	2,239 97	2,239 97	275 58	1,677 47	1,953 05	.....	3,082 07	3,082 07
Champlain arsenal, at Vergennes, Vermont	.....	1,443 67	1,443 67	.....	.....	.....	.....	.....	.....	.....	.....	.....
Watervliet arsenal, at Watervliet, New York	4,156 25	7,438 00	11,594 26	.....	1,879 54	1,879 54	1,118 20	6,761 73	7,879 93	2,773 17	8,393 59	11,166 76
Rome arsenal, at Rome, New York	326 05	1,336 60	1,662 65	.....	520 73	520 73	.....	.....	.....	.....	573 74	573 74
Allegheny arsenal, at Pittsburg, Pennsylvania	338 60	18,367 35	18,705 95	156 60	6,102 31	6,258 91	383 36	7,688 65	8,072 01	216 93	10,003 81	10,220 74
Frankford arsenal, at Frankford, Pennsylvania	2,500 00	12,035 46	14,535 46	2,161 10	2,592 67	4,753 77	295 62	1,978 89	2,274 51	18,905 69	3,325 94	22,231 63
Washington arsenal, at Washington city, District of Columbia	421 15	20,718 37	21,139 52	218 02	8,204 39	8,452 41	142 15	6,034 00	6,176 15	7,383 28	4,374 71	11,657 99
Bellona arsenal, at Richmond, Virginia	2,248 69	4,315 41	6,564 10	.....	1,888 45	1,888 45	281 84	580 50	862 34	.....	601 06	601 06
Augusta arsenal, at Augusta, Georgia	31,110 01	1,173 22	32,283 23	40,843 54	1,673 05	42,516 59	269 95	3,549 70	3,819 65	.....	3,571 84	3,571 84
Pikesville arsenal, at Pikesville, Maryland	.....	5,628 26	5,628 26	.....	3,979 25	3,979 25	55 41	2,654 98	2,710 39	4 59	3,315 05	3,319 64
Mount Vernon arsenal, at Mount Vernon, Alabama	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baton Rouge arsenal, at Baton Rouge, Louisiana	24,956 04	5,490 77	30,446 81	3,944 36	728 80	4,673 16	8,968 20	505 46	9,473 66	1,423 85	1,127 72	2,551 57
St. Louis arsenal, at St. Louis, Missouri	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newport arsenal, at Newport, Kentucky	.....	10,665 60	10,665 60	.....	.....	.....	.....	.....	.....	.....	.....	.....
Detroit depot, at Detroit, Michigan Territory	855 34	274 13	1,129 47	270 41	41 21	311 62	6 79	117 89	124 68	101 69	160 91	262 60
New York depot, at New York city, New York	.....	8,997 70	8,997 70	.....	3,608 37	3,608 37	89 75	1,478 18	1,567 93	12 42	1,454 82	1,467 24
Charleston depot, at Charleston, South Carolina	.....	5,581 05	5,581 05	.....	.....	.....	.....	137 25	137 25	.....	1,165 07	1,165 07
Fort Monroe, at Old Point Comfort, Virginia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Apalachicola arsenal, at Chattahoochee, Florida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bellefontaine arsenal, at Bellefontaine, Missouri	.....	.....	.....	.....	.....	.....	.....	54 53	54 53	.....	41 86	41 86

Statement exhibiting the amount of money expended in each year at the respective armories and arsenals, &c.—Continued.

Armories and arsenals.	1824.			1825.			1826.			1827.		
	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.
Springfield armory, at Springfield, Massachusetts	$21,909 75	$167,919 26	$189,829 01	$8,794 53	$174,174 28	$182,968 81	$3,951 47	$172,847 01	$181,798 48	$14,158 10	$163,921 17	$178,079 27
Harper's Ferry armory, at Harper's Ferry, Virginia	17,476 46	151,085 43	168,561 89	10,591 46	161,172 83	171,764 29	9,733 53	145,809 91	155,543 44	13,622 61	151,079 23	164,701 84
Kennebec arsenal, at Augusta, Maine										4,373 47		4,373 47
Watertown arsenal, at Watertown, Massachusetts		5,721 37	5,721 37		3,944 25	3,941 25		3,101 27	3,104 27		4,253 50	4,253 50
Champlain arsenal, at Vergennes, Vermont							7,061 88		7,061 88	9,165 64		9,165 64
Watervliet arsenal, at Watervliet, New York		9,188 02	9,188 02	2,899 95	9,376 84	12,276 79	35,190 36	12,030 62	47,221 18	8,422 32	10,307 75	18,730 07
Rome arsenal, at Rome, New York		1,409 66	1,409 66		981 05	981 05		785 83	785 83		1,788 20	1,788 20
Allegheny arsenal, at Pittsburg, Pennsylvania		10,958 71	10,958 74		11,214 58	11,214 58	1,300 00	11,343 87	12,643 87		11,795 99	11,795 99
Frankford arsenal, at Frankford, Pennsylvania	114 77	2,468 59	2,583 36		2,096 33	2,096 33		4,273 30	4,273 30		4,132 86	4,132 86
Washington arsenal, at Washington city, District of Columbia	1,455 64	8,075 25	9,530 89	3,892 84	17,729 99	21,622 83	17,575 53	15,110 25	32,685 78	6,607 98	13,925 37	20,533 35
Bellona arsenal, at Richmond, Virginia		1,395 14	1,395 14		1,800 25	1,800 25		6,174 59	6,174 59		1,668 85	1,668 85
Augusta arsenal, at Augusta, Georgia	1,626 71	4,409 44	6,036 15	473 29	4,745 67	5,218 96	6,185 50	3,020 31	9,205 81	32,958 31	2,257 32	35,215 63
Pikesville arsenal, at Pikesville, Maryland		3,104 17	3,104 17		3,002 47	3,002 47		3,883 57	3,883 57		5,102 61	5,102 61
Mount Vernon arsenal, at Mount Vernon, Alabama												
Baton Rouge arsenal, at Baton Rouge, Louisiana		2,671 68	2,671 68	4,553 62	3,007 34	7,560 96	6,499 06	7,899 87	14,389 93	1,092 53	7,217 98	8,310 52
St. Louis arsenal, at St. Louis, Missouri										18,973 99	3,929 58	22,903 57
Newport arsenal, at Newport, Kentucky												
Detroit depot, at Detroit, Michigan Territory	74 64	280 31	354 95		662 15	662 15		615 44	615 44		343 29	343 29
New York depot, at New York city, New York		1,545 52	1,545 52		1,417 72	1,417 72		929 19	929 19		2,318 30	2,318 30
Charleston depot, at Charleston, South Carolina	39 00	2,389 19	2,428 19	60 00	740 13	800 13		25 15	25 15			
Fort Monroe, at Old Point Comfort, Virginia		1,225 19	1,225 19		4,785 09	4,785 09	1,632 81	5,500 61	7,133 42	397 19	8,144 18	8,531 37
Apalachicola arsenal, at Chattahoochee, Florida												
Bellefontaine arsenal, at Bellefontaine, Missouri		42 76	42 76		105 87	105 87		30 93	30 93		196 50	196 50

Statement exhibiting the amount of money expended in each year at the respective armories and arsenals, &c.—Continued.

Armories and arsenals.	1828.			1829.			1830.			1831.		
	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Am't expended at each armory and arsenal in this year.
Springfield armory, at Springfield, Massachusetts	$9,066 94	$180,231 65	$189,298 59	$4,799 82	$177,896 09	$182,695 91	$19,606 30	$170,466 06	$190,272 36	$9,582 67	$184,735 04	$194,318 61
Harper's Ferry armory, at Harper's Ferry, Virginia	15,414 87	133,487 14	148,902 01	16,087 60	133,803 92	149,891 52	15,893 49	119,662 37	135 555 86	17,222 16	131,425 69	148,647 85
Kennebec arsenal, at Augusta, Maine	41,054 67	.....	41,054 67	49,419 54	.....	49,419 54	7,925 38	145 00	8,070 38	2,163 67	2,843 04	5,006 71
Watertown arsenal, at Watertown, Massachusetts	.....	4,177 90	4,177 90	1,589 04	4,313 85	5,902 89	1,779 54	2,898 39	4,677 93	143 05	2,697 90	2,840 95
Champlain arsenal, at Vergennes, Vermont	9,657 72	335 89	9,993 61	4,131 62	154 25	4,285 87	.....	205 46	205 46	479 59	691 82	1,171 41
Watervliet arsenal, at Watervliet, New York	21,798 88	13,068 96	34,867 14	710 95	25,566 76	26,277 71	10,641 98	14,990 47	25,632 45	15,309 26	13,555 93	28,858 19
Rome arsenal, at Rome, New York	.....	1,763 93	1,763 93	.....	2,078 49	2,078 49	.....	1,944 96	1,944 96	.....	2,522 50	2,522 50
Allegheny arsenal, at Pittsburg, Pennsylvania	.....	17,045 27	17,045 27	11,612 47	15,536 29	27,148 76	8,499 51	9,548 13	18,047 64	8,337 05	8,668 59	17,005 64
Frankford arsenal, at Frankford, Pennsylvania	.....	18,464 83	18,464 83	.....	21,197 12	21,197 12	2,068 30	2,551 15	4,619 45	446 56	3,046 83	3,493 39
Washington arsenal, at Washington city, District of Columbia	653 88	13,334 75	13,988 63	6,334 66	14,765 22	21,099 88	3,389 27	14,419 47	17,808 74	912 96	9,248 14	10,161 10
ellona arsenal, at Richmond, Virginia	.....	1,554 58	1,554 58	.....	4,892 91	4,892 91	.....	4,427 51	4,427 51	.....	5,059 54	5,059 54
Augusta arsenal, at Augusta, Georgia	29,188 28	3,083 44	32,271 72	580 18	5,429 48	6,009 66	1,031 63	4,405 96	5,437 59	53 10	4,867 78	4,920 88
Pikesville arsenal, at Pikesville, Maryland	850 00	4,832 75	5,682 75	.....	2,498 92	2,498 92	50 00	2,187 85	2,237 85	.....	1,844 07	1,844 07
Mount Vernon arsenal, at Mount Vernon, Alabama	.....	.....	.....	23,539 18	.....	23,539 18	41,731 43	.....	41,731 43	35,243 91	.....	35,243 91
Baton Rouge arsenal, at Baton Rouge, Louisiana	6,992 68	7,637 31	14,629 99	9,832 70	6,459 59	16,292 29	2,607 98	5,082 01	7,689 99	261 62	4,570 75	4,852 37
St. Louis arsenal, at St. Louis, Missouri	21,617 56	7,507 44	29,125 00	7,671 55	1,163 47	8,835 02	14,177 54	4,162 26	18,339 80	14,574 15	2,606 92	17,181 07
Newport arsenal, at Newport, Kentucky	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Detroit depot, at Detroit, Michigan Territory	.....	612 38	612 38	.....	626 36	626 36	.....	878 75	878 75	306 74	845 01	1,151 75
New York depot, at New York city, New York	.....	4,091 84	4,091 84	.....	4,238 82	4,238 82	.....	2,693 46	2,693 46	.....	2,514 05	2,514 05
Charleston depot, at Charleston, South Carolina	.....	1,114 70	1,114 70	.....	1,009 06	1,009 06	.....	1,186 24	1,186 24	.....	1,107 25	1,107 25
Fort Monroe, at Old Point Comfort, Virginia	.....	5,243 49	5,243 49	.....	6,206 03	6,206 03	226 31	10,450 91	10,677 22	.....	7,569 05	7,569 05
Apalachicola arsenal, at Chattahoochee, Florida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bellefontaine arsenal, at Bellefontaine, Missouri	.....	174 14	174 14	.....	111 85	111 85	.....	.....	.....	.....	.....	.....

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Statement exhibiting the amount of money expended in each year at the respective armories and arsenals, &c.—Continued.

Armories and arsenals.	1832.			1833.			1834.		
	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Amount expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Amount expended at each armory and arsenal in this year.	Purchase of land and erection and repair of buildings.	Expense of the manufacture and repair of arms, and construction and repair of gun-carriages.	Amount expended at each armory and arsenal in this year.
Springfield armory, at Springfield, Massachusetts	$5,442 58	$177,385 05	$182,827 63	$16,906 86	$165,570 10	$182,476 96	$22,914 83	$159,446 56	$182,361 39
Harper's Ferry armory, at Harper's Ferry, Virginia	14,033 30	158,262 02	172,295 32	28,285 99	139,668 65	167,954 64	30,868 96	150,784 97	181,653 93
Kennebec arsenal, at Augusta, Maine	4,881 63	1,375 39	6,256 02	4,527 77	1,704 30	6,232 07	9,886 68	2,724 35	12,611 03
Watertown arsenal, at Watertown, Massachusetts	1,636 54	2,712 13	4,348 67	278 74	2,724 70	3,003 44	89 63	4,169 20	4,258 83
Champlain arsenal, at Vergennes, Vermont	20 41	1,082 13	1,102 54	.....	795 98	795 98	1,161 21	706 19	1,867 40
Watervliet arsenal, at Watervliet, New York	9,344 20	19,433 23	28,777 43	24,838 09	13,883 89	38,721 98	13,119 26	23,630 26	36,749 52
Rome arsenal, at Rome, New York	.....	2,067 93	2,067 93	.....	2,322 04	2,322 04	.....	2,792 54	2,792 54
Allegheny arsenal, at Pittsburg, Pennsylvania	4,855 32	13,178 01	18,033 33	7,542 38	11,171 59	18,713 97	3,309 35	12,577 56	15,886 91
Frankford arsenal, at Frankford, Pennsylvania	4,162 40	6,450 28	10,612 68	6,319 34	8,244 94	14,564 28	18,324 88	8,495 67	26,820 55
Washington arsenal, at Washington city, District of Columbia	9,347 00	13,372 03	22,719 03	2,999 99	20,038 75	23,038 74	460 97	14,285 11	14,746 08
Bellona arsenal, at Richmond, Virginia	.....	2,950 47	2,950 47	.....	1,491 25	1,491 25	.....	1,133 43	1,133 43
Augusta arsenal, at Augusta, Georgia	150 00	1,797 17	1,947 17	.....	1,157 20	1,157 20	.....	717 24	717 24
Pikesville arsenal, at Pikesville, Maryland	.....	1,540 20	1,540 20	.....	1,504 41	1,504 41	700 00	1,478 13	2,178 13
Mount Vernon arsenal, at Mount Vernon, Alabama	16,021 06	143 00	16,164 06	9,634 04	1,416 00	11,050 04	15,743 22	1,733 00	17,476 22
Baton Rouge arsenal, at Baton Rouge, Louisiana	61 63	2,735 04	2,796 67	.....	2,832 52	2,832 52	288 00	3,433 27	3,721 27
St. Louis arsenal, at St. Louis, Missouri	8,736 72	5,174 95	13,911 67	8,798 95	6,618 92	15,417 87	27,252 78	10,334 13	37,586 91
Newport arsenal, at Newport, Kentucky	.....	.....	.....	.....	.....	.....	.....	.....	.....
Detroit depot, at Detroit, Michigan Territory	1,082 71	1,094 73	2,177 44	30,466 96	1,518 83	31,985 79	22,180 95	1,114 22	23,295 27
New York depot, at New York city, New York	.....	3,769 42	3,769 42	.....	2,489 16	2,489 16	.....	2,093 12	2,093 12
Charleston depot, at Charleston, South Carolina	.....	1,832 14	1,832 14	.....	2,829 84	2,829 84	.....	298 30	298 30
Fort Monroe, at Old Point Comfort, Virginia	4,826 46	9,144 92	13,971 38	5,223 70	18,170 41	23,394 11	5,978 71	14,332 47	20,311 18
Apalachicola arsenal, at Chattahoochee, Florida	1,561 44	.....	1,561 44	32,094 26	.....	32,094 26	39,453 30	.....	39,453 30
Bellefontaine arsenal, at Bellefontaine, Missouri	.....	.....	.....	.....	.....	.....	.....	.....	.....

NOTE.—Aggregate expense of the manufacture of arms at each armory during the foregoing period, viz: At Springfield armory, $3,411,765 20; at Harper's Ferry armory, $3,230,884 23.

Statement of the expenditures at the rifle factory, Harper's Ferry armory, since its establishment, to December 31, 1834.

Years.	For water power and mill-dams.	Buildings, mill-wright work.	Tools and machinery.	Manufacture of rifles and equipments.	Amount expended in each year.
1819 to 1821, inclusive		$4,130 14	$11,917 03	$10,544 62	$26,591 79
1822		47 38	5,088 95	1,319 95	6,456 29
1323		42 44	5,938 48	3,768 68	9,749 60
1824		1,557 01	12,216 04	6,922 72	20,695 77
1825		1,076 72	14,448 72	4,709 81	20,235 25
1826		236 18	8,002 06	4,647 68	12,885 92
1827		5,952 93	15,879 10	18,911 40	40,743 43
1828		5,665 93	17,779 77	26,322 91	49,768 61
1829		3,425 96	19,384 43	17,351 85	40,162 24
1830		887 45	10,671 85	20,958 15	32,517 45
1831		2,491 27	9,355 78	27,016 23	38,863 28
1832		3,837 40	12,100 76	25,060 51	50,998 67
1833	$2,600 00	968 62	1,883 60	35,593 53	41,045 75
1834	1,999 50	895 87	4,744 32	34,545 56	42,185 25
Total	4,599 50	31,215 30	149,410 89	247,673 61	432,899 30

NOTE.—No separate accounts having been kept of the yearly expenditures at the rifle factory in 1819, 1820, and 1821, it is now impracticable to furnish the annual expense for those years as required by the resolution.

W. B. LEWIS.

TREASURY DEPARTMENT, *Second Auditor's Office, November* 16, 1835.

24TH CONGRESS.] No. 698. [1ST SESSION.

ANNUAL STATEMENT OF THE ARMS MADE AND EXPENSES INCURRED AT THE NATIONAL ARMORIES IN 1835.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES JULY 2, 1836.

WAR DEPARTMENT, *July* 1, 1836.

SIR: I have the honor to transmit a report of the colonel of ordnance, furnishing the information called for by the act of Congress concerning armories, dated April 2, 1794.

Very respectfully, your obedient servant,

LEWIS CASS.

Hon. JAMES K. POLK, *Speaker of the House of Representatives.*

ORDNANCE OFFICE, *Washington, June* 30, 1836.

SIR: In pursuance of an act of Congress concerning armories and arsenals, passed April 2, 1794, I have the honor to transmit herewith a statement of the expenditures at the national armories, and of the arms, &c., made therein, during the year 1835.

I have the honor to be, sir, your obedient servant,

GEO. BOMFORD, *Colonel of Ordnance.*

Hon. LEWIS CASS, *Secretary of War.*

DR. *Statement of the operations of the armory at Springfield, Massachusetts, during the year* 1835. CR.

For value of public grounds, buildings, machinery, and other fixtures thereto, and of ordnance and ordnance stores of every description on hand January 1, 1835		$2,361,454 67	By this amount expended on buildings, machinery, and fixtures		$19,687 90
For value of supplies received at this armory from Watertown: 2,000 pounds of powder, at 20 cts.	$400 00		By amount of articles fabricated during the year 1835:		
30,000 flints, at 50 cents per M	15 00		13,000 muskets, at $10 93.1	$142,103 07	
		415 00	13,727 wipers, at 13 cents	1,784 51	
For value from N. P. Ames, 2,800 artillery swords, at $4 25	11,900 00		7,862 screw-drivers, at 7 cents	550 34	
For value from N. P. Ames, 1,400 dragoon swords, at $6 50	9,100 00		1,361 ball-screws, at 15 cents	204 15	
		21,000 00	1,390 spring vices, at 35 cents	486 50	
For this amount expended under the appropriations	161,532 41		14,000 lead flint caps, at 1 cent	140 00	
Deduct amount received for house rents	992 84				145,268 57
		160,539 57	By labor preparing, &c., arms for transportation not applicable to manufacturing arms		4 35
			By value of supplies furnished to—		
			General Nathaniel Johnson, muskets, &c		13,839 16
			Captain Charles Ward, muskets, &c		31,025 42
			General H. Arcularius, artillery and dragoon swords		5,433 50
			General B. Peyton, artillery and dragoon swords		3,825 00
			Messrs. Boyce, Henry, and Waller		2,151 50
			Major H. K. Craig, dragoon sabres, musket and rifle balls, and powder		3,437 50
			Harper's Ferry armory, rolled and slit iron, and rolling and slitting iron		1,039 60
			By public lands, including water privilege, dams, and bridges, &c		20,000 00
			By buildings		154,905 00
			By component parts of arms, &c., including refuse articles		74,540 79
			By mortar eprouvette, bed, and balls		98 00
			By tools in current service		44,561 77
			By amount of articles in store		2,023,642 08
		2,543,409 24			2,543,409 24

ORDNANCE OFFICE, *June* 30, 1836. GEO. BOMFORD, *Colonel of Ordnance.*

Statement of the expenditures made at the national armories, and of the arms, &c., manufactured during the year 1835.

Armories.	Expenditures.					Arms, &c., manufactured.								
	For buildings, canals, and other permanent improvements.	For the manufacture of arms.	For the manufacture of Hall's rifle.	For miscellaneous expenses not embraced in the foregoing.	Total amount expended.	Muskets, complete.	Hall's rifles.	Screw-drivers.	Wipers.	Ball-screws.	Spring vices.	Flint caps.	Bayonets for Hall's rifles.	Bullet moulds.
Springfield.....	$19,687 00	$145,268 57	.....	$4 35	$164,959 92	13,000	.....	7,862	13,727	1,361	1,390	14,000	.....	....
Harper's Ferry.....	23,432 47	107,880 73	$30,679 61½	7,696 83	169,689 64	10,000	1,714*	1,714*	1,714*	.....	171*	2,000	3,489*	171*
	43,119 47	253,149 30	30,679 61½	7,700 18	334,649 56	23,000	1,714	9,576	15,441	1,361	1,561	16,000	3,489	171

All marked thus (*) manufactured at Hall's rifle factory.

ORDNANCE OFFICE, *June* 30, 1836.

GEORGE BOMFORD, *Colonel of Ordnance.*

DR. *Statement of the operations of the armory at Harper's Ferry, Virginia, during the year* 1835. CR.

For value of unwrought materials on hand December 31, 1834.		$54,024 02	By amount expended in permanent improvements, under special appropriations, for the completion of machinery in the three shops, &c., during the year 1835		$8,794 80
For value of component parts of arms on hand December 31, 1834		40,491 14	By amount expended during the year in permanent improvements, under special appropriations, for the completion of the forging shop, tilt-hammer, &c		8,540 19½
For value of unwrought materials received from the rifle factory January 1, 1835		15,131 10	By amount expended during the year in permanent improvements, under special appropriation, for repairs and extension of Potomac dam		342 50
For value of ordnance stores received from Pikesville arsenal.		100 00	By amount expended during the year in permanent improvements, under special appropriation, for erection of storehouse for iron and pit coal, &c		726 05
For value of ordnance stores received from Washington arsenal		450 00	By amount expended during the year, under the appropriation for national armories, as follows, viz:		
By amount of all payments made by the paymaster of the armory during the year 1835, for all purposes	$181,000 13		In permanent improvements	$1,513 37	
Deduct amount of rents received	3,014 31		At tilt-hammer shop	3,515 56½	
		177,985 82	Miscellaneous	1,487 46	
			Amount expended on model muskets	5,944 55	
			10,000 muskets, complete, at $10 78.6073	107,860 73½	
			2,000 flint caps, at 1 cent	20 00	
			Amount expended during the year in the manufacture of Hall's rifle	*30,679 61½	
					151,021 29½
*Statement in detail of the rifles, &c., manufactured at Hall's rifle factory, as per report of the directors:			By amount of materials and unserviceable component parts, in charge of military storekeeper		57,689 30
1,714 rifles, at $15 70	$26,919 85		By amount of sales of condemned stores pertaining to the musket factory, on the 27th October, 1835		18,006 68
3,489 bayonets, at $1 17	4,082 13		By amount of component parts of muskets and materials in the current service of the musket factory December 31, 1835		32,796 43¾
1,714 wipers, at 20 cents	325 66		By amount paid E. T. Elliot, by authority of the Ordnance department, on account of liabilities incurred by this armory in 1829		254 82
1,714 screw-drivers, at 8 cents	137 12				
171 bullet moulds, at 40 cents	68 40				
171 spring vices, at 26 cents	44 46				
	31,577 62				
		288,182 08			285,182 08

ORDNANCE OFFICE, *June* 30, 1836.

GEO. BOMFORD, *Colonel of Ordnance.*

Dr. *Statement of the operations of Hall's rifle factory, at Harper's Ferry armory, during the year* 1835. Cr.

For value of component parts of rifles, component parts of ammunition flasks, unwrought materials, unsreviceable component parts, and unserviceable materials on hand December 31, 1834 ...		$68,335 47	By amount expended on permanent improvements		$5,788 03
For amount expended during the last year, comprising all the payments made by the paymaster for the rifle factory	$23,668 99		By value of unwrought materials, unserviceable materials, and unserviceable component parts delivered to the military storekeeper December 31, 1834		18,494 11
From which deduct rents received.....	146 25		By value of rifles delivered into the arsenal at this place, viz:		
		23,522 74	1,714 rifles, at $15 70	$26,919 85	
For amount of articles received from the military storekeeper's office		7,156 87	3,429 bayonets, at $1 17.....	4,022 13	
			1,714 screw-drivers, at 8 cents.....	137 12	
			1,714 wipers, at 20 cents	325 66	
			171 bullet moulds, at 40 cents.....	68 40	
			171 spring vices, at 26 cents.....	44 46	
					31,577 62
			By the value of component parts of rifles, component parts of ammunition flasks, unserviceable parts of rifles, accumulated in 1835, and unwrought materials accumulated in 1835, on hand December 31, 1835		41,537 93
			By value of unwrought materials on hand December 31, 1835.		1,617 39
		99,015 08			99,015 08

Ordnance Office, *June* 30, 1836.

GEO. BOMFORD, *Colonel of Ordnance.*

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No. 10.

REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 12, 1836.

SIR: In obedience to your order of the 9th of September last, I have the honor to transmit a report of the general result of the proceedings and operations of this department between the 1st of October, 1835, and the 30th of September, 1836.

The papers marked A and B present a general view of these concerns during the last-mentioned period, as well in regard to the amounts of expenditures under the several heads of appropriations as in reference to their objects, and to the various ordnance stations where they have been made.

The first of these (A) shows the whole amount of funds remitted from the treasury to disbursing officers and contractors in this department, during the year 1835, to have been	$934,588 73
That the portion of that sum which was expended and accounted for, during the same period, amounted to	840,550 69
And that, at the close of the year, there remained unexpended and in the hands of disbursing officers the sum of	94,038 04
Statement B exhibits the total amount of funds remaining in the hands of disbursing officers at the close of the year 1835, and which have been remitted to them and its contractors during the first, second, and third quarters of the year 1836. This amount will be seen to have been	1,053,324 67
And the portion of this sum expended, and for which accounts have been rendered during the same period, will be seen in the same statement to have amounted to	857,570 45
The unexpended balance exhibited in the same statement as being in the hands of the disbursing officers at the close of the third quarter of 1836 having been	195,754 22

Statement C presents a view of the general result of the operations at the several arsenals and armories of the United States in the manufacture, repair, and purchase of the principal articles of ordnance, ordnance stores, and building materials. It exhibits the result of these operations to the extent to which they have been completed during the year between the 1st of October, 1835, and the 30th of September, 1836, indicating, among other articles of ordnance and ordnance stores which have been fabricated or procured, the following, viz: Of artillery—33 42-pounder, 57 32-pounder, 50 24-pounder, and 77 6-pounder iron cannon; 110 32-pounder casemate carriages; 86 32-pounder casemate chassés; 21 24-pounder casemate carriages; 55 24-pounder casemate chassés; 37 32-pounder barbette carriages; 153 24-pounder barbette carriages; 92 field carriages; 68 caissons, and 3 travelling forges.

Of small arms manufactured and procured, viz: 22,650 muskets, complete; 3,034 (Hall's) rifles, made at the national armories; and at the private factories, 8,600 muskets, complete; 701 (Hall's) rifles; 301 carbines; 801 artillery swords, and 3,260 cavalry sabres.

Of accoutrements for small arms: 20,168 sets for infantry; 7,100 sets of rifle accoutrements; 1,607 sets for cavalry, and 2,699 sabre belts.

Statement D shows the extent of the operations during the year between the 1st of October, 1835, and the 30th of September, 1836, which have occurred in procuring ordnance and ordnance stores, under the act of 1808 for arming and equipping the militia of the States and Territories. This statement presents also a view of the expenditures under the act, which have resulted during the same period in procuring the stores, amounting for all objects to $221,813 38. It exhibits, among other articles of ordnance stores procured, 2 12-pounder brass howitzers, with their carriages and equipments complete; 77 6-pounder iron cannon; 51 6-pounder field, and 31 24-pounder howitzer carriages and equipments, complete; 67 caissons; 8,300 muskets; 701 (Hall's) rifles; 301 carbines; 801 artillery swords; 3,260 cavalry sabres, and 4,250 sets of infantry, rifle, and cavalry accoutrements.

Statement E exhibits the amount of ordnance and ordnance stores which have been apportioned, for the year 1835, to the several States and Territories, under the act of 1808 for arming and equipping the militia; this apportionment being founded on the recent returns of the strength of the militia, as made by the adjutant generals of the militia of the several States to the adjutant general of the army.

