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SUMMARY STRUCTURAL HISTORY

OF

FORT WOOD

by

Thomas M. Pitkin

Statue of Liberty National Monument
August 1956

ATTENTION:

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FOREWORD

This brief study of the structural history of Fort Wood, Statue of Liberty National Monument, has been prepared at the request of the Eastern Office of Design and Construction, as relayed by the Region Five Office. It was understood that there was wanted some indication of what might be encountered within the walls of Fort Wood during excavations for the construction of the proposed American Museum of Immigration.

It was stressed that a detailed account of the physical history of Fort Wood was not needed. No attempt at exhaustive research has therefore been made. For the most part the materials used are those that were found in the Statue of Liberty National Monument files. These include a large collection of photocopy and some original maps and plans of Fort Wood and Bedloe's Island, from War Department and other sources; copies of correspondence from the War Records Branch, National Archives; a good many pictures from illustrated magazines covering the period of the construction of the Statue; many photostats of newspaper clippings and some original newspaper files, from the same period; secondary accounts of the history of Bedloe's Island and the Statue of Liberty prepared by members of the Monument staff and others; excerpts from Lighthouse Board files relating to the Statue; and miscellaneous items. Some additional material was found in the New York Public Library and a routine request was sent to the National Archives for copies of any early maps of Fort Wood that we might not have.

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From this body of materials it has been possible to prepare a summary narrative which probably covers the most important physical changes at Fort Wood during the century or so from its first construction to the filling of the parade ground with earth in or shortly after 1907. Since the American Museum of Immigration will be built entirely within the walls of the star fort, little attention has been paid to the water battery, which was several times altered or rebuilt, or to the many structures built from time to time elsewhere on the island as features of the military post of Fort Wood. References to the Statue of Liberty have also been kept to a minimum relating to its construction and repair as these affected the star fort.

August 22, 1956

Thomas M. Pitkin
Supervising Park Historian

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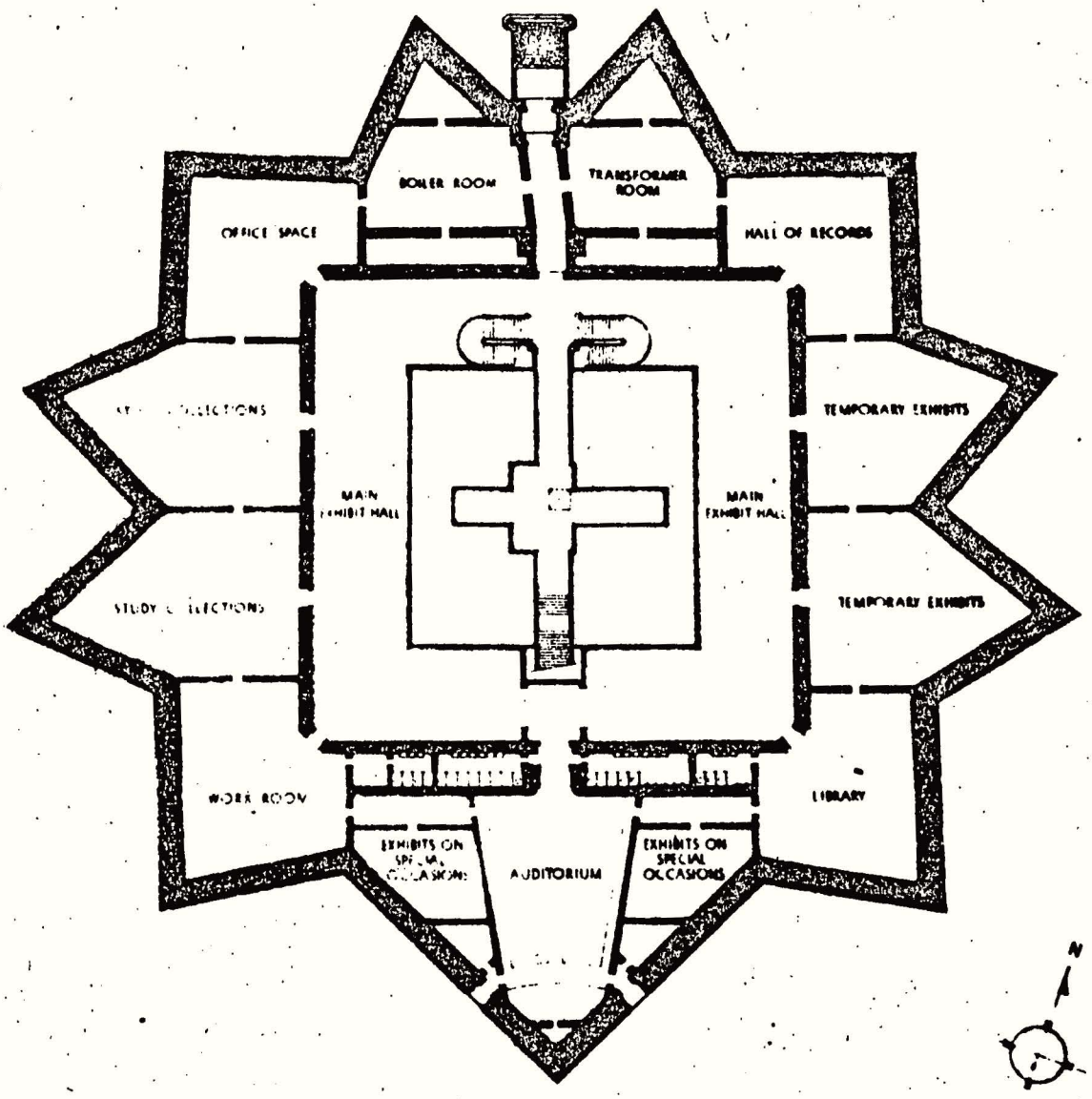
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I. THE STAR FORT AS A MILITARY INSTALLATION

While no documentary study can be used to predict in detail what will be found in the earth where man has worked before, some broad generalizations regarding the situation at Fort Wood, Statue of Liberty National Monument, can be made in anticipation of excavation for the building of the American Museum of Immigration, on the basis of the evidence at hand. The fill which at present covers the parade ground of the star fort between the outer walls and the foundation of the Statue of Liberty, to a depth of some 14 to 20 feet and more, is loose earth, probably from New York City subway excavations. There may be broken stone in it, but there is no reason to expect to encounter masses of brick or masonry, except for the heavy walls of one of the magazines, which may still be more or less intact. Much more serious problems will probably be encountered in connection with the rampart, or wall, of the fort itself and with the foundation and connecting concrete tunnels of the Statue, in order to secure the entire floor space visualized in the ground plan, "The Proposed American Museum of Immigration, Statue of Liberty National Monument," (Figure 1) prepared in 1954.

The masonry rampart of the star fort is from 30 feet upward in thickness and rises to a height of 14 or more feet above the parade. The concrete foundation of the Statue broadens out toward the bottom in the form of a pyramid to a maximum of 91 feet square. A large amount of excavation in masonry will therefore be required to reach the level of the parade ground clear out to the line of the parapet, as the plan contemplates. Considerable excavation in concrete will be involved in shaving

ENCLOSURE NO 6



THE PROPOSED
AMERICAN MUSEUM OF IMMIGRATION

STATUE OF LIBERTY NATIONAL MONUMENT

GRAPHIC SCALE

off the lower steps of the Statue foundation to secure the 80-foot square base visualized in the plan. There is also a massive concrete tunnel connecting the Statue foundation, at the level of the parade ground, with the sallyport on one side and the main gate on the other. Nearly all of this tunnel will have to be removed for the construction of the Museum. If any excavation below the level of the parade is necessary, masonry foundations and perhaps other construction will be encountered.

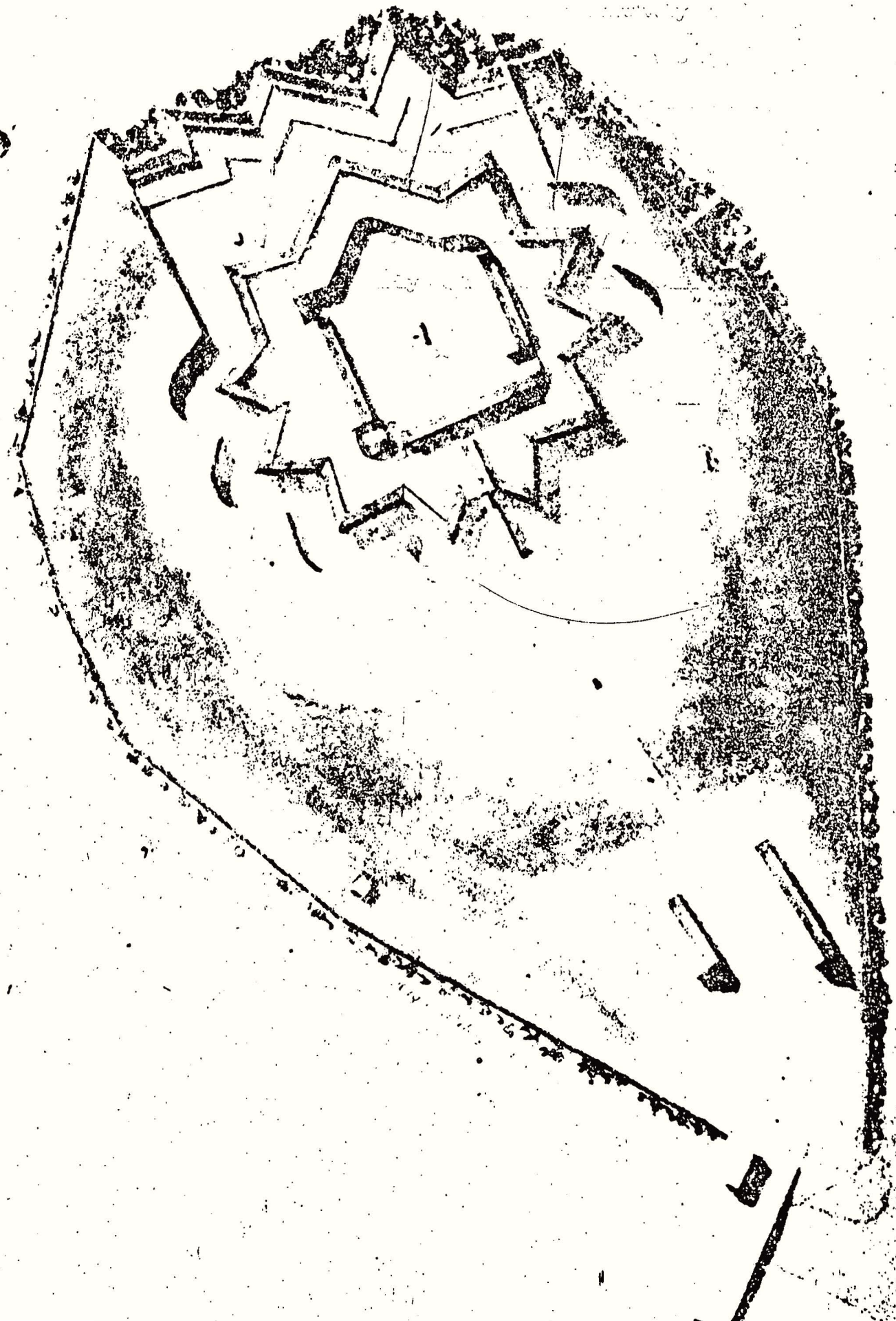
Bedloe's Island had served various purposes during Colonial and early National times, but as far as the record shows it had never been fortified until after 1794.[1] At that time, and for many years thereafter, there was serious threat of American involvement in the European wars that followed the outbreak of the French Revolution. Under New York and Federal legislation within the next few years, fortifications were erected on Governor's, Ellis's, and Bedloe's Islands,[2] as well as on the Battery of Manhattan. The works on Bedloe's Island were intended to provide fire across the ship channel of the Upper Bay, crossing with fire from Governor's and Ellis's Islands. They were planned to consist of a water battery and a strong protecting redoubt.[3] Whether these works were ever completed appears doubtful, and no plan or detailed description of them has been found. They were probably chiefly of earth and timber, as were the works built at this time on Governor's Island. Like the latter, they were presumably demolished more or less completely in the course of the next phase of military construction in New York Harbor, which involved building in masonry.