Statement F shows the several articles of ordnance and ordnance stores which have been distributed to the militia of the States and Territories during the year between the 1st of October, 1835, and the 30th of September, 1836.

Statement G presents a view of the munitions of war issued by this department during the year, between the 1st of October, 1835, and the 30th of September, 1836, to the army. In this it will appear that 158 32-pounder, 153 24-pounder, and 35 6-pounder iron cannon; 2 4-pounder brass cannon; 2 24-pounder brass howitzers; 86 32-pounder and 10 24-pounder casemate carriages; 26 32-pounder, 102 24-pounder barbette carriages; 1 12-pounder and 35 6-pounder carriages; 10 24-pounder howitzer carriages; 8 caissons; 21,279 muskets; 3,281 rifles; 380 pistols; 303 cavalry sabres; 19,908 sets infantry, and 1,303 sets of rifle accoutrements, are among the principal articles issued.

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Statement H exhibits the amount of lead made at the United States lead mines from the year 1821, when their superintendence was transferred from the Treasury to the War Department, to September 30, 1835, and the amount accruing to the United States for rents for that period, viz:

Total amount of lead made from 1821 to September 30, 1835	75, 571, 609 lbs.
Total amount of rent lead accruing for the above period	5, 909, 216 "
Amount of rent lead due the United States and yet to be collected, as far as returns have been made to the superintendent	493, 313 "

No returns of lead have been made to the superintendent during the year ending September 30, 1836.

In the annual communication from this to the War Department, dated November 20, 1835, the difficulty which existed respecting the collection of rents was particularly stated. A considerable number of the persons engaged in smelting, under licenses obtained for that purpose from the government, had refused to make returns of the lead made by them, or to pay their stipulated rents. The delinquency has since become general. The smelters contend that the act of March 3, 1807, "contains no authority for collecting rent lead under a license for *smelting* lead ore; and that any law authorizing the leasing of public lands within the limits of a State is unconstitutional."

Suits have been ordered against several of the delinquents to test the validity of the foregoing objections; the result of which is not yet known at this department.

The licenses for smelting will all shortly expire, and no more will be issued unless the most confident assurance be given that no further objections will be made to a compliance with the conditions of the license bonds.

From the great extent of the mineral lands, and the conflicting interests which have arisen between the purchasers and occupants, as well as the probability that the United States may derive no benefit for a long time by a continuance of the present system, the expediency of selling the mineral lands in that region is forcibly presented. Such a measure has been repeatedly urged by this department, and is again recommended, as the most effectual mode of reconciling all difficulties and securing the interest of the United States in that quarter.

Diligent and strenuous efforts have been made to accomplish the various objects set forth in the laws of appropriation, passed during the last session of Congress, for the service of this department; but, for the want of officers to aid in conducting its operations, the works at Liberty, Missouri; Memphis, Tennessee; Little Rock, Arkansas; Baton Rouge, Louisiana; Fayetteville, North Carolina; Charleston, South Carolina; the magazine at the arsenal in Washington city; and the erection of the shot furnaces along the sea-coast, have been all unavoidably delayed and some of them suspended.

A like inconvenience has been felt at the principal arsenals of Watervliet, Pittsburg, Washington city, and Watertown, where extensive operations are progressing and unavoidably impeded by the want of the necessary and usual assistance of officers. The departments for the inspection of cannon and small arms and accoutrements are subject to the same inconvenience; the former being entirely suspended, and the latter progressing with difficulty for the want of additional force.

There is another and very serious inconvenience which extends to every post of the department when there is but one officer, and more especially to those commanded by the chiefs of inspections. These officers, with other commanders of posts who are unaided by assistant officers, are frequently and unavoidably absent on business connected with the posts or the inspection of cannon or small arms, and during these absences are obliged to leave their post sometimes for many days without an officer, and in charge of irresponsible persons wholly unacquainted with the various points (many of them matters of military science) connected with the business of the posts, and which require daily and hourly decision. Such inexperienced persons, from want of the proper authority under the laws and regulations, are in many cases wholly incapable of acting; and where their delegated authority from the officer is sufficient, they must either decide as the cases arise, and most probably erroneously, or postpone action to the arrival of an officer; and in this manner the public business is either encumbered with inconvenient and expensive delays, or perhaps with the still greater expense of a wrong decision, which cannot be remedied.

It cannot be disguised that, unless the service of this department be relieved by the proper authority from these disadvantages, its immense *materiel* of war, and extensive buildings and machinery in all parts of the country, are liable to sustain the most serious losses from fire, defective preservation, and other causes, while its system of service may be deranged by irregularity in the current business at the arsenals, and by complexity and confusion in its business transactions with the chief of the department.

I had the honor to submit for your decision, on the 28th ultimo, a communication from the lieutenant colonel of ordnance, inspector of armories and arsenals, urging the difficulty of his proceeding with the inspections in his department, with the present inadequate allowance of transportation, and requesting to be relieved from the more distant inspections, in consequence of the heavy expenses in which they involve him.

It is proper here to remark that the same complaints have been repeatedly made by the other officers employed in the inspections of this department.

I have the honor to be, sir, respectfully, your obedient servant,

GEO. BOMFORD, *Colonel of Ordnance.*

Hon. B. F. Butler, *Secretary of War ad interim.*

A.—*Statement of the money expended through the Ordnance department in the year* 1835.

Officers' names and stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS ON JANUARY 1, 1835. Appropriations.												
	National armories.	Current expenses of the ordnance service.	Arsenals.	Armament of fortifications.	Arming and equipping the militia.	For additional machinery.	For building pay office.	For the new arsenal.	Slating roof and rebuilding water-wheel.	Erecting forging shop.	Slating roofs of workshops.	Repairing walls of workshops.	Construction of new water-wheel.
Charles Howard, armory, Springfield, Massachusetts	$167,632 35				$5,615	$14,851 73	$482 53	$10,840 78	$811 95				
Daniel Bedenger, armory, Harper's Ferry, Virginia	169,380 04									$9,584 60	$186 58	$659 05	$317 72
Captain J. W. Ripley and Lieut. R. Anderson, arsenal, Augusta, Maine		$579 59	$5,647 35										
Major H. K. Craig, arsenal, Watertown, Massachusetts		2,980 75	1,523 09	$13,333 75	26,843 50								
Captain B. Huger, arsenal, Fort Monroe, Virginia		2,801 85	3,118 13	24,678 53									
Captain Charles Ward, arsenal, Vergennes, Vermont		300 28											
Lieutenant Colonel W. J. Worth and Sanders Lansing, jr., arsenal, Watervliet, New York		17,488 04	1,130 00	32,508 78	6,540 00								
Captain H. S. Mallory, arsenal, Rome, New York		1,664 58											
Captain J. R. Butler, arsenal, Pittsburg, Pennsylvania		7,525 97	6,611 87	5,723 00	3,112 19								
Captain A. Mordecai, arsenal, Frankford, Pennsylvania		20,614 30	6,666 00	200 00	116 33								
Lieutenant W. Maynadier, arsenal, Pikesville, Maryland		2,038 60											
Marcus C. Buck, arsenal, Washington, District of Columbia		9,521 41	2,000 00	4,318 38	9,447 24								
M. McArthur, arsenal, Bellona, Virginia		148 62											
Colonel W. Lindsay, arsenal, Augusta, Georgia		1,288 17											
Captain E. Harding, arsenal, Mount Vernon, Alabama		2,585 00	10,426 09	4,250 00									
Captain J. Hills, Lieut. C. Pettigrew, and Lieut. J. Williamson, arsenal, Apalachicola, Florida			25,153 37										
Captain W. S. Newton, arsenal, Baton Rouge, Louisiana		2,886 55	4,606 64	4,340 00	30 90								
Captain J. Symington, arsenal, St. Louis, Missouri		8,787 87	15,434 05										
Captain J. Howard and Captain J. H. Webb, arsenal, Detroit, Michigan		778 29	27,487 36		13 70								
Captain S. Perkins, Captain J. A. J. Bradford, and Captain J. H. Webb, depot, New York, N. Y.		1,293 47	7,511 97										
W. L. Poole, depot, Charleston, South Carolina		695 63											
Major T. C. Legate, lead mines, Galena, Illinois		5,450 17											
Sundry persons, for cannon, gun-carriages, and small arms				33,740 79	117,723 25								
Settlements on audited accounts	197 42	2,973 44	1,293 22	197 42	197 43								
Total	337,109 81	92,402 58	116,609 14	123,290 65	169,639 97	14,851 73	482 53	10,840 78	811 95	9,584 60	186 58	650 05	317 72

A.—*Statement of the money expended through the Ordnance department in the year* 1835—Continued.

Officers' names and stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS ON JANUARY 1, 1835. Appropriations.										Total amount.	Amount expended and accounted for.	Balances remaining unexpended in the hands of disbursing officers, Dec. 31, 1835.
	Repair and extension of the public dam.	Erecting storehouses.	Completion of machinery.	Erecting dwelling-houses.	Purchase of arms for mounted rangers.	Purchase of arms for South Carolina.	More perfect defence of the frontier.	Purchase of three acres of land on the Alabama river.	Arsenal at St. Louis.	Purchase of cannon.			
Charles Howard, armory, Springfield, Massachusetts											$200,234 77	$165,856 65	$34,378 12
Daniel Bedenger, armory, Harper's Ferry, Virginia	$1,136 41	$6,173 77	$21,709 81	$982 59							210,121 57	182,930 55	27,191 02
Captain J. W. Ripley and Lieut. R. Anderson, arsenal, Augusta, Maine											6,226 94	6,226 94	
Major H. K. Craig, arsenal, Watertown, Massachusetts					$2,598 00	$2,141 50	$7,974 25				57,394 84	55,074 79	2,320 05
Captain B. Huger, arsenal, Fort Monroe, Virginia											30,598 51	25,377 65	5,220 86
Captain Charles Ward, arsenal, Vergennes, Vermont											300 28	288 01	12 27
Lieutenant Colonel W. J. Worth and Sanders Lansing, jr., arsenal, Watervliet, New York											57,666 82	56,598 31	1,068 51
Captain H. S. Mallory, arsenal, Rome, New York											1,664 58	1,664 58	
Captain J. R. Butler, arsenal, Pittsburg, Pennsylvania						1,102 58					24,075 61	22,489 69	1,585 92
Captain A. Mordecai, arsenal, Frankford, Pennsylvania											27,596 63	27,147 10	449 53
Lieutenant W. Maynadier, arsenal, Pikesville, Maryland											2,038 60	2,038 60	
Marcus C. Buck, arsenal, Washington, District of Columbia											25,287 03	22,721 94	2,565 09
M. McArthur, arsenal, Bellona, Virginia											148 62	147 89	73
Colonel W. Lindsay, arsenal, Augusta, Georgia											1,288 17	1,199 76	88 41
Captain E. Harding, arsenal, Mount Vernon, Alabama								$1,800 50			18,961 59	16,779 31	2,182 28
Capt. J. Hills, Lieut. C. Pettigrew, and Lieut. J. Williamson, arsenal, Apalachicola, Florida											25,153 37	23,273 91	1,879 46
Captain W. S. Newton, arsenal, Baton Rouge, Louisiana											11,864 09	9,968 59	1,895 50
Captain J. Symington, arsenal, St. Louis, Missouri									$8,500 00		32,721 92	26,214 24	6,507 68
Captain J. Howard and Captain J. H. Webb, arsenal, Detroit, Michigan											28,279 35	28,279 35	
Captain S. Perkins, Captain J. A. J. Bradford, and Captain J. H. Webb, depot, New York, N. Y.											8,805 44	3,032 28	5,773 16
W. L. Poole, depot, Charleston, South Carolina											695 63	467 00	228 63
Major T. C. Legate, lead mines, Galena, Illinois											5,450 17	4,759 35	690 82
Sundry persons, for cannon, gun-carriages, and small arms											151,464 04	151,464 04	
Settlements on audited accounts										$1,691 23	6,550 16	6,550 16	
Total	1,136 41	6,173 77	21,709 81	982 59	2,598 00	3,244 08	7,974 25	1,800 50	8,500 00	1,691 23	934,588 73	840,550 69	94,038 04

ORDNANCE OFFICE, *Washington, November* 22, 1836.

GEO. BOMFORD, *Colonel of Ordnance.*

B.

Statement of the money expended through the Ordnance department during the 1st, 2d, and 3d quarters of the year 1836.

Stations.	Amounts transmitted in the 1st, 2d, and 3d quarters 1836, and the balances remaining in officers' hands at the close of the year 1835.	Amount of accounts rendered in the 1st, 2d, and 3d quarters of 1836.	Balances remaining in officers' hands, October 1, 1836.
Armory, Springfield, Massachusetts	$137,631 97	$123,271 68	$14,360 09
Armory, Harper's Ferry, Virginia	159,514 20	136,417 28	23,096 92
Arsenal, Augusta, Maine	21,306 00	9,496 47	11,809 53
Arsenal, Watertown, Massachusetts	53,354 05	41,753 68	11,600 37
Arsenal, Fort Monroe, Virginia	37,503 86	27,166 70	10,337 16
Arsenal, Vergennes, Vermont	128 52	98 16	30 36
Arsenal, Watervliet, New York	111,657 23	103,639 67	8,017 56
Arsenal, Rome, New York	2,090 41	2,055 11	35 30
Arsenal, Pittsburg, Pennsylvania	91,331 57	69,181 43	22,150 14
Arsenal, Frankford, Pennsylvania	35,949 53	22,194 20	13,755 33
Arsenal, Pikesville, Maryland	2,368 77	1,691 13	677 64
Arsenal, Washington, District of Columbia	39,697 09	26,645 91	13,051 18
Arsenal, near Richmond, Virginia	122 73	121 86	87
Arsenal, Fayetteville, North Carolina	2,590 00	.....	2,590 00
Arsenal, Augusta, Georgia	4,146 58	1,998 87	2,147 71
Arsenal, Mount Vernon, Alabama	54,113 50	24,976 49	29,137 01
Arsenal, Apalachicola, Florida	35,568 36	32,554 32	3,014 04
Arsenal, Baton Rouge, Louisiana	6,636 46	826 51	5,809 95
Arsenal, St. Louis, Missouri	25,877 68	21,916 25	3,961 43
Arsenal, Detroit, Michigan	16,400 00	15,002 80	1,397 20
Depot, New York, New York	55,486 07	36,814 34	18,671 73
Depot, Charleston, South Carolina	774 59	774 59	.....
United States lead mines, Galena, Illinois	1,701 82	1,599 12	102 70
Sundry persons, for cannon, gun-carriages, and small arms	153,657 96	153,657 96	.....
Settlements on audited accounts	3,715 72	3,715 72	.....
Total	1,053,324 67	857,570 45	195,754 22

ORDNANCE OFFICE, *Washington, November* 22, 1836.

GEO. BOMFORD, *Colonel of Ordnance.*

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E.

Apportionment of arms to the militia for the year 1835, *under the act of* 1808 *for arming and equipping the whole body of militia.*

States and Territories.	Date of return.	Number of militia.	No. of arms apportioned in muskets.
Maine	1835	40, 827	461
New Hampshire	.....	28, 777	326
Massachusetts	.....	44, 933	508
Vermont	1824	25, 581	289
Rhode Island	1832	1, 377	15
Connecticut	1835	19, 315	219
New York	1836	184, 601	2, 087
New Jersey	1829	39, 171	443
Pennsylvania	1834	202, 281	2, 287
Delaware	1827	9, 229	104
Maryland	1835	46, 891	530
Virginia	.....	101, 644	1, 149
North Carolina	.....	64, 415	728
South Carolina	1833	51, 112	580
Georgia	1834	48, 461	548
Alabama	1829	14, 892	168
Louisiana	1830	14, 808	167
Mississippi	.....	13, 724	155
Tennessee	.....	60, 982	689
Kentucky	1835	70, 323	796
Ohio	1836	146, 428	1, 655
Indiana	1833	53, 913	609
Illinois	1831	27, 386	310
Missouri	1835	6, 170	70
Michigan Territory	1831	5, 476	61
Arkansas Territory	1825	2, 028	23
Florida Territory	1831	827	9
District of Columbia	1832	1, 249	14
Total	.....	1, 326, 821	15, 000

GEORGE BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 22, 1836.

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F.

Statement of the ordnance and ordnance stores distributed to the militia under the act of April, 1808, from the 1st October, 1835, to the 30th September, 1836.

2 twelve-pounder brass howitzers and carriages, with implements, &c., complete.
25 six-pounder iron cannon.
28 twenty-four-pounder iron howitzers.
29 six-pounder field carriages, with implements, &c., complete.
28 twenty-four pounder howitzer carriages, with implements, &c., complete.
66 six-pounder caissons, complete.
1 twelve-pounder caisson, complete.
10, 588 muskets and appendages.
1, 475 rifles (Hall's) and appendages.
1, 044 rifles (common) and appendages.
2, 714 pistols, complete.
4, 719 cavalry sabres.
2, 250 artillery swords.
4, 371 sets of infantry accoutrements.
1, 205 sets of rifle accoutrements.
2, 424 cavalry cartridge-boxes.
2, 384 holsters, (pairs.)
2, 924 sabre belts.
1, 750 sword belts.
100 lances.

The whole being equal in value to 25,641 muskets.

GEORGE BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 22, 1836.

1836

24TH CONGRESS.] No. 699. [2D SESSION.

ANNUAL REPORT OF THE SECRETARY OF WAR, SHOWING THE CONDITION OF THAT DEPARTMENT IN 1836.

COMMUNICATED TO CONGRESS, WITH THE ANNUAL MESSAGE OF THE PRESIDENT, DECEMBER 6, 1836.

DEPARTMENT OF WAR, *December* 3, 1836.

SIR: In compliance with your directions, I have the honor to lay before you the usual annual reports of the several divisions of this department, and to submit, for your consideration, a summary of the contents of those documents, together with such additional statements and suggestions as seemed to me to be required by the present condition and necessities of the public service.

I.—THE ARMY.

1. *Organization and force.*—It appears, from the report of Major General Macomb, and the tables annexed to it, that the regular army of the United States consists of 648 commissioned officers, and 7,310 non-commissioned officers, musicians, artificers, and privates; making an aggregate of 7,958—organized as follows: General staff, 14, viz: one major general commanding; two brigadier generals, each commanding one of the two military districts into which the United States are divided; one adjutant general; two inspectors general; one quartermaster general and four quartermasters; and one commissary general of subsistence and two commissaries. Pay department, 18, viz: one paymaster general and seventeen paymasters. Medical department, 76, viz: one surgeon general, fifteen surgeons, and sixty assistant surgeons. Purchasing department, 3, viz: one commissary general of purchases and two military storekeepers. Corps of engineers, 22; topographical engineers, 10. Ordnance department, (including 294 non-commissioned officers and enlisted men;) two regiments of dragoons, each containing ten companies of sixty privates each; four regiments of artillery, each containing nine companies of forty-two privates each; seven regiments of infantry, each containing ten companies of forty-two privates each.

The present actual force of the regular army, according to the last general return, is 6,283; but it also appears from that return that, after making the necessary deductions for sickness and other circumstances, the available force for service in the field, at the latest dates, was 4,282. The difference between the actual force (6,283) and the force allowed by law (7,958) is 1,320, and is occasioned by the fact that only 360 recruits have yet been obtained for the new regiment of dragoons authorized by the act of the last session, and by the vacancies caused by expiration of service, and other casualties, in the other regiments

2. *Distribution and present position of the troops.*—The eastern department, under the command of Major General Scott, includes thirty posts, from twenty of which the troops have been mostly withdrawn for service in the Creek country and in Florida. The whole number of officers of the line and men at the several stations in the eastern department, including absentees, is therefore now only 1,124. Of that number, 113 are at Fort Winnebago; 114 at Fort Brady; 105 at Fort Mackinac; 149 at Fort Howard; 67 at Fort Dearborn; 122 at Fort Gratiot; all which posts are on the northwestern frontier, or in that vicinity; and the remainder at posts in the Atlantic States.

The western department, under the command of Major General Gaines, now includes twenty posts and four temporary stations. Several of these posts have also been evacuated, and the troops ordered to Florida; so that the whole number of officers of the line and men now stationed at them, including absentees, amounts only to 2,458. Of that number, 233 are at Fort Snelling; 185 at Fort Crawford; 321 at

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24TH CONGRESS.] No. 701. [2D SESSION.

THE NUMBER AND COST OF FORTIFICATIONS, ARSENALS, AND ARMORIES COMPLETED AND IN PROGRESS.

COMMUNICATED TO THE SENATE DECEMBER 14, 1836.

WAR DEPARTMENT, *December* 13, 1836.

SIR: In answer to a resolution of the Senate of the 1st of July last, I have the honor to enclose you reports from the chief engineer and the colonel of ordnance, containing the information called for in that resolution relative to fortifications, armories, and arsenals.

Very respectfully, your obedient servant,

B. F. BUTLER, *Secretary of War ad interim.*

Hon. M. VAN BUREN, *President of the Senate.*

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ENGINEER DEPARTMENT, *Washington, December* 9, 1836.

SIR: I have the honor to hand you a statement containing the information called for by the resolution of the Senate of the 1st July last, so far as relates to the fortifications of the United States, and as can be furnished by the files of this department; and to be,

Very respectfully, your obedient servant,

C. GRATIOT.

Hon. B. F. BUTLER, *Secretary of War ad interim.*

Statement exhibiting the number of fortifications now finished, those undertaken and in progress, and the original estimate of the cost of each; the amount of money already expended thereon, and the unexpended balances of appropriations, in compliance with a resolution of the Senate of July 1, 1836.

No.	Designation of the work.	Estimates.		Am'ts already expended.	Unexpended balances of appropriations.		
		Original.	Revised in 1834.		In the treasury.	In hands of agents.	Aggregate.
	FORTS THAT ARE FINISHED.						
1	Fort Hamilton, New York harbor	$425,000 00	.....	$479,236 00	.....	.....	.....
2	Fort Lafayette, New York harbor	.....	.....	318,305 00	.....	.....	.....
3	Fort Washington, Potomac river, Maryland	.....	.....	454,103 00	.....	.....	.....
4	Fort Macon, North Carolina	175,000 00	.....	349,384 00	.....	.....	.....
5	Castle Pinckney, Charleston harbor*	.....	.....	.....	.....	.....	.....
6	Fort Morgan, Alabama	693,292 00	.....	1,026,777 00	.....	.....	.....
7	Fort Pickens, Pensacola, Florida	465,300 00	$677,000 00	677,000 00	.....	.....	.....
8	Fort Pike, Rigolets, Louisiana	264,517 00	.....	314,597 25	.....	.....	.....
9	Fort Wood, Louisiana	264,517 00	.....	378,642 00	.....	.....	.....
10	Fort Jackson, Mississippi river, Louisiana	392,927 00	.....	638,766 00	.....	.....	.....
11	Battery Bienvenue, Louisiana	94,582 00	.....	96,447 00	.....	.....	.....
12	Tower at Bayou Dupré	16,677 00	.....	16,677 00	.....	.....	.....
	FORTS UNDER CONSTRUCTION.						
1	Fort Independence, Boston harbor	.....	286,241 00	57,010 11	$94,000 00	$3,583 89	$97,583 89
2	Fort Warren, George's island, Boston harbor	.....	898,561 00	142,038 70	161,600 00	21,361 30	182,961 30
3	Fort Adams, Newport, Rhode Island	730,166 52	1,314,558 51	1,025,377 03	130,000 00	4,682 92	134,682 92
4	Fort Schuyler, Throg's Neck, New York	632,000 00	.....	136,064 54	200,000 00	3,935 46	203,935 46
5	Fort Columbus and Castle William, New York	161,069 77	182,233 94	173,978 57	20,000 00	1,021 43	21,021 43
6	Fort Mifflin, Delaware river	49,800 00	.....	28,773 84	.....	.....	.....
7	Fort Delaware, Delaware river	719,612 00	.....	150,506 57	123,380 00	5,113 43	128,493 43
8	Fort McHenry, Maryland	68,230 00	.....	1,331 69	47,000 00	1,668 31	48,668 31
9	Fort Monroe, Virginia	816,814 96	1,889,840 00	1,731,284 14	150,000 00	.....	150,000 00
10	Fort Calhoun, Virginia	904,355 40	2,014,816 08	1,380,333 68	136,000 00	6,892 23	142,892 23
11	Fort Caswell, North Carolina	119,000 00	183,050 00	413,152 89	57,000 00	2,581 11	59,581 11
12	Fortifications in Charleston harbor, South Carolina†	.....	.....	324,711 28	145,000 00	5,288 72	150,288 72
13	Fort Pulaski, Cockspur island, Georgia	374,000 00	552,800 00	345,088 27	130,000 00	2,911 73	132,911 73
14	Fort Marion, St. Augustine, Florida	44,330 40	.....	20,111 45	49,988 55	.....	49,988 55
15	Fort on Foster's Bank, Florida	163,343 00	262,000 00	234,993 14	.....	6 86	6 86
16	Fort at Grand Terre, Louisiana	264,517 52	.....	21,230 41	.....	53,769 59	53,769 59

* The cost of Castle Pinckney under this head, owing to the appropriations therefor having been made in common with other forts at Charleston "for fortifications in Charleston harbor," cannot be specified. It is included in the expenditures on account of "fortifications in Charleston harbor."—(See "Forts under construction.")

† The expenditures here exhibited on account of "fortifications in Charleston harbor" include the entire cost of Castle Pinckney, which, for reasons stated above, cannot be specifically shown.

REMARK.—The estimates and cost of the forts *finished*, though not called for by the resolution of the Senate, are furnished to make the statement more complete.

Respectfully submitted.

CHARLES GRATIOT, *Chief Engineer.*

ENGINEER DEPARTMENT, *December* 9, 1836.

ORDNANCE OFFICE, *Washington, December* 10, 1836.

SIR: I have the honor to transmit herewith a statement made in obedience to the resolution of the Senate of the 1st July, 1836, requiring certain information relating to the arsenals and armories of the United States.

I have the honor to be, sir, respectfully, your obedient servant,

G. BOMFORD, *Colonel of Ordnance*

Hon. B. F. BUTLER, *Secretary of War ad interim.*

Statement concerning arsenals and armories of the United States, under the resolution of the Senate of the 1st July, 1836.

ARMORIES AND ARSENALS "FINISHED."

Armories.—Springfield, Massachusetts; Harper's Ferry, Virginia.

Arsenals.—Watertown, Massachusetts; Fort Monroe, Virginia; Vergennes, Vermont; Watervliet, New York; Rome, New York; Pittsburg, Pennsylvania; Frankford, Pennsylvania; Pikesville, Maryland.

Arsenal, Washington city, D. C.—This arsenal is considered as finished, yet from time to time, as the amount of munitions in depot and the work done increases, it becomes necessary to add additional buildings. The position itself, upon a point of land between the two rivers, is contracted, and the space insufficient for the operations progressing there. The extension of the ground by filling in has been therefore provided for in the annual estimate for the year 1837.

Arsenal near Richmond, Virginia.—The government have thought it advisable to abandon this arsenal in consequence of the unhealthiness of the situation and the difficulty of access.

Arsenal, Augusta, Georgia.

Arsenal, Mount Vernon, Alabama.—This arsenal is finished, excepting the brick walls, shutters, coping, &c., amounting to $14,070, which sum is embraced in the annual estimate for 1837.

Arsenal, Baton Rouge, Louisiana.—This arsenal may be considered as finished; but, in consequence of the smallness and dilapidated state of the old magazine and quarters for enlisted and hired men, new ones are required to be erected.

Arsenal, Charleston, South Carolina.—This arsenal, a mere storehouse, may be considered as finished, (having been built during the war of 1812,) but its ruined state and contracted dimensions render it indispensable to make extensive repairs and additions, in order to fit it up only as a suitable storehouse for that important position, to effect which an appropriation of $20,000 was made during the last session of Congress.

NOTE.—As the amount of property in depot in the department increases annually, it becomes necessary to add occasionally a building to the different arsenals and armories, stated above as finished, and to make necessary repairs for preservation, according to the exigencies of the service in the different sections of the country.

Armories and arsenals "undertaken and in progress."

Augusta, Maine.—It is expected that the amount embraced in the annual estimate for 1837, if granted, will finish this arsenal.

Fayetteville, North Carolina.—For the want of officers the operations of this arsenal were not commenced until a very late period; but a small portion of the appropriation has therefore been expended.

Chattahoochee, Florida.—The operations at this arsenal are progressing as rapidly as possible.

St. Louis, Missouri.—This arsenal is nearly finished, and will probably be completed by the amount embraced in the estimate for 1837, if granted.

Detroit, Michigan.—The provision in the estimate for 1837 will probably complete this arsenal.

Governor's island, New York.—This small depot is nearly finished.

Memphis, Tennessee; Liberty, Missouri; Little Rock, Arkansas.—The sites for these three arsenals have been selected. The drawings, instructions, &c., have been arranged; but, for the want of officers, nothing has as yet been done toward their erection.

NOTE.—With regard to all the works "undertaken and in progress" it must be remarked that, in consequence of the great rise in the price of labor, provisions, and materials since the passage of the appropriations, the several sums will fall considerably short of effecting the objects contemplated by the law.

"Original estimate of the cost" of works undertaken and in progress.

Augusta, Maine.—No original estimate was prepared, but erected under the act of 3d March, 1827.

Fayetteville, North Carolina.—The estimate prepared, amounting to $134,185, was for the erection of the arsenal buildings proper, exclusive of connecting walls, exterior walls, gates, roads, fences, wharves, machinery, &c., most of which would depend upon the particular location adopted, and not known when the estimate was made.—(*Vide* report of the Military Committee No. 372, 1st session 24th Congress.)