In 1805 Col. Jonathan Williams, chief of U. S. Army Engineers and superintendent of the new military academy at West Point, was appointed to make a thorough survey of the defense needs of New York Harbor.[4] After nearly two years, during which Col. Williams made detailed investigation of the defense needs and possibilities in the vicinity, and the demands of New York City for Federal protection rose to new heights, a plan of defense which he had prepared was approved by the Secretary of War. Williams was instructed to carry it out.[5]

For Bedloe's Island, this plan involved the building of a "small, but strong Redoubt, so constructed as to resist an Enemy who might land, until it can be relieved from some other point." There was also to be a mortar battery fronting the channel.[6] Work began on these fortifications in 1808 and they were substantially completed by 1811. In that year they were described as including "a star fort of masonry, having a stone magazine, with barracks of brick, and a brick arsenal." The armament consisted of 30 twenty-four pounders (presumably exclusive of the water battery, which was intended to mount mortars).[7]

Fortunately, a plan of these fortifications is available. (Figure 2). This plan bears no date, but can be dated tentatively at about 1812, since the works are not named and the name "Fort Wood" was applied in 1814. This was done in honor of a distinguished young officer who had recently been killed at the battle of Fort Erie.

The plan shows the 11-pointed star fort substantially as it appears in outline today. There is a water battery in front of it overlooking the channel, and a clearly defined ditch all around it except



where the water battery takes the place of a ditch. Large barrack-type structures occupy three sides of the parade under the rampart. In the north corner of the parade, inside a circular wall, is the square magazine. The side of the roughly quadrangular parade toward the channel has no structures. Only one stairway from the parade to the terreplein, or gun deck on the top of the rampart, is shown. There are no profiles or elevations, but shadows are sketched in showing clearly the comparative heights of the scarp, or outer face of the rampart, the parapet, and the interior slope, or inner face of the rampart. These comparative heights are pretty much what they are today, except that the entire parade is now filled with earth. The scale is 100 feet to the inch and the rampart is shown as from 30 to 75 feet thick.[8]

The rather elaborate 11-pointed star design of the fort indicates that it was believed to be more exposed to attack by landing party than the "castles" built at the same time on Governor's and Manhattan Islands. The numerous projecting and re-entrant angles permitted a heavy concentration of musketry fire at any point where an attacking party should attempt to plant scaling ladders. The star fort seems to have been regarded primarily as a protection to the water battery, where the heaviest armament was placed. It also served to protect the smaller works on Ellis's Island.

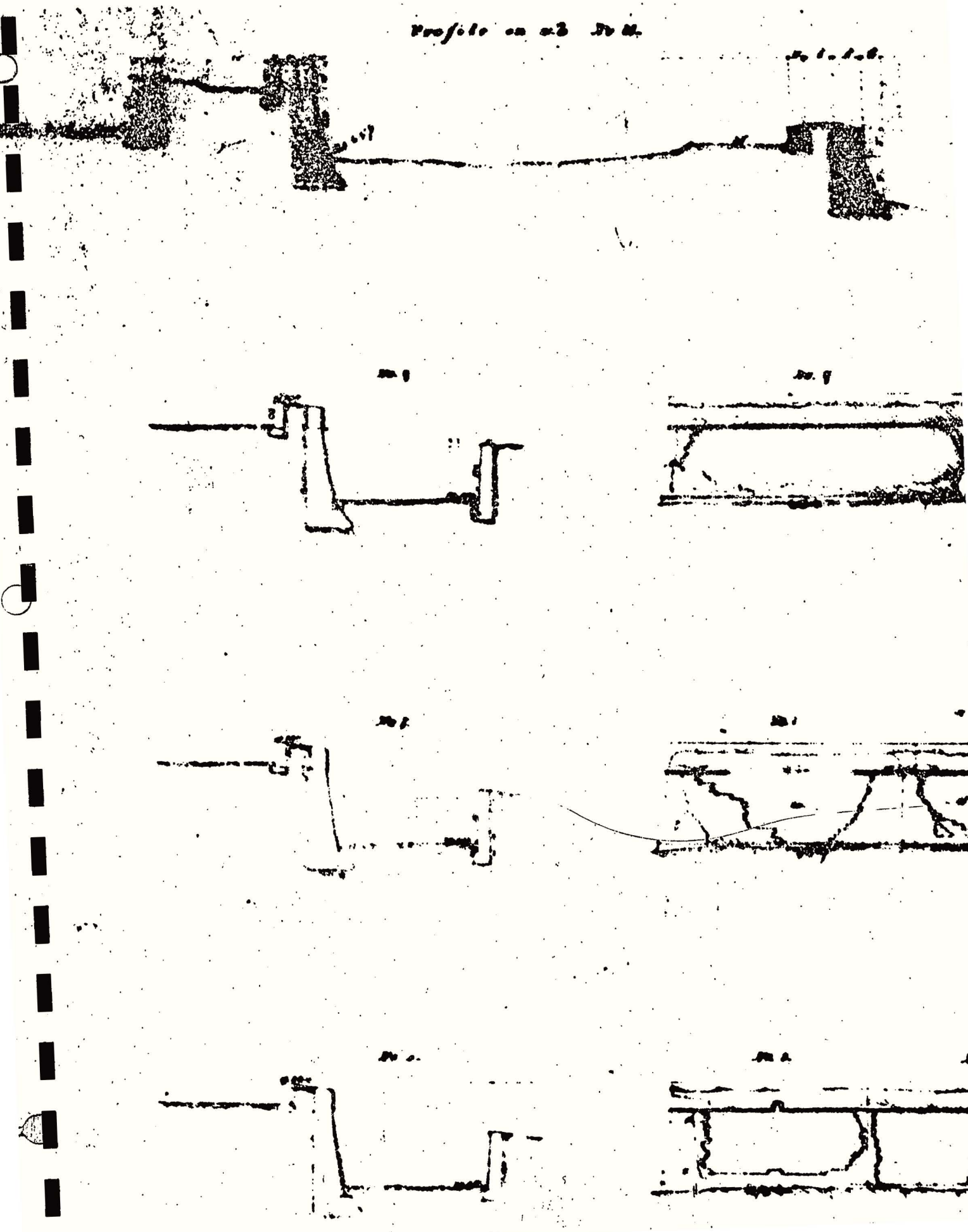
The guns of the star fort were all mounted en barbette, that is, on top of the rampart on the terreplein, behind the parapet. There were, therefore, no casemates, or gunrooms, within the rampart, and no embrasures, or gunports, in the scarp. There may have been bombproof shelters for the garrison at various points within the rampart, but none of the

available plans show them. It does not seem likely that the very massive rampart was built of solid masonry. The quantity and cost of cut stone involved in such construction would have been enormous. It is much more likely that the rampart was built with an earthen core and heavily faced with masonry. There is some later documentary evidence to indicate this.

Neither Fort Wood nor any other fort in New York Harbor was seriously attacked during the War of 1812. The star fort did not, therefore, suffer from enemy bombardment. Nevertheless, it was described in an Army engineer's report in 1820 as being in ruinous condition: "the scarp has given way the parapet follows -- the platforms will hardly support a piece at rest."[9] Such tumbling down of masonry in less than 10 years implies rather hasty and crude construction, though the report may have given a somewhat exaggerated picture of actual conditions.

Whether any repairs were made as a result of this report is not known, but in 1839 the walls of Fort Wood were carefully depicted in profiles and elevations (Figure 3) showing rather serious decay of the scarp in many places, with actual breaches forming at some points. The profiles indicate that the rampart was not all solid masonry, but was earth faced with stonework of a rather crude type.[10] Another set of sections of the walls of Fort Wood prepared two years later by Lt. H. Wager Halleck (later general-in-chief of the Union armies) showed that no repairs had been made.[11]

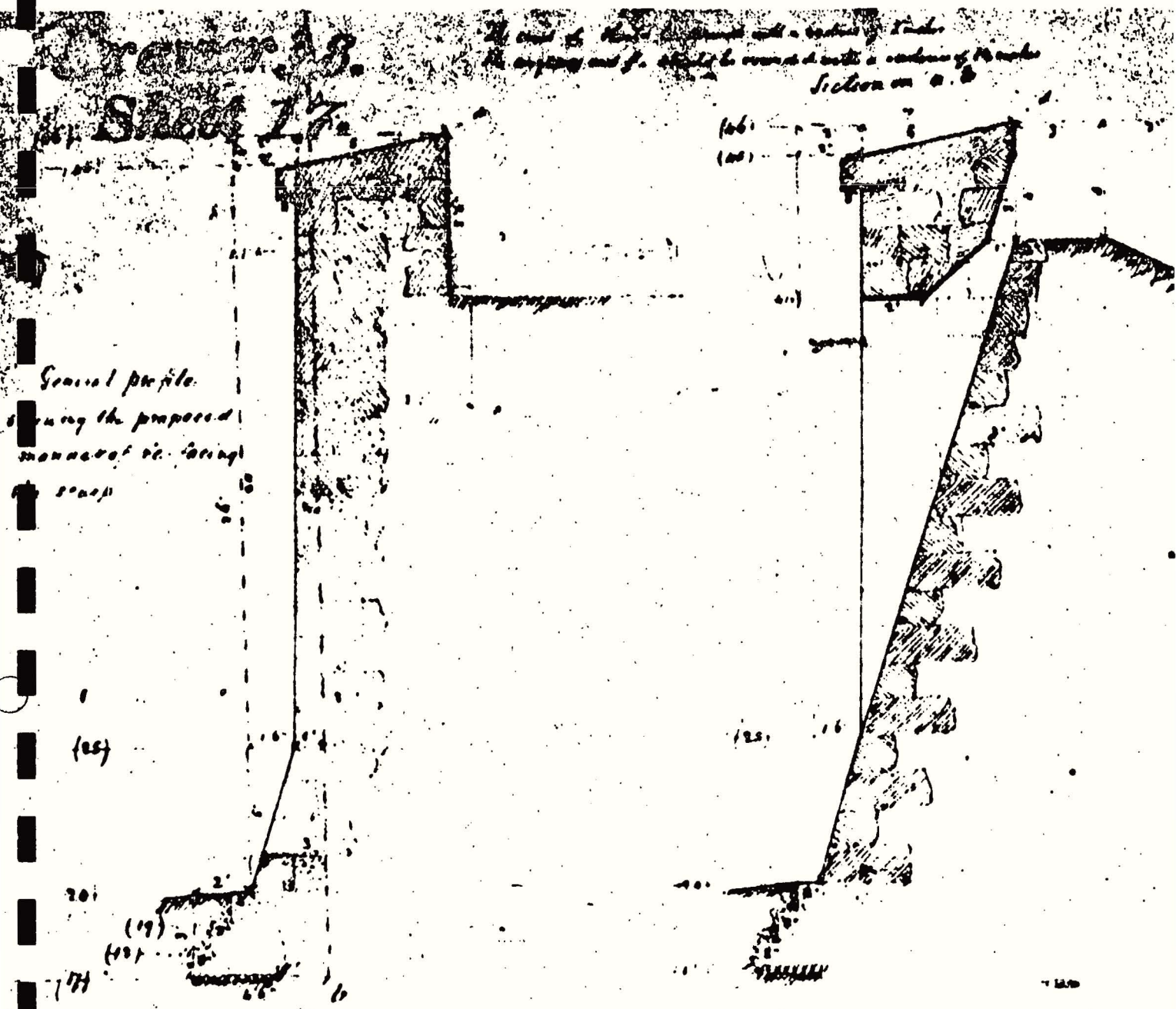
Up to this time there had been no major changes in the structure of the star fort. A map prepared in 1839, featuring a proposed new seawall in front of the water battery, shows little change except in minor detail



since 1812. The same three barrack-type structures and the square magazine are shown, but now identified with faint pencil markings as "Officers' Quarters" (just behind the main gate), "Soldiers' Barracks" (on the two adjoining sides of the parade), and "Magazine" (north corner of the parade). Two additional stairways are shown leading from the parade to the terreplein near the gate and there are V-shaped indentations at the inner angles of the parapet. The sallyport, on the side toward the channel, shows for the first time in broken lines indicating a tunnel under the rampart.[12] With these comparatively minor changes, Fort Wood appears as it did when first built.