Mount Vernon, Alabama.—No original estimate made, but erected under the act of 24th May, 1828.

Chattahoochee, Florida.—No original estimate made, but erected under the act of 5th April, 1832.

St. Louis, Missouri.—No original estimate made, but erected under the act of 20th May, 1826.

Detroit, Michigan.—No original estimate made, but erected under the act of 28th June, 1832.

Memphis, Tennessee; Liberty, Missouri; Little Rock, Arkansas.—An estimate was prepared for the erection of a small depot in Missouri, amounting to about $25,000; also, one for a small depot in Arkansas which amounted to $42,236. The act of 2d July, 1836, provides for the purchase of sites and the construction of arsenals for the deposit of arms in Arkansas, Missouri, and at Memphis, Tennessee, provided that the cost of such arsenals shall not exceed $14,000 each.

"Amount already expended" on works undertaken and in progress.

	$140,326
At Augusta, Maine	7,590
At Fayetteville, North Carolina	138,666
At Chattahoochee, Florida	99,300
At Detroit, Michigan	2,500
At Memphis, Tennessee	2,500
At Liberty, Missouri	5,000
At Little Rock, Arkansas	

"Unexpended balances" (on the 5th December, 1836) "of appropriations" of works undertaken and in progress.

	$37,410
Fayetteville, North Carolina	11,500
Memphis, Tennessee	11,500
Liberty, Missouri	9,000
Little Rock, Arkansas	

G. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, December* 10, 1836.

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No. 8.

Estimate for the service of the ordnance department for the year 1837.

A.—For the national armories	.....	.....	$360,000
B.—For the armament of fortifications, viz:			
Providing in part the cannon, howitzers, mortars, cannon balls, shells, gun-carriages, mortar-beds, &c., for the fortifications completed and for those now erecting	.....	.....	200,000
C.—For the current expenses of the ordnance service, viz:			
Repairing small arms at the several arsenals and depots	.....	$47,025	.....
Repairing field artillery carriages	.....	14,500	.....
Ordinary repairs to keep the public buildings in order at the several arsenals and depots	.....	12,000	.....
Repairing and preserving military stores at arsenals and forts	.....	8,575	.....
For the purchase of a supply of laboratory paper	.....	15,000	.....
Providing ordinary military supplies for the army	.....	9,750	.....
Miscellaneous expenses at arsenals, including stationery, printing, fuel, forage for public horses, and other incidental expenses	.....	12,500	.....
V.—For the rifle factory at Harper's Ferry armory, viz:			
For erecting a stone wall 250 feet long, 12 feet high, and 6 feet thick, for the protection of the rifle works	.....	1,874	.....
For building a shop for browning gun barrels, of brick, 20 feet by 22 feet, two stories high	.....	1,114	.....
For erecting a tilt-hammer shop, of stone, 35 feet long, 20 feet wide, and 15 feet high, and machinery for the same	.....	2,995	.....
For erecting a workshop for jobbers, of brick, 25 feet long, 22 feet wide, and 20 feet high	.....	1,538	.....
For erecting a jobbing shop for smiths and spring-makers, 25 feet by 25 feet, of brick	.....	1,048	.....
			8,569
			1,091,183

Recapitulation.

For the national armories	$360,000
For the armament of fortifications	200,000
For the current expenses of the ordnance service	123,975
For the arsenals	373,429
For the purchase of percussion cannon locks	15,000
For the manufacture of elevating machines for barbette and casemate carriages	8,250
For the manufacture of sponges for field and battering cannon	1,960
For the rifle factory at Harper's Ferry armory	8,569
	1,091,183

NOTES.

A.—The sum of $360,000, herein estimated for the national armories, is the same in amount as has been appropriated for those establishments since 1822, except for the years 1835 and 1836, when the amount appropriated was only $330,000 for each of those years; the additional sum of $30,000 estimated for, beyond what was appropriated for the years 1835 and 1836, being generally required by the interests of the public service, and partly in consequence of the rise of wages, and the necessity of procuring new tools at both the armories.

B.—In a report from this office, of the 8th of March last, in answer to a resolution of the Senate, $17,840,249 was stated to be required to arm completely and supply with munitions all the fortifications then finished, progressing, or in contemplation by the board of engineers; but the armament of the forts and batteries more immediately required for the defence of the Atlantic frontier will require, it is estimated, about $3,000,000.

By these statements, the sum of $200,000, inserted in the estimate, is presumed to be small; yet, for want of officers, a greater sum could not be advantageously expended during the year 1837.

C.—The sum of $123,975 has been inserted for the current expenses of the ordnance service, being about $48,000 more than was appropriated for this branch for the year 1836; this increase being required principally in consequence of the necessity of repairing a large quantity of small arms, which have sustained injury by the troops serving in the campaigns against the Indians, and for the purchase of a supply of laboratory paper.

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24TH CONGRESS.] No. 720. [2D SESSION.

ADDITIONAL EXPLANATORY ESTIMATES FOR THE SERVICE OF THE ORDNANCE DEPARTMENT DURING THE YEAR 1837.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES JANUARY 28, 1837.

WAR DEPARTMENT, *January* 24, 1837.

SIR: I have the honor to transmit herewith a letter from the colonel of ordnance, accompanied by a special estimate of the further sums that will be necessary for the service of the ordnance department during the present year, and beg leave to request that the committee will cause them to be embraced in the proper bill.

Very respectfully, your most obedient servant,

B. F. BUTLER, *Secretary of War ad interim.*

Hon. C. C. CAMBRELENG, *Chairman Committee of Ways and Means, House of Representatives.*

ORDNANCE OFFICE, *Washington, January* 21, 1837.

SIR: I have the honor to transmit herewith the special estimate for additional appropriations for the service of this department for the year 1837.

I have the honor to be, sir, respectfully, your obedient servant,

G. BOMFORD, *Colonel of Ordnance.*

Hon. BENJAMIN F. BUTLER, *Secretary of War ad interim.*

Special estimate for additional appropriations for the service of the ordnance department for the year 1837.

FOR THE NATIONAL ARMORY AT HARPER'S FERRY, VIRGINIA.

A.—For constructing a river wall in the range of the shops on the Potomac 1,624 feet long, 9 feet at base and 3 feet at top, extending from the upper corner of the tilt-hammer shop to a point on the river near Doring's brick house, containing 6,246 perches of stone wall, at $2 45 per perch.....	$15,302 00	
For making the embankment to the same, containing 37,832 cubic yards, at 50 cents per yard.....	18,916 00	
For constructing 619 feet of stone arching over tail races, water-wheels, sluices, &c., containing 792 perches, at $5 per perch.....	3,960 00	
For constructing 1,238 feet of stone walling, for the support of arches, 3½ feet thick, 6 feet high, making 1,000 perches, at $2 45 per perch.....	2,450 00	
For the completion of the tilt-hammer shop, commenced in 1834.....	6,656 00	
For making the embankment of the new canal at this armory water tight, viz: mud-puddling inner side of the embankment 1,560 feet in length, 5 feet thick, average breadth 26 feet; making 7,511 cubic yards, at 86 cents per yard.....	6,459 00	
Total for Harper's Ferry armory.....		$53,743 00

RECAPITULATION.

For the national armory at Harper's Ferry, Virginia	$53,743 00	
For arsenals	23,099 50	
For the purchase of copper rifle flasks	17,000 00	
		$93,842 50

NOTES.

A.—The construction of a river wall along the range of shops on the Potomac river is rendered highly desirable, in consequence of the confined state of the buildings;—hemmed in on one side by the river, and by high and precipitous ledges of rocks on the other. Besides, it will the means of reclaiming a space of fifty feet wide by sixteen hundred and twenty-four feet long, in the rear of the shops, and render it available for building purposes.

The superintendent in charge of this armory states that the appropriation for the construction of the tilt-hammer shop has proved insufficient; partly in consequence of the great rise in price of materials and labor since the original estimate for this object was prepared, and partly owing to the change of the location of the building, as it became necessary to increase the width and depth of the foundations from five to seven feet, and enlarge the thickness about six feet more than was originally deemed sufficient, which greatly augmented the amount for excavation, walling, and filling; and the substitution of cast iron water wheels for tub wheels, which, though decidedly preferable, are more difficult in their construction, and of more expensive materials, yet more durable.

It appears to be indispensably necessary to make one of the sides of the new canal impervious to water; it is now faced with flat stones, through the fissures of which the water, when let into the canal, forces its way. The leaks in this way consume, it is calculated, about one-fourth of the whole head of water. To remedy this defect, it is proposed to face the whole inner side down to the bed of the canal with a coat of good puddling, five feet thick.

F.—A supply of rifle flasks is much needed, in consequence of the stock on hand being exhausted by the recent issues to the troops in the field. The sum of $17,000 has been inserted for procuring 10,000 of the recently improved pattern.

G. BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, January* 21, 1837.

24TH CONGRESS.] No. 736. [2D SESSION.

ANNUAL REPORT OF THE OPERATIONS AND EXPENDITURES OF THE NATIONAL ARMORIES IN 1836.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES MARCH 3, 1837.

WAR DEPARTMENT, *March* 3, 1837.

SIR: I have the honor to transmit a report of the colonel of ordnance, which furnishes the information called for by the act of Congress of April 2, 1794, in reference to armories.

Very respectfully, your most obedient servant,

B. F. BUTLER, *Secretary of War ad interim.*

HON. JAMES K. POLK, *Speaker of the House of Representatives.*

No. 1.

Statement of the operations of the armory at Springfield during the year 1836.

DR.

For value of public grounds, buildings, machinery, and fixtures thereto, and of ordnance and ordnance stores of every description on hand January 1, 1836		$2,482,637 56	
For value of supplies received at this armory during the year:			
From Watertown arsenal, 5,000 pounds powder, at 20 cents		1,000 00	
From Frankford arsenal, 2,500 pounds powder, at 20 cents		500 00	
From Washington arsenal, 8 Harper's Ferry muskets, at $12		96 00	
From Washington arsenal, 1 box for packing muskets		2 00	
3,400 dragoon sabres and scabbards, at $6 50		22,100 00	
114 boxes for sabres and scabbards, at $2		228 00	
			$2,506,563 56
For the amount expended during the year under the appropriations:			
National armories	$160,022 63		
Deduct house rent	988 75		
		159,033 88	
National armories at Springfield		20,954 04	
Additional machinery and fixtures		4,481 12	
Repairing and renewing fences		202 29	
Finishing gun-racks in new arsenal		1,780 57	
Building new pay office, with model room		155 89	
Difference in the cost of 13,000 muskets (manufactured in 1835) and their appraised value December 31, 1836		13,910 00	
			200,517 79
			2,707,081 35

Continued-Statement of Operations at Springfield Armory, 1836.

Cr.

By amount expended on buildings, and fixtures thereto, machinery, &c., during the year	27,579 91	
By amount of articles fabricated during the year:		
13,500 muskets, complete, at $11 07.4	149,501 09	
13,414 screw-drivers, at 8 cents	1,073 12	
10,440 wipers, at 13 cents	1,357 20	
211 spring vices, at 35 cents	73 85	
14,000 lead flint caps, at 1 cent	140 00	
By amount of work done at the military store not incidental to the manufacture of arms	346 79	
		180,071 96
By amount of articles issued during the year:		
10,045 muskets, complete, at $12	120,540 00	
10,025 screw-drivers, at 7 cents	701 75	
10,025 wipers, at 13 cents	1,303 25	
10,000 flint caps, at 1 cent	100 00	
1,003 ball-screws, at 15 cents	150 45	
1,003 spring vices, at 35 cents	351 05	
502 boxes for packing ditto, at $2	1,004 00	
1,000 pounds musket balls, at 6 cents	60 00	
200 pounds rifle balls	12 00	
1,100 pounds musket powder, at 25 cents	275 00	
2,457 dragoon sabres, with scabbards, at $6 50	15,970 50	
82 boxes for packing ditto, at $2	164 00	
1,000 artillery swords and scabbards, at $4 25	4,250 00	
20 boxes for packing ditto, at $2	40 00	
8 muskets complete, for samples, at $12	96 00	
2 boxes for packing ditto, at $1 15	2 30	
		145,020 30
Total value of public grounds, buildings, machinery, or other fixtures thereto, and of ordnance and ordnance stores of every description on hand December 31, 1836		2,381,995 09
		2,707,087 35

GEORGE BOMFORD, *Colonel of Ordnance.*

No. 2

Statement of the operations of the armory at Harper's Ferry during the year 1836.

DR.

For value of component parts of arms on hand January 1, 1836		$32,796 43
For unwrought materials on hand January 1, 1836		67,689 30
For amount expended during the year for all purposes by paymasters	$195,837 12	
Deduct rents received	3,074 66	
Total drawn from the treasury		192,762 46
For value of supplies received during the year from the Pikesville arsenal, 20,000 musket flints, at $2 50 per thousand	50 00	
From the Washington arsenal, powder, lead, cartridges, accoutrements, &c.	796 92	
From the Frankford arsenal, 2,500 pounds of powder, at 20 cents per pound	500 00	
		1,346 92
		294,595 11

CR.

By amount expended under special appropriation for completion of machinery in three shops	4,563 29	
By amount expended for new improved machinery	575 49	
By amount expended for completing new water-wheels	301 52	
By amount expended for new drill-shop at rifle factory	854 03	
By amount expended for the purchase of private dwelling-houses	3,298 00	
		9,592 33
By amount expended under appropriations for national armories:		
For permanent improvements	6,736 25	
For permanent improvements at tilt-hammer shop, (special)	2,453 49	
For miscellaneous expenses	2,292 88	
For cost of model guns	4,989 28	
For 9,150 muskets, complete, at $11 $\frac{7888}{10000}$	107,364 75	
For 10,000 flint caps, at 1 cent	100 00	
By amount expended in the manufacture of Hall's rifle	37,033 24	
		160,969 89
By value of unwrought materials on hand December 31, 1836	76,007 23	
By value of component parts December 31, 1836	46,753 96	
		122,761 19
By amount of articles issued to arsenals during the year:		
Mount Vernon arsenal	985 20	
Pikesville arsenal	51 25	
Allegheny arsenal	10 65	
Washington arsenal	2 50	
Augusta arsenal	114 99	
Charleston arsenal	57 76	
Fort Monroe arsenal	49 35	
		1,271 70
		294,595 11

GEORGE BOMFORD, *Colonel of Ordnance.*

No. 3.

Statement of the operations of the Hall rifle factory during the year 1836.

Dr.

To value of component parts of arms on hand January 1, 1836	$41,510 92	
To value of unwrought materials January 1, 1836	1,654 02	
		$43,164 94
To amount expended during the year, comprising all payments made, exclusive of the articles charged, at the military storekeeper's office	28,673 35	
From which deduct rents received	131 58	
		28,541 77
To amount of articles received from military storekeeper		10,158 03
		81,864 74

Cr.

By amount expended in permanent improvements		9,896 35
By amount of unwrought materials delivered to the military storekeeper December 31, 1836	717 45	
By amount of component parts of rifles, &c., (unserviceable,) delivered to military storekeeper same day	76 55	
		794 00

By amount of rifles and equipments delivered into arsenal:

1,809 rifles, at $15 24 cents each	$27,569 16	
1,518 bayonets, at $1 17 each	1,776 06	
1,770 screw-drivers, at 8 cents each	141 60	
1,770 wipers, at 20 cents each	354 00	
177 bullet moulds, at 40 cents each	70 80	
3,000 flasks, complete, with belts, at $1 25 each	3,750 00	
177 spring vices, at 26 cents each	46 02	
		$33,767 64
By amount expended in making two carbines, and one model musket, complete		509 14
By amount of component parts on hand December 31, 1836	36,905 25	
By amount of materials, (unserviceable)	43 95	
		36,948 20
		81,855 33

GEORGE BOMFORD, *Colonel of Ordnance.*

SOBRE NO. 309-NOC NO 15
American State Papers
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25TH CONGRESS.] No. 740. [1ST SESSION.

REPORT OF A BOARD OF OFFICERS ON IMPROVEMENTS IN FIRE-ARMS BY HALL, COLT, COCHRAN, HACKETT, FISHER, AND LEAVITT, AS COMPARED WITH THE UNITED STATES MUSKET AND RIFLE, AND THEIR RELATIVE QUALITIES AND EFFICIENCY, AND THE COST OF MANUFACTURING EACH ARM.

COMMUNICATED TO THE SENATE SEPTEMBER 19, 1837.

WAR DEPARTMENT, *September* 19, 1837.

SIR: I have the honor to transmit the report of a board of officers appointed in conformity with a resolution of the Senate of the 21st of January, 1837, requiring "an examination to be made by a board of officers into the improvements in fire-arms made by Hall, Cochran, Colt, and the Baron Hackett," &c.

Very respectfully, your most obedient servant,

J. R. POINSETT.

Hon. R. M. JOHNSON, *President of the Senate.*

Report of the board of officers appointed to examine the improvements in fire-arms made by Hall and others.

The board of officers appointed by the following "orders," in conformity with a resolution of the Senate, to inquire into and report upon the improvements in fire-arms made by Hall, Cochran, Colt, and the Baron Hackett, and to show the advantages of each in all important military points of view, have the honor to report that the results of the various experiments to which the board have subjected the arms named in the resolution, and which have not failed to establish a decided opinion with regard to their merits and demerits as weapons to be applied to the armament of troops for service in the field, are herewith presented in tabular form, as required by the aforesaid resolution.

From these tables the following results have been obtained, being the most favorable view in either case.

In preparing this report the board has felt constrained to follow the order prescribed in the resolution, which has, of necessity, involved some repetitions.

GENERAL ORDERS No. 2.

ADJUTANT GENERAL'S OFFICE, *Washington, February* 3, 1837.

I. The Secretary of War *ad interim* has received the following resolution from the Senate of the United States:

Resolved, That the Secretary of War be requested to cause an examination to be made by a board of officers into the improvements in fire-arms made by Hall, Cochran, Colt, and the Baron Hackett; and that the general results be presented to the Senate in tabular statements, showing the advantages of each in all military points of view, and especially as to—

1. The celerity of fire.
2. The extent of the recoil.
3. The efficiency of the fire.
4. The inconvenience of heated barrel in rapid firing.
5. The capacity of being used as a rifle.
6. The simplicity and cheapness of construction.
7. Durability.
8. Saving of ammunition and appendages.
9. The number of charges which may be carried by an infantry soldier.
10. The advantages when used against a charge of cavalry.
11. The advantages when used by cavalry.

II. In conformity with the provisions of the foregoing resolution, the Secretary directs that a board, to be composed of the following officers: Brevet Brigadier General J. R. Fenwick, colonel 4th artillery; Brevet Brigadier General N. Towson, paymaster general; Colonel G. Croghan, inspector general; Brevet Lieutenant Colonel Worth, ordnance; Lieutenant Colonel Wainwright, marines; Lieutenant Colonel Talcott, ordnance; and Captain B. Huger, ordnance, be assembled at the Washington arsenal on Monday the 20th February instant, at 11 o'clock, for the purpose of making a thorough examination of the improvements in fire-arms made by Hall, Colt, Cochran, and the Baron Hackett, in the manner and mode specified in the resolution.

III. The board will report the general results, for the information of the Secretary of War, in tabular form, showing the utility of each fire-arm in all important military points of view, as required by the resolution; and will also report such further information on the subject as they may be able to communicate, with their opinion on the relative advantages of the several improvements submitted to their examination.

First Lieutenant J. N. Macomb, of the artillery, and aide-de-camp, will record the proceedings of the board.

By order.

R. JONES. *Adjutant General.*

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SPECIAL ORDER No. 10.

ADJUTANT GENERAL'S OFFICE, *Washington, February* 20, 1837.

The Secretary of War directs that First Lieutenant R. Anderson, instructor of artillery at the Military Academy, be detailed to serve as a member of the board ordered to convene at Washington arsenal for the purpose of testing the value of the improvements of certain fire-arms, in conformity with General Order No. 2, of February 3. It is not intended that this assignment shall interfere with his duties at the academy whenever his services may be required there.

By order.

R. JONES, *Adjutant General.*

SPECIAL ORDER No. 35.

[Extract.]

ADJUTANT GENERAL'S OFFICE, *Washington, May* 15, 1837.

II. Lieutenant Colonel Talcott, of the ordnance, is relieved from serving as a member of the board of which Brigadier General Fenwick is president, and directed to convene, by General Order No. 2, for the examination of certain fire-arms; and Brevet Major Baker is detailed as a member of said board, and will accordingly repair to West Point on the 15th of June next, and report to the president.

By order.

R. JONES, *Adjutant General.*

I. THE CELERITY OF FIRE.

The tables give the following results in loading and firing:

1. *With the musket.*

No. 1.	Hackett's	5 times a minute.
2.	Hall's	5 "
3.	Colt's	3.1 "
4.	Cochran's	3 "
5.	United States standard	3 "

2. *With rifles.*

No. 1.	Colt's	4 times a minute.
2.	Hall's	3.4 "
3.	Colt's (musket calibre)	3.3 "
4.	Cochran's	3.2 "
5.	Leavitt	1.22 "

Hackett's and Hall's muskets load at the breech, with single charges, but are constructed upon different principles.

The United States standard musket loads at the muzzle.

Colt's and Cochran's load at the breech, with many-chambered shifting receivers.

The fire with Hackett's, Hall's, and the United States standard was continuous, and at equal intervals.

Colt's and Cochran's require from 2′ to 2′ 10″ to load one receiver, (with the advantage, too, of convenient ground,) and from 25″ to 30″ to discharge it.

In the experiment to determine comparative celerity, the parties having been placed upon the ground, with each a target, were required to deliver the greatest practicable number of fires in a given time, combining celerity and accuracy; Hackett's, Hall's, and the United States musket being supplied with cartridges, Colt's and Cochran's with loose ammunition, all unloaded, and were required to commence loading at the word "fire."

The board adopted this mode in order to place the respective weapons upon an equality, and in such circumstances as would ordinarily occur, in regard to fire, in actual service.

II. THE EXTENT OF RECOIL.

As the arms of Hall, Hackett, Colt, and Cochran are all loaded at the breech, they allow the use of a ball of greater diameter than the chase of the barrel, which causes it to slug or fit perfectly tight, thus destroying all windage or escape of the explosive force, and consequently requiring a diminished charge of powder to produce results equal to those acquired with increased charges in the gun of the ordinary kind; consequently, the recoil is less than that of a gun of the same calibre loaded at the muzzle, in which an allowance of windage is indispensable to the introduction of its charge. The recoil is not sufficient in any of them to produce any great inconvenience in service, and may be assumed as being about equal in either kind of arms that load at the breech.

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III. THE EFFICIENCY OF FIRE.

From the experiments made, it appears that, for guns of the large calibre, the penetration (in the same target) of those arms loading at the breech, provided they have the correct charge of powder, is greater than those loading at the muzzle. This effect results from the fact stated in the preceding number, viz: the ball fitting exactly, there remains no windage; consequently the whole force of the charge acts on the ball, and produces a greater penetration.

The following statement shows these results:

Experiments made at West Point on the 19th of June, 1837.—Target of well seasoned white oak.

Musket.	Charge of powder.	Distance from target.	Penetration.	Penetration into a package of 1,000 sheets of cartridge paper.
	Grains.	*Feet.*	*Inches.*	
United States.....	134	10	2.3	770 sheets No. 2, and 653 sheets No. 1.
Hall's.....	110	10	2.175	386 sheets No. 2, 80 grains charge.
Colt's.....	134	10	2.640	481 No. 2, 80 grains; 717 No. 1, 100 grains.
Colt's.....	110	10	2.750	
Colt's.....	100	10	3	
Cochran's.....	80	10	1.650	

The chambers of Cochran's musket were not capable of containing over 80 grains of powdor each.

Note.—It will be observed, in the case of Colt's weapon, that a charge of 134 grains gave 2.64 inches penetration; 110 grains gave 2.75 inches penetration; 100 grains gave 3 inches penetration; which is accounted for by the admitted fact that *over* charges give *diminished* velocities.

IV. INCONVENIENCE FROM HEATED BARRELS.

Guns that receive their charges at the breech have been found to acquire a less degree of heat from a continuous course of discharges than the common arm, from the circumstance of their admitting, during the loading process, a free circulation of air through the barrels.

The temperature of the interior of the several barrels was determined by the introduction of a thermometer, that indicated a very uniform degree immediately after firing for a given period. In the experiment alluded to the time was 10'.

V. CAPACITY OF BEING USED AS A RIFLE.

In constrained positions, such as are not uncommon to light troops, the experiments with Hall's rifles, at Fort Monroe, in 1826, when in the hands of troops, fully prove that this arm is admirably adapted to this service and that of mounted corps, in consequence of the convenience in loading and facility of discharging when on horseback.

The many-chambered arms, on the contrary, requiring a variety of appendages to aid in charging them, and the application of considerable manual force in placing the charge in the cylinders, cannot be loaded either in constrained positions or on horseback without inconvenience; and it is consequently believed that Hall's rifle and Hackett's gun are the only descriptions of arms loading at the breech that can be considered as suitable for the service of light troops, either on foot or mounted. These remarks might not be applicable to the many-chambered guns, could it be supposed that they would at all times be supplied with a number of loaded cylinders, [receivers,] but this is not to be admitted as being practicable at all times and in all situations.

VI. THE SIMPLICITY AND CHEAPNESS OF CONSTRUCTION.

The attainment of simplicity in the construction of fire-arms is unquestionably of the first importance, in order that those who are to use them may readily comprehend their principles and utility. In the examination of Hall's guns nothing appears complicated; on the contrary, one of their greatest merits consists in the simplicity of their component parts and the absence of the various appendages [equipments] which are attendant upon, and indispensable to, the use and service of the arms of Colt and Cochran.

The same may be said of the gun of Baron Hackett, which, in general, possesses many of the features of utility which characterize the arms of Hall, and which is one of the most important conditions that has governed the construction and decided the character of this description of arms. In this character its utility for military purposes mainly and essentially consists. An arm which is complicated in its mechanism and arrangement deranges and perplexes the soldier in its management, requires more than common attention to its care and preservation, and if, perchance, it fail in its operation, which its complexity of construction would necessarily occasion, he loses all confidence in its powers of execution.

The guns of Hall, and apparently of Hackett, presenting in their construction this desired simplicity, are more easily managed, present less accountability to the soldier, are less liable to get out of order, and when they are so are more easily repaired.

The reports of the master armorers, who have been instructed to prepare careful estimates of the cost of each description of arms, are appended to this general report.—(See report of Mr. Hall, marked A.)

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VII. DURABILITY.

The means of testing the durability of the several descriptions of arms is not within the control of the board. It can only be determined by requiring the inventors to undertake a fatiguing course of firings, greater than some of them could endure, or by placing the arms in the hands of troops and having them exposed to all the incidents and trials of active service.

The experiments with Hall's gun in 1826 gave results satisfactory with regard to its character for resisting the effects of long firings, and there can be no doubt that the durability of all descriptions of arms will depend greatly upon simplicity and consequent strength of construction.

VIII. SAVING OF AMMUNITION AND APPENDAGES.

A reference to the tabular statements will show that all guns that load at the breech require less powder to produce the same results than guns loading in the ordinary manner.

This peculiarity is accounted for under No. 2, "efficiency of fire," and need not be repeated here.

In the common musket 144 grains of powder constitute the charge for service, inclusive of about ten grains used as priming.

Colt's musket, fired with a charge of 100 grains, (being primed with a percussion cap,) gave proof of equal, and even superior, power of penetration; whence it was determined that that quantity of powder was fully sufficient for the charge of his muskets for service.

The construction of Cochran's musket limited its charge to 80 grains of powder, which was insufficient to impart to his arm a power equal to that possessed by the United States musket with its service charge, or by Colt's musket with a charge of 100 grains; but the reduction of the charge of the latter down to the maximum of Cochran's gave evidence of the possession of equal power by either arm.

These experiments being directed to the attainment of facts in regard to the proper charges to be used in the new description of arms, and likewise with a view to test their relative powers, were conclusive in their results, and prove that in muskets of the same calibre the saving of powder would be, in favor of those that load at the breech, as 100 is to 144; in the one case percussion caps are used, and in the other flints—the expense being probably in favor of the use of the latter; and, secondly, that (the same principle operating in the different arms of Hall, Hackett, Colt, and Cochran) the same charge would produce the same degree of velocity or penetration.

The inventors of Colt's and Cochran's muskets propose that each soldier should at all times have about his person *five* receivers. Supposing one of these receivers constantly attached to, forming part of, and entering into the weight of the gun, there remain four, weighing—

Colt's, each, 3 pounds, or the four	12 lbs.
To which add their charges	1 lb. 14 oz.
Total	13 lbs. 14 oz.
Cochran's, (when increased to hold 100 grains,) each 3 pounds 12 ounces, or the four	15 lbs.
Charges as above	1 lb. 14 oz.
Total	16 lbs. 14 oz.

to supply 35 rounds of ammunition. The same number of rounds of ammunition as five receivers would contain, carried in the ordinary manner, weigh 2 pounds 12 ounces—the increase in the one case being 11 pounds 2 ounces, and in the other 14 pounds 2 ounces, of a substance inconvenient in form and disposition, to the burden of the soldier, ever of necessity too great.

To load the many-chambered guns several implements of a novel and inconvenient form are required, the use and accountability of which would be extremely difficult and oppressive, besides adding still more to the great weight of the appendages already noticed.

In the common musket, and in Hall's and Hackett's, these equipments are not required.

IX. THE NUMBER OF CHARGES WHICH MAY BE CARRIED BY AN INFANTRY SOLDIER.

A reference to the remarks under No. 8 will exhibit the relative weight of 35 rounds of ammunition for the standard musket and Colt's and Cochran's muskets, by which it will be seen that it would be utterly impracticable for a soldier to carry the very great weight of metal required to contain only a limited number of cartridges.

This is one of the important objections which render the many-chambered arms, in the opinion of the board, altogether unsuited to the wants and exigencies of the service.

The arms of Hall and Hackett, on the contrary, can carry a number of charges always equal to, and rather exceeding, that carried by infantry soldiers in the established cartridge-boxes.

X. THE ADVANTAGES WHEN USED AGAINST A CHARGE OF CAVALRY.

In sustaining an attack from cavalry, arms have an advantage in proportion to their capability of keeping up a continuous fire, preserving at the same time their position of defence with the bayonet; the muskets of Hall and Hackett possess this advantage in an eminent degree, being, even during the process of loading, in readiness for personal defence.

This is not the case with the many-chambered guns, in consequence of the necessity that exists for disconnecting their parts for the purpose of charging them.

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XI. THE ADVANTAGES WHEN USED BY CAVALRY.

The advantage is believed to be altogether in favor of arms that load at the breech and with receivers that contain only one charge; such arms being conveniently handled and loaded on horseback, are peculiarly adapted to the cavalry service; and the ball being larger than the diameter of the barrel, it is not changed from its position in the receiver by the movement of the horse.

The many-chambered arms, for reasons stated under the fifth head of this report, are deemed inapplicable to the service of cavalry.

GENERAL REMARKS.

The various arms under consideration, which have been submitted to the examination and experiments of the board, constitute two classes, viz:

The first class comprises the guns of Hall and Hackett, being arms that load at the breech with single charges.

The second class are "many-chambered," or repeating guns of Colt and Cochran, the breech of which is formed of cylindrical receivers that revolve upon a pivot, and in which are chambers to contain a number of charges which are brought successively in a line with the same barrel.

The first class may be divided into two varieties:

First. Hackett's gun, the breech of which, opening, uncovers the bottom of the bore, into which the charge is inserted in the form of a cartridge—the powder remaining in its paper envelope.

Second. Hall's gun, the *receiver* of which being raised by means of a spring, receives its charge in its upper end, and may be loaded either by means of a flask or with a prepared cartridge.

The second class also embraces two varieties: the receiver, which contains the chambers for the charges in Cochran's, revolves horizontally on an *arbre* perpendicular to the axis of the bore; while Colt's receiver, having its chambers in the opposite direction to Cochran's, revolves upon an *arbre* parallel to this axis.

As all these arms load at the breech, the advantages of this method are, of course, common to all, viz: that the ball used may be of a diameter so great as to destroy all windage, and thus cause a greater range, more exactness of fire, and, in consequence of less powder being required by the absence of windage, diminished recoil.

In the first class we may add, to the advantages common to all, that they can be loaded with great facility; and that, for the use of light troops or skirmishers, this property might be frequently useful and important.

In the first variety (Hackett's) the charge is inserted in a cartridge, the powder remaining in its envelope, the remains of which, with the residue of the burnt powder, adhere after several fires to the chamber, rendering it difficult to insert the cartridges, and highly probable that the retention of fire by this mass of the burnt envelopes, might cause explosions on the introduction of a new charge.

In the second variety (Hall's) this inconvenience does not exist, as the powder may be first inserted and surmounted by the ball.

Another inconvenience common to guns loading at the breech is, that the deposit of burnt matter which escapes through the joints renders them stiff and difficult to manage.

The guns of the second class have the same disadvantages as to wear and escape of gas, greatly increased by their complication and the danger of explosion of more than one charge at a time.

Of all the arms submitted to the board, that of Cochran is deemed the most unsafe for military purposes, when subjected to rapid discharges with cylinders [receivers] fully loaded.

The slightest defect in the metal of the receiver would render it highly dangerous both to the bearer and to others in contiguous positions; and that such defects would frequently exist will not be doubted by mechanics whose experience every day convinces them of the many circumstances that serve to prevent a perfect *union* of parts in similar constructions; and even admitting original perfection in this important limb, it is nevertheless liable, from the effects of constant and severe service, to receive fractures or other injuries sufficient to destroy its character for safety, and render it more dangerous to the ranks it is intended to support and defend than to those of the enemy.

One accident of the kind that occurred in our practice of the 19th of June (*vide* tabular statements) would alone not only impair the confidence of the troops in the ability and power of their arms, but, what might be fatal to the reputation of those armed with them, would infuse into their minds such a degree of dread and apprehension of their dangerous qualities as to render them an unpopular, and consequently almost powerless, weapon of war.

This objection, founded upon an occurrence which our experimenst elicited, is deemed conclusive as regards the inaptitude of this arm to the public service; and it is believed that the possession of one quality that detracts from the general merits of an arm, so as to impair the confidence of the soldier in its safety and power, would be fatal to its reputation and consequent utility.

However ingenious in design, therefore, and creditable to the mechanical skill of the inventor, this arm may be, the board is of opinion that it is an unsafe weapon, and unsuited to the use of bodies of men acting in line or in masses.

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It is the opinion of the board that the arm of Colt, involving all the merits, and free from some of the objections to the former, may be very usefully applied in *special* cases; as, in fixed positions in defence of a breach; to cover boarders; in tops of ships; or for personal attack or defence; in a word, under any circumstances where the operation is of a special and brief character, and it be desirable to throw a mass of fire upon a particular point for a limited time. In such or similar situations the entire strength of this arm might be so controlled and managed as to render it fully available and highly efficient, while its cumbersome and yet necessary appendages and the massive burden of its parts would condemn it as wholly unsuited to the wants and exigencies of the service *in the field.*

The board is of the unanimous opinion that, from its complicated character, its liability to accidents (one having occurred in practice on the 21st of June) in the hands of soldiers, and other reasons which may be found in this report, that this arm is entirely unsuited to the general purposes of the service.

That the arm of Hackett is one of great merit, possessing in general the qualities of the standard musket, over which it has the advantage of simplicity in construction and manœuvre, and rapidity and certainty of fire, is fully admitted by the board; but it is exposed to the serious objection of a dangerous and doubtful arrangement of its ammunition in respect to packing and transportation, and in not admitting of being loaded with loose powder and ball, the necessity of which often results from the casualties of service; and in using only a charge of a peculiar make, to which is attached a percussion primer, dangerous when in connexion with large quantities of ammunition.

As it is highly probable that the objections to this arm may be overcome, and as the weapon has attracted the serious attention and consideration of other and highly military nations, with a view to possess ourselves of the knowledge and use of a weapon which it may hereafter be necessary to oppose to those who shall adopt it, the board is unanimously of opinion that a number, say 100 stands, should be procured of the inventor and proprietor, and placed in the hands of a selected company or corps, by the direction of the Secretary of War, in order to a thorough course of experiments, to embrace all the incidents of campaign service, both in respect to the weapon and its ammunition.

From the report of the master armorers it appears that the standard musket is not susceptible of alteration so as to apply to it the principles of Hackett's gun; and such is the opinion of the board.

The arms now in use in the United States service, it is assumed, possess the power of being used in skilful hands with all *requisite* celerity and effect.

The experiments just finished teach conclusively that up to 40 rounds of fire, in reference to the usual characters and incidents of service, they have the advantage in several respects and equality in others to those with many chambers.

It is seriously doubted by experienced soldiers whether the celerity attainable with our own arms, or with a weapon, which in being loaded requires to be removed from its firing position, is not carried as far as is consistent with steadiness, coolness, and that self-possession so very necessary and so difficult of inculcation. It is the opinion of the board that a larger proportion of fire from rapidly repeating guns would be thrown away than from those that receive but one charge at a time.

In the instances of the arms under consideration, it is believed that even if there be anything gained by their peculiarities over the common musket and Hall's guns in point of celerity of discharging, such advantage has been acquired at too great a sacrifice of important and indispensable principles; that in the desire to reach perfection in the construction of the arms, the convenience, physical power, and safety of those who are to use them, have been wholly overlooked; and that their liability to be found out of a *state of preparation* for defence would detract greatly from their character for efficiency.

The board is confirmed in the opinion that the arm of Hall is entitled to all the favorable consideration which has heretofore been bestowed upon it by previously constituted boards and commissions.

That the arm requires some modification in its construction, and especially in its equipments, the board is fully convinced; and, with such improvements as are doubtless attainable, the board is of opinion that as an arm for military purposes, it possesses a decided superiority over every other constructed upon the principle of loading at the breech.

The gun of Hackett, with many admirable qualities, is as yet a comparatively untried improvement; but Hall's gun, having successfully undergone the trials of service and the examination and thorough inspection of several competent commissioners, has again exhibited to this board powers and excellencies (capable, doubtless, of augmentation) far superior, in the opinion of the board, to those possessed by any other arm which has been subjected to its examination.

The application of the percussion primer to arms for the use of troops has not yet been made with success. They may, with improved means of attaching them to the nipple or cone, be used by light troops in extended order; but the difficulty of placing an object so small as the cap, during the excitement of action, in excessively cold weather, and in dark nights, has prevented this improvement in fire-arms (for sporting purposes) from being generally adopted in any service.

These many-chambered guns use the percussion cap. From 7 to 9 would have to be placed upon each receiver. The liability of these caps, on explosion, to annoy and maim the contiguous men was fully illustrated by the experiments.

Finally, it is the unanimous opinion of the undersigned that the standard arms now in use in the service of the United States, regular and militia, viz: United States musket and rifle, and Hall's musket, rifle, and carbine, with such improvement in *construction* as the latter are susceptible of, combined, in a higher degree, all the requisite convenience, durability, simplicity, and effect, than any that have been suggested for the general armament.

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All which is respectfully submitted.

JOHN R. FENWICK, *Brigadier General, President of the Board.*
N. TOWSON, *Brigadier General.*
W. J. WORTH, *Lieutenant Colonel.*
R. D. WAINWRIGHT, *Lieutenant Colonel Marine Corps.*
R. S. BAKER, *Major United States Army.*
BENJ. HUGER, *Captain of Ordnance.*
ROBERT ANDERSON, 1st *Lieutenant* 3d *Artillery.*

J. N. MACOMB, 1st *Lieutenant* 4th *Artillery, Secretary of the Board.*

United States standard musket.

Date.	Charge.			Extent of recoil.	Distance in yards.	Number of fires.	Celerity of fire.			Efficiency of fire.				Casualties.		Remarks.
										Mean penetration.						
	Powder, grains of.	Ball.	Buck shot.				Time of firing.	Rate of firing a minute.	Average rate of firing.	In sensoned white oak.	No. 1, in musket cartridge paper, sheets of.	No. 2, in musket cartridge paper, sheets of.	Number of hits.	Snaps.	Flashes.	
1837.																
Feb. 27	134	1	.....	.....	50	10	.....	.....	.....	1.43	.....	.....	.....	.....	.....	
Mar. 1	134	1	.....	.....	100	10	.....	.....	.....	1.00	.....	.....	.....	.....	.....	
2	134	1	.....	.....	150	10	.....	.....	.....	0.66	.....	.....	.....	.....	.....	
	134	1	.....	.....	200	10	.....	.....	.....	0.55	.....	.....	.....	.....	.....	
6	134	1	.....	.....	9	2	.....	.....	.....	1.60	.....	.....	.....	.....	.....	
	134	1	.....	.....	300	10	.....	.....	.....	0.00	.....	.....	.....	.....	.....	One ball imbedded.
7	134	1	.....	.....	56	48	19′	2.53	.....	.....	.....	.....	46	10	1	
8	134	1	.....	23° 20′	.....	8	3′	2.66	.....	.....	.....	.....	.....	.....	.....	In a rain; the time counted from commencing to load.
10	134	1	3	.....	9	1	.....	.....	2.50	*1.15	of ball.	.....	.....	.....	.....	* Mean penetration of buck shot 0.41.
	134	1	3	.....	80	9	3′	3.00	.....	.....	of ball.	.....	8	1	1	16 buck shot out of 27 hit target.
	134	1	.....	.....	400	8	.....	.....	.....	.....	of ball.	.....	1	.....	.....	Splintered edge of target.
14	134	1	.....	.....	400	10	4′	2.50	.....	.....	of ball.	.....	.....	2	.....	
June 19	134	1	.....	.....	3¼	9	.....	.....	.....	2.00	of ball.	.....	.....	.....	.....	At West Point, N. Y.
	134	1	.....	.....	13¼	3	.....	.....	.....	.....	.....	770	.....	.....	.....	
21	134	1	.....	.....	100	21	10′	2.1	.....	.....	.....	.....	19	6	.....	Temperature 226 Fahrenheit.
	134	1	.....	.....	180	23	10′	2.3	.....	.....	.....	.....	5	.....	.....	
	134	1	.....	.....	13¼	1	.....	.....	.....	.....	653	.....	.....	.....	.....	
	134	1	.....	.....	3¼	1	.....	.....	.....	2 30	.....	.....	.....	.....	.....	
	125	1	.....	.....	3¼	1	.....	.....	.....	1.60	.....	.....	.....	.....	.....	
	90	1	.....	.....	3¼	1	.....	.....	.....	1.60	.....	.....	.....	.....	.....	

United States rifle, Harper's Ferry.

Feb. 27	92	1	.....	.....	50	8	.....	.....	.....	1.43	.....	.....	.....	.....	.....	
	92	1	.....	.....	100	10	.....	.....	.....	0.94	.....	.....	.....	.....	.....	
Mar. 1	92	1	.....	.....	50	8	.....	.....	.....	1.43	.....	.....	.....	.....	.....	
2	92	1	.....	.....	150	10	.....	.....	.....	0.65	.....	.....	.....	.....	.....	
	92	1	.....	.....	200	10	.....	.....	.....	0.29	.....	.....	.....	.....	.....	
6	92	1	.....	.....	9	2	.....	.....	.....	1 60	.....	.....	.....	.....	.....	
	92	1	.....	.....	300	10	.....	.....	.....	.....	.....	.....	3	.....	.....	Balls rebounded; mean indentation 0.206.
June 19	92	1	.....	.....	3¼	10	.....	.....	.....	2.10	.....	.....	.....	.....	.....	
21	92	1	.....	.....	3¼	1	.....	.....	.....	2.55	.....	.....	.....	.....	.....	
	92	1	.....	.....	13¼	1	.....	.....	.....	.....	500	.....	.....	.....	.....	

Hall's musket, (percussion lock.)

Date.	Charge. Powder, grains of.	Ball.	Buck shot.	Extent of recoil.	Distance in yards.	Number of fires.	Celerity of fire. Time of firing.	Rate of firing a minute.	Average rate of firing.	Efficiency of fire. Mean penetration. In seasoned white oak.	No. 1, in musket cartridge paper, sheets of.	No. 2, in musket cartridge paper, sheets of.	Number of hits.	Casualties. Snaps.	Flashes.	Remarks.
1837.																
Feb. 27	86	1	.....	.....	50	10	.....	.....	.....	0.83	.....	.....	.....	.....	.....	
Mar. 1	86	1	.....	.....	100	10	.....	.....	.....	0.34	.....	.....	.....	.....	.....	
2	86	1	.....	.....	150	10	.....	.....	.....	0.07	.....	.....	.....	.....	.....	
	86	1	.....	.....	200	10	.....	.....	.....	0 00	.....	.....	3	.....	.....	One ball imbedded.
6	86	1	.....	.....	9	2	.....	.....	.....	0.65	.....	.....	.....	.....	.....	
June 19	110	1	.....	.....	3¼	4	.....	.....	.....	1.80	.....	.....	.....	.....	.....	Fired without patches.
	110	1	.....	.....	3¼	2	.....	.....	.....	2.17	.....	.....	.....	.....	.....	Fired with patches.
	80	1	.....	.....	13¼	3	.....	.....	.....	.....	.....	386	.....	.....	.....	

Hall's musket, (flint.)

June 19	100	1	.....	.....	3¼	10	.....	.....	.....	1.07	.....	.....	.....	6	.....	
	100	1	.....	.....	100	20	10′ 0″	2.0	3.5	.....	.....	.....	17	.....	.....	
22	100	1	.....	.....	.....	10	2 0	5.0	.....	.....	.....	.....	.....	.....	.....	

Hall's rifle.

Feb. 27	70	1	.....	.....	50	8	.....	.....	.....	0.63	.....	.....	.....	.....	.....	
Mar. 1	70	1	.....	.....	100	10	.....	.....	.....	0.93	.....	.....	.....	.....	.....	
2	70	1	.....	.....	150	10	.....	.....	.....	0.40	.....	.....	7	.....	.....	
	70	1	.....	.....	200	10	.....	.....	.....	0.00	.....	.....	3	.....	.....	Two balls imbedded.
6	70	1	.....	.....	9	2	.....	.....	.....	1.70	.....	.....	.....	.....	.....	
	70	1	.....	.....	300	10	.....	.....	3.56	.....	.....	.....	1	.....	.....	Slight indentation.
8	70	1	.....	9° 17′	.....	8	4′ 30″	.....	.....	.....	.....	.....	.....	.....	.....	The recruit did not understand the use of flask.
9	70	1	.....	.....	100	50	21 5	2.37	.....	.....	.....	.....	43	6	.....	
June 19	70	1	.....	.....	3¼	10	.....	.....	.....	1.12	.....	.....	.....	.....	.....	West Point.
21	70	1	.....	.....	180	34	10′ 0′	3.40	.....	.....	.....	.....	7	.....	.....	Temperature 152° Fahrenheit.

Cochran's small rifle.

Feb. 27	36	1	.....	.....	50	10	.....	.....	.....	0.56	.....	.....	.....	.....	.....	
Mar. 1	36	1	.....	.....	100	10	.....	.....	.....	0.51	.....	.....	.....	.....	.....	
2	35	1	.....	.....	150	8	.....	.....	.....	0.20	.....	.....	.....	5	.....	
	35	1	.....	.....	200	10	.....	.....	3.02	0.14	.....	.....	.....	.....	.....	
6	35	1	.....	.....	9	2	.....	.....	.....	1.13	.....	.....	.....	.....	.....	
8	35	1	.....	2° 50″	.....	8	2′ 30″	3.20	.....	.....	.....	.....	.....	.....	.....	
9	35	1	.....	.....	100	50	17 35	2.85	.....	.....	.....	.....	37	.....	.....	Cylinder empty at the commencement of the time.

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Cochran's carbine.

Feb. 27	38	1			50	10				0.61						Rifle powder.
Mar. 1	38	1			100	10				0.27						
2	45	1			150	10				0.19			6			
	45	1			200	10				0.02			4			
6	45	1			9	2			2.66	0.90						
7	45	1			100	100	30′ 6″	3.3					95			
14	45	1			400	9	3 50	2.03								50″ to fire; 3′ to load cylinder.

Cochran's musket.

Date.	Charge.			Extent of recoil.	Distance in yards.	Number of fires.	Celerity of fire.			Efficiency of fire.				Casualties.		Remarks.
										Mean penetration.						
	Powder, grains of.	Ball.	Buck shot.				Time of firing.	Rate of firing a minute.	Average rate of firing.	In seasoned white oak.	No. 1, in musket cartridge paper, sheets of.	No. 2, in musket cartridge paper, sheets of.	Number of hits.	Snaps.	Flashes.	
1837.																
June 19	72	1			3½	4				1.76						Thirteen fragments of caps and lead in the blindages.
	72	1			100	16	10′ 0″	1.6						10		*One lateral discharge.*
	80	1			13½	3			2.30			454				Without patches.
	80	1			13½	3						154				With patches.
	80	1			3½	4				1.65						
21	80	1			180	30	10′ 0″	3.0					7	2		122° Fahrenheit, temperature of barrel after firing.

Colt's small rifle.

Mar. 1	30	1			50	8				0.60						Rifle powder.
	30	1			100	10				0.36						
2	36	1			150	7				0.3			5			
	36	1			200	7				0.0						One ball imbedded.
6	36	1			9	2				0.97						
7	36	1			56	109	30′ 0″	2.79	3.29				104	4		Commenced with cylinders empty to count the time.
8	36	1		5° 30′		8	3 20	2.4						3		
9	36	1			100	50	12 30	4.0						2		
14	36	1				8	2 0	4.0								30″ to fire eight times, 1′ 30″ to load.

Colt's musket.

June 19	124	1			3½	6				2.64						
	110	1			3½	4				2.75						
	80	1			13½	3						481				
21	100	1			100	31	10′ 0″	3.1	2.85				22	1		
	100	1			13½	1					717					
	80	1			180	26	10′ 0″	2.6					9			Temp. 120° Fahrenheit.
	100	1			3½	2				3.0						

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Colt's rifle, (musket calibre.)

June 21	100	1	.....	.....	180	28	10′ 0″	2.8	.....	.....	.....	.....	8	2	.....	*Two discharges at a time in each volley.*
	100	1	.....	.....	3½	1	.....	.....	2.8	1.6	.....	.....	.....	.....	.....	

Colt's carbine, (musket calibre.)

June 21	100	1	.....	.....	100	33	10′ 0″	3.3	.....	.....	.....	.....	30	.....	.....	
	80	1	.....	.....	13½	1	.....	.....	3.3	.....	672	.....	.....	.....	.....	
	72	1	.....	.....	3½	1	.....	.....	.....	1.57	.....	.....	.....	.....	.....	

Baron Hackett's gun, (musket calibre.)

Feb. 27	73	1	.....	.....	50	8	.. ....	.....	.....	0.81	.....	.....	.....	.....	.....	
Mar. 1	73	1	.....	.....	100	10	.....	.....	.....	0.46	.....	.....	.....	.....	.....	
2	73	1	.....	.....	150	10	.....	.....	.....	0.32	.....	.....	.....	.....	.....	
	73	1	.....	.....	200	10	.....	.....	.....	0.10	.....	.....	.....	.....	.....	
6	73	1	.....	.....	9	2	.....	.....	.....	0.82	.....	.....	.....	.....	.....	
	73	1	.....	.....	300	10	.....	.....	.....	.....	.....	.....	1	.....	.....	An indentation of 0.300 inches.

Date.	Charge.			Extent of recoil.	Distance in yards.	Number of fires.	Celerity of fire.			Efficiency of fire.				Casualties.		Remarks.
										Mean penetration.						
	Powder, grains of.	Ball.	Buck shot.				Time of firing.	Rate of firing a minute.	Average rate of firing.	In seasoned white oak.	No. 1, in musket cartridge paper, sheets of.	No. 2, in musket cartridge paper, sheets of.	Number of hits.	Slight.	Fatal.	
1837.																
Mar. 7	73	1	.....	.....	56	99	39′ 30″	2.5	.....	.....	.....	.....	82	11	.....	59 discharges were made in 15′. Cartridge inserted too far 13 times during the firing.
8	73	1	.....	9″ 15′	.....	8	1 50	4.37	.....	.....	.....	.....	.....	.....	.....	Fired in a rain.
9	73	1	.....	.....	100	50	14 50	3.5	.....	.....	.....	.....	24	3	.....	
10	144	1	3	.....	9	1	.....	.....	3.96	1.35	.....	.....	.....	.....	.....	Buck shot; mean penetration, 0.700.
	85	1	.....	.....	200	5	.....	.....	.....	.....	.....	.....	1	.....	.....	Ball rebounded.
	73	1	.....	.....	300	5	.....	.....	.....	.....	.....	.....	1	.....	.....	Indentation, 0.900.
	144	1	.....	.....	400	1	.....	.....	.....	0.30	.....	.....	1	.....	.....	
	73	1	3	.....	80	8	2′ 15″	3.60	.....	.....	.....	.....	6	2	.....	Ten buck shot of eighteen struck the target.
14	73	1	.....	.....	400	10	2 0	5.0	.....	.....	.....	.....	.....	.....	.....	
	73	1	.....	.....	300	10	2 5	4.8	.....	.....	.....	.....	2	.....	.....	

Leavitt's carbine.

Mar. 1	50	1	.....	.....	50	5	.....	.....	.....	0.35	.....	.....	5	.....	.....	
	50	1	.....	.....	100	5	.....	.....	.....	0.49	.....	.....	.....	.....	.....	
2	50	1	.....	.....	150	5	.....	.....	.....	0.20	.....	.....	3	.....	.....	
	50	1	.....	.....	200	5	.....	.....	.....	0 119	.....	.....	4	.....	.....	

Fisher's gun.

Mar. 8	50	1	.....	.....	.....	8	6′ 30″	1.23	1.23	.....	.....	.....	.....	.....	.....	In the rain.

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A.

WEST POINT, *June* 24, 1837.

SIR: Having attended as carefully as is practicable to the duties enjoined upon me in the order of the board over which you preside, dated 19th of the present month, I, with due deference, submit the following statements.

Very respectfully, I am, sir, your obedient servant,

JOHN H. HALL.

General J. R. FENWICK.

In estimating the cost of construction of the different arms presented to us, it is necessary to consider the number to be made *annually*, and the *extent* of the works for manufacturing them in, because the expense of fabrication will be much affected by each of these circumstances. It would be less when many arms are made in the same period of time than when but few; a workman can do more, in the same time, when continuing upon the same kind of job, than when obliged to change often from one kind of work to another, as would be the case when making but few arms in a year.

There is a class of expenses incurred in a manufactory the amount of which is greatly influenced by the *extent* of manufacturing to which it is adapted; which expenses will be nearly similar, and to the same amount, whether much work is performed and many arms are made in each year or but few. Such are the expenses arising from the decay of the buildings; of the forebays and the water-wheels, &c.; the expenses of direction or superintendence; clerks' duties; watchmen; laborers to keep the shops in good order; to supply the stoves with fuel in cold weather, &c. My estimates have been made on the supposition of manufacturing three thousand arms of the same kind in each year.

The effect on the cost of the different kinds of the arms, which would be produced by making a smaller number of them in such an establishment, is exhibited in the paper numbered 4, by adding to the direct expenses on different parcels of them, viz: 1,000, 2,000, and 3,000 per year, the amount of the incidental ones annually incurred. From which it appears that Mr. Colt's muskets, without a bayonet, might be made in any quantities at the rate of 3,000 per year, at $19 03 each; the fusil Robert, with a bayonet, at the rate of $14 36 each; Mr. Cochran's musket, at $19 10 each, without a bayonet.

Exhibit of incidental expenditures, such as would be incurred in an establishment for making three thousand arms per year, and their effect on the cost of the arms when made in different parcels annually, viz: 1,000 *per year,* 2,000 *per year, and* 3,000 *per year.*

Superintendence or direction	$1, 500 00
Inspection	1, 400 00
Clerk's services	800 00
Assistant	400 00
Stationery	50 00
Watchman	600 00
Laborers	600 00
Fuel	600 00
Oil and tallow for lubricating water-wheel journals, and those of machines	100 00
Repairs of buildings, and forebays, and water-wheels, including deterioration of property	950 00
	7, 000 00
Estimated cost of direct expenses in making 1,000 of Mr. Colt's muskets in one year	16, 520 00
Incidental expenses of one year	7, 000 00
Total cost of 1,000 of Mr. Colt's muskets	23, 520 00
Which is equal to $23 52 for each.	
Cost of 2,000 of them, direct expenses	33, 040 00
Incidental expenses	7, 000 00
Total cost of 2,000	40, 040 00
Which is for 1,000, $20,020; equal to $20 02 for each.	

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Estimated cost of direct expenses for 3,000 of Mr. Colt's muskets	49, 560 00
Incidental expenses	7, 000 00
Total for making 3,000 in one year	56, 560 00

Which is for 1,000, $18,853; or $18 85 3-10ths each.

Direct expenses for fusil Robert for 1,000 in one year	12, 030 00
Incidental expenses	7, 000 00
Total for making 1,000 in one year	19, 030 00

Or $19 03 for each.

Direct expenses for fusil Robert, made at the rate of 2,000 in one year	24, 060 00
Incidental expenses	7, 000 00
Total for 2,000 of the arms	31, 060 00

Which is for 1,000 of them $15,530, or $15 53 for each.

Direct expenses for fusil Robert, made at the rate of 3,000 per year	36, 090 00
Incidental expenses	7, 000 00
Total for 3,000	43, 090 00

Which for 1,000 is $14,303, or $14 36⅔ for each.

Direct expenses for 1,000 of Mr. Cochran's muskets in one year	16, 770 00
Incidental expenses	7, 000 00
Total expenses for 1,000 in one year	23, 770 00

Or $23 77 for each.

Estimated cost of direct expenses for 2,000 of Mr. Cochran's muskets, made at that rate per year	33, 540 00
Incidental expenses	7, 000 00
Total for 2,000	40, 540 00

Which is for 1,000 $20,270; or $20 27 for each.

Direct expenses for 3,000 of Mr. Cochran's muskets made in one year	50, 310 00
Incidental expenses	7, 000 00
Total for 3,000 of the arms	57, 310 00

Which for 1,000 is $19,103⅓, or $19 10⅓ each.

WEST POINT, *June* 24, 1837.

SIR: Subjoined I present a list of the appendages to the Hall's musket, and the cost of each.

Very respectfully, your obedient servant,

General J. R. FENWICK. JOHN H. HALL.

Appendages to Mr. Hall's musket.

1 cartridge-box, for containing either ball or buck-shot cartridges, or both	$1 50
1 screw-driver and picker	9
1 primer	2 25
1 wiper	20
	4 04

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WEST POINT, *June* 24, 1837.