But the star fort was on the eve of repairs and alterations which left it practically as it was to remain to the end of its military phase, and at least outwardly much as it appears today. Beginning with a re-facing of the scarp in 1844, a good many changes were made.

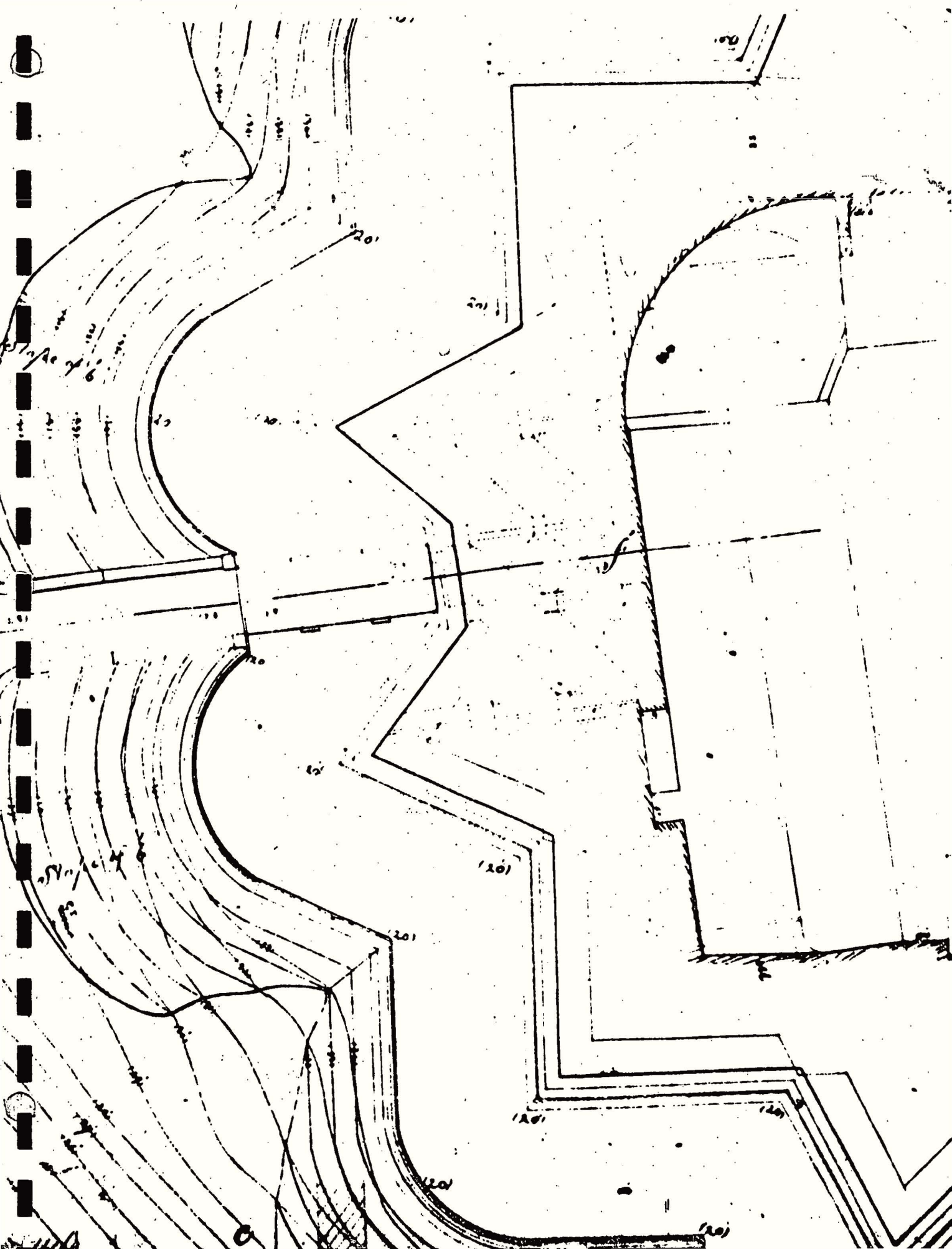
The much-needed repair of the scarp (Figure 4) left it faced with the same substantial granite masonry that it has now. At the same time there were built the machicolations, or musketry slots within the parapet at the re-entrant angles, that form an interesting and unusual feature of Fort Wood as we know it today. The footings shown in the profiles prepared for this work extended only three feet below the bottom of the ditch. The new masonry face of the scarp was only one course in width of alternate headers and stretchers, extending a maximum of three feet into the rampart. The parapet was capped with single blocks of stone five feet across.[13] All this fine stonework, while it is only a sort of veneer, is still in position and gives Fort Wood its distinctive outward appearance.

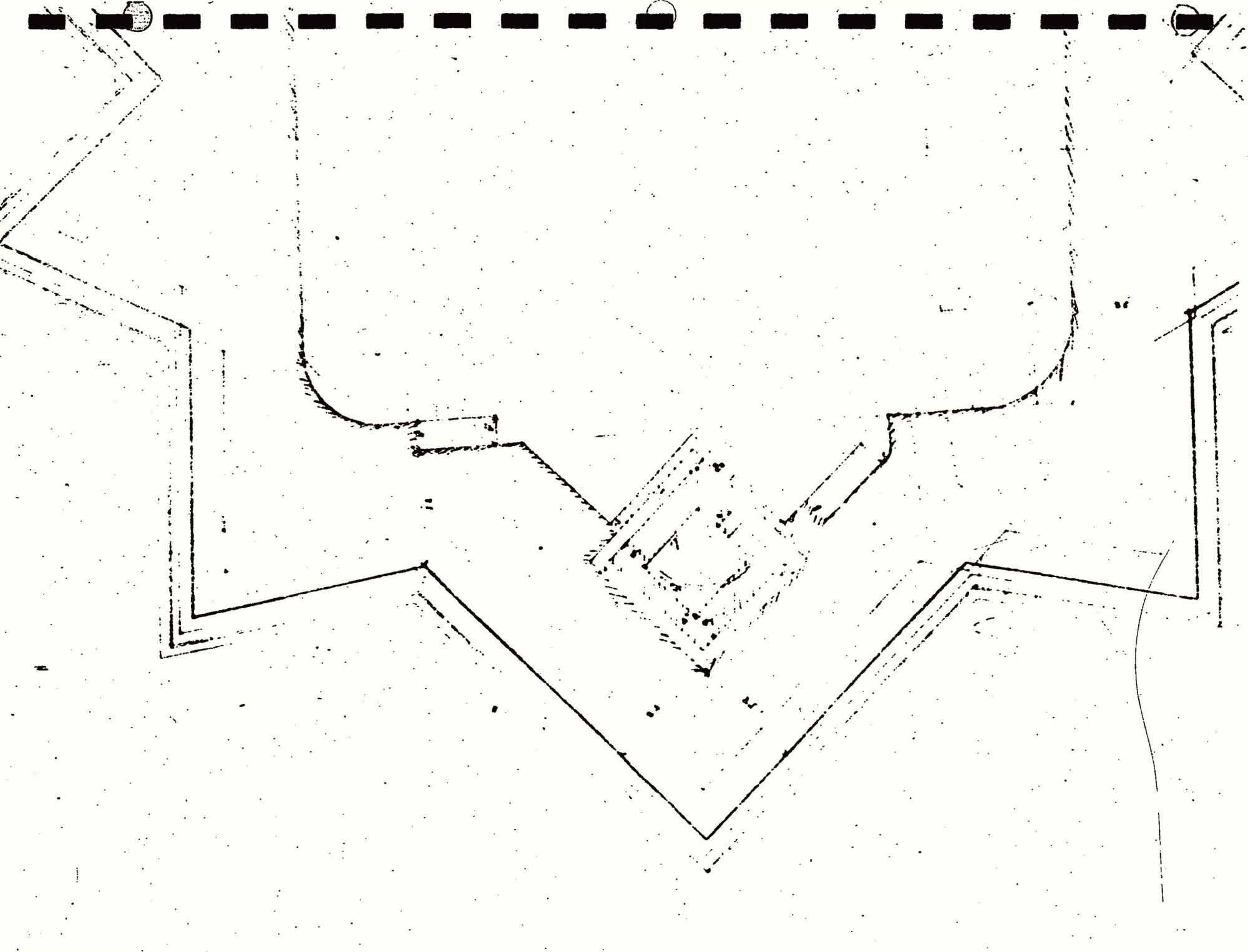


plans & profiles thereof for
old scarps ingenious ladders
the Plans

At about the same time plans were made for repairs to the masonry of the main gate and the sallyport.[14] These modest plans prepared in the field were elaborated in the Washington office of the Engineer Department, and a complete rebuilding of the sallyport was undertaken. The principal change was the introduction of a new right-angle turn approximately under the center of the rampart.[15] This interesting feature of the star fort is now practically as rebuilt in 1844. It connects with the concrete tunnel between the rampart and the Statue of Liberty foundation, and until a few years ago was used as the public entrance to the Statue.

A new magazine was built as part of the same program of improvements. It is shown on a map of 1845 (Figure 5), close under the rampart within the angle of the broad star point facing the channel. It is a square structure somewhat larger than the old magazine across the parade ground, is surrounded by a wall, and is flanked by two new stairways leading from the parade to the terreplein. It would seem to be in a safer location for a magazine and better designed to serve the guns bearing on the vital channel than the original magazine, but other plans show that the latter was also kept and repaired. The map of 1845 shows the new sallyport in broken lines as an existing feature under the rampart, and also indicates extensive work going on within the rampart near the main gate.[16] As far as can be determined from available evidence, the lower part of the new magazine, heavily built of brick and masonry, may still be in position under the earth fill of the parade. This area is now covered with granite flagstones like the rest of the terreplein. But the flagging still has a noticeable tendency to sink at





this point, showing that whatever lies under it is not part of the original rampart.

The work at the gate sketched in the 1845 plan consisted in a set of rooms within the rampart on both sides of the entryway; there was also shown a new drawbridge across the ditch. The rooms, built in vaulted construction, are labeled on another plan of 1845 as "Light Prison," "Dark Prison," "Soldiers Guard Room," "Office," and "Store Room."[17] These rooms, which were not completed until 1850, are still intact. The original guard room is now the boiler room and the office is the transformer room. The store room is still used for storage and there is some storage in the prison rooms. The prison rooms are still in good working order, however, and could serve as temporary cells in an emergency. The ground plan for the proposed American Museum of Immigration marks these rooms as to be retained, in the main for their present uses.

The drawbridge, of which detailed plans are at hand, was not completed until 1851 or possibly later.[18] All that is left of it today is a pair of elevating gears flanking the gate. The drawbridge disappeared when the ditch which it crossed was graded away, presumably in 1907. Since that time the entrance to the gate of Fort Wood has been by stairway.