SIR: Subjoined is a list of the appendages of Mr. Cochran's musket, and an estimate of the cost of making each of their component parts.

Also, a list of the appendages to Mr. Colt's musket, and an estimate of expense of making each of their component parts, so far as I could examine them separately. Those of the ammunition flask could not be separated; they have therefore neither been separately mentioned nor separately estimated.

Very respectfully, your obedient servant,

JOHN H. HALL.

General J. R. FENWICK.

Appendages to Mr. Cochran's musket.

1 powder-flask	$1 50
1 leather pouch	1 10
1 leather belt	40
2 leather straps	25
2 small mallets	25
1 bullet-mould	40
	3 90

Appendages to Mr. Colt's musket.

1 belt	$0 75
5 hooks	50
2 supports	50
5 rivet plates	50
1 buckle	10
Uniting the whole	50
	2 85
1 cartridge-box	2 00
1 ammunition flask	3 00

Lever, consisting of the following parts:

1 fulcrum	$0 6
1 screw-driver	8
1 screw-driver for cones	12
1 pick	8
1 cap, (brass)	8
	0 52

Primer, consisting of the following parts:

1 box	$0 50
2 covers	20
2 springs	12
2 spring-screws	3
2 circular plates or buttons	20
2 cap-pushers	14
2 coiled springs	20
1 main-axis screw	3
2 axis or hinge rivets	4
2 palls or spring-catches	12
2 pall-screws	3
2 pivot-lid catches	6
	1 67
Uniting all the parts	30
Total	1 97

Recapitulation of appendages to Mr. Colt's musket.

Belt	$2 85
Cartridge-box	2 00
Flask	3 00
Lever	42
Primer	1 97
	10 24

ESTIMATE OF THE COST OF THE DIFFERENT SMALL ARMS SUBMITTED TO THE BOARD FOR THEIR EXAMINATION.

Estimate of the cost, &c., of the fusil Robert, or Baron Hackett's gun.

No. of parts.	Component parts.	Amount.
5	Barrel, with the bayonet, rear, and igniting stud and screws	$3 77 6.5
2	Trunnion plates	65 6.2
2	Trunnion plate screws	2 7.5
2	Trunnion screws	5 6.8
2	Washers for trunnion screws, (copper)	1 2.6
1	Stock bar for friction roller	16 0.8
2	Friction roller, and axis pin for stock	1 3.7
2	Lever with copper plug	49 1.6
1	Guide or rear sight for lever	12 7.6
2	Screws for guide	3 8.1
2	Catch for lever with stock pin	31 1.6
1	Catch spring	7 5.7
1	Screw for catch or axis	1 9
1	Hammer or spring for igniting	25 5.9
1	Screw for hammer	1 8.8
1	Guard plate	63 4.3
1	Guard bow, (brass)	44 4.1
1	Screw for guard bow and trigger	2 8.6
3	Guard screws for screwing to the barrel	6 7.2
1	Guard screw, (wood)	1 6.8
1	Trigger, (acts also as sear and spring)	25 2
1	Breech plate	24 7
2	Breech plate screws	4 2.5
1	Top band, (brass)	16 2.5
1	Sight for top band, with screws	1 9.2
1	Screw-driver for top band	8 8.5
1	Screw for screw-driver	2 7.3
1	Middle band, (brass)	13 2.7
1	Lower band, (brass)	8 9.7
4	Swivels, (2,) and rivetting wires (2)	12 9.9
2	Side plate, (brass)	3 8.1
1	Side screw	2 2.6
3	Band springs, (steel)	13 9.4
1	Safety plate, (brass)	39 1.3
11	Screws for safety plate, (for wood)	9 7.3
1	Bayonet	1 18 1.4
1	Stock	1 22 8.4
68		11 52 3.2
	Case-hardening, polishing, and finishing	66 4.2
	Pay of officers, clerks, inspectors, machinist, jobbers, &c	1 50 6
		13 69 3.4
	Cost of one gun if 5,000 are manufactured	13 69 3.4
	Cost of one gun if 10,000 are manufactured	12 88 5.5
	Cost of one gun if 20,000 are manufactured	12 47 6.8
	Cost of one gun if 40,000 are manufactured	12 27 2.4
	Cost of one gun if 50,000 are manufactured	12 23 1.5

DIMENSIONS AND WEIGHT.

	Feet. Inches.
Length of musket without bayonet	4 $10\frac{1}{8}$
Length of musket from breech to point of bayonet	5 $6\frac{3}{8}$
Length of stock	4 $7\frac{1}{8}$
Length of barrel	$42\frac{37}{100}$
Diameter of calibre at muzzle	$\frac{86}{100}$ to $\frac{88}{100}$
Diameter of chamber at breech	$\frac{73}{100}$ to $\frac{73}{100}$
Length of the chamber about	$2\frac{3}{16}$
Whole length of the bayonet	$19\frac{1}{4}$

	Pounds. Ounces.
Weight of musket with bayonet	10 12
Weight of barrel with stud	4 11
Weight of bayonet with half-socket	$10\frac{1}{4}$

REMARKS.

In Baron Hackett's gun there is no rod. It is thought that though the rod is unnecessary in loading, it is indispensable in washing or cleaning the barrel. No estimate has been made for it. If it should be thought necessary to add the rod, its cost is about that of the common musket; also, if the rod should be added, there would be some additional expense in stocking, and some in altering the top band.

The whole number of parts will be found in the column of parts.

Estimate of the cost, &c., of Samuel Colt's musket, without bayonet or rod.

No. of parts.	Component parts.	Amount.
3	Barrels, with base, guide, and front sight	$5 50 1 2
1	Belt hook	1 9.8
1	Stud for lever axis	1 9 2
1	Receiver with six chambers	3 50 3 1
6	Cones with vents for receiver	50 7.6
1	Axis with shield head	2 09 5.7
1	Index or rutchet	31 9.7
1	Index stay	6 0.1
1	Index stay screw	2 0.9
1	Hand for index	9 3.6
1	Key for connecting barrel with axis	6 7.9
1	Key screw or stop for key	1 2
1	Tang	27 5
3	Tang-screw for iron	5 1.4
1	Tang-screw for wood	2 0.1
1	Lock plate	2 36 3.1
2	Lock plate screws	3 7.1
1	Bolt for stop to receiver	7 8.2
1	Bolt spring	5 0.2
1	Bolt spring screw	1 7.6
1	Lever for cocking	25 0.9
1	Screw for lever	1 2.3
1	Spring for lever	8 7.2
1	Screw for lever spring	1 4.7
1	Hand spring	5 2.9
1	Hand spring screw	1 6.2
1	Hammer	35 6.3
1	Hammer screw axis	2 1.4
1	Hammer link	5 1.9
1	Hammer link screw	1 9.4
1	Hammer spring	18 6
1	Hammer spring screw	1 9.6
1	Trigger	8 8.5
1	Trigger screw axis	2 1.4
1	Trigger spring	4 2.4
1	Trigger spring screw	1 3
1	Guard for trigger	32 0
2	Guard screws for iron	2 7
2	Rivets	1.2
1	Breech plate	24 8
2	Breech plate screws	4 3.1
1	Stock	92 5.7
55		17 93 2.6
	Case-hardening, polishing, and finishing	79 5.3
	Pay of officers, clerks, inspectors, machinist, jobbers, &c.	1 50 6
		20 23 3.9
	Cost of one gun if 5,000 are manufactured	20 23 3.9
	Cost of one gun if 10,000 are manufactured	19 13 2.1
	Cost of one gun if 20,000 are manufactured	18 66 1.7
	Cost of one gun if 40,000 are manufactured	18 42 6.5
	Cost of one gun if 50,000 are manufactured	18 37 9.5

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Estimate of the cost, &c., of Samuel Colt's musket, &c.—Continued.

DIMENSIONS AND WEIGHT.	Feet.	Inches.
Length of the musket	5	$\frac{5}{8}$
Length of the stock		$14\frac{7}{8}$
Length of the barrel		42
Diameter of calibre at muzzle and breech		$\frac{63}{100}$ to $\frac{64}{100}$
Length of receiver with seven chambers		$\frac{3}{4}$
Diameter of chamber bayo.		$\frac{64}{100}$
Depth of chambers		3
Greatest exterior diameter of receiver		$3\frac{1}{8}$

	Pounds.	Ounces.
Weight of musket	15	5
Weight of barrel	5	11
Weight of receiver with seven chambers	4	0

REMARKS.

As it appeared to be the opinion of the board that a receiver with six chambers would be preferable to one with seven, in order to reduce the weight of the musket; and preferable, also, to reduce the length of the chambers so as to contain a charge of 100 grains of powder, with ball, &c.; and to reduce the length of the barrel so as to make its length correspond with the length of the present musket barrel, viz., 42 inches; the foregoing estimate has been predicated on these modifications, all of which would reduce the weight of the musket from 15 pounds 5 ounces to 13 pounds 9 ounces.

These modifications would also tend to reduce the cost of the musket, if the receiver were made of iron. But as it appeared to be the general opinion (which opinion is concurred in) that a receiver made of cast-steel would be preferable to one made of iron, in consequence of iron being more liable to have flaws and seams than cast-steel, and these flaws and seams having a tendency to render the charges liable to ignite each other from the interior of the calibre, (an instance of which is thought to have occurred in the examination at West Point,) it is proper to remark that the cost of the cast-steel will probably rather more than counterbalance the reduction of cost by the above-named modifications, though it will not materially add to the cost of the gun.

In the foregoing estimate, wrought iron has been substituted for malleable iron in all the components made of malleable iron in Colt's musket, which will make an additional item in the cost of the manufacture.

Colt's gun has neither bayonet nor rod. It is thought that though the rod is unnecessary in loading, it is indispensable in washing or cleaning the barrel. No estimate has been made for these parts. If it should be thought necessary to add them, their cost will be about the same as that of the bayonet and rod of the musket.

In consequence of Mr. Colt's statement, that, although the guide or rear sight on the gun presented for examination was made of three parts, it was not intended so for the ordinary manufacture of the musket, as it would be more expensive than that of the ordinary kind; in this estimate the guide has been called but one part, and corresponds with the one which was on the rifle and carbine he had with him.

The lock-plate, also, was called but one part, although the plate on the gun presented for examination consisted of two parts, there being a sort of scroll on the tang. This was mere fancy, and not intended as a model for ordinary manufacture of the musket.

The form of the present musket breech-plate was substituted for the one presented for examination on account of its being less expensive in the manufacture; and consequently two screws were estimated instead of three.

As it seemed to be the opinion that a receiver with six chambers would be preferable to one with seven, as noticed above, only six cones were estimated for.

If wrought iron were substituted for malleable iron, it would be found economical to make the guard of two pieces. In this estimate it has been considered as one part; but two rivets have been added to the number of pieces.

The number of parts in the gun presented for examination was fifty-eight; the number of parts intended to be examined, fifty-five; the number of parts actually estimated, by dispensing with one cone and one breech-plate screw, and by adding two rivets, amounted to fifty-five.

Although the guide has been estimated, it is considered to be of no more use to Colt's gun than it would be to the common musket, but rather an inconvenience in the manual exercise.

Estimate of the cost, &c., of Mr. Cochran's musket, without bayonet or rod.

No. of parts.	Component parts.	Amount.
2	Barrel, with front sight	$2 96 7.5
1	Receiver	2 26 4.6
7	Cones	59 4.6
1	Axis for receiver	5 9.6
1	Lock or guard-plate	1 79 8.3
1	Lock or guard-plate screw	2 4.1
1	Strap for capping over receiver and axis	35 9.1
1	Strap-axis, or pin	1 6.7
1	Stop-bolt	7 2.3
1	Stop-bolt axis, or pin	1.0
1	Stop-bolt spring	3 6.0
1	Stop-bolt spring-screw	1 9.6
	Thumbpiece. (This was made of *lectrum*, but is estimated as if made of iron, and in one piece with the bolt.)	
1	Hammer	24 4.6
1	Hammer-screw	2 0.7
1	Hammer-spring	13 9.2
1	Hammer-spring screw	1 9.7
1	Hammer-lifting spring	4 0.7
1	Hammer-lifting spring-screw	1 8.1
1	Sear, (acts as a trigger)	18 0.2
1	Sear-axis pin	1 2.1
1	Sear-spring	2 3.4
1	Sear-spring screw	1 4.4
1	Tang-screw	1 9.7
1	Socket for tang-screw	3 3.5
1	Socket-pin	2.9
1	Separator, (brass)	17 0.5
2	Separator-screws	3 1.2
1	Separator-washer, (copper)	4 2.9
2	Separator-washer pins, (wires)	7.5
1	Fence	15 0.7
2	Fence-screws, (for wood)	3 3.6
1	Supporter, (brass)	24 2.1
1	Supporter-screw—catch for strap	3 4.4
1	Supporter-screw, (for wood)	1 9.3
1	Breech-plate	24 8.0
2	Breech-plate screws	4 3.1
1	Stock	87 1.9
48		10 87 7.8
	Case-hardening, polishing, and finishing	67 7.0
	Pay of officers, inspectors, clerks, machinist, jobbers, &c.	1 50 6.0
		13 06 0.8
	Cost of one gun if 5,000 are manufactured	$13 06 0.8
	Cost of one gun if 10,000 are manufactured	12 26 2.5
	Cost of one gun if 20,000 are manufactured	11 86 3.7
	Cost of one gun if 40,000 are manufactured	11 66 4.3
	Cost of one gun if 50,000 are manufactured	11 62 4.5
	DIMENSIONS AND WEIGHT.	Feet. Inches.
	Length of the musket	4 $7\frac{1}{8}$
	Length of the stock	$15\frac{3}{4}$
	Length of the barrel	$36\frac{1}{2}$
	Diameter of calibre at muzzle	$\frac{67}{100}$ to $\frac{83}{100}$
	Exterior diameter of the receiver, with seven chambers	$4\frac{1}{2}$
	Thickness of receiver, about	$\frac{15}{16}$
	Diameter of receiver about edge	$\frac{68}{100}$
	Diameter of receiver at bottom	$\frac{1}{2}$
		Pounds. Ounces.
	Weight of musket	11 14
	Weight of barrel	3 3
	Weight of receiver	3 1

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REMARKS.

In this estimate, wrought iron has been substituted for malleable iron in all of those components made of malleable iron in Cochran's musket, which will tend rather to increase the cost of the gun.

The form of the common musket breech-plate was substituted for the one presented for examination, on account of its being less expensive to manufacture; and consequently two screws were estimated instead of three.

The stop-bolt consisted of two parts, in consequence of the thumbpiece being made of lectrum; but as this might be more economically made of iron, in one piece with the bolt, they have been estimated as one part.

Cochran's musket, also, has neither bayonet nor rod. It is thought that though the rod is unnecessary in loading, it is indispensable in washing or cleaning the barrel. No estimate has been made for these parts. If it is thought necessary to add them, their cost will be about the same as that of the bayonet and rod of the common musket.

The number of parts in Cochran's musket was..... 50

The number of parts estimated, by dispensing with the thumbpiece and breech-plate screw, amounts to..... 48

GENERAL REMARKS.

As there might, at first sight, appear too great a discrepancy in the cost of some of the screws of nearly the same size, it is thought proper to remark that, when the same tools would answer for various classes of screws, the cost of these tools has been thrown wholly or in part upon the first of these classes of screws estimated.

If arms were manufactured of the foregoing pattern, there might be an improvement made in the uniformity of the screws, which would tend to cheapen, as well as equalize, the cost of fabrication.

BENJAMIN MOOR.

HARPER'S FERRY, *July* 22, 1837.

IN
Senate No. 309, Doc No 15
25th Congress, 1st Session
1837-38
Senate Ex Doc. Vol 1, Doc No 15

P. 729-730

No. 15.

REPORT FROM THE ORDNANCE DEPARTMENT.

ORDNANCE OFFICE, *Washington, November* 20, 1837.

SIR: In obedience to your order of the 7th of September last, I have the honor to transmit a report of the general result of the proceedings and operations of this department between October 1, 1836, and September 30, 1837.

The papers marked A and B present a general view of these concerns during the last-mentioned period, as well in regard to the amounts of expenditures under the several heads of appropriations, as in reference to their objects, and the various ordnance stations where they have been made.

The first of these (A) shows the whole amount of funds remitted from the treasury to disbursing officers and others in this department during the year 1836 to have been..... $1,593,720 10

That portion of that sum which was expended and accounted for during the same period amounted to..... 1,354,827 48

And that at the close of the year there remained unexpended, and in the hands of disbursing officers, the sum of..... 238,892 62

Statement B exhibits the total amount of funds remaining in the hands of disbursing officers at the close of the year 1836, and which have been remitted to them and others during the first, second, and third quarters of the year 1837. This amount will be seen to have been..... $1,671,299 83

And the portion of this sum unexpended, and for which accounts have been rendered during the same period, will be seen, in the same statement, to have amounted to... 1,460,064 69

The unexpended balance exhibited in the same statement as being in the hands of the disbursing officers at the close of the third quarter of 1837 having been..... 211,235 14

Statement C presents a view of the general result of the operations at the several arsenals and armories of the United States, in the manufacture, repair, and purchase of the principal articles of ordnance, ordnance stores, and building materials. It exhibits the result of these operations to the extent to which they have been completed during the year between October 1, 1836, and September 30, 1837, indicating, among other articles of ordnance and ordnance stores which have been fabricated or procured, the following, viz:

Of artillery, 55 42-pounder, 31 32-pounder, 193 24-pounder, and 37 6-pounder iron cannon; 2 12-pounder, and 13 6-pounder brass cannon; 13 12-pounder brass howitzers; 1 42-pounder, 168 32-pounder, and 91 24-pounder barbette carriages; 30 42-pounder, 104 32-pounder, and 16 24-pounder casemate carriages; 1 42-pounder, 27 32-pounder, and 3 24-pounder casemate chasses; 34 32-pounder and 81 24-pounder barbette chasses; 149 field-carriages, 56 caissons, 12 travelling forges, 10 mortar beds, and 78 elevating machines.

Of small arms manufactured and procured, viz: 22,931 muskets complete, and 1,018 carbines made at the national armories; and at private factories, 5,450 muskets complete, 400 common and 489 Hall's rifles, 2,500 carbines, 184 double-barrel guns, 1,000 artillery swords, and 4,272 cavalry sabres.

Of accoutrements for small arms, 6,648 sets for infantry, 4,088 for cavalry, 25,523 infantry and cavalry cartridge-boxes, 17,241 cartridge-box belts, 18,028 bayonet scabbards, 25,592 bayonet belts, 1,906 rifle flasks and belts, 6,017 rifle pouches and belts, 8,425 sword and sabre belts, and 10,300 waist belts.

Statement D shows the extent of the operations during the year, between the 1st of October, 1836, and the 30th of September, 1837, which have occurred in procuring ordnance and ordnance stores, under the act of 1808, for arming and equipping the militia of the States and Territories. This statement presents also a view of the expenditures under the act, which have resulted during the same period, in procuring the stores, amounting, for all objects, to $179,102 38. It exhibits, among other articles of ordnance stores procured, 37 6-pounder iron cannon, 13 12-pounder, 15 9-pounder, and 12 6-pounder field and 8 12-pounder howitzer carriages, with their equipments, &c., complete; 22 caissons, 2 travelling forges, 5,750 muskets, 400 rifles, 200 carbines, 350 pistols, 1,000 artillery swords, and 2,670 cavalry sabres.

Statement E exhibits the amount of ordnance and ordnance stores which have been apportioned, for the year 1836, to the several States and Territories, under the act of 1808 for arming and equipping the militia: this apportionment being founded on the recent returns of the strength of the militia, as made by the adjutant generals of the militia of the several States to the adjutant general of the army.

Statement F shows the several articles of ordnance and stores which have been distributed to the militia of the States and Territories during the year, between the 1st of October, 1836, and the 30th of September, 1837.

Statement G presents a view of the munitions of war issued by this department during the year, between the 1st of October, 1836, and the 30th of September, 1837, to the army. In this it will appear that 4 12-pounder iron, 17 6-pounder iron, and 6 6-pounder brass cannon, and 10 12-pounder brass howitzers, with their carriages and equipments complete, 5 caissons, 3,137 muskets, 2,860 rifles, 1,296 carbines, 2,518 pistols, 1,645 cavalry sabres, 25 swords, 3,901 sets of infantry, 2,400 sets of rifle, and 946 sets of cavalry accoutrements, are among the principal articles issued.

The agent of the United States lead mines at Galena reports that no changes have taken place in relation to the condition of the agency during the year ending on the 30th of September, 1837. No returns of lead have been made during that period, and the suits instituted against the delinquents have not been determined.

It will be seen by a reference to the last annual report from this office that the alleged cause for refusing to pay the stipulated rents was, that the act of the 3d of March, 1807, contained no authority for the collection of rent-lead under a *license* for *smelting* lead ore, and that the law authorizing the *leasing* of public lands within the limits of a State was unconstitutional. The validity of these objections will be tested by the suit now pending.

A full report on the present condition of the agency, and of the mineral lands generally, is expected daily, from an officer of this department who was recently authorized to proceed to that section of the country for that purpose. On the receipt of his report, it will be transmitted to you, with such further remarks as the information he may communicate may seem to require.

In the event of a sale of the public lands herein referred to, under the authority given to the President of the United States by existing laws, or by any that may be passed hereafter, it does not appear expedient that any reservation should be made of those designated as the lead region, whether containing lead, iron, or copper ore, or any other mineral or metal whatsoever, with a view to their being wrought for the benefit of the United States.

The sale of these lands has been recommended by this department in every annual communication for the last six years, and is again recommended as a necessary measure to prevent the conflicts of public and private interests, and advance the prosperity of the country in that quarter.

It is also recommended, as a general measure, that all the right, title, and interest which the United States may possess in and to all other lands, containing mines of any description whatsoever, appertaining to and being under control of the Department of War, unless required for purposes unconnected with the Ordnance department, may likewise be sold without reservation, and that the authority of Congress be obtained for that purpose.

In addition to the information exhibited in these various statements, it may be communicated, generally, in regard to the operations of this department, that they have been conducted at the several arsenals, armories, and in the contract service, with the usual fidelity and ability which characterize the agents of this department; and that they have been only limited and impeded by the difficulty so often alluded to, on the occasions of former reports for years past, and specially referred to in the last annual report, (dated the 12th of November, 1836,) viz: the want of additional officers; but a special report having been made as you have directed, presenting at large the views of this office in regard to an adequate military organization for the service of this department, a further allusion to it does not occur to me as necessary now.

I have the honor to be, sir, respectfully, your obedient servant,

GEO. BOMFORD, *Colonel of Ordnance.*

Hon. J. R. POINSETT, *Secretary of War.*

A.—*Statement of the money expended through the Ordnance department in the year* 1836.

Officers' names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS JANUARY 1, 1836. Appropriations.									
		National armories.	Current expenses of the ordnance service.	Arsenals.	Armament of fortifications.	Arming and equipping the militia.	Slating roofs of workshops.	For building a pay office.	For the new arsenal.	National armories at Springfield, Mass.	Constructing water-wheels and machinery.
Charles Howard	Armory, Springfield, Massachusetts	$173,119 60				$4,431 19	$202 29	$155 89	$1,780 57	$25,500 00	
Daniel Bedinger	Armory, Harper's Ferry, Virginia	178,811 74					186 58				$317 72
Captain J. W. Ripley	Arsenal, Augusta, Maine		$656 42	$15,850 00	$5,000 00						
Major H. K. Craig	Arsenal, Watertown, Massachusetts		2,347 63	2,111 82	16,663 05	18,156 52					
Captain B. Huger	Arsenal, Fort Monroe, Virginia		3,333 00	8,609 69	30,624 91						
Captain N. Lowd	Arsenal, Vergennes, Vermont		128 52								
S. Lansing, jr	Arsenal, West Troy, New York		21,157 95	31,360 00	68,260 00	43,853 38					
Captain S. Perkins and Captain H. S. Mallory	Arsenal, Rome, New York		2,475 00								
Captain J. R. Butler	Arsenal, Pittsburg, Pennsylvania		16,043 04	16,221 54	574 99	14,085 65					
Captain A. Mordecai	Arsenal, Frankford, Pennsylvania		4,289 45	10,021 18	50 00	588 90					
Captain C. Graham and Lieutenant W. Maynadier	Arsenal, Pikesville, Maryland		1,067 00	995 00	463 26						
Marcus C. Buck	Arsenal, Washington city		9,297 26	16,079 85	38,000 00	1,643 83					
Moses McArthur	Arsenal, near Richmond, Virginia		122 73								
Major N. Baden and Thomas M. Chandler	Arsenal, Augusta, Georgia		1,182 59	970 81							
Captain E. Harding	Arsenal, Mount Vernon, Alabama		2,264 58	26,000 00	1,424 93						
Lieutenant J. Williamson	Arsenal, Apalachicola, Florida			43,445 53							
Captain W. S. Newton	Arsenal, Baton Rouge, Louisiana		3,623 96	18,588 18	894 46	2,530 90					
Captain J. Symington	Arsenal, St. Louis, Missouri		7,832 81	18,380 00		350 00					
Captain S. H. Webb	Arsenal, Detroit, Michigan		764 78	16,413 70							
Captain J. A. J. Bradford and L. L. Van Kleeck	Depot, city of New York		3,830 30	11,438 94		2,541 83					
W. L. Poole	Depot, Charleston, South Carolina		832 64			117 35					
Captain J. A. d'Laguel	Depot, Gray's Ferry, Florida										
Captain J. A. J. Bradford	Arsenal, Fayetteville, North Carolina										
Major T. C. Legate and J. H. Weber	Lead mines, Galena, Illinois		1,951 52								
Major R. B. Lee	Arsenal, Little Rock, Arkansas										
Lieutenant J. F. Kennedy	Depot, St. Augustine, Florida										
Sundry persons for cannon, gun-carriages, cannon balls, and small arms					128,731 01	123,577 14					
Settlements on audited accounts			1,719 38	784 42							
Total		351,931 34	84,920 56	247,270 66	290,686 64	211,876 69	388 87	155 89	1,780 57	25,500 00	317 72

A.—*Statement of the money expended through the Ordnance department in the year* 1836—Continued.

Officers' names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS JANUARY 1, 1836. Appropriations.										
		Repairing of the walls of four workshops.	Repair and extension of the public dam.	Erecting storehouses.	Completion of machinery.	Erecting new dwelling-houses.	National armory at Harper's Ferry.	Purchase, &c., of light field artillery.	Suppression of Indian hostilities.	Supplying the arsenals with ordnance stores.	Accoutrements for the army.	The purchase of accoutrements.
Charles Howard	Armory, Springfield, Massachusetts				$7,693 58							
Daniel Bedinger	Armory, Harper's Ferry, Virginia	$650 05	$793 66	$4,575 02	8,948 32	$982 59	$25,838 00					
Captain J. W. Ripley	Arsenal, Augusta, Maine											
Major H. K. Craig	Arsenal, Watertown, Massachusetts									$20,958 00		$14,250 00
Captain B. Huger	Arsenal, Port Monroe, Virginia											
Captain N. Lowd	Arsenal, Vergennes, Vermont											
S. Lansing, jr.	Arsenal, West Troy, New York							$24,680 00				
Captain S. Perkins and Captain H. S. Mallory	Arsenal, Rome, New York											
Captain J. R. Butler	Arsenal, Pittsburg, Pennsylvania							11,500 00	$38,250 00		$35,000 00	
Captain A. Mordecai	Arsenal, Frankford, Pennsylvania											
Captain C. Graham and Lieutenant W. Maynadier	Arsenal, Pikesville, Maryland											
Marcus C. Buck	Arsenal, Washington city							16,000 00				
Moses McArthur	Arsenal, near Richmond, Virginia											
Major N. Baden and Thomas M. Chandler	Arsenal, Augusta, Georgia								1,933 28			
Captain E. Harding	Arsenal, Mount Vernon, Alabama								23,000 00			
Lieutenant J. Williamson	Arsenal, Apalachicola, Florida											
Captain W. S. Newton	Arsenal, Baton Rouge, Louisiana											
Captain J. Symington	Arsenal, St. Louis, Missouri								1,800 00			
Captain S. H. Webb	Arsenal, Detroit, Michigan											
Captain J. A. J. Bradford and L. L. Van Kleeck	Depot, city of New York								10,950 00	27,175 00		
W. L. Poole	Depot, Charleston, South Carolina								151 60			
Captain J. A. d'Lagnel	Depot, Garey's Ferry, Florida								2,000 00			
Captain J. A. J. Bradford	Arsenal, Fayetteville, North Carolina											
Major T. C. Legate and J. H. Weber	Lead mines, Galena, Illinois											
Major R. B. Lee	Arsenal, Little Rock, Arkansas											
Lieutenant J. F. Kennedy	Depot, St. Augustine, Florida								878 00			
Sundry persons for cannon, gun-carriages, cannon balls, and small arms												
Settlements on audited accounts												
Total		650 05	793 66	4,575 02	16,641 90	982 59	25,838 00	52,180 00	78,962 88	48,133 00	35,000 00	14,250 00

A.—*Statement of the money expended through the Ordnance department in the year* 1836—Continued.

Officers' names.	Stations.	AMOUNT OF SUMS REMITTED, INCLUDING THE BALANCES IN THE HANDS OF AGENTS JANUARY 1, 1835. Appropriations. Constructing furnaces for heating cannon balls.	Purchase of three acres of land, &c., at Mt. Vernon.	Purchase of gunpowder.	Purchase of sites and construction of arsenals in Arkansas, Missouri, and Tennessee.	Purchase of a site and construction of an arsenal at Fayetteville, N. C.	Purchase of cannon balls.	Arsenal at St. Louis.	Total.	Amount expended and accounted for.	Balances remaining in the hands of disbursing officers, Dec. 31, 1836.
Charles Howard	Armory, Springfield, Massachusetts								$212,883 12	$190,613 91	$22,269 21
Daniel Bedinger	Armory, Harper's Ferry, Virginia								221,103 68	198,657 96	22,445 72
Captain J. W. Ripley	Arsenal, Augusta, Maine								21,506 42	13,222 19	8,284 23
Major H. K. Craig	Arsenal, Watertown, Massachusetts								74,467 05	61,049 88	13,437 17
Captain B. Huger	Arsenal, Fort Monroe, Virginia	$2,800 00							45,367 60	39,978 88	5,388 72
Captain N. Lowd	Arsenal, Vergennes, Vermont								128 52	103 02	25 50
S. Lansing, jr.	Arsenal, West Troy, New York								189,311 33	174,220 27	15,091 06
Captain S. Perkins and Captain H. S. Mallory	Arsenal, Rome, New York								2,475 00	2,467 77	7 23
Captain J. R. Butler	Arsenal, Pittsburg, Pennsylvania								131,675 22	100,418 97	31,256 25
Captain A. Mordecai	Arsenal, Frankford, Pennsylvania			$62,000 00					76,949 53	74,315 53	2,634 00
Captain C. Graham and Lieutenant W. Maynadier	Arsenal, Pikesville, Maryland								2,525 26	2,002 14	523 12
Marcus C. Buck	Arsenal, Washington city								81,020 94	62,267 39	18,753 55
Moses McArthur	Arsenal, near Richmond, Virginia								122 73	118 00	4 73
Major N. Baden and Thomas M. Chandler	Arsenal, Augusta, Georgia								4,086 68	4,005 98	80 70
Captain E. Harding	Arsenal, Mount Vernon, Alabama		$1,800 50						64,490 01	30,350 68	34,139 33
Lieutenant J. Williamson	Arsenal, Apalachicola, Florida								43,445 53	38,562 81	4,882 72
Captain W. S. Newton	Arsenal, Baton Rouge, Louisiana								25,637 50	2,440 21	23,197 29
Captain J. Symington	Arsenal, St. Louis, Missouri				$5,000 00			$3,071 62	36,434 43	24,642 28	11,792 15
Captain S. H. Webb	Arsenal, Detroit, Michigan								17,178 48	17,178 48	
Captain J. A. J. Bradford and L. L. Van Kleeck	Depot, city of New York								55,936 07	39,893 22	16,042 85
W. L. Poole	Depot, Charleston, South Carolina								1,101 59	855 53	246 06
Captain J. A. d'Lagnel	Depot, Garey's Ferry, Florida								2,000 00	2,000 00	
Captain J. A. J. Bradford	Arsenal, Fayetteville, North Carolina					$7,590 00			7,590 00	4,202 95	3,387 05
Major T. C. Legate and J. H. Weber	Lead mines, Galena, Illinois								1,951 52	1,951 52	
Major R. B. Lee	Arsenal, Little Rock, Arkansas				5,000 00				5,000 00		5,000 00
Lieutenant J. F. Kennedy	Depot, St. Augustine, Florida								878 00	874 02	3 98
Sundry persons for cannon, gun-carriages, cannon balls, and small arms							$13,621 94		265,930 09	265,930 09	
Settlements on audited accounts									2,503 80	2,503 80	
Total		2,800 00	1,800 50	62,000 00	10,000 00	7,590 00	13,621 94	3,071 62	1,593,720 10	1,354,837 48	238,882 62

ORDNANCE OFFICE, *Washington, November* 20, 1837.

G. BOMFORD, *Colonel of Ordnance.*

B.

Statement of the money expended through the Ordnance department during the first, second, and third quarters of 1837.

Rations.	Amounts transmitted in the first, second, and third quarters of 1837, and balances remaining in officers' hands at the close of the year 1836.	Amount of accounts rendered in the first, second, and third quarters of the year 1837.	Balances remaining in officers' hands on the 1st of October, 1837.
Armory, Springfield, Massachusetts	$190,212 16	$170,054 85	$20,157 31
Armory, Harper's Ferry, Virginia	238,411 84	199,951 97	38,459 87
Arsenal, Augusta, Maine	62,267 14	18,000 33	44,266 81
Arsenal, Watertown, Massachusetts	112,218 67	96,064 42	16,154 25
Arsenal, Fort Monroe, Virginia	54,090 72	46,784 52	7,306 20
Arsenal, Vergennes, Vermont	86 50	86 50	.....
Arsenal, West Troy, New York	200,712 06	200,108 96	603 10
Arsenal, Rome, New York	1,296 23	1,236 65	59 58
Arsenal, Pittsburg, Pennsylvania	100,847 25	89,280 91	11,566 34
Arsenal, Franford, Pennsylvania	124,654 00	124,204 36	449 64
Arsenal, Pikesville, Maryland	4,831 00	3,731 00	1,100 00
Arsenal, Washington city	68,777 56	62,532 32	6,245 24
Arsenal near Richmond, Virginia	91 73	32 61	59 12
Arsenal, Augusta, Georgia	5,871 32	5,070 38	800 94
Arsenal, Mount Vernon, Alabama	46,139 33	42,512 49	3,626 84
Arsenal, Apalachicola, Florida	43,382 72	34,485 60	8,897 12
Arsenal, Baton Rouge, Louisiana	23,197 29	9,143 75	14,053 54
Arsenals, St. Louis, Liberty, Missouri, and Memphis, Tennessee	58,783 09	44,361 58	14,421 51
Arsenal, Detroit, Michigan	17,052 13	17,052 13	.....
Arsenal, Fayetteville, North Carolina	30,387 05	26,705 29	3,681 76
Arsenal, Little Rock, Arkansas	7,120 00	1,516 05	5,603 95
Depot, city of New York	24,096 96	11,490 12	12,606 84
Depot, Charleston, South Carolina	3,260 62	3,020 24	240 38
Depot, Garey's Ferry, Florida	10,500 00	9,908 53	591 47
Depot, St. Augustine	831 98	548 65	283 33
Lead mines, Galena, Illinois	1,218 00	1,218 00	.....
Sundry persons for cannon, gun-carriages, cannon balls, and small arms	240,733 62	240,733 62	.....
Settlements on audited accounts	228 86	228 86	.....
Total	1,671,299 83	1,460,064 69	211,235 14

GEORGE BOMFORD, *Colonel of Ordnance.*

ORDNANCE OFFICE, *Washington, November* 20, 1837.

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Estimate for the service of the Ordnance department for the year 1838.

(*a*) For the national armories			$360,000
(*b*) For the armament of fortifications, viz: providing, in part, the cannon, howitzers, mortars, cannon balls, shells, gun-carriages, mortar beds, &c., for the fortifications completed, and for those now erecting			200,000
(*c*) For the current expenses of the ordnance service, viz:			
Repairing small arms at the several arsenals and depots		$33,550	
Repairing field artillery carriages		12,000	
Ordinary repairs to keep the public buildings in order at the several arsenals and depots		13,000	
Repairing and preserving military stores at arsenals and forts		9,000	
Providing ordinary military supplies for the army, including primers and primer cases for the dragoons		13,000	
Miscellaneous expenses at arsenals, including stationery, printing, fuel, forage for public horses, and other incidental expenses		11,000	
For the purchase of three firee-ngines, with hose, buckets, &c., for use at the Frankford, Kennebec, and Washington arsenals		2,500	
Expenses at the lead mines, viz:			
Compensation to persons employed in collecting rents, receiving and distributing lead	$1,550		
Stationery, printing, fuel, &c.	450		
		2,000	
Carried forward		96,050	560,000

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Recapitulation.

For the national armories	$360,000
For the armament of fortifications	200,000
For the current expenses of the ordnance service	98,000
For the purchase of swords for the cadets	2,500
For the arsenals	258,273
For the purchase and manufacture of light field artillery, &c.	39,953
For the manufacture of elevating machines	5,000
For the purchase of grape shot	7,500
For the purchase of gunpowder	30,000
	1,001,226

NOTES.

(*a*) The sum of $360,000, herein estimated for the national armories, is the same in amount as has been appropriated for those establishments since 1822, excepting only for two years, and is considered as necessary for the public interest now as on any former occasion.

(*b*) In the report from this office of March 8, 1836, in answer to a resolution of the Senate, $17,840,249 was stated to be required to arm completely, and supply with munitions, all the fortifications then finished, progressing, or in contemplation by the board of engineers; but the armament of the forts and batteries more immediately required for the defence of the Atlantic frontier will require, it is estimated, about $3,000,000.

By these statements the sum of $200,000, inserted in this estimate, is presumed to be small; yet, for want of officers, a greater sum could not be advantageously expended during the year 1838. $50,000 of this sum are intended for gun-carriages.

(*c*) The sum of $98,000 has been inserted for the current expenses of the ordnance service. There is yet to be repaired, under this head, a large quantity of small arms, gun-carriages, and accoutrements, which have sustained injury in the Indian campaigns.

To provide the various models, patterns, &c., directed by the sixth, seventh, and eighth paragraphs of the ordnance regulations, approved by the President of the United States on May 1, 1834, at least two able mechanics are required to be constantly engaged in that work. For that peculiar business the most skilful and, indeed, scientific mechanics are required. The sum of $1,950 inserted, it is thought, would be sufficient to command their services.

(*d*) These swords have been asked for by the proper authority of the Military Academy for the use of the cadets in the practice of cavalry manœuvres.

(*e*) Stores are now heing [illegible]

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ORDNANCE DEPARTMENT.

	COLONEL.		
1	George Bomford	May 30, 1832	Brevet, February 9, 1825.
	LIEUTENANT COLONEL.		
1	George Talcott	do	Inspector of arsenals and armories.
	MAJORS.		
1	Henry K. Craig	do	Brevet, Dec. 23, 1823; inspector of small arms.
2	William J. Worth	do	Lieut. col. bvt., July 25, 1824.
	CAPTAINS.		
1	Rufus L. Baker	do	Major brevet, May 21, 1827.
2	James W. Ripley	do	Captain, August 1, 1825.
3	John Symington	do	Brevet, May 17, 1830.
4	William H. Bell	do	
5	Edward Harding	do	
6	Alfred Mordecai	do	
7	Benjamin Huger	do	
8	James A. J. Bradford	do	
9	G. D. Ramsay	Feb. 25, 1835	
10	J. A. d'Lagnel	Nov. 1, 1836	

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CORPS OF ENGINEERS.

No.	Names and rank.	Date of commission.	Brevets and former commissions.
	COLONEL.		
1	Charles Gratiot	May 24, 1828	Brig. gen. bvt., May 24, 1828.
	LIEUTENANT COLONEL.		
1	Joseph G. Totten	May 24, 1828	Col. brevet, September 11, 1824.
	MAJORS.		
1	Sylvanus Thayer	May 24, 1828	Lieut. col. bvt., March 3, 1823.
2	R. E. De Russy	December 22, 1830	Lieut. col. bvt., June 30, 1834. Supt. Mil. Academy.
	CAPTAINS.		
1	John L. Smith	August 29, 1820	Major brevet, August 29, 1830.
2	William H. Chase	January 1, 1825	
3	Richard Delafield	May 24, 1828	
4	William A. Eliason	March 5, 1832	
5	Cornelius A Ogden	May 15, 1835	Brevet, June 30, 1834.
6	Henry Brewerton	September 21, 1836	
	FIRST LIEUTENANTS.		
1	Thomas J. Leslie	March 31, 1819	Paymaster, Mil. Acad.; capt. bvt., March 31, 1829.
2	George Dutton	December 22, 1830	
3	Joseph K. F. Mansfield	March 5, 1832	
4	Alexander H. Bowman	January 21, 1835	
5	Robert E. Lee	September 21, 1836	
6	Alexander J. Swift	October 31, 1836	
	SECOND LIEUTENANTS.		
1	Fred. A. Smith	Jan. 21, 1835	Brevet, July 1, 1833. Engineer office.
2	Jon. G. Barnard	May 15, 1835	Brevet, July 1, 1833.
3	Geo. W. Cullum	April 20, 1836	Brevet, July 1, 1833.
4	William Smith	September 21, 1836	Brevet, July 1, 1834.
5	John Sanders	September 30, 1836	Brevet, July 1, 1834.
6	C. H. Bigelow	June 30, 1837	Brevet, July 1, 1835.
	BREVET SECOND LIEUTENANTS.		
1	G. L. Welcker	July 1, 1836	
2	James L. Mason	do	
3	H. W. Benham	July 1, 1837	
4	D. Leadbetter	July 1, 1836	
5	M. C. Meigs	do	
6	D. P. Woodbury	do	

TOPOGRAPHICAL ENGINEERS.

	MAJORS, BREVET.		
1	John J. Abert	November 22, 1814	Lieutenant colonel brevet, November 22, 1824.
2	James Kearney	April 29, 1816	Lieutenant colonel brevet, April 29, 1826.
3	Stephen H. Long	do	Lieutenant colonel brevet, April 29, 1826.
4	Hartman Bache	August 1, 1832	Brevet, July 24, 1828.
5	James D. Graham	September 14, 1834	
6	Wm. Turnbull	November 23, 1837	
	Assistant Topographical Engineers.		
	CAPTAINS, BREVET.		
1	William H. Swift	August 1, 1832	
2	W. G. Williams	January 28, 1834	
3	A. Canfield	September 14, 1834	
4	C. Graham	November 23, 1837	Brevet, December 31, 1835.

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APPENDIX NO. 1

Report on Operations at the Springfield Armory, Massachusetts, March 3,1823

from: American State Papers, Military Affairs, Volume II, 538- 553.

17th Congress.] No. 246. [2d Session.

ARMORY AT SPRINGFIELD.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, BY THE COMMITTEE ON MILITARY AFFAIRS, MARCH 3, 1823.

A description of the United States' Armory at Springfield, Massachusetts, with a statement exhibiting the number of arms manufactured and repaired, and the amount of expenditures annually, from the commencement of the establishment in 1795, *to the close of the year* 1817.

At Springfield, in the county of Hampden, and commonwealth of Massachusetts, the United States have an extensive establishment for the manufacture of arms. "The original site of this manufactory is also a military post, which is a perfectly level elevated plat, situated about half a mile east of the village, from which there is a gradual ascent, flanked on the north by a deep ravine, and on the south by a less considerable one, with an extensive plain spreading in the rear, the adjacent parts being uncovered, fronting on the brow of the declivity, and commanding an extensive and beautifully variegated landscape."

At the armory on the hill "there is one brick building, 204 by 32 feet, two stories high, divided into eight rooms, occupied by lock filers, stockers, and finishers. One brick forging shop, 130 by 32 feet, of one story, containing eleven double forges, used for forging the limbs of locks," breech pins, screw pins, ramrods, "and repairing tools." One brick building, 60 by 32 feet, two stories high, with a paved cellar under the whole, used for storing iron, steel, oil, &c.; the first story is occupied as offices for superintendent, master armorer, and clerks; the second story, forming a large and spacious hall, is devoted to religious worship, and as a chapel was dedicated to the service of God, on the 13th day of May, 1817, by the Rev. Titus Strong, of Greenfield. One building, 100 by 40 feet, two stories high, also of brick, for the deposite of arms; two military stores; a carpenter's shop; a file cutter's shop; a coal and proof house; one brick shop, fire proof, 32 by 16 feet, with three furnaces, one for hardening ramrods, one for nealing work, and one for a brass foundry; two stores for forged work, one for files, and seventeen dwelling houses. One pay office, ordnance yard, magazine, block house, and lumber yard. On the large shop first mentioned is a handsome cupola and bell, from which is an interesting view of Connecticut river and the surrounding country.

The aforesaid buildings are arranged northerly of the great State road leading to Boston, bordering on a large flat square piece of ground, fenced and set out with trees, around which is a road about 60 feet wide, leading to the several dwelling houses occupied by the officers and workmen; the whole assuming a handsome and regular appearance.

"The water works are situated about one mile southerly of the arsenal, in three different sites, denominated the upper, middle, and lower water shops, on an excellent stream, called Mill river, which falls into the Connecticut, and exhibits in a little distance the greatest assemblage of mills and other waterworks to be found in the State."

The whole comprises five workshops, twenty-eight forges, ten trip hammers, eighteen water wheels, nine coal houses, three stores, and five dwelling houses.

The upper works have one shop, 65 by 32 feet, two stories high, built of stone and brick; the lower story contains three water wheels, one for polishing and boring and milling bayonets, and two for grinding barrels, lock plates, mounting, and bayonets. The upper story contains two rooms, one for polishers of locks, barrels, mounting rods, and finish boring, &c.; the other for drilling locks, barrels, &c., milling and slitting screw pins, making screws and swivels, milling tumblers, turning bayonet sockets, &c. One stone shop, 75 by 30 feet, one story, containing one trip hammer and ten forges, (bellows blown by water,) eight of which are used for welding barrels; three dwelling houses, a store, four coal houses, and one case-hardening shop, 26 by 18 feet, one story.

The middle works have one stone shop, 84 by 45 feet, one story high, which contains six water wheels; attached to one are three trip hammers for welding barrels, which will strike four hundred blows in a minute each; the whole three may go at the same time, and each one may be stopped at pleasure; two wheels for trip hammers, one for grinding barrels, one for rough and smooth boring barrels, one for smooth boring barrels, nine forges (bellows blown by water) used for trip hammers, barrel welding, forging bayonets, and repairing tools. One stone shop, 50 by 23 feet, of one story, which also contains three water wheels for three trip hammers, and five forges, three for trip hammers and two for forging bayonets. One dwelling house, one store, four coal houses, and a carpenter's shop.

At the lower works, there is one shop, 55 by 32 feet, two stories high, the lower of hewn stone, the upper of brick; the lower story contains three water wheels and four forges, one wheel for trip hammer, one for grinding ramrods and mounting, and one for polishing; the forges are occupied for trip hammer and by mounting forges. The upper room is used by mounting filers, polishers, and for trimming, punching, and drilling. One dwelling house, store, and coal house. The United States also own a valuable mill-seat near the last mentioned works, with a saw mill, where may be erected two large water shops if necessary.

In this establishment are employed from 240 to 250 workmen, who complete on an average about forty-five muskets daily. The works may be increased to almost any extent. The water privileges already owned by the United States will warrant the extension to thirty thousand stands annually.

This extensive manufactory is under the direction of a principal, who is styled superintendent, who has the chief management of the business of the armory; provides, contracts for, and purchases all stock, tools, and materials necessary for manufacturing arms; engages the workmen, determines their wages, and prescribes the necessary regulations for the local government of the establishment. To aid him in the important duties of the armory, there are allowed a master armorer, who manages the mechanical operations, and is held accountable for all stock, tools, and materials put under his charge for the use of the armory, and for the correct workmanship of the muskets, and a paymaster and storekeeper, whose duty it is to liquidate and pay all debts contracted by the superintendent for the armory, and receive the finished arms, for which he is held accountable, as well as for all other public property delivered him. Each of the above officers is allowed a clerk, to aid in keeping his accounts. There is also a foreman, or assistant master armorer, to each principal branch of the work, viz: one of forged work, one inspector of welded, bored, and ground barrels, mounting bayonets and ramrods; one of the lock filers; one of the stockers; and one of the finishers. They are severally held accountable for all stock, tools, and parts of work, delivered them for their respective departments, who severally hold the individual workmen responsible for all stock, tools, or parts of work delivered to them. Each assistant master armorer, or foreman, is inspector in their several branches, and is responsible for the faithful and correct performance of the work. Each individual puts on the work he executes his own private mark, as do the inspectors, when they examine and approve of the various parts of the musket. Thus, in case of any defect, the delinquent may readily be found. Monthly returns of work are made to the superintendent, from which the monthly pay-roll is made.

The establishment of this armory was by an act of Congress passed in 1794, and in 1795 the work commenced with about forty hands. At the end of December, 1817, there had been completed in this manufactory 128,559 new muskets, and 1,202 new carbines, and 45,790 repaired muskets, equal to 12,000 new muskets. Calculating the carbines to be equal to the same number of new muskets, (they cost much more, on account of the small number made,) makes the aggregate equal in labor and expense to 141,761 new muskets. The amount of purchase money for land, mill-seats, and for erecting water shops, machinery, workshops, stores, and buildings of every description, and repairs, is estimated at $155,500. The other expenses for the above period, exclusive of stock and parts of work on hand, amount to $1,553,100. Amount of stock, and parts of the muskets and pistols on hand, December 31, 1817, $111,545. Total amount of expenditures, from the commencement of the works, to December 31, 1817, is $1,820,120 18.

The situation of this establishment is remarkably pleasant and healthy; being sixty miles from the nearest seaport, in a thickly inhabited country, it is perfectly safe from an invading foe, and still has water communication to within a few rods of the armory. Materials for the manufacturing of arms may be obtained in great abundance, and on reasonable terms. The number of arms completed in the year 1817 exceeded 13,000, with an increase of the several parts of the musket; and the works are so arranged, that in the year 1818 15,000 stands may be made by the same number of hands, (250, including officers,) and for about the same expense. Good professional armorers, in considerable numbers, can at any time be added to the works, if necessary, for reasonable wages. The necessaries of life are abundant, and can at all times be procured at a moderate price.

On the whole, it is believed that there is not a situation in the United States where arms can be made for a less sum, and where so many important advantages combine, as renders this station eligible for a grand national establishment.

Statement of arms made and repaired at the United States' Armory, Springfield, Massachusetts, from the first establishment of the armory, in 1795, *to the* 31*st December*, 1817, *inclusive; exhibiting the amount of expenditures for the same period, with the amount of stock and parts of work on hand at the close of the year* 1817.

Year.	No. of muskets manufactured.	No. of muskets repaired.	No. of short muskets repaired.	Whole No. repaired.	No. new carbines.	Amount of purchase money.	Expenses of buildings.	Expense of repairs.	Total amount of expenditures.	Amount of purchase money, cost of buildings, machinery, and repairs.	Amount of stock on hand, Dec. 31st, 1817.	Amount of parts of work on hand, Dec. 31, 1817.	Amount of stock and parts of work.	Amount of purchase money, expense of buildings, machinery, repairs, stock, & parts of work.	Actual expense for muskets.	No. of new muskets; the repaired are equal to	Whole No. of new muskets and carbines; the No. of new msk'ts repaired are equal to
1795,	245	-	-	-	-	$100 00	-	$25	$4,495 75								
1796,	838	-	-	-	-	-	-	100	15,398 25								
1797,	1,028	-	-	-	-	-	-	120	18,863 80								
1798,	1,041	-	-	-	-	343 33	-	125	19,157 40								
1799,	4,595	-	-	-	-	-	-	524	84,299 23								
1800,	4,862	-	-	-	-	-	-	360	64,921 94								
1801,	3,205	-	-	-	-	509 00	-	300	50,328 94								
1802,	4,358	-	-	-	-	-	-	180	30,142 55								
1803,	4,775	-	-	-	-	-	-	185	32,459 74								
1804,	3,566	-	-	-	-	-	-	240	43,312 64								
1805,	3,535	-	-	-	-	-	$3,200 00	245	45,937 25								
1806,	2,018	-	-	-	-	-	5,300 00	240	42,674 01								
1807,	5,692	-	-	-	-	300 00	-	300	55,304 64								
1808,	5,870	-	-	-	-	-	31,063 91	600	103,174 71								
1809,	7,070	1,086	-	1,086	600	2,153 08	12,309 69	620	122,469 31								
1810,	9,700	1,406	-	1,406	602	-	-	680	131,556 47								
1811,	12,020	-	-	-	-	200 00	-	650	111,151 26								
1812,	10,140	-	-	-	-	9,691 51	-	690	139,340 07								
1813,	6,920	11,105	-	11,105	-	-	700 00	602	104,958 48								
1814,	9,585	5,175	300	5,475	-	-	-	624	102,632 64								
1815,	7,279	15,715	5,430	21,145	-	-	-	1,000	157,456 37								
1816,	7,199	3,485	1,644	5,129	-	-	1,272 00	1,200	155,951 65								
1817,	13,015	454	-	454	-	3,475 00	1,500 00	2,000	†187,138 08								
						17,918 00*	53,754 45*										
Tot.	128,559	38,416	7,374	45,790	1,202	34,989 92	109,100 08	11,410	1,820,120 18	155,500 00	42,547 73	‡68,997 83	111,545 56	267,045 00	1,553,100	12,000	141,761

* These sums are estimated, there being no correct record of the expenses of buildings and purchase money, except as put down against each year.
† $25,211 10 due for debts contracted previous to 1817.
‡ Parts of rifle work sent to the armory at Harper's Ferry, in the year 1817, to the amount of $9,540 57, not included in this statement.

SIR: U. S. ARSENAL, WATERVLIET, (N. Y.,) *November* 5, 1819.

In obedience to your command, I proceeded to the United States' armory at Springfield, Massachusetts, on the 12th of October, for the purpose of investigating the state and condition of that establishment; and, having completed that object, I returned to this post on the 26th of the same month. As the result of that investigation, I now beg leave to lay before you the following report:

After taking a general view of the place and works, I settled upon a plan of investigation in detail, which was, to separate the different subjects that required my attention into classes, and then to proceed to examine the subjects under each class distinctly. The whole subject appeared naturally to fall under the following twenty-four heads, viz:

1. General police of the post, and cleanliness of the shops.
2. Number of officers, under officers, clerks, duties, and pay.
3. Number of workmen, and prices paid for work.
4. General arrangement of workmen to the several branches of business.
5. Hours of work for jobbers and day laborers each day.
6. Process and method of executing the work generally.
7. Proof of barrels, whether according to regulations.
8. Quality of work, and of the arms when finished.
9. Number of arms manufactured per month.
10. Marking and packing the arms, whether according to regulations.
11. Preservation and condition of the arms, and of the ordnance and stores in charge of the storekeeper.
12. Method of purchasing stock and supplies, and prices paid for the same.
13. Economy in preserving, using, and expending the same.
14. Method of keeping and rendering the accounts for the same, by the superintendent, master armorer, assistant master armorers, foremen of shops, and workmen.
15. State and condition of the books, returns and papers of the same, and also of the storekeeper and paymaster.
16. State of the debts of the armory, and punctuality of payment.
17. Regulations for the government of the men, and the good order of the same; also, their general character.
18. Occupancy of the public houses and gardens.
19. Number of public teams and carriages employed or kept.
20. Condition of the public buildings, fences, &c.
21. Arrangement of the shops and machinery.
22. Improvements made since 1815 in the establishment, under the present superintendent.
23. Improvements contemplated, and within the power of the superintendent, without any special appropriation.
24. Improvements contemplated by the superintendent, requiring special appropriation of funds.

SUBJECT 1.

General police of the post, and cleanliness of the shops.

The police of the establishment is universally good; and, considering the nature of the business, (manufacturing,) much better than I had anticipated.

The general appearance is pleasing; and by the removal of some old buildings which were originally located without taste, and without a view to their proper position when the place should be enlarged to its present size, and by some further improvements in the fences, and painting, the main establishment, on the hill, will be beautiful and attractive to strangers.

The police generally, in and about the shops, is as good as the nature of the business will admit of. A further attention to that point I consider would be unprofitable.

SUBJECT 2.

Number of officers, under officers, clerks, duties, and pay.

The number of principal officers employed is three, agreeably to the regulations of the Ordnance Department, sanctioned by the Secretary of War, viz:

1. One superintendent, Lieutenant Colonel Roswell Lee, late of the army. Pay one hundred dollars per month, and four rations per day, equal to $1,429 per annum. He is drawing forage for one horse, which he says is understood by the colonel of ordnance and by the Government. He is further allowed and occupies public quarters, a public office, and draws fuel for his office, and occupies a public garden. Estimating his forage at eight dollars per month, his quarters and garden at one hundred dollars per annum, his place is worth $1,688 a year. His office, and fuel for the same, cannot be considered an emolument, any more than the stationary for the same. His duties are explained by his title, and also in the regulations before mentioned.

2. One paymaster and storekeeper, Mr. John Chaffee. He has filled the office many years. Pay $62½ per month, equal to $750 per annum; and no other emolument. He occupies a public office, and draws fuel for the same, and also his stationary. His duties are pointed out in the regulations before mentioned.

3. One master armorer, whose duties are also pointed out in the regulations. Mr. Adonijah Foot now occupies the place. Pay $50 per month, and two rations per day, equal to $746 per annum; and no other emolument except quarters and a garden, equal, perhaps, to $56, making about $800 per annum. He occupies a public office, and draws fuel and stationary for the same.

The storekeeper and paymaster has been offered public quarters and a garden, but prefers living in the village and paying his own rent to living on the public ground. Neither of the above named officers draws fuel for his quarters. The allowance of such fuel is recommended to the consideration of Government.

It is also recommended to the consideration of Government whether the salaries of these officers should not be raised. It will be seen that their pay is not equal to that of the clerks in the several offices at Washington; and there is scarcely a boy who writes in these offices that does not receive more than the storekeeper and master armorer. Scarcely a more important office has been created, under those of the heads of departments and chiefs of corps, than those of the superintendents of the national armories; and those offices ought to be filled by men whose talents and conduct would secure them a genteel living in any business.

The pay of the master armorer is far less equal to his services than that of the paymaster. His duties are very arduous. Those of the paymaster, under the present regulations, are comparatively easy and light.