Along with the other numerous changes made in the 1840's, Fort Wood received a new set of armament. A plan of 1847 shows that new gun emplacements for heavier and more modern guns were to be built not only in the water battery but also in the star fort. The water battery was greatly extended under this plan and took the place of the

ditch on all but the rear, or gate, side of the star fort. This plan also shows a part of the drainage system of the fort, including the main sewer leading under the rampart to the seawall. A cross-section of this sewer is shown, indicating that it is encased in heavy masonry, is oval in shape, and has an inner diameter of 2 feet, 6 inches.[19]

Beginning with 1851, Fort Wood, which had always been primarily a fixed artillery position, became also a recruit depot. A number of buildings were erected at and near the northwest end of Bedloe's Island.[20] In the 80 years or so following, a complex of structures developed all over the island until, at the time when the National Park Service assumed jurisdiction, there was hardly enough open space left to drill a platoon. During the Civil War there was no serious threat to New York Harbor. Fort Wood continued as a recruit depot and served as an ordnance deposit. It continued to serve in this mixed capacity, though probably at a lower tempo, for the following decade and more until the star fort was chosen, in 1877, as the site for the Statue of Liberty.[21]

While Fort Wood as a military post was steadily changing character after 1851, there was still some interest in its armament, or at least that of its water battery. There are several plans dated from 1859 to 1871 showing the state of the armament and some actual or proposed improvements in the water battery. The last of these indicates a proposal, evidently never carried out, to install disappearing carriages in the battery.[22]

A plan apparently preliminary to this showed the old drainage of the fort in some detail (Figure 6). This drainage system began approximately under the old officers' quarters and ran through the middle

of the parade. The main sewer, for which slope and elevation figures are shown, emerged at the seawall in front of the broad point of the star fort facing the channel,[23] as it still does today. The drainage system gave Gen. Charles P. Stone, engineer of the Statue of Liberty, a good bit of trouble a few years later.

Notes

1. Benjamin Levine, History of Bedloe's Island (Typescript MA thesis, New York University, 1952), pp. 3-28.

2. Ibid., pp. 28-43.

3. Georgia S. Means, Fort Wood and Bedloe's Island (In National Park Service, Report on Historical Points in New York Harbor, 1934), pp. 30-32.

4. Ibid., p. 35.

5. Outlines of a Plan of Defence, for the City and Harbour of New York, July 21, 1807. MS W-109 (5), Office of the Secretary of War, War Records Branch, National Archives.

6. Ibid.

7. Levine, History of Bedloe's Island, pp. 46-52.

8. Plan of Bedlow's and Ellis's Islands in the Harbour of New-York. Drawer 38, Sheet 2, U. S. Engineer Department. The originals of this plan and of most others cited in this report are presumably now in the War Records Branch, National Archives. Most of the historical maps and plans in the Statue of Liberty National Monument files were apparently collected before the establishment of the National Archives, as the photocopies bear no Archives markings.

9. Capt. R.E. De Russey, A Descriptive and General Report of the Fortifications in the Harbor of New York from 1815 to 1820, Nov. 5, 1820. MS, Office Chief of Engineers, War Records Branch, National Archives.

10. Profiles & Elevations of Breaches, Fort Wood, Bedlow's Island, New-York Harbour, Dec. 17, 1839. Drawer 38, Sheet 9, U. S. Engineer Department.

11. Sections of Fort Wood, Bedlow's Island, Harbor of New York, measured and drawn by Lt. H. Wager Halleck, Corps of Engineers, July, 1841. Drawer 38, Sheet 12 [U. S. Engineer Department].

12. Plan of Fort Wood on Bedlow's Island, N. Y., 1839. Drawer 38, Sheet 6, U. S. Engineer Department.

13. Sketch -- showing the manner in which the scarp wall of Fort Wood on Bedlow's Island is to be re-faced. And also the construction of machicoules to be introduced at the re-entering angles. Engineer Department, June 14th, 1844. Drawer 38, Sheet 17 [U. S. Engineer Department].

14. Sketch showing details of Gate Way and Sally Port of Fort Wood, July 1844. Drawer 38, Sheet 18 [U. S. Engineer Department].

15. Plan Section & Elevation of proposed new postern through Face No. 10 of Fort Wood, Bedlows Island, Engr. Dept., August 5, 1844. Drawer 38, Sheet 19 [U. S. Engineer Department].

16. Fort Wood, Bedlow's Island, Sheet No. 1 & Sheet No. 3, 1845. Drawer 38, Sheet 20 [U. S. Engineer Department]. Details of construction of the new magazine are shown in another plan: Fort Wood, Bedlow's Island, Sheet No. 5, 1845. Drawer 38, Sheet 24 [U. S. Engineer Department]. Repairs to the old magazine are indicated in Fort Wood, Bedlow's Island, Sheet No. 6, 1845. Drawer 38, Sheet 25 [U. S. Engineer Department].

17. Fort Wood, Bedlow's Island, Sheet No. 2, 1845. Drawer 38, Sheet 21 [U. S. Engineer Department].

18. Plan of drawbridge, Fort Wood, Bedlow's Island, Sheets Nos. 1-4, 1845. Drawer 38, Sheets 22-28 [U. S. Engineer Department].

19. Plan of Fort Wood, 1847. Drawer 38, Sheet 30 [U. S. Engineer Department].

20. Survey of high and low water lines about the North end of Bedlow's Island, with the trace of the adjacent fronts of Fort Wood . . . to which is added Plans of proposed Hospital, Surgeon's Quarters, Barracks for recruits, Campwomen, and Officers' Quarters, adapted to the wants of the service as a Recruiting Depot, Jan. 20, 1851. Drawer 38, Sheet 32 [U. S. Engineer Department].

21. Levine, History of Bedloe's Island, pp. 59-60.

22. Fort Wood, Bedloe's Island, N.Y. Plan of Exterior Battery as modified by the Board of Engineers for Fortifications to receive Kings Depressing Carriage, July 1871. Drawer 38, Sheet 44 [U. S. Engineer Department].

23. Fort Wood, Bedloe's Island, Sketch showing the old drainage as surveyed January 1871. Drawer 38, Sheet 43 [U. S. Engineer Department].

II. THE STAR FORT AS BASE FOR THE STATUE OF LIBERTY

Auguste Bartholdi, the sculptor who designed the Statue of Liberty, first made the choice of Bedloe's Island as the location for his great creation. This choice was confirmed in 1877 by Gen. W.T. Sherman, who had been authorized to select the site for the Statue when Congress passed a resolution in support of the project.[1] The garrison of the star fort, consisting of a battery of four officers and 32 men, moved out almost immediately.[2] The military history of the structure was over, although actual work on the foundation for the Statue did not begin for another six years.

There were long delays in organising and financing the American end of the operation, which was to consist in building a pedestal and assembling on it the copper Statue. The Statue itself was to be built in France and shipped over in crates. By the spring of 1883, however, the American Committee of the Statue of Liberty had sufficient funds to begin operations. Gen. Charles P. Stone, a retired Army officer and experienced engineer, was appointed engineer in chief and ground was broken for the foundation, in the center of the old star fort, on April 18.[3]

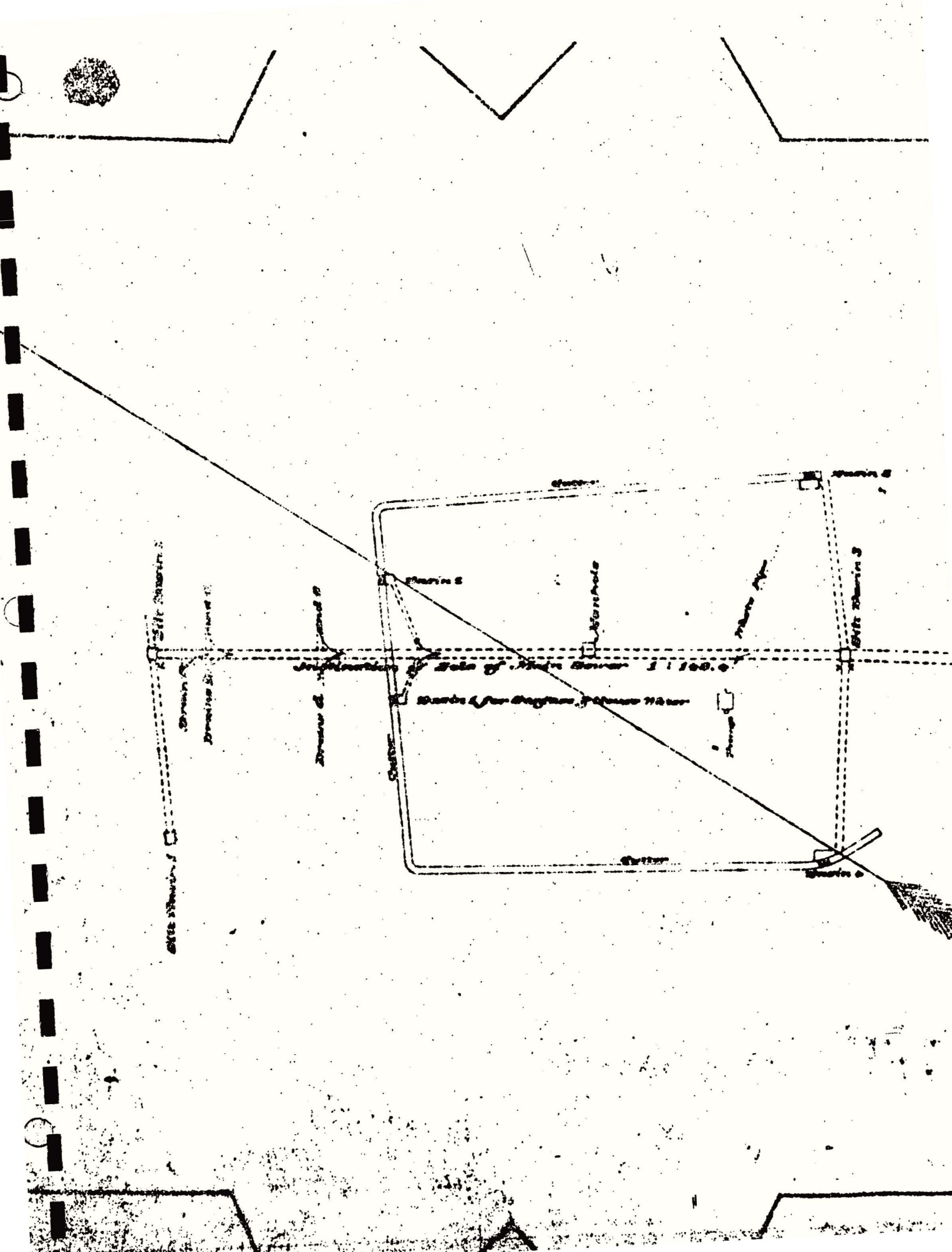
The work to date and the project, as then visualized, were described a month later in Frank Leslie's Illustrated Newspaper:

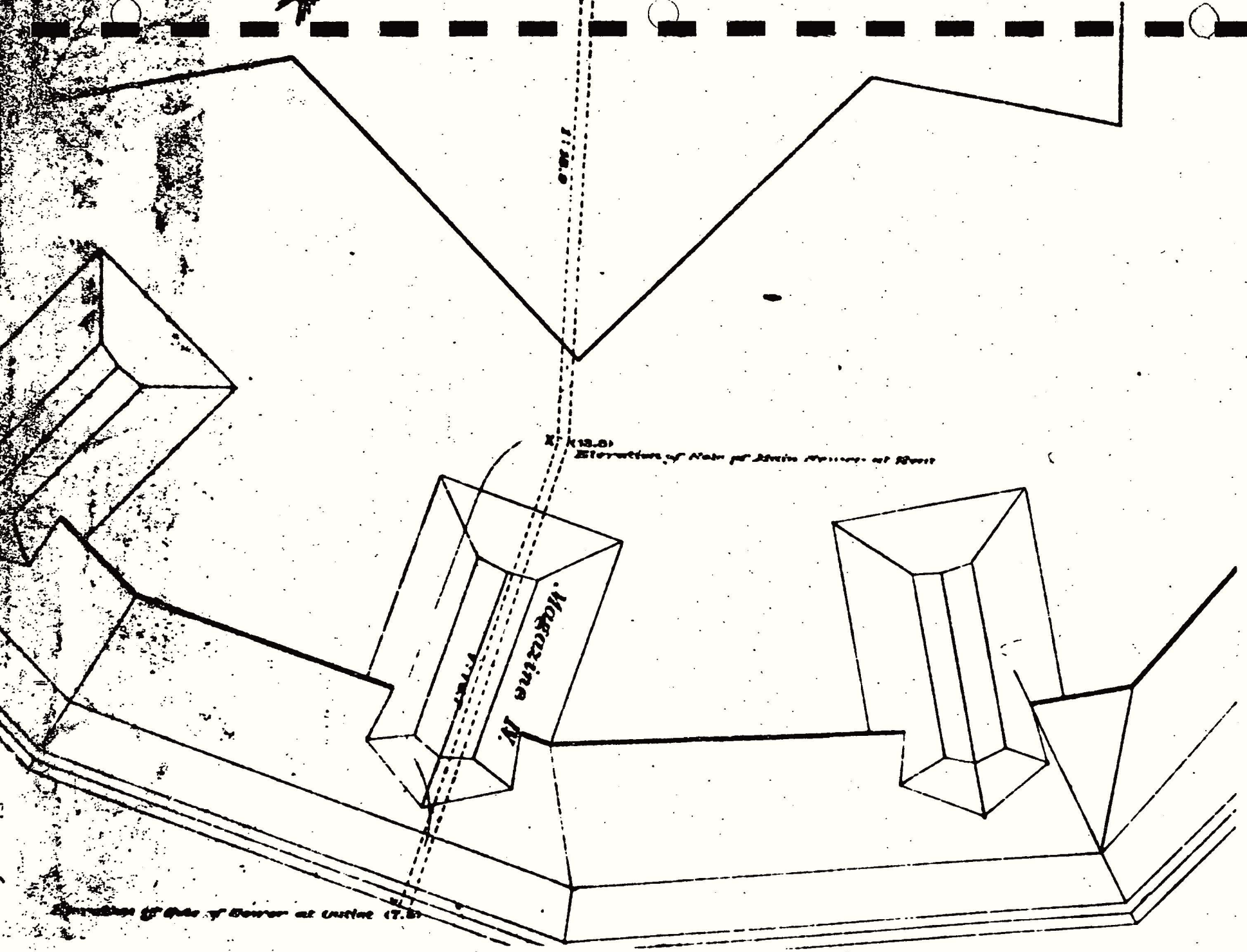
> The work of excavation on Bedloes Island, in New York Harbor, for the foundation of the pedestal of Bartholdi's statue of Liberty has been formally commenced. Shafts have been sunk to the depth of twenty-eight feet, and a bottom of boulders developed which will assure a solid foundation. A space sixty-four feet square is to be excavated and filled nearly to the surface with concrete, on which solid masonry will be laid. The outer walls of the old fort are to be preserved intact, and the pedestal is to lift itself from the centre, so that the fort, which is in the form of a star with many points, will look to the passengers on passing steam boats as though it was built around the base as an ornament . . . .[4]

Toward the end of June a reporter from the New York World accompanied Gen. Stone on his daily visit to Bedloe's Island and viewed the progress of the excavation. The "old buildings which served for officers' and men's quarters" had been taken down and the excavation had reached a depth of five feet. "At the west end of the inclosure a large brick cistern has been found," he reported, "so solidly built that its removal will be a matter of great difficulty." A depth of 16 feet was wanted and it was expected to reach this within a couple of weeks.[5]

This cistern was still giving trouble more than a month later, however, when the New York Daily Tribune looked into the matter. Gen. Stone was concerned about the slow progress of the excavation, but "The extraordinary character of the old subterranean structures there," while it had greatly delayed operations, had "reassured him in some degree as to the bottom for the foundation of the pedestal for the colossal Statue of Liberty to be erected." He spoke not only of the cistern but also of "bomb-proofs," and pointed out that they were "so massive and so ponderous that only a good bottom could have sustained them without the sinking even a fractional part of an inch." Gen. Stone expressed himself as satisfied that he had "a perfect bottom for his foundation."[6]

The excavation, 90 feet square and 16 feet deep, was completed on the northern side, but on the other side was the intractable cistern. This was built in the form of a double cylinder, with the side of the northern cylinder pierced "and the water run into the great drain which passes underneath the ramparts and communicates with the bay." The cistern was therefore empty to the level of the drain, but it was so much deeper




Macerata R.
River

than the drain that it was necessary to keep pumps going constantly except when "assaults with nitro-glycerine" were made upon the walls. These walls were "dishearteningly stout." After heavy charges were "fired simultaneously by electricity along the whole line of the walls," it was possible to remove the brick and cement of the cistern in masses.[7]

Just what and where the "bomb-proofs" were that also gave trouble is not clear. It has been conjectured that in a fort where there were no casemates offering protection, bomb shelters for the garrison might have been built in the rampart. It is possible, of course, that there were shelters under the parade. No such structures, either in the rampart or under the parade, appear in any of the available plans.

Gen. Stone hoped at this time to get his foundation in position before frost. The size of the foundation had, meanwhile, been enlarged to correspond with a change in the design of the pedestal. Stone told the Tribune reporter that it would be "a solid mass ninety feet square and forty-eight feet in height." He planned to have the concrete materials carried on a trestle from the dock to the rampart, and "shoot it into the excavation" by "derricks armed with huge vessels."[8] Evidently, no breach in the wall of the star fort was planned at this time, though one was made later when the granite for the pedestal was being brought in.

Gen. Stone's hopes of getting his foundation in before frost that autumn were not realized. It was not completed until May 1884. The reasons for this are made clearer in his progress report to the Committee submitted at the end of the following summer, as summarized and quoted in the New York World:

He speaks of the excavation for the foundation mass:

> "The excavation proved a much more serious matter than had been anticipated, owing to heavy masses of stone masonry and concrete which were encountered in the cisterns and old bomb-proof arches, some of which were not designated in the drawings of the fort. The excavation cut off the main drainage sewer of the fort, as that ran directly through the parade -- a fact which required another expense later in re-establishing good drainage by means of large vitrified pipes laid around the foundation mass connecting the sewer on the north with its continuation on the south."[9]

Gen. Stone, therefore, had not only to contend with heavily-constructed cisterns and bombproof arches, but also to repair the drainage system which his excavation had wrecked. In the course of the repair work, he used 1200 yards of grouting.[10] All of this work is no doubt well under the level of the parade ground. Whether it will have to be disturbed in the course of the excavation for the American Museum of Immigration is not known. If it is necessary to excavate below the level of the parade, there may be other unmapped features encountered, as well as the foundations of several known structures.

The completed foundation mass was described in detail in Harper's Weekly shortly after it was finished. In the same issue appeared an engraving based on a photograph of it (Figure 7). The article called attention to the decision to place the Statue of Liberty in the center of the parade of old Fort Wood, and described it as "a beautiful and grand setting for the pedestal." This position required that the base of the pedestal proper, designed by Mr. Richard M. Hunt, architect in chief, should be elevated "at least twenty feet above the crest of the parapet wall."

To meet the requirements Gen. Stone designed the foundation mass, "as it exists today, completed," and constructed it "in one great

THE DEVASTATION WAS FOR THE MOST PART CONFINED TO THE STATE OF KANSAS, WHERE THE TORNADO ARRIVED AT ABOUT 5 O'CLOCK ON THE AFTERNOON OF MAY 30, AND PASSED ON TO MISSOURI AND ILLINOIS.—[FROM A DRAWING MADE FOR HARPER'S WEEKLY.]

artificial stone." The great monolith was "composed of beton, a mixture of cement, sand, and broken trap-rock rammed in layers of six inches thickness." The form was maintained by heavy plank molds. The weight of the mass was about 23,500 tons. The base was described as 91 feet square; the upper surface, to receive the base of the pedestal, was 67 feet square; the total height was 52 feet, 10 inches. Two arched passages ran through the mass, at right angles to each other, on the level of the parade. These passages were 10 feet wide and seven feet high to the springing line of the arches, which had a rise of two feet. In the center of the mass there was a vertical shaft 10 feet square, where a stairway was to be constructed up to the pedestal proper.[11]

The picture of the recently completed foundation mass which appeared in the same issue of Harper's shows the wooden forms still largely in place. The pyramidal shape of the foundation is clearly defined. The picture was evidently taken from the top of the rampart at the northeast side of the fort. The entrance to one of the tunnels at the level of the parade is shown. In the left background a portion of the inner face of the rampart appears, with a part of the masonry falling out. None of the former structures found on the parade are shown as still standing.[12] However, neither of the magazines could have been seen from this angle and both of them, as later evidence shows, were still in position to the left and right of the picture.

In this illustration the size of the steps of the pyramid forming the foundation is pretty clear. The risers are about half the height of a man and the treads are not quite wide enough for a man to sit on comfortably. Superintendent Newell H. Foster, of Statue of Liberty National

Monument, a few years ago had borings made in the earth fill of Fort Wood in search of some way to ventilate one of the rooms under the rampart near the gate. He found that the foundation was made of "an old type of cement," that it was built in steps, and that these steps were one foot wide and three feet high.[13] In the picture there are 12 steps shown. This checks out exactly for a taper in the foundation from 91 feet square at the bottom to 67 feet square at the top. If 16 feet of solid concrete are allowed as being below the surface of the parade, it also checks out for a total height of 52 feet. According to the New York Times, quoting Gen. Stone's progress report at the end of the summer of 1885, "The foundation mass is constructed solid from the bottom to the level of the parade."[14]

An article which appeared in the Scientific American in 1885 described the building of the Statue in Paris and the work on Bedloe's Island, including the existing foundation and the current plans for the pedestal and the framework of the Statue. This article was based in part on working drawings loaned by Gen. Stone. It was his plan to support the terrace, then intended for the level of the four ornamental doorways at the base of the pedestal, with concrete arches:

> . . . . Spanning the space between the inside walls of the old fort and the foundation of the pedestal, and carrying the four flights of steps leading to the terrace and also the grassy mound between, is a concrete arch, about 3½ feet thick, and having a chord span of 49 feet. 15

An accompanying drawing showed sections of the concrete arch, or rather series of arches forming a sort of dome, over which were the flights of stone steps leading up to the terrace, with a grassed slope between them.[16] These arches were never built, though Stone fought hard

for them, and, of course, neither were the four flights of stone steps nor the "grassy mound" and terrace which they were to support.