It is the opinion of the superintendent, and it is also my opinion, that the salaries of those officers should be increased—say to $2,000 a year, including all emoluments, for the superintendent; $1,000 for the storekeeper, and $1,200 for the master armorer.

There are now employed five assistant master armorers and inspectors of work, three foremen of shops or branches, who are not inspectors of work, and two inspectors of contract arms: making a total of ten, viz:

1. Jacob Perkins, foreman of lock filers, and inspector of their work.
2. John Stebbins, foreman of stockers, and inspector of their work.
3. Elisha Toby, foreman of finishers, and inspector of their work.
4. Joseph Lombard, foreman of barrel welders and mounting forgers, and inspector of their work.
5. Justin Murphy, foreman of lock forgers, and inspector of their work. Murphy is sometimes employed to inspect contract arms. The pay of these men is $48 per month, equal to $576 per annum, and no other emolument.
6. Lewis Foster, foreman of the upper water shop, not inspector.
7. Diah Allen, foreman of the middle water shop, not inspector.
8. Levi Dart, foreman of the lower water shop, not inspector. The pay of these men is also $48 per month, equal to $576 per annum, and no other emolument.
9. John Newbury, inspector of contract arms.
10. Luther Sage, inspector of contract arms.

By "inspector of contract arms," will be understood men furnished by the superintendent at Springfield to inspect the arms made on contract in the New England States; that duty having been allotted to that officer. These men receive also $48 per month, and no other emolument, except when *travelling* and employed at distant factories; their bills of actual expenses are then paid by the superintendent.

The duties of the assistant master armorers and foremen of shops are pointed out in the regulations before specified. They are arduous and incessant. It is considered their wages are low: $60 per month would not be too much.

The number of clerks allowed by the regulations is three, one for the superintendent, paymaster, and master armorer, each. There are now employed four, viz:

William F. Wolcott, } for the superintendent.
Elizur Warner, }
Ethan A. Clary, for the master armorer.
Eldad Stebbins, for the paymaster and storekeeper.

Wolcott receives $50 pay per month; the other three $45 per month each.

The superintendent found it necessary to employ a second clerk, and I understood him to say that he had been authorized so to do by the colonel of ordnance. From the investigation of his books, returns, and accounts, I am satisfied that two clerks are required for his office, and ought to be employed.

I am convinced that no greater number of the before-mentioned officers, under officers, and clerks, is employed than the several duties actually require, and that the *foremen* must still be increased if there should be any considerable increase of workmen. The two inspectors of contract arms, when not on that duty, are employed as assistant inspectors at Springfield.

Subject 3.

Number of workmen, and prices paid for work.

The number of workmen now employed is 244, viz:

7 Barrel welders, who work by the piece.	10 Polishers, who work by the piece.
7 Barrel borers, who work by the piece.	9 Drillers, millers, and turners, who work by the piece.
5 Lock forgers, who work by the piece.	5 Barrel finishers, who work by the piece.
2 Bayonet forgers, who work by the piece.	42 Lock filers, who work by the piece.
8 Mounting forgers, who work by the piece.	12 Mounting filers, who work by the piece.
2 Gun rod forgers, who work by the piece.	35 Stockers, who work by the piece.
6 Trip hammer's men, who work by the piece.	14 Finishers, who work by the piece.
18 Forgemen and trip hammer men's assistants, who work by the piece.	52 Jobbers, or those men who work by the day, including carpenters and millwrights.
10 Grinders, who work by the piece.	

The number of jobbers ordinarily employed is forty; it being now increased, in consequence of the building of a forge for making bar iron from the scraps, &c. made at the works.

The price paid for the working of each piece have been settled by the superintendent, upon the result of much experiment. It is calculated that good industrious men will be able to earn $1 40 per day. Upon this basis the prices have been established. The workmen earn now from $20 to $60 per month; such is the difference in the skill, industry, and ambition of men of the same trade. There are, however, but three or four in the 244 who come up to $60 per month. The average price paid is about $35 per month, or about $1 35 per day, allowing that they work twenty-five days in the month.

The jobbers are men who work by the day, and are paid $1 to $1 75 per day when they work. The usual price given to all sorts of mechanics is $1 40 per day.

The prices paid to the workmen, on the whole, are not high. "The times are hard," and the wages of mechanics are now generally high in every part of the Northern States. The prices paid to ordinary mechanics in the State of New York for the two past years is $1 37½ per day; to first rate workmen $1 50; and to some few of known skill and smartness $1 75; to master workmen, to direct and oversee, $2 per day; and to master builders from $3 to $5 per day. So that by comparison, considering the mechanics at Springfield are generally first rate workmen and respectable citizens, the prices now given appear to be rather under those ordinarily paid to mechanics in this part of the United States.

I obtained a table of prices paid for working each piece, in part, or in whole, as the piece is either worked in part or wholly by the same man; but as it is lengthy, and as it can be obtained at any time of the superintendent, if required, I think it not worth while to embrace it in this report. There are a hundred and forty things to be done by the workmen by the piece, and as many prices for doing them.

The plan of having the work done by the piece is, undoubtedly, the best of all possible plans, provided there is a strict attention paid to the inspection of the several parts, before they pass from one workman to another. It gives this advantage, that every man is paid according to his merit; it excites ambition and industry, and brings into

operation and usefulness the otherwise dormant powers of the mind. It has a moral, good tendency upon the workmen, and at the same, or a far less price, gives annually to the Government a much greater number of arms. Where it is practicable, this plan is pursued; but there are some kinds of the work that cannot be done by the piece.

SUBJECT 4.

General arrangement of workmen to the several branches of business.

The general arrangement of the workmen to their work is the best that can be adopted for the United States, but not so for the interest of the workmen; that is, each man is kept at one particular kind of work, and is not shifted. For instance, one man is always kept at forging locks, another at filing them, and so on for the other parts. One man is kept at putting the parts of the lock together, and finishing them; another at drilling them; another at milling the pins; another at slitting the heads; another at polishing the parts of the lock. One is kept grinding barrels; another at turning; another at sighting, and another at breeching them, &c.

By this arrangement, it will readily be perceived that each workman becomes an adept at his part. He works with greater facility, and *does the work much better* than one *could* who worked at all the parts. This is undoubtedly the best method for Government. The consequence, however, to the workmen is, that not one of them becomes a finished armorer. If he is always employed at the Government factories, it is no matter for him; he is, in fact, the better for it, for he does more work, and gets more money; but if he wishes to set up business for himself, he has got no trade; he cannot make a fire-arm.

SUBJECT 5.

Hours of work established for those who work by the piece, and those who work by the day.

From the 1st of April to the 1st of November, the shops are opened at sunrise, and closed at sunset. During this part of the year, the men who work by the piece remain in the shops as many hours as they choose between those periods. Those who work by the day commence at 7 A. M., and leave off at 6 P. M., having one hour for dinner. They work ten hours. From the 1st of November to the 1st of April, the shops are opened at daylight, and closed at 6 P. M. During this part of the year, those who work by the piece have the same privileges as in the other part, while the shops are open; and those who work by the day commence at sunrise, having taken their breakfast, and leave off at sunset; one hour for dinner.

It is considered that as much time is occupied in the winter season as is either profitable or desirable. No more could be done without working altogether by candle-light. The work is of that nature that it cannot be done well by fire-light; besides, there would be much danger from fire, and the men could not feel so well for work in the morning.

In the summer season, the jobbers might work more than ten hours; but the custom has been long established to work but ten, and the superintendent has not thought it advisable yet to change it. Mechanics ordinarily in the Northern States work twelve hours each day. Whether it shall be done in the national armories, is a subject submitted to the colonel of ordnance.

SUBJECT 6.

Process and method of executing the work generally.

It has already been observed, that each part of the work is done by particular men, and, in addition to the advantages there stated to be derived from this method, it will be proper further to remark, that the great desideratum, uniformity of work, is thus more nearly obtained. To obtain continually from the United States' armories, and from contractors, arms made precisely to one pattern in all the detail of parts, is very desirable; but it is believed that perfection in this subject is not attainable. One thing, I believe, is most clear to all those officers who have turned their attention to this point, that we ought to arrive as *near* to perfection as time, money, the want of arms, reason, and good sense will allow. To what extent shall we try? and when shall we be satisfied? are, it is thought, the proper questions to be decided. That a few pieces might be made so perfect, that if they were taken to pieces, and the several parts of the locks, the stocks, barrels, and mounting thrown into a pile promiscuously, they might again be put together when the parts should be alternately changed, is believed, provided each similar part was made by the same man; but if the similar parts were made by different men, which must always be the case where a great number are made even at one factory, it is not believed practicable even to make a small number perfect; and as the parts must be made by different men where the arms are made at different factories, and as the United States have, and will have, different factories employed, it is believed to be impossible to attain universal perfection. Different men have different visions; they do not see alike, and they do not feel alike; and, as the accuracy of parts depends upon the vision and feeling of the workmen, the parts made by them must vary. Admitting that arms to any extent could be made perfectly alike in all their parts, would it be advisable? Being governed in this decision, as we must be, by the before-mentioned considerations, of money, time, want of arms, and reason, it is believed it would not be advisable. Why? Because the muskets would cost at least $30 each, instead of $12 50; and because about three years instead of one would be required to make an equal number of arms; and because the country wants arms as fast as they can be made; and lastly, because, if perfection were attained in the muskets, the real advantage gained to the country would be proportionably very far short of the expense. What is the advantage of having all the similar parts precisely alike? This: that when they are damaged, the several parts that remain good can be put together, and good arms be made out of bad ones. *In practice*, what parts would be thus put together, if they were perfectly alike? and who would do it? Let us see, and then we can judge of the advantage. Arms damaged in service would be turned over to, or collected by the quartermaster, or some other proper officer of the army. Arms are wanted; new ones cannot be obtained; some officer or soldier of the army would be directed to overhaul the damaged arms *in possession of that army*, and make out as many good ones as he could. What parts, if damaged, would he, with his *skill and tools*, replace? If other parts would fit, he can exchange and replace bayonets, ramrods, barrels, stocks, cocks, and whole locks—nothing more. He can never replace the parts of locks or mounting, except bands, which are seldom damaged or lost. Then it follows that locks and mounting must go to the repairing shops to be repaired, if they are all alike. The workmen in the repairing shops are armorers, and have tools. If the parts requiring to be changed want a little altering or filing, they are able to do it; to make them fit; so that, if the parts of the locks and mounting are so nearly alike that the repairer is able to make them fit with his tools, it is all that is required. The following objects, then, only seem necessary to be attained in the manufacture of small arms, viz: that the barrels, stocks, whole locks, cocks, bayonets, and

ramrods should each fit every musket; and that the several parts of the locks and mounting should be made so nearly alike, that they could be fitted at the repairing shops. Consequently, when this is attained, we shall have done all we ought to wish for. This is not yet done, but it is believed *to be practicable*. The most important of the individual objects is to have the bayonets all fit every musket. Bayonets are more likely to get lost or broken than any other parts of the musket, and hence much difficulty has been experienced. This is proved by the result of repairing arms damaged in the last war. Last year I had at this post, Rome, and Vergennes, six thousand stands of repaired arms, in every other way complete but wanting bayonets and ramrods, and only about three thousand wanted the rods. There were probably about thirty thousand stands repaired, and about five hundred stands condemned altogether. From this it appears that about one-fifth of the whole wanted the bayonets, either by loss or not fitting, about one-tenth the rods, and only about one-sixtieth the other parts altogether. This deficiency of bayonets was made up by getting six thousand made at Springfield, and sent to the repairing shops. In this great difficulty was experienced, on account of the different sizes of sockets required. Twelve different sizes of patterns were sent to the forgers, and then each class of sizes had to be altered individually at the repairing shops, to fit the barrels. Hence it appears evident, that the first and most important object in the manufacture of muskets is, to cause all the bayonets to fit the same gun, and all the barrels to fit the same bayonets.

In order to attain this grand object of uniformity of parts, the only method which can accomplish it has been adopted at Springfield, but it requires to be perfected, viz: making each part to fit a standard gauge. The master armorer has a set of standard patterns and gauges. The foremen of shops and branches and inspectors have each a set for the parts formed in their respective shops; and each workman has those that are required for the particular part at which he is at work. These are all made to correspond with the original set, and are tried by them occasionally, in order to discover any variation that may have taken place in using. They are made of hardened steel. The workman makes every similar piece to fit the same gauge, and, consequently, every similar piece must be nearly of the same size and form. If this method is continued, and the closest attention paid to it by the master workmen, inspectors, workmen, and superintendent, the desired object will finally be attained. The method practised at Springfield, of inspecting each part before the parts are put together, or before it goes to another workman, to be put through another process, has a great influence on the workman; it does much towards improving the work generally, and towards obtaining a uniformity of parts, and consequently a uniformity of muskets, and is undoubtedly the best possible method. If a part does not pass inspection, it goes back to the workman, either to be improved, or deducted from his wages. His interest compels him to do it well. It is on account of this method that the arms made at the national armories are, and will be, superior to those made on contract. In the latter case, the arm is finished before inspection, and, if a part is condemned, the whole piece, valued at $13 or $14, is condemned. The inspector cannot, from this cause, avoid feeling a reluctance in condemning the arms he is sent to inspect; his feeling will be towards the contractor; and, from a slight neglect in one particular part, he will seldom condemn the musket; and thus he will receive arms, among which, perhaps, there is not one without some defect; whereas, if the same inspector were to inspect the same parts as they were made, he would condemn them, because he would think that the loss would be but trifling, and it would be incurred by the workman, who ought to bear the loss of his own bad work; and if all the parts of a musket were to be condemned in this way, the loss would be divided between, perhaps, a dozen or fifteen men, instead of falling upon one. An inspector is more likely to condemn a trifling thing than a valuable one, for a small defect.

In the method and process of executing the work at Springfield, I have reason to believe, both from inquiry and a comparison of the arms now made with those made before the late war, that great improvements have been made. How much credit is due for this to the superintendent, and how much to the colonel of ordnance, I have not the means of judging; but there is a credit due somewhere.

To give in detail the process of each part of the musket, from the raw material to the finishing shop, would occupy too much room to be embraced in this report. I shall, therefore, not attempt it. I will only observe that, as far as I can judge, the arrangements are good, and, with some intended changes in the shops, cannot probably be bettered. There must necessarily be in such establishments a good deal of passing of parts of muskets from one shop to another; but the whole is accomplished at Springfield by one two-horse team, which passes round to the different shops but twice in each day.

On the subject of uniformity of arms I will make one more remark: that, in order to accomplish this object throughout the Union, it will be necessary to have a set of original patterns and gauges of each and every part of the musket, sealed and kept in the Ordnance Office at Washington, and to cause those of the superintendent of each factory to be sent occasionally to that office, to be compared with them, and fitted anew, if required. This remark will hold good with every thing else in the Union that requires uniformity of construction. Hence, we may, by fair inference, deduce the great importance of the present organization and arrangement of the Ordnance Department to the country. The great advantage of placing the armories under the direction of such a permanent corps and such a head is already felt and acknowledged at Springfield, both by the officers and citizens.

Subject 7.

Proof of barrels, whether according to regulations.

When I was at the factory, the superintendent had directed that the barrels should be proved temporarily, at the first charge, with one-sixteenth instead of one-eighteenth of a pound of powder, in consequence of having no powder that was full proof. All the powder at Springfield (and there is a large quantity) has been found to be under proof. Colonel Lee had sent to Middletown for a temporary supply of the best powder. He intended to use no more under proof. It is very important that a full supply of the best powder should be kept on hand at the armory. It was understood that the colonel of ordnance had made an arrangement for such a supply in future from Dupont's works. Colonel Lee informed me that, on proving the barrels that were on hand when he took charge of the armory, many hundred of them burst that had before stood the proof given them. They had, undoubtedly, been proved with poor powder. I discovered a deficiency at the armory in the want of a standard powder proof, or eprouvette, and nothing by which to compare it. It was recommended to the superintendent to obtain for the present a howitzer and ball, by which to compare his triangular eprouvette occasionally, in order to be sure of the strength of the powder used in proving musket barrels. I have before communicated with you on the subject of an improved eprouvette for the United States.

Subject 8.

Quality of the work and arms when finished.

The quality of the workmanship of the arms is, in my opinion, comparatively excellent; and it is believed to be superior to that in any of the national armories in Europe. The plan adopted by the superintendent, if closely pursued, cannot fail to produce good work.

SUBJECT 9.

Number of arms manufactured per month.

The average number per month during this year has been eleven hundred stands, equal to thirteen thousand two hundred in the year. The superintendent states that, if he should be directed, he can make in 1820 fifteen thousand stands. It will only require an increase of hands; the present machinery is sufficient for it.

SUBJECT 10.

Lettering and boxing the arms, whether according to regulations.

The lettering of the arms, according to the series, established in the regulations, must be done by the storekeeper after they are turned over to him, and placed in his arsenal. If it were to be done in the shops by the workmen the arms would get so mixed up that it would be very difficult to separate them for boxing and labelling. As non of the arms made since the series was established have been sent away from Springfield, very few of them hav as yet been lettered and boxed for transportation; but it is intended to be done before they shall be wanted. Th storekeeper appeared to be laboring under difficulties about it, for want of method in the process. The difficult was this: as the arms have been turned into the arsenal, they have been put loose, twenty in a box, without bein lettered, &c.; the box labelled 20 muskets, from B 1 to B 20; no other attention being paid to the pieces put in bu to have those in one box all made in the same year. The boxes were then piled up in the arsenal, and so they have been done from the commencement of the plan. Now the storekeeper wishes to go on and take the arms out of the boxes, letter them according to the labels on the boxes, respectively, and pack them for transportation. But the boxes first put up require to be first lettered, and, being at the bottom of the piles he cannot get at them without great labor; and upon that plan this difficulty would always continue. It would be impossible so to arrange the boxes in the arsenal that the first put in should be the first out. I therefore recommended to him to pursue the following method, which, in the end, will be seen to have many advantages, viz:

Let the storekeeper put the arms as they come in into boxes, loose as now, but not label the boxes; let him only put the year in which they were made, with chalk, on the ends of the boxes; and let him put all those made in each year in piles of boxes by themselves; let him commence lettering the arms in the pile of boxes longest made, and let him commence the series for that year, or where he last left off, as the case may be, and go on until he has completed the arms made in that year, and label the boxes as the arms in them are labelled, and then commence on the pile made in the next following years, and so on.

In order that the storekeeper may know what he is about, and to insure accuracy in the series, let him keep a book in his office, in which he shall enter the lettering, boxing, and labelling the arms. He will enter on his book the part of the series last put upon the muskets of a given year, and the corresponding labels on the boxes. When he wishes to box and letter more, he will turn to his book, and see what letter was last put on in the series for the year in which the arms were made which he wishes now to letter, and note on a piece of paper the letter and number to be commenced with, and give this to the workman who is to oversee the lettering and boxing, and also to give him the corresponding labels from his office, where they should be kept, of the part of the series he wishes at that time to have put upon the muskets, according to the number he wishes put up at that time for transportation. When the lettering is done for that time, let the workman give to the storekeeper the account of what he has done, and where he left off, and let the storekeeper enter it on his book; and so on. It will be remembered that a portion of the arms, the parts of which are finished and dated in one year, will not be finished and turned over to the storekeeper until the following year, and that the labels on the boxes will express the year in which those parts were made and *dated*, as the *date* of the labels must correspond with the *year* stamped on the lock and heel plates, so that the labels on the boxes will never show the *year* in which the arms were *finished*, but that in which the *parts were made*. But in the method of lettering which I have proposed, the series will always in the end come out accurately. It will make no difference whether the arms made in 1817 or 1819 are first lettered and boxed, as the parts of the series already taken up in each year will at all times be found on book. In this way the arms in the store of the oldest dates can always be first sent away, if desired, as the boxes for each year will be piled separately, and not be mixed.

The storekeeper has been advised always to enter on his book of deliveries, or issues of arms to be taken from the place, the part of the series or letters and year of fabrication then sent away, and always to send them away according to the series, so as always to be able to know the particular arms sent away at any one time, and to any place, by the letters and by a reference to the book of the armory.

Thus the arms belonging to the United States, and to particular States, could always be distinguished when mixed in service. This was undoubtedly the object of the colonel of ordnance when he established the plan of lettering the arms by a series. The only thing that required my attention was, to assist the storekeeper in adopting a method for himself of carrying that plan into execution.

SUBJECT 11.

Preservation and condition of the arms, and of the ordnance and stores in charge of the storekeeper.

The condition of the arms, ordnance, and stores in charge of the storekeeper is very good, and every proper attention appears to have been paid to them.

The arms are principally kept in boxes. It is believed by the storekeeper, from his own experience, that, for any length of time they will probably be kept there, they will not be injured by rust, as they are perfectly dry when taken into the arsenal. I am also of opinion that, for the time the arms will remain at Springfield, it would not be worth while to make a display of them in the arsenal. It would cost too much time and trouble to justify the measure. But, to speak a little further on this subject generally, I am of opinion that the best method of preserving the arms in the arsenal, after they have been removed from the armories, is to keep them displayed, and in the open air, having the rooms of the arsenal cieled, and made light and clean. 1st. That after arms have been transported they must always be taken out of the boxes and wiped and oiled anew, or they will rust. I have never opened a box that had been transported, and lain three years in store afterwards, that the arms were not more or less damaged, and frequently they have to be taken to the repairing shops before being fit to issue. 2d. That, by the method I have lately adopted for putting up arms in the arsenal, which is very cheap, as great a number can be put in a given space as if they were in boxes. 3d. That if the arms were repacked in boxes after being wiped and oiled, and the boxes put up in the arsenal, there would be a time when they would begin to rust, and when they should be overhauled; but from their situation they cannot be seen, and the time when they require overhauling can only be

guessed at. To overhaul them in this situation requires the boxes all to be taken down, and every musket to be taken out of the boxes to see whether they are rusting or not. This would require more labor than would be necessary to actually rub and oil them over if they stood in racks in the arsenal as I have them; and to be sure that none of them are rusting, it would be necessary to overhaul and examine them at least once in two years. I know, from actual experiment, that if they are put up in the racks of the arsenal, they will be kept in perfect order by being rubbed and oiled over every other year; and then I always know they are not injured, but are always in order, and spend no more time upon them than would be required to examine them in the other case; and if they are boxed, there is always an uncertainty about their condition. Supposing, as has often been the case, that they were left too long in boxes before being examined, and they should be found badly rusted, it will then cost from one to two dollars each to repair, clean, and polish them. But if they are displayed in the arsenal, the storekeeper can every day pass among them, and see the first appearance of rust, and have them immediately rubbed over. I am satisfied that two laborers will keep in perfect order thirty thousand stands for any length of time, if they are put up in racks, which is certainly a very trifling expense. From all this, I am fully settled in the opinion that the best method of preserving arms for a great length of time is to display them in the open air in well finished arsenals, and keep men, according to the number of arms, always at work among them.

I recommended to the storekeeper to let Colonel Lee use the old accoutrements of the revolution, which are completely worthless, for case-hardening the parts of muskets. They are in the way, and can never be of the least use for service; also, to let him use the old paper cartridges, made in the revolutionary war, for wadding to prove barrels, as they are as useless as the accoutrements; and also improve his police, by burning a quantity of old barrels and other lumber that disfigure the places where they are deposited, and are not worth altogether one farthing except for fuel.

Subject 12.

Method of purchasing stock and materials generally, and the prices paid for the same.

Imported articles, such as steel, files, emery, glue, wire, stockers' tools, and some smiths' tools, such as anvils, vices, &c., have been, heretofore, principally furnished in large quantities by importing merchants of New York, Philadelphia, Boston, and Springfield, upon the orders of the superintendent, and paid for as soon after delivery as the funds would admit of. Two importations since 1815 have, however, been made by Boyd, of New York, and Neilson, of Baltimore, upon the orders of the Ordnance Department, or, as it is understood by Lieutenant Colonel Bomford, for the national armories, a part of which has been sent to Springfield armory. The Messrs. Dwight, of Springfield, made one importation in 1817, and have made another the present year for the year 1820; the articles are now on delivery to a pretty large amount at the armory. It is calculated that the present supply will be sufficient for four years, (except the article of files,) and perhaps five. It is intended to keep on hand at least three years' supply, that, in case of a war, there should be no failure of stock. The present time is also considered favorable to purchase, as the articles are low in England. It is very difficult for any one who is not an importing merchant to know precisely at what prices the articles could be afforded. The only point of attention seemed to be, from a comparison of the several bills, who has furnished the cheapest? and, from thence, what method of obtaining this class of supplies appears to be the best? In order to judge of this, I shall here give a comparative view of the prices paid upon the several importations since the last war.

Extracts from the bills on file at the armory at Springfield, Massachusetts, October, 1819.	Imported by Thomas Richards, New York; transportation paid from New York to Springfield by the United States, 1817.	Imported by J. & E. Dwight, Springfield, and delivered by them at the armory storehouse, 1817.	Imported by T. Wickham, Philadelphia; transportation paid from Philadelphia by the United States, 1818.	Imported by Boyd, of New York, London (1817) bills, without packing, cordage, importation, or transportation bills, and without duties.	Imported by J. C. Neilson, Baltimore, London bills as the last, 1818; no duties; importation, transportation, packing, &c. added.
English blistered steel, per pound,	$0 16	$0 18	$0 20	$0 18¾	$0 10⅞,
German blistered steel, do.	-	-	-	16⅝	11½
English emery, do.	-	13½	15	-	6
Twelve inch flat rough files, per dozen,	3 18	3 83	3 50	2 25	4 89
Twelve inch 2d cut rough files, do.	4 58	4 58	-	-	4 48
Thirteen inch flat rough files, do.	4 66	4 66⅔	4 25	3 16½	5 78
Ten inch flat rough files, do.	2 66	-	2 50	-	3 22
Ten inch smooth files, do.	3 75	3 89	3 75	-	3 78
Eight inch smooth files, do.	2 33	2 33	2 12½	-	2 66
Eight inch bastard files, do.	2 16	1 67	1 62½	-	2 11

From a view of the foregoing table, it will be seen that there is not much difference in the average of prices given to Richards, Dwight, and Wickham; Richards's charge on blistered steel is lowest; Dwight's nearly splits between them. But when it is considered that Dwight delivers at the works, and the others in New York and Philadelphia, the purchase from Dwight is the best, if the articles are as good. Of this I can know nothing but from the superintendent and other officers. They declare his articles the best. The articles of the present importation, I am informed, will come a little lower; best English blistered steel seventeen cents per pound.

The calculation is, that 50 per cent. added to London bills of hardware will cover the duties, importation, and all other expense attending it, until delivered in one of the towns on the seaboard. The goods are marked at that rate, and the profit of the importer arises from his getting a deduction of 20 per cent. for paying ready cash in London. Those who buy on credit must sell higher. Allowing that the steel imported by Boyd and Neilson costs the Government at that rate for duties, importation, &c., it came at the same rate as that purchased by other importers, unless Government allowed them a per centage for agency beyond this; if so, their steel was highest. The files imported by Boyd appear to come at about the same rate. Not having seen the bills upon which Boyd and Neilson were paid, I do not know what they received; but the files imported by Neilson must have been a bad bargain to Government. It will be seen that the London prices are considerably more than the prices of the same kind of articles delivered at the armory in Springfield. There must be deducted from these prices 20 per cent., (for ready pay by Government, so say the bills,) and then added to that remainder 2½ per cent. to the London mer-

chant for collecting the articles, 50 per cent. for importation and duties, and then probably a commission to Neilson, which must have brought the prices given for the articles from 30 to 40 per cent. above the other importatinos.

The final inference from all this is, that there is no advantage as yet gained by Government in importing hardware for the armories, but an actual loss; and that if the articles can be and are delivered at the works at as low a rate as they can be obtained in any other way, that method is the best.

I was the more particular in this part of my investigation, in consequence of its having been reported here, by Colonel Prescott, I believe, that the Dwights were furnishing the armory pretty much at their own prices, and that they had obtained a complete ascendancy over Colonel Lee, and made him do as they wished him; but nothing could have been more unfounded, and, I believe, more false. Colonel Prescott must have been misinformed, and I have told him so since my return.

The article of iron is obtained from the Salisbury and Winchester iron works. It is delivered by the proprietors at the armory. The price now paid for warranted bar iron, thus delivered and drawn, is $7 50 per hundredweight. This price is from $1 50 to $2 per hundredweight higher than European bar iron; but its quality is superior, and it brings that price in any market. Charcoal of hard wood is delivered at the works for $6 50 per 100 bushels; that is low, and $1 50 cheaper than the price upon the Hudson river. Pit-coal is obtained at the works from Richmond at fifty cents per bushel; that is the price I now give at Albany, although I think it rather high. It can be afforded at a far lower price in Albany than at Springfield.

Brass and copper for pans are bought of pedlars, or obtained at Hartford. Musket stocks, from Pennsylvania, are delivered at Hartford at thirty cents each, warranted; those that do not work are returned to the contractor at the armory. They can be obtained without warranting for twenty-five cents; but it is found much cheaper to give thirty cents for those warranted. Sometimes thirty are condemned out of a hundred.

Grindstones are obtained from Nova Scotia, and from Long Meadow, the adjoining town. The Long Meadow stones are delivered at the works for one cent per pound; (very cheap.)

Generally every thing is purchased warranted that can be; the part not used is returned to the furnisher. This is by far the best way and the cheapest. The articles nominally cost more, but, in fact, not so much; besides, in this way, none but the best materials are used. The Messrs. Dwight warrant steel and other articles of that nature, when furnished by them, which is of very great importance. A bad lot of steel can be returned, and poor steel cannot be used; and it is a very heavy article of expense. On the whole, the best arrangements appear to have been made by the superintendent to supply the armory with stock and materials, and they are obtained at a very fair price.