After the completion of the foundation, the cornerstone of the pedestal had been laid on top of it, on August 5, 1884. After many discouragements and a long halt in operations due to lack of funds, the pedestal, built of granite with a concrete core, was completed on April 22, 1886.[17]

Work on the erection of the iron framework for the Statue, which was already on the island in crates, began almost immediately. A sketch which appeared in Leslie's a few months later showed it far advanced. (Figure 8). The space around the foundation inside the fort walls is shown as littered with construction material and equipment. This picture was evidently drawn from the top of the rampart in front of the Statue. In the right background, at the north corner of the parade, the heavy masonry arch of the old magazine appears intact, though its wooden roof and surrounding wall are gone.[18]

The brief text accompanying the picture shows that Stone had given up the fight for the arches to support the terrace:

> . . . . All the specifications contained in the original plans for the work will be carried out, save the strengthening of the old walls of the fort which surround the pedestal, and the building of arches between these walls and the foundations of the pedestal. . .19

Gen. Stone had still been planning for the arches, which would certainly have called for strengthening the crumbling inner face of the rampart, only a few months before. It was his intention to conceal the concrete foundation entirely, and to provide a firm support for the terrace and stairways designed by Mr. Hunt, the architect. In April, 1886, the New York World, in describing the work at the Statue to date, had

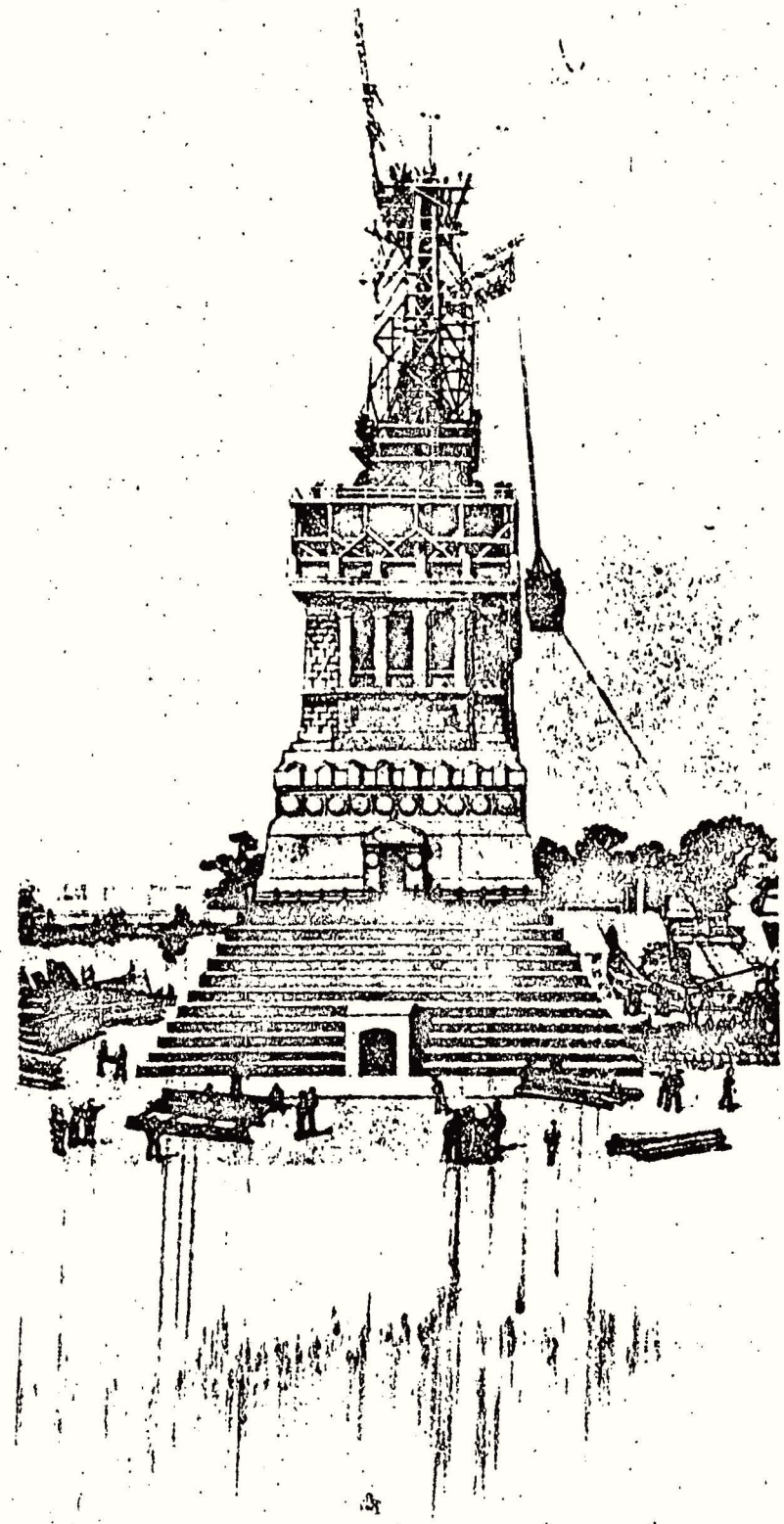


Figure 8

stated that "A grass-covered shed is to extend from the upper surface of the foundation mass to the top of the fort wall." Again, in the same article, it was affirmed that "when the entire work is completed no part of the foundation mass will be seen from the outside, owing to the covering to extend from the base of the pedestal to the fort walls."[20]

The ornamental terrace and supporting arches were lost only through the failure of funds. In the Congressional debate in the early summer of 1886, over an appropriation for the coming dedication ceremony, Representative Abram Hewitt of New York had offered an amendment to the resolution under consideration. Among other items, it provided for $26,400 for "connecting arches between wall of fort and foundation mass of pedestal." This amendment was lost; no mention of the connecting arches appeared in the resolution as passed, and there evidently was not money enough in the appropriation as actually made for the American Committee to build them.[21]

During the time of the building of the pedestal, the interior face of the fort wall was reported as "much broken", and a "wide breach" was made at one place in the rampart "for the purpose of admitting trucks bearing heavy blocks of granite for the pedestal."[22] While there is a picture of the breach in the wall, it does not show anything of the interior construction of the rampart, and no description of the exposed section has been found. The breach in the wall had evidently been repaired by the time of the dedication ceremony on October 28, 1886, and there is no outward indication of it today.

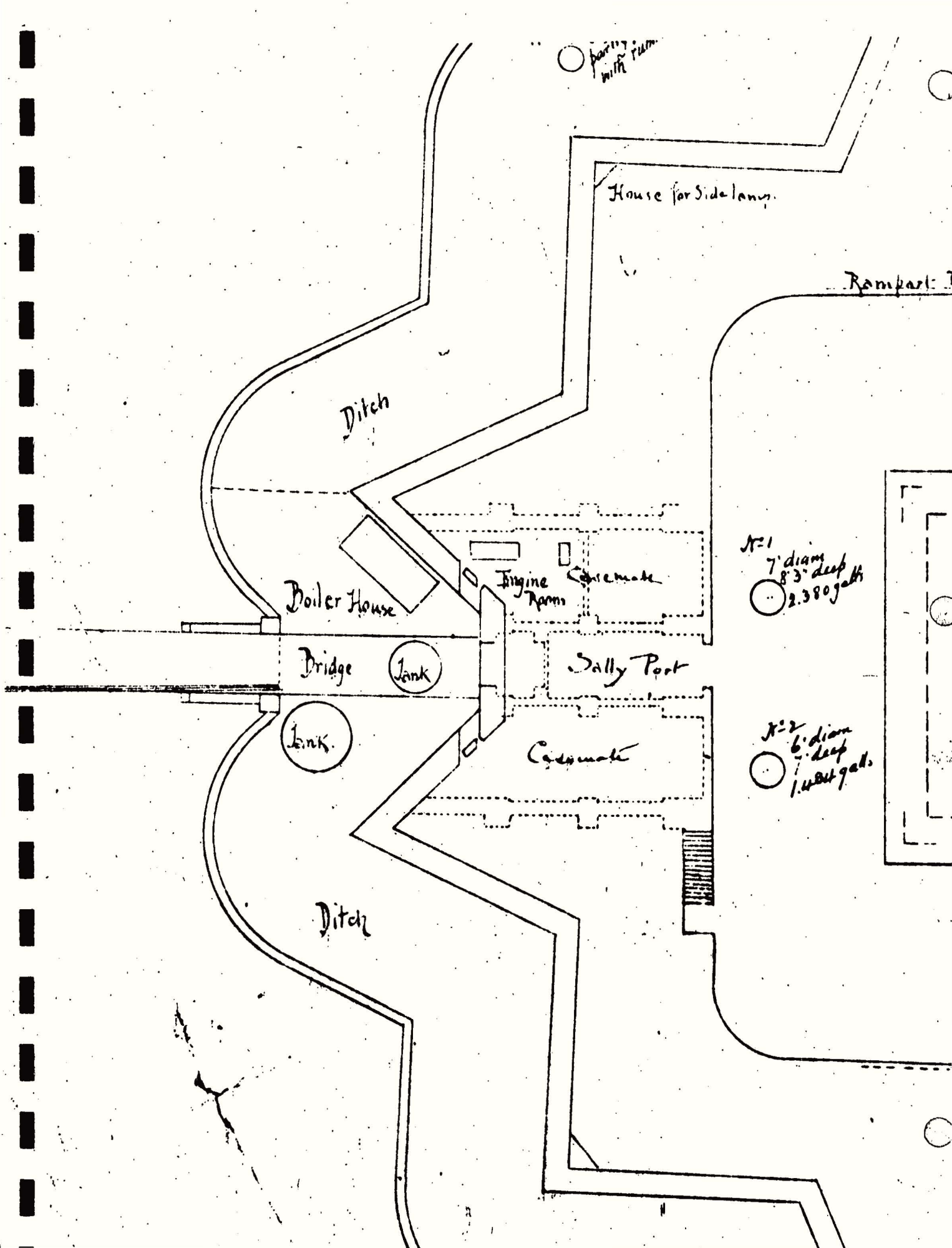
There was also some landscaping work done in and around the fort in preparation for the great event. This work was under the direction

of Frederick Law Olmstead,[23] the well-known landscape architect who had designed Central Park in New York City. Whether it included any repair of the interior face of the fort walls is not clear, but it seems likely that Olmstead would have had any unsightly breaks repaired and would have removed or covered any broken masonry.

The first electric light plant for the Statue of Liberty was installed in "one of the vaults in the parapets on the west side of the pedestal."[24] At first sight, this would seem to indicate bombproof shelters in the ramparts. Further consideration leads to the conclusion that the equipment was installed in one of the rooms near the main gate, which were of vaulted construction.

A map of Bedloe's Island prepared in November 1886 to show the location of the various features of the lighting equipment for the Statue (Figure 9) shows that this is what was done. The elements of the power and light plant are either in the rooms built near the gate in the 1840's or in the ditch just outside the wall. Curiously enough, these rooms are now referred to as "casemates," and the entry through the main gate is now for the first time labeled, "Sally Port."[25]

While the emphasis in this map is on features relating to the lighting of the Statue, other details of the star fort are shown. The scale is 25 feet to the inch and the ramparts are still shown as from 30 to 75 feet in thickness. The new magazine still projects into the parade, and is still flanked by two stairways leading to the terreplein. The old magazine no longer appears as a feature. Since its central structure was standing only a few months before, it would seem that the magazine had been demolished in the final cleanup in preparation for the dedication


House for Side lamps
Rampart
Ditch
Engine Room
Casemate
Boiler House
Bridge
Tank
Sally Port
Tank
Casemate
Ditch
No 1
7' diam
8 3" deep
2.380 galls
No 2
6' diam
7' deep
1.480 galls

Scarp Wall

ing Wall

Pedestal of

Statue of Liberty

Front of Statue.

ening Wall.

Terre-Plein

ceremony. The "Pedestal of Statue of Liberty" now appears as an important feature in the middle of the parade. There are two cisterns, or wells, between the Statue and the main gate. These correspond roughly to two "silt basins" shown in the drainage map of 1871, about where the officers' quarters formerly stood. There is still a ditch on the gate side of the fort and the drawbridge is still in place. Nothing is shown of any other features in the parade ground and the interior face of the rampart has apparently been rounded off symmetrically at the corners of the parade.[26]

Bedloe's Island, after the dedication of the Statue of Liberty in 1886, came under an awkward triple jurisdiction. The Army controlled the military reservation, still known as Fort Wood, occupying most of the island and performing guard functions around the Statue. The Lighthouse Board had its own small reservation, maintained the lighting system of the Statue, and had a limited control over the Statue and pedestal. A Citizens' Committee, successor to the American Committee, kept the Statue open to the public and provided ferry service from New York.[27]

No significant physical changes or improvements appear to have been made within the star fort for many years. In 1901 the post commander of Fort Wood, evidently in a high state of indignation, reported that "The approaches to the Statue are still uncompleted -- in fact are in exactly the same condition as when opened to the public 15 years ago. There is no evidence that either money or work has been expended since that date. . ." The outside of the Statue, he noted, was covered with verdigris; "the rough cement foundation is cracked, shaling and discolored by the drip from the copper above during rains." The Statue itself was

reached by an unpainted wooden stairway reaching to one of the four handsome stone doorways in the pedestal, the other three being boarded up.[28]

"Outside the statue," the indignant officer reported, "immediately surrounding its base, the ground is of cinders with occasional patches of wild grass, at one point an old cistern has partially caved in and at another, a small area has an old broken irregular flag pavement." The walls of the fort facing the parade were in bad shape: "The surrounding interior wall of the old fort is broken and irregular, discolored by patches of old mortar and the stain of years." Altogether, he concluded, "inside and out, the Statue of Liberty as it now stands is a distinct disgrace to our country."[29]

Pending legislation and an appropriation "to prevent this grand work of Art from deteriorating and actually falling to pieces," he recommended that the entire island be placed under the jurisdiction of the War Department, and that a small detail of men be put to work to do what could be done with available funds "to beautify the immediate surroundings of the Statue and the entire Island." Some of the improvements which he had in mind included paths, filling and grading, whitewashing old brick walls, and "pulling down and removing ruinous portions of the old fortifications."[30]

This vigorous protest bore at least some fruit. Jurisdiction over the entire island was restored to the War Department, The Secretary of the Treasury acknowledging that the Statue had no value as a navigation aid.[31] Agitation for repair and improvement of the Statue was taken up by the newspapers and in 1906, in response to a vigorous plea from Secretary of War Taft, an appropriation of $62,800 was made for the repair of the Statue and pedestal.[32]

Evidently not much had been accomplished in the way of repairs since 1901, for the New York Times, in noting that an appropriation had been made, stated that "Signs of dilapidation are . . .seen about the island. In many places the walls are crumbling and the electric lighting plant has long been lacking the proper care." Capt. George C. Burnell, then in command at Fort Wood, told a Times reporter that the light plant was to be improved, an elevator installed in the pedestal of the Statue, and the foundation finished off to match the pedestal. Iron doors were to replace the boards in the pedestal doorways and the wooden stairway would be replaced by "an iron approach." The Army was going to "fix up the walls of the fort, which are tumbling down in places." A waiting station for visitors was to be built at the pier and the Statue was to be painted, inside and out.[33] Capt. Burnell made no mention of filling the parade ground at this time and evidently expected that the entire foundation would be faced with granite. Actually, when the fill was made, only the exposed top courses of the pyramid were so treated.

The work did not get under way until 1907, when the funds became available, and the appropriation proved insufficient for more than what were considered first priority projects. These included filling and grading inside the fort walls, repair of the wharf, repairs and granite facing of the pedestal (or rather of the top of the foundation) and fort terreplein, repairs and painting inside the Statue and pedestal, and the building of an elevator within the pedestal. A proposed cleaning of the outside of the Statue, to remove the verdigris, was abandoned in face of the argument that the green patina of weathered copper was beautiful.[34]

It was at this time also that the concrete tunnels connecting

the foundation of the Statue with the sallyport on one side and the main gate on the other were built. A breakdown of the contracts awarded and approved by the War Department in June 1907 for repairs at the Statue of Liberty was reported by the New York Daily Tribune as follows:

> James H. Ferguson -- Filling and grading inside of the fortification wall, $14,145; exterior walls and steps and wharf, $2,945. Matterg-Barton Company -- Granite facing outside steps, tunnels and finish on terreplein, $22,400; general repairs inside statue and pedestal, repairs to guardhouse and electric work, $7,800; painting steel framework of statue, $1,800; settees, $400. Otis Elevator Company -- Elevator and stairways, $10,890. New York State Construction Company -- Wharf house and fence on wharf, $2,361. [35]

The two largest items in this group of contracts, it will be noted, had to do with work on the star fort and around the foundation of the Statue. The decision was evidently made to cover up the unsightly concrete foundation with an earth fill. In order to provide access to the pedestal and the elevator to be installed within it, there were built tunnels between the fort walls and the foundation. The arrangement offered a cheaper substitute for the terrace, four stairways and grassy slope, all supported on concrete arches, as planned many years before by Mr. Hunt and Gen. Stone.

A large part of this work was promptly carried out. The Quartermaster General's annual report for the fiscal year 1908, while it did not describe any of the work done, noted that on July 1, 1907, there was an appropriation for "Statue of Liberty, New York Harbor," with an undrawn balance in the Treasury of $62,507.13. At the end of the fiscal year there was an unexpended balance of only $154.72.[36] While it does not follow that the work had all been done, it was well under way and was probably completed within a reasonably short time thereafter.

In the main, it appears that the last major group of changes in the old star fort, as distinguished from the Statue and the pedestal, occurred at this time. Since the star fort had ceased to function as an active defense unit, its maintenance now came under the Quartermaster Department. A Quartermaster map of Fort Wood prepared in March 1907, with corrections to November 1912 (Figure 10), shows the old fort just about as it is today, except for the divided steps now existing in front of the main gate and the closing of the true sallyport as the public entrance. The map shows all structures then extant on Bedloe's Island, including electric light and telephone lines.

Features at the star fort include the fill over the parade ground, or more precisely the twin concrete stairways now leading down over the slope of the fill from the pedestal to the terreplein at the front of the Statue. This was the period of construction of the first major subway system in New York City, and subway excavation probably offered the cheapest source of fill. The terreplein had presumably been paved with its present granite flagging, but the word "Concrete" appears on the terreplein near the inner edge of the rampart. Perhaps this indicates a concrete facing of the wall prior to the fill; or, it may be that the terreplein flagging was put in later over a concrete slab. The only subterranean structures shown are the guard room and cells near the main gate, with the so-called "Sally Port" between them, and the old main sewer, here marked as a 36-inch surface drain. Neither the true sallyport nor the new tunnels between the fort walls and the pedestal, for some reason, are indicated, though a concrete walk is shown leading to the sallyport.[37] The labeling of the sewer appears a little in error. Recent measurement of the outlet of this sewer, in the face of the seawall, shows it as only 30 inches in maximum diameter and

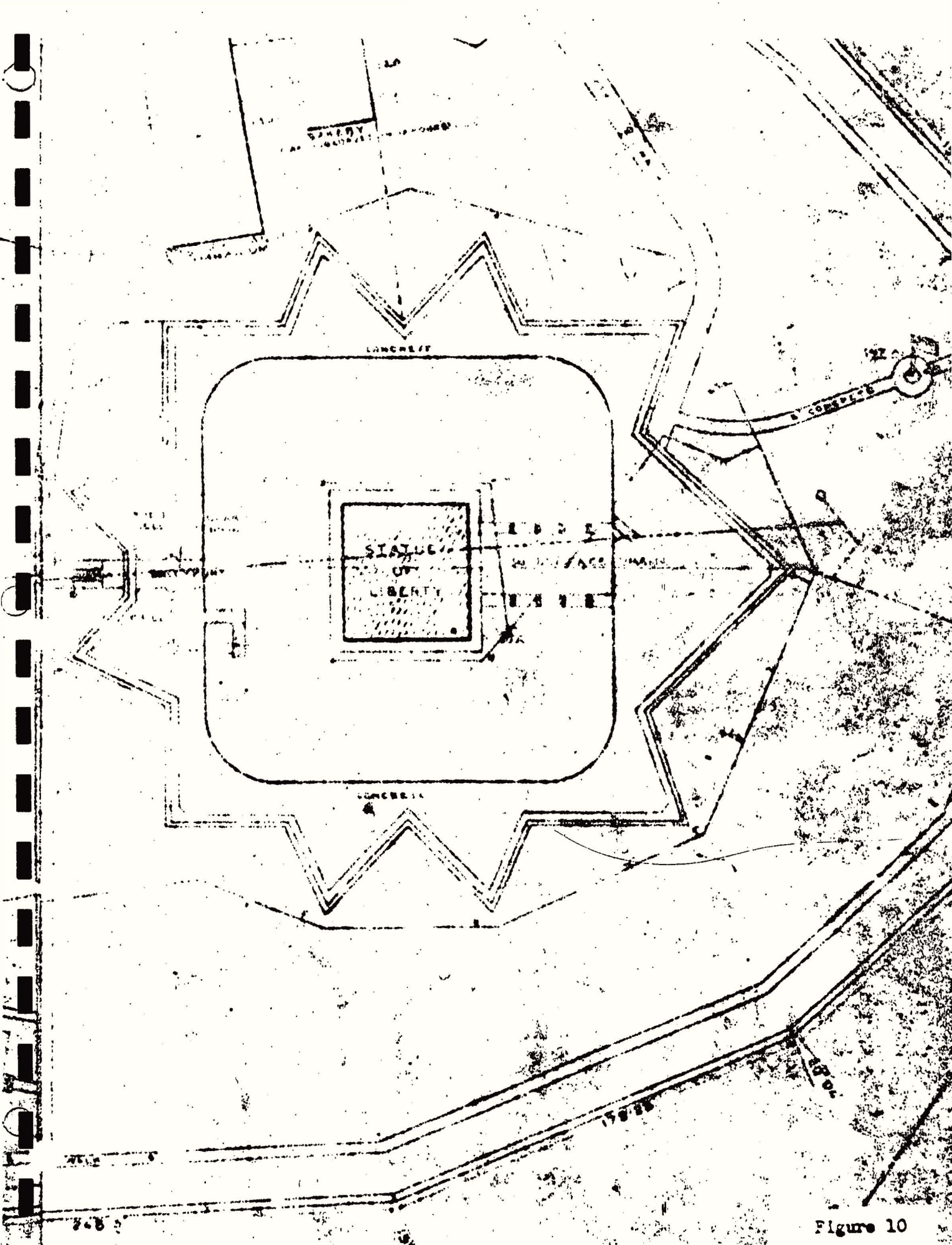


Figure 10

oval in shape, as shown in the 1847 plan.

The new magazine, which appeared in a map of 1901, is no longer shown. The massive arch of this magazine originally rose about 10 feet above the level of the terreplein. The top of this arch was obviously demolished, but the walls may still be in position. One of the two stairways that formerly flanked the magazine has disappeared, apparently under the fill. The other, which still gives access to the terreplein from the tunnel, is shown. The stairway which still leads to the terreplein near the main gate, and which appeared in earlier maps, is also shown. The ditch in front of the main gate, which appeared as a fort feature as late as 1901, has been graded away. With the ditch, the old drawbridge that spanned it has disappeared and has been replaced by a single stairway.[38]

As far as the problems of excavation for the proposed American Museum of Immigration are concerned, the work begun in 1907 appears to bring the story of the old star fort practically to a close. What will be encountered when the excavation begins cannot be predicted in detail, but this report attempts to summarize the available information and leads to the conclusions noted at the beginning of the study. Additional research, particularly in the War Records Branch, National Archives, would probably yield more information and permit pinning down some points that can now only be surmised. But the actual excavation can be expected to bring at least some surprises that the most detailed documentary study could not avoid.

Notes

1. Levine, History of Bedloe's Island, pp. 81-82.
2. New York Daily Tribune, April 21, 1877.
3. Benjamin Levine and Isabelle F. Story, Statue of Liberty National Monument, Bedloe's Island, New York (National Park Service, Historical Handbook Series, No. 11), pp. 13-14.
4. Frank Leslie's Illustrated Newspaper, May 19, 1883.
5. New York World, June 27, 1883.
6. New York Daily Tribune, August 2, 1883.
7. Ibid.
8. Ibid.
9. New York World, September 1, 1885.
10. Ibid.
11. Harper's Weekly, July 12, 1884, p. 451.
12. Ibid., p. 453.
13. Statement of Superintendent Newell H. Foster, Statue of Liberty National Monument, August 1, 1956.
14. New York Times, September 1, 1885.
15. Scientific American, June 13, 1885, p. 376.
16. Ibid., p. 375.
17. Levine and Story, Statue of Liberty National Monument, pp. 14-17.
18. Frank Leslie's Illustrated Newspaper, August 21, 1886, p. 9.
19. Ibid., p. 10.
20. New York World, April 23, 1886.
21. Walter Hugins, Short History of the Statue of Liberty (MS report, Statue of Liberty National Monument, 1956), pp. 8-11.
22. New York World, March 16, 1885.