Subject 13.

Economy in preserving, using, and expending the stock and materials.

The arrangements made by the superintendent to insure economy in the stock, materials, and tools, are good, and appear to be strictly enforced. The method of accountability established and enforced is such that no unnecessary loss or waste can well take place without the amount being deducted from the wages of the workmen, or others who have the property in charge. I was much pleased with this arrangement, and found the actual economy throughout to be much greater than I had anticipated, and equal to any thing I have ever seen in any private manufactory; there is, in fact, nothing lost. I dwell upon this point, because its importance in such an establishment can scarcely be calculated. The method adopted will be explained under the next head.

Subject 14.

Method of keeping and rendering the accounts of stock, materials, &c., from the superintendent down to individual workmen.

Receipts of stock and materials.

All stock, tools, and materials for the work, except coal and bar iron, are received at the large new store on the hill (or at the principal establishment) by the master armorer, and receipted for by him to the persons from whom they are received, or to the superintendent; and the articles, with dates, and from whom received, are immediately entered on his book. The articles of coal and bar iron are delivered to the assistant master armorers, and to the foremen of the forging shops, by the persons who bring them, and are receipted for by them to such persons, and entered on their day-books. Returns of stock, &c. thus received by them are made weekly and monthly to the master armorer, who then enters the receipts of the articles upon his own book, the same as those received directly by him. Thus the master armorer has an account of all articles received for the armory.

At the close of each month, the master armorer adds up all the several articles entered on his day-book of receipts during the month, and transfers them to a book of monthly abstracts, and enters them alphabetically in a tabular form. At the end of each quarter the whole receipts are added up on the last mentioned book, and the amount stands ready to be carried into the quarterly return for the superintendent, and through him to the Treasury Department.

Issues of stock and materials to assistant master armorers and foremen.

A day-book is kept, in which the master armorer enters all articles delivered by him to the assistant master armorers and foremen of branches: 1st. Articles delivered them from his store, such as steel, files, emery, sandpaper, &c.; 2d. Articles received by them from abroad, such as iron, coal, &c.; 3d. All parts of muskets delivered them to be further worked; 4th. All articles received by each from other assistant master armorers and foremen.

At the end of each month the articles charged in the before-mentioned day-book are added up severally, and transferred to a monthly abstract book, and entered in a tabular form. This forms the account of debtor to each of them, respectively.

The assistant master armorers and foremen are credited by the master armorer on a book: 1st. By all the parts produced by manufacturing, where the materials are not expended agreeably to the receipts of the master armorer from them; 2d. Actual expenditures, such as coal, &c., according to their monthly returns; 3d. With parts of muskets, where such parts are delivered them by the master armorer to be further worked upon; 4th. All articles delivered by them to other assistant master armorers and foremen; 5th. With all scraps, &c. made in working stock. These form the account of their credit.

To enable the master armorer to know what articles have been received and delivered from one assistant master armorer to another, receipts are given by them in all such cases, specifying the articles, which receipts accompany their monthly returns made to the master armorer, from which he enters the amount of each receipt and delivery respectively.

Each assistant master armorer and foreman keeps a day-book, on which the amount of all articles received by them from all sources is entered; from which they make up their weekly and monthly returns in part to the master armorer; also, the amount of all articles delivered by them to the master armorer and to other assistant master armorers and foremen.

Books are also kept by them, on which are entered *all articles* delivered by them to each workman under their respective commands, that is, all articles not consumable in working, such as iron, steel, tools, &c., and likewise parts of arms to be further worked upon. This forms the debtor to each workman.

Each workman is credited by them for all articles returned to them; 1st. All articles produced from the stock, such as parts of muskets forged, &c.; 2d. Tools returned, either good or worn out; 3d. Parts of muskets received by them for working upon, and again returned when such process has been completed; 4th. Is credited to them the necessary waste of stock in working, such as waste of iron, steel, &c. in forging; 5th. All articles returned, such as scraps of iron, steel, &c. necessarily made in working. All these must equal each workman's debtor, or he is made to pay for the deficiency.

All articles consumed in working, such as coal, emery, &c., are not charged to the workmen, but, when delivered for use, are entered by the assistant master armorers and foremen on their books of debtor and creditor with the master armorer as expended.

All articles of stock and materials, as fast as they are worked up and credit given to the workmen for them, are entered by the assistant master armorers and foremen as expended on their books of debtor and creditor with the master armorer, in this way: The assistant master armorers, &c. are charged with 500 pounds of bar iron by the master armorer. The assistant charges himself with the same on his own book, as before stated. It is known by experiment how many articles of any one kind, such as barrels, lock plates, &c., 100 pounds of iron will make, or nearly. The assistant master armorer (for instance, the foreman of the upper water shop) counts the pieces forged from that iron as turned over to him by the forger of barrel plates, and credits on his own book of debtor and creditor with the master armorer the number made, and calculates the iron which should have been used in making them, and carries out the credit to himself of that amount of iron, as follows:

Dr.	*Master armorer with L. Foster, foreman of the upper water shop.*		Cr.
To 71 barrel plates, at 7 pounds each,	479 lbs. iron.	By bar iron, - - -	500 pounds.
To scraps, - - - -	3 lbs. iron.		

And so on for other articles made from stock.

In the accounts of the assistant master armorers and foremen, with each workman the credits are made in the same way.

If at any time a man is discharged, his accounts are closed; and if there is a balance found against him not accounted for, the amount is deducted from his pay.

It will be seen, by the foregoing regulations for the accounts of the armory, that complete accountability is established and enforced throughout; and if there is any error committed, it will be discovered on a comparison with the books, and it can be traced to its source. The workmen having to pay for what they do not regularly account for, causes them to work every thing close, and to have each a box or boxes, into which all the scraps are carefully put, which gives to the shops a clean appearance, and the evidence of great economy.

In the accounts between the foremen of the finishing shop, the foreman is charged with parts, and credited with arms complete, and carried out equal to so many parts. At the end of each month the master armorer turns over to the storekeeper the finished arms, with screw-drivers and gun-boxes for the same, for which he takes duplicate receipts, one on a book for that purpose, and one on loose paper, which last he hands over to the superintendent's office; at the same time he enters the amount of the arms thus delivered to the storekeeper on a book for that purpose, in a tabular form.

As the regulations for the armory do not point out the particular method in which the books, returns, &c. shall be kept at the armory, and as such information may be interesting to you, I shall continue the report on this point a little further.

Besides the books before mentioned kept by the master armorer, books are also kept which exhibit the amount of all the work performed in each month in all the branches, entered in a tabular form, from the monthly returns of the assistant master armorers and foremen; and also an account of all articles condemned during the same month; also a book in which an account of the purchases is abstracted, showing all that is delivered by each individual with prices, &c. for any length of time.

Returns.

Returns are made weekly by the assistant master armorers and foremen to the master armorer of all articles received by purchase, which were delivered at their shops and to them; also monthly returns of the same articles, by consolidating the weekly returns, which are consolidated by the master armorer, and added to those received by him at his store, and the whole received in the month, abstracted upon his book kept for that purpose. From this book of abstracts the master armorer makes out a monthly abstract or return for the superintendent, from which he makes out his estimate of funds for stock, &c. for that month, which he presents to the paymaster of the armory.

Monthly returns are made by the assistant master armorers and foremen to the master armorer of all property (without prices) received, expended, and remaining on hand in that month; and the master armorer, by consolidating them, and from his own books, makes out a similar one for the superintendent.

The assistant master armorers and foremen make each a quarterly return of property (without prices) received, expended, and remaining on hand at the close of the quarter, by consolidating the monthly returns.

The master armorer, from the last returns, and from his own books, makes up a similar return for the superintendent, who makes a copy of it for the Treasury Department in his own name.

The assistant master armorers and foremen make monthly returns of all work executed in the month, likewise of all articles consumed; the first to the superintendent, and the latter to the master armorer. Upon the first, the superintendent makes out the muster and pay-rolls of the men, which are presented to the paymaster, and upon which the workmen are paid monthly. The master armorer abstracts both returns upon his books.

Monthly returns of arms finished and turned over to the storekeeper are made by the superintendent to the Ordnance Department, embracing also the number of workmen employed in the month, of each trade or branch, accompanied by the storekeeper's receipts for the arms. Monthly estimates of funds required are made to the same department.

Monthly muster-rolls of the officers and workmen are likewise made to the same department, showing their employments, and amount of pay due them.

Quarterly returns or abstracts of all purchases, embracing the items and amount, are made by the superintendent to the Second Auditor of the Treasury Department, in the form of an account of debtor and creditor. He debits himself with the articles purchased, and forwards the master armorer's receipts for the same as vouchers. On the opposite side of the account he credits to himself the same amount, and the proprietors' or contractors' names on the back of the receipts of the master armorer just mentioned (which signifies that he has received an accepted account or order on the paymaster for the same) are vouchers to his items of credit. Copies of these account returns are kept on book by the superintendent. I do not see the necessity of these returns. The same articles of property are embraced in the superintendent's quarterly returns to the office before mentioned; and if the master armorer's receipts were to accompany that return, they would be as good a voucher to the accuracy of the property therein declared to be received as the same acknowledgment in the other. The Second Auditor does not want to know whether Colonel Lee has given the contractor an accepted account and order on the paymaster or not. It does not prove that the account has been paid, for that accepted account may lie in the hands of the contractor for months before it is presented to the paymaster; and, if presented, it may not have been paid, and of course cannot be embraced in the paymaster's accounts for that quarter, so as to form a check upon the returns of the superintendent. The paymaster's accounts would show if Colonel Lee had embraced all the property paid for, but could not show that he had not received some that had not been paid for, which ought to have been embraced in his return, but which was not. I conceive that all the Auditor wants to know is, the articles actually purchased and received in that quarter by the superintendent, and that he has embraced them in his quarterly return of property received, expended, and remaining on hand. The master armorer's receipts would show that he had delivered over all that he had embraced in his return. But with both the returns now made for the same thing, it is not shown that Colonel Lee has not received more property than he has acknowledged; and that he has not even given orders for the payment of it on the storekeeper, which orders have not been paid. Therefore, I do not see the use of this second return to the Second Auditor.

A better plan would be this, which I explained to the officers: Let the superintendent make but the first mentioned quarterly return of property, and send on the master armorer's receipts for the same received. Let the paymaster have a book, on which the accepted accounts given by the superintendent shall be entered, whether paid or not. Let the superintendent daily give the paymaster a statement of the accounts accepted, to enable him to enter them. Let the paymaster's abstract of payment or cash account be so made out as to show the articles purchased, and the amount in the footing of articles, as well as of cash, (which would be very little more labor;) then let him enter below that the amount of articles purchased, for which orders had been given on him for payment by the superintendent and not paid, and add up these columns; the total amount would be what the superintendent should embrace in his quarterly returns. This would form a complete check upon him, and a good voucher, and also save him the labor of making a large return quarterly. The paymaster, in his next quarterly account and abstract, would not add in the articles contained in the vouchers paid in that quarter, but which articles were returned in the previous quarter, but only the amount of cash paid.

There is another reason why this method of keeping the accounts of accepted accounts and orders on the paymaster should be adopted, which will be mentioned in speaking of the paymaster's books.

Books kept by the superintendent.

1st. A day-book, in which is entered the work done by each workman, and wages due, and deductions made, from the monthly returns of the same made by the assistant master armorers and foremen.

2d. A leger, in which the account with each individual is entered—1st, Cr. by work; 2d, Dr. by pay.

3d. A book, in which are entered the monthly returns of arms finished and of men employed, and the quarterly returns to the Second Auditor of property received, expended, and on hand:

4th. A book, in which are entered the second quarterly returns of property received, and balanced by orders sent to the Second Auditor.

5th. A book, in which is entered the amount of stock and materials received, from whom, and the amount, taken from the monthly returns of the master armorer.

6th. A book, in which the monthly estimates of funds are entered; also, the annual estimates for the armory.

7th. A book, in which the accepted accounts and orders on the paymaster are entered when signed, which is a counterpart to book No. 5.

8th. A leger, in which the contents of books Nos. 5 and 7 are consolidated in the form of Dr. and Cr., with each individual of whom purchases are made.

9th. A book, in which the orders of the superintendent on the master armorer for issues to his assistants are entered, by which he tests the monthly returns of the master armorer.

10th. A book, in which the monthly returns of the master armorer are entered: 1st, returns of stock, &c. received; 2d, of receipts, expenditures, and balances on hand.

11th. A book of debt and credit with the master armorer, for all supplies and expenditures.

12th. A book, in which the amount of parts of muskets are entered semi-annually, which are found to be on hand by actual count. This, with the parts put together into muskets, added to the condemned parts, must equal the amount of work done in that time, as shown by the book of the master armorer, if correct. This is a method of testing the accuracy of the accounts generally of materials and work.

13th. A book, in which are entered abstracts of letters received, with an index.

14th. A book, in which all receipts taken by the superintendent for property delivered are entered.

15th. A book, in which are entered all orders given by the superintendent for furnishing stock, &c. for the armory.

16th. Invoice book of property sent away.

17th. Letter book.

Books and papers of the storekeeper and paymaster.

His duties being common, the forms of his books and papers are also common, and need no explanation. One or two remarks only are necessary.

His cash vouchers are registered and abstracted according to the dates of the accounts, and no dates put to the receipts to show when the money was paid; which I conceive is not the proper way. Again, the accounts, when liquidated by the superintendent, are not registered according to the regulations of the Ordnance Department for the armory; they are only registered when paid. Payments are made when accounts and orders are presented, without knowing what accounts, or how many, are outstanding or of an older date.

It was recommended that these errors should be corrected. The fault is not owing to inattention in the paymaster, (he appears very desirous of doing his duty strictly correct,) but owing to a misconstruction of the regulations.

It will be seen, by a perusal of the foregoing statement on the subject of accounts, books, and returns, that every *transaction* at and relating to the establishment, of any consequence to the public or to individuals, is registered and fairly kept; and every such transaction can be examined, if desired, at any future time.

All invoices of stock and other loose papers are neatly filed, and put up in the superintendent's office. In short, a thorough examination of the *contents of his office* will at all times enable the department or Government to take a full review of all transactions, occurrences, and conduct of the superintendent, relative to the armory, since the time he took the charge of it in 1815; and every person who takes the trouble, which I have done, to go into that examination, will be satisfied of the integrity, industry, and ability with which that establishment has been superintended.

SUBJECT 15.

State and condition of the books, returns, and papers of the officers of the armory.

The condition of the books of the assistant master armorers and foremen are as good as their situation and business will admit of.

The books of the superintendent, master armorer, and paymaster and storekeeper, are in the best condition. The forms are excellent; they are very neat, and the entries clear and legible.

All loose papers are handsomely filed, and properly laid away.

SUBJECT 16.

State of the debts of the armory, and punctuality of payment.

There are no debts against the armory contracted previously to the 30th September, 1819, except that of Messrs. Dwight, for importations for 1820, which is not yet due.

The payments are punctually made by the paymaster.

SUBJECT 17.

Regulations for the government of the men, and the good order of the same; also, their general character.

The regulations for the government of the men, for the good order of the same, and of the shops, and the post generally, are good, and well calculated to produce peace and harmony among themselves, and respectability with the surrounding citizens.

One great point has been gained by the superintendent—that of prohibiting the use of ardent spirits in and about the works. This, above all other things, will have a good tendency; but, owing to the effect of custom and habit, it was a difficult one to establish.

The character of the workmen generally, and almost universally, is good, and much better than is usual with mechanics employed at large manufactories. There is not one drunkard, or otherwise vicious man, at the armory; or none that are habitually so. They are mostly very respectable, and some of them wealthy citizens, and almost all natives of New England.

SUBJECT 18.

Occupancy of the public houses and gardens.

There are belonging to the United States, connected with the armory, twenty-two dwelling-houses.

The superintendent and master armorer, each, occupy a public house and a garden, free of expense.

The storekeeper and paymaster has been offered the use of one, but chooses not to accept of it.

Twenty houses, with small gardens, are occupied by forty-two of the workmen with their families. They each pay a small rent, which is deducted from their pay, of from sixteen to thirty dollars a year. The rooms occupied by each are generally one sitting room, one kitchen, and one bed room, with some out-houses. The average rent of each house is $39 35 per annum. The rents are generally very low, probably not more than sufficient to keep the buildings and garden fences in repair; whether the rents shall be raised, is a subject for consideration.

SUBJECT 19.

Number of public teams and carriages kept, and in use.

Only one two-horse team is kept at the armory, and two wagons and one sleigh in use. No more are usually required. It is cheaper occasionally to hire a team than to keep any more.

The quantity of forage used is about ten tons of hay and one hundred bushels of corn annually. From this quantity the superintendent takes the forage for his own horse. The forage is not limited in quantity. It is purchased by the superintendent. The quantity of hay is above the ordinary allowance, but the grain much below; so that the amount expended for forage is considerably under the usual allowance for three horses.

SUBJECT 20.

Condition of the public buildings and fences.

The condition of the public buildings, so far as depends on police, and being taken care of, and well used, is good, generally.

The workshops of the whole establishment are in excellent condition and repair, being all built of brick and stone, and some fire-proof, the carpenters' shops excepted. Those buildings are of wood, and one of them is not very good.

The arsenal, master armorer's storehouse, public offices, and chapel (the three last being in one building) are likewise excellent buildings, and in good order and repair.

The magazine is a good building, and in good condition and repair. The surrounding fence is of wood, founded on a stone basement, but is painted and new.

The block house is in pretty good repair, and is used as a school house.

The coal houses are all in good repair and condition, several of them being new.

The several small iron and other stores near the forging shops are all in good repair and condition.

The two large wooden store houses for ordnance stores are in pretty good condition, but rather ancient, having been long built.

The ordnance yard and sheds are all in good condition.

The proving house is new and in good repair

The several dams and flumes are mostly in good repair; some of them new.

The twenty-two dwelling houses before mentioned are:
Five wood houses, two stories each, in good repair and condition.
One wood house, one story and a half, in good repair and condition.
One wood house, three stories, in good condition and repair.
Six wood houses, one story each, in good condition and repair.
One brick house, two stories, in good condition and repair.
Eight wood houses, one story each, old, poor, and worth but little.
The nealing, case-hardening, and casting houses are all in good condition and repair.
The saw-mill is in pretty good repair, also the bridges and stone walls about the water shops.
On the whole, all the important buildings of the establishment are in excellent repair and condition.

The fences are all good. Those around the public square and about the shops, at the main establishment, are all newly painted and in good repair.

The fence surrounding the public ground on the hill, and the several garden fences, are poor, and require to be built anew.

I consider it unnecessary, in this report, to give a particular description of the several buildings, although I have it in my minutes, as they are already known to the colonel of ordnance, and as this report is already drawn to a length which I fear will be tedious.

SUBJECT 21.

Arrangements of the shops and machinery.

I shall also abridge very materially the remarks under this head from what I at first intended, for the reason before mentioned. I at first intended to have given a statement of all the machines and apparatus in use at the works, and their several uses. The principal part of them may be seen in a pamphlet printed at Springfield about the beginning of the year. I presume you have one; if not, it can be obtained from the superintendent. Some additions have been since made to the works.

The arrangements of the shops, and machinery in the same, considering the necessary localities of the former, or such of them as require water power, appear to be as good as is practicable, with a very few exceptions. A few changes of small machines, by the removal of them to other shops, and the workmen of them, so as to save the transporting of the parts of muskets from one shop to another, are all the improvements that appear practicable in this part of the works; and this change is intended to be made by the superintendent as soon as time will admit.

Very considerable improvements have been made since the last war in the machinery, particularly by the introduction of several new machines; and the whole appear to operate with great efficacy. It is, indeed, pleasing to observe throughout the work the immense saving of manual labor by the introduction of water power and other machinery and apparatus, and also to reflect upon the ingenuity of our countrymen in the conception. The fact that there are in use between fourteen and fifteen thousand tools in this establishment could scarcely be credited by any one who had not been through the works. In short, no man will have a just conception of the extent and importance of the works at our national armory at Springfield who has not seen them for himself in their present condition. I shall make some remarks upon the new machines under the head of "improvements made."

SUBJECT 22.

Improvements made in the establishment since 1815, *under the present superintendent.*

First.—At the main establishment, on the hill.

1. A stone floor made in the forging shop.
2. The magazine fence made new, and painted.
3. Magazine roof painted, and body whitewashed.
4. Cupola and bell put upon the roof of the main armory shop.
5. All the shops newly painted over.
6. Lumber yard built.
7. Two cisterns made to hold water for the fire engine.
8. A small magazine built for proof powder.
9. One two story brick building erected for master armorer's storehouse, for offices, and chapel.
10. One brick building erected for casting shop.
11. One house for proving barrels, rebuilt.
12. One old block house (military) moved off from the public square.
13. Several fences about the square, and buildings, made new and painted.
14. Trees set out in the square.

Secondly.—At the upper water shops.

1. Introduced a draw grinding stone machine, which goes by water, and facilitates the draw grinding of musket barrels, and does them better than in the old way.
2. Four drilling and milling machines (perpendicular) have been made upon an improved plan, which greatly facilitates the drilling generally of the parts of muskets, but particularly the lock plates, and drills every one precisely similar.
3. Several hand machines, for cutting small screws and pins, made.
4. The machines for milling and slitting heads of pins extended.
5. Machines for turning bayonet sockets and for boring pans made.
6. In progress, new flumes and a new water wheel (horizontal) to use less water.
7. Four machines introduced and made for turning the exterior of the musket barrels, forming, at the same time, the flats and ovals of the breech. The introduction of these ingenious and excellent machines is of great importance. It not only facilitates the manufacture of barrels, but it brings them to an equal thickness in the same circle throughout, and consequently greatly improves their quality. In this point, we have gone before the English manufacturers of arms.
8. Machines made for milling cock pins and rammer heads.
9. In progress, a new invented machine for turning musket stocks, and letting in the locks, by water—a process very difficult to conceive. This ingenious machine will lessen very considerably the expense of stocking guns, as well as facilitate the process.

10. Built one coal house, 30 by 60 feet, two stories.
11. One shop for case-hardening and nealing, extended and new covered.
12. Built one double forge, for four fires, with the apparatus complete.
13. Added one story to one of the principal water shops, and new covered the same.
14. Built a new bridge to connect the upper stories of two shops across the stream.

Thirdly.—Middle water shops.

1. The principal shop has been newly covered with tin plate, and thoroughly repaired throughout, and painted.
2. Three new water wheels built, (1st shop.)
3. Three trip hammers for welding barrels, with three new forges.
4. Three new water wheels and three flumes built, (2d shop.)
5. One dwelling house thoroughly repaired and painted.
6. One carpenter's shop built and painted.
7. One large coal house built.
8. One small one in progress.
9. Iron store extended and painted.
10. Some walls built, and some fences built and painted.
11. In progress, two forges and four trip hammers for welding barrels, with appendages, nearly done. These, together with the four already in operation, will make eight trip hammers for welding barrels, which will entirely do away the method of welding by hand hammers. This is a good improvement, and is also humane in its effects, as the welding of barrels by hand will wear out the constitutions of any workmen in a few years.

Fourthly.—Lower water shops.

1. Two water wheels built new.
2. The flume built new.
3. Roof of the main shop put on new, and painted.
4. Introduced and made new one machine (water power) for striking out of rolled iron upper and lower bands, side plates, guards, and triggers; also, for trimming butt plates, guards, and triggers. These are all struck out at one stroke each. It is intended to strike out lock plates in the same machine. This machine saves much labor, and produces similar parts alike.
5. In progress, one shop (new) to contain one forge and appendages for making bar iron out of scraps, &c. made at the works, and an additional number of polishing wheels for work generally. Also, in progress, a new bridge across the stream, with stone abutments.

In addition to the improvements detailed, there are many small ones, in and about the works; to which must be added *the general improvement* adopted of making standard gauges, to which to work all the parts of muskets, and the *execution* of the work upon that system.

The improvements made in the method of accountability, and in keeping and rendering the accounts, must not be overlooked.

SUBJECT 23.

Improvements contemplated, and within the power of the superintendent, without any special appropriation of funds.

1. The removal of the ordnance yard and sheds from the square where they now stand to a place near the magazine.
2. Removal of the two large wood shops (store houses) on the Boston road into a line with the arsenal.
3. Removal of the old wood shops standing eastwardly of the new store house and offices; and, also, the dwelling houses and stables standing on the Boston road, into a line eastwardly of that on which are the brick shops and offices, &c., so as to form with them and the houses already in that direction a second square, between the large square and the magazine lot.

The above removal of buildings was proposed by me, and approved by the superintendent, who is, with your approbation, very desirous of doing it.

I strongly recommend that it may be done, as it will cost very little. They can all be removed by the workmen in a short time, and it would add much to the beauty of the establishment. Those buildings are all of long standing, and were located where they ought not to have been, not knowing at the time what the place would become, without a view to the general plan of the present establishment. On first arriving at the place, I was struck with the awkward appearance of those buildings on the main road, and in front of the square.

SUBJECT 24.

Improvements contemplated by the superintendent, which would require a special appropriation of funds.

1. Erection of one brick dwelling house on the west side of the great square, and opposite to the present building, or store house, offices, &c.
2. Erection of another brick armorer's shop, between the offices and Boston road, to complete the side of the square, of the size and form of the present one, on the other side of the offices, 204 by 30 feet, two stories high, for filers, stockers, and finishers.
3. Painting over with one color all the good dwelling houses already built.
4. One common dwelling house at the lower water shops.
5. One common dwelling house at the upper water shops.

The erection of the above buildings, and particularly the armorer's shop and brick dwelling house, would undoubtedly be very useful, and highly ornamental.

GENERAL REMARKS.

Finally, the armory bears inspection remarkably well; it bears a close and scrutinizing examination quite as well as a cursory view, and in fact better; for it is only when it is thus scrupulously investigated, that all its good arrangements and excellent operations can be discovered; and it is only upon such an examination that we can learn how much credit is due to the superintendent, and how much integrity, skill, and talents has been exercised, and how much attention and time has been devoted to its interests by him. I am fully convinced of the excellency of his character and conduct so far; and if he should continue in the same course, under the same, or a similar head

in the Ordnance Department, the armory at Springfield will, if proper funds are granted to it by Government, become what it ought to be—a credit to the Government and an ornament to the nation, and highly beneficial to both.

I cannot but remark how detrimental to the establishment, and how expensive to Government, would be a change in the pattern musket. The effect cannot be realized by any one who has not paid particular attention to it, and who has not seen something of the method and process of the work, and the extent of the tools and apparatus adapted to a particular pattern. It is the easiest thing in the world to change the pattern at Washington, and to make, in imagination, thousands of arms upon the new pattern; but it is far otherwise in the practice. The same remark will hold good with respect to a change of the pattern of any other material article which constitutes a part of the equipments of the nation for war, in a certain degree proportionate to the tools, machinery, apparatus, labor, and expense requisite in the fabrication, and proportionate to the necessity or utility of a uniformity of the articles produced.

The importance of these subjects certainly could not have been understood by this nation formerly, or they would not have changed the plan and patterns for military weapons and appendages, with the seasons, or with the admission of new men to office, from the revolution to the late war; for which reasons the millions were lost which were devoted to the expense, and a heterogeneous mass of them created, which was thrown aside on the commencement of the war, either for bad construction or workmanship, or for the want of uniformity.

Stability of things, and stability of mind, are indispensable in the Ordnance Department, and particularly at its head.

To arrive at that height of excellence in the military preparation for war in this country to which the warlike nations of Europe have attained, permanency of men and measures and uniformity of construction must exist.

By permanency of men, I mean those men on whom depend, principally, the plans and execution of the means of national defence.

I do not mean that I wish for any change in our constitution and Government, for these I admire, and hope never to see materially altered—an elective Government by the people, and temporary power of individuals; but I do wish for, and hope to see, more permanency in the subordinate branches, or appendages of the Government, which our constitution does not require to be changed during good behavior, than did exist under former administrations; because I am satisfied, from observing the operations and effects of such changes, that the good of the people requires more permanency, when the men who fill the places are properly and fully qualified for their stations. The men engaged in the execution of the preparations for war, together with the systems and methods pursued, should form a machine which should be kept in motion by any power the people choose to apply, but which should move in the same manner during the operations of the same power. It is pleasing to observe that the prospects are now good towards the attainment of this grand object. The operation of things at the present time seems to be very favorable to its accomplishment.

The following tables show the present cost of the musket at Springfield, which is about $1 50 lower than they were previously to the present organization of the armory, or $10,500 per annum.

Cost of the workmanship of a musket complete, in 1819.

Cost of musket barrel complete,	$1 31
Cost of musket lock complete,	2 10
Cost of mounting, including rod and bayonet, complete,	1 50
Cost of stocking and finishing the musket,	1 66
Total amount,	$6 57

Expense of workmanship and materials, or musket complete.

Twenty pounds of iron, at eight cents,	$1 60
Three pounds of steel, at sixteen cents,	48
Rough stock,	30
Coal,	1 00
Files,	20
Labor,	6 57
Contingencies,	1 00
Wear of tools and machinery,	25
Loss,	1 00
Cost of musket complete,	$12 40

It is believed that a further reduction in the cost is practicable, and that in one or two years from this the cost will not exceed $12.

Col. Decius Wadsworth, *U. S. Ordnance.*

[N. B. The above report was made by Major James Dalliba, of the Ordnance Department, in October, 1819.]