23. New York World, October 8, 1886.

24. Ibid., October 22, 1886.

25. Map of Bedlow's Island, New York Harbor, From Survey of Lieut. Frederick E. Prime, January 20, 1851, With Corrections & Additions to date, Nov. 1886. Original ink drawing, Statue of Liberty National Monument files.

26. Ibid.

27. Hugins, Short History of the Statue of Liberty, pp. 14-15.

28. Letter, A. C. Taylor, Maj. Art. Corps, to Adjutant General, Department of the East, June 30, 1901. Lighthouse Site File -- Statue of Liberty, Records of the U. S. Coast Guard, Fiscal Section, National Archives.

29. Ibid.

30. Ibid.

31. Hugins, Short History of the Statue of Liberty, pp. 18-19.

32. Ibid., pp. 19-21.

33. New York Times, July 19, 1906.

34. Hugins, Short History of the Statue of Liberty, pp. 20-21.

35. New York Daily Tribune, June 13, 1907.

36. Report of the Quartermaster General to the Secretary of War, 1908 (Washington, 1908), p. 4.

37. Fort Wood, N. Y. H. Drawn by W. Duncan, Q. M. G. O., March 1907 (with corrections to Nov. 1912). Photocopy, Statue of Liberty National Monument files.

38. Ibid.

APPENDIX

Three early maps of Bedloe's Island have been received at Statue of Liberty National Monument, in photostat copy from the National Archives, since the above report was completed. These maps add a good bit to available information on the fortifications up to and including 1819, but do not modify in any material way the conclusions reached in the report. These maps are being filed in chronological order with the other historical maps in the Monument files.

The first of these maps is undated, but quite obviously depicts the first fort built on Bedloe's Island at some time after 1794. This fort, which must have been demolished in 1808, was on the same ground as the later Fort Wood. It included a water battery shaped like the coil of a rattlesnake, with a roughly triangular redoubt inside the coil. This construction appears almost certainly to have been earthwork. Contemporary fortifications on Governor's and Oyster (Ellis) Islands are also shown.[1]

The second map, or rather plan, consists in a series of profiles of Governor's, Bedloe's and Ellis Islands, prepared in 1813. The "Profile of Bedlow's Island" shows the water battery, ditch and redoubt, with elevation measurements of each. The structures on the parade ground are depicted as rising above the parapet, and the sallyport is indicated as an existing feature. There is also a general view of the "Fort and Battery," from a point in the ship channel.[2]

The third map, dated 1819, is almost a duplicate of the one

shown in detail in Figure 2, above, except that it shows topography by hachures. It has, however, an inset profile of the works on a line from the parade to the shoreline in front of the water battery. The shading on this profile helps to confirm the belief that the rampart was not solid masonry, but consisted of an earthen core heavily shored up by masonry.[3]

Notes

1. Map, with no title or date, showing the relative locations of the Battery, Governors Island,"Oyster Island,"and"Bedlos Island"; and the structures on them. c. 1794-1808. Drawer 142, Sheet 90, Office of the Chief of Engineers (Fortifications File), Record Group 77, National Archives.

2. Plan of Defilement of Bedlow's Island; Profile of Bedlow's Island drawn according to its length; also a view of its Fort and Battery. New York, 1813. Drawer 36, Sheet 20, Office of the Chief of Engineers (Fortifications File), Record Group 77, National Archives.

3. Bedlow's Island, Fort Wood. A. D. 1819. Drawer 38, Sheet 4, Office of the Chief of Engineers (Fortifications File), Record Group 77, National Archives.

SUMMARY STRUCTURAL HISTORY of FORT WOOD

(SUPPLEMENT)

edited by:

Robert E. Greenstein

Historian

Statue of Liberty National Monument

April 1963

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FOREWORD

This collection of documents and illustrations is intended as a supplement to the Summary Structural History of Fort Wood, by T. M. Pitkin. It lays no claim to being exhaustive since it is derived almost solely from the Jonathan Williams papers, parts of which have been transcribed by Dr. Pitkin and are on file at the Statue of Liberty. Our purpose then, has been simply to fill in some of the gaps which exist in the story of the construction of Fort Wood and to provide additional information (where possible) going to the question of what sort of artifacts one might expect to find on the Fort site. These documents are placed in chronological order and there is a running commentary for the convenience of the reader. For the sake of coherence a certain amount of superfluous material (salutations, etc.) has been omitted, and the reader is directed to the table of reference for citations.

The illustrations which are included may prove useful along the lines set forth above, although the undated map of New York Harbor unfortunately only provides evidence of a most inconclusive nature as to the type of construction which antedated the Fort. The profile of Fort Wood, however, is interesting as one of the few views of the island and fort from pre-Statue days. It is apparent, then, that the full story of the fort construction, and an account of prior building must await an investigation of broader scope. What follows here, we trust, may help make that investigation more fruitful.

I.

In the year 1800 New York State ceded Bedloe's Island to the Federal Government, along with Ellis's and Governor's Islands. The purpose of this cession was to enable the Federal government to fortify New York Harbour. Since 1794 Bedloe's Island had contained fortifications erected by the state, but it was recognized that these were generally inadequate to the task for which they were designed. By 1802 these structures were in a state of ruin, according to the Inspector of Fortifications:

> XIII. A detachment of men is at present kept on Bedloe's Island, partly for the advantage of the quarters, and with a view to prevent the buildings from suffering further dilapidation. A battery seems to have been begun there and brick buildings apparently intended for quarters have been erected and covered in, but not finished. No cannon are mounted there, except two field pieces belonging to Fort Jay. A 24 pounder dismounted lies there. Should it be thought proper hereafter to erect a battery there capable of as much defence as the nature of the position will allow, the work which has already been done will be found to be of trifling account, compared with what still remains to be done.
>
> It must be understood that the brick buildings above mentioned to have been erected for quarters are not in a condition to receive troops, and that the barracks now occupied are detached wooden buildings.[1*]

The Government, however, was preparing to go to work in earnest and in 1805 Col. Jonathan Williams was appointed to survey the area. His report follows:

> ....With respect to the present means of Defence

* See page 12 for Table of Reference

> within the Harbour the Subscriber hopes that it will not be deemed irrelevant to object of this Report to remark, that there does not appear to be any force that could prevent a ship of war from attacking the city on either side.
>
> The forts at Bedlow's and Ellis's Islands are dismantled and totally out of repair. Fort Jay though kept in as good order as possible by the very active officer who commands it could not from its construction be considered a protection of the Harbour against passing ships....[2]

On the basis of his recommendations Williams received in 1807 instructions to commence building:

> "As the height and distance of this Island (Bedloe's), relative to Ellis's or Oyster Island, form a complete command of the latter, it should be occupied by a small but strong Redoubt, so constructed as to resist an Enemy who might land, until it can be relieved from some other point: in this redoubt, there should be a Mortar Battery fronting the Harbour, in a direction towards the Channel."[3]

Actual construction subsequently began in the Spring of 1808:

> "At my last interview with the Secretary of War he recommended in the most earnest manner the utmost activity in the progress of the Works and officially (on Acct. of the distress of the embargo would naturally occasion) to employ as many citizens as possible. I am very happy to find on my arrival that you have in great measure anticipated these benevolent intentions at this Post; but I must recommend as great exertions at Bedlow's, where a great quantity of Earth is to be trimmed and that some temporary sheds or Tents be provided to cover as many men as we can possibly employ; The formation of the Glacis round this post might employ many more than we have, if the Laborers could be lodged. I request you to land at Bedlow's Island as great a quantity of foundation Stone as the Wharf can hold, so as to be ready to be drawn in the Works as soon as the foundation timbers can be made. (Also to have lodged in the Fort...a sufficient Quantity of Timber Boards, and Planks

for the formation of Platforms on Bedlows Island...[4]

By April 5, 1808, Col. Williams reported that:

> The Wharf is compleated and materials are collecting at this Place. The subscriber submits the inclosed plan and Section for this Work.[5]

Secretary of War Dearborn, upon receipt of this plan, questioned the reasons for the proposed star shape:

> Your report of the 5th Inst. accompanied by a plan of the proposed works on Bedlow's Island has been received. I have no objection to the plan. It is however a question in my mind whether one ravelin of suitable dimensions to each side of the Square, would not be more simple and render the work equally strong.[6]

In response, Williams defended the plan:

> In conformity to the orders of the Secretary of War the Subscriber begs leave to present for the month of April the following
>
> Report
>
> A Redoubt has been marked out & the Ditch is now digging at Bedlows Island in conformity to the plan transmitted to the Secretary of War.--The Subscriber begs leave to remark here in answer to an observation the Secretary of War was pleased to make that two salient angles on each side of the Square instead of one, has been preferred because, these angles are thereby less acute the command rendered more perfect & the extent kept within the limits of the Ground whereas if there had been but one salient angle in the form of a Ravelin, it would have been extended far beyond these limits & have occasioned a very acute salient angle or very obtuse reentering ones

> while in the present plan, the former are full 70° & the latter not more than 115°. It will be found besides that there is a saving in the extent of Wall as will be visible by continuing the Lines on either side to their point of Intersection.[7]

By October 1808 it was reported in various newspapers that the actual fort construction had begun:

> II. Bedlow's Island
> The front wall of the mortar battery which commands all the channel and anchoring ground to the full distance that a shell can be sent, is nearly up to the intended height; the form given to this front is irregular, on account of the position of the island, and the irregular shape of its bank.... This battery will be on the level of the ditch of a star fort in its rear, which not only will command it, but will command and protect Ellis's Island. The excavations for this work are made, and the mason work will be carried on at the opening of the spring; in the mean time the work will go on until the severity of the winter puts a stop to it.[8]

Williams' November report, however, gives a fuller account of progress:

> In the Plan of defence approved by the Vice President and the Secretary of War, this Island was thought proper to be possessed for a mortar Battery to command all the Anchoring Ground between Red Hook and the Quarantine, and to afford protection to Ellis's Island which being very low and only 1300 yards distant is compleatly commanded by it.
>
> The Mortar Battery must necessarily occupy the S.E. Side of the Island in order to front the line of approach but owing to the irregular Bank of Loose sand in this part which is the highest on the Island, it became impossible to determine on any regular shape consistent with a proper direction without either

> extending into the water on one hand or digging very far into the Bank on the other. It was therefore determined to make the front of several Redans or alternate salient & reentering angles so constructed that the longer sides would be at right angles with the Course of the Channel the shorter ones serving as flanks to them the length of these last being restricted so as to move as small quantity of Earth as possible. --Since the whole of this Island is a bank of fine Sand it was necessary to commence the front foundation at the Beach below. Without this precaution no superstructure could be expected to stand the sand which blows about like driven snow would soon fly from under the Base & the whole would necessarily fall. The front wall of the Mortar Battery therefore begins from the hard ground & is now carried up to the intended height. Part of the Redoubt in the rear is excavated but as the Season is too far advanced to begin any new piece of Mason Work, nothing more than a continuance of excavation as far as practicable and a collection of materials will be attempted for the remainder of the Season. --The Shells of the Brick Barracks consisting of only the Walls & roofs have been raised another story, & made habitable, a Wharf of considerable extent has been carried out in the rear of the Island upon which a Powerfull Crane has been erected. There is a good Well of Water here & it is probable that another may be made within the limits of the Fort so as to ensure under all circumstances a constant supply. The command projected here has not only the protection of Ellis's for its object but also of the Flatts between these Islands, it being necessary to keep the communication free for many obvious reasons but especially to supply that Garrison with fresh water, the Wells there being exposed to the admission of Salt water into them....[9]

From an estimate of the cost of completing the fort it is apparent that the water battery was completed by May 1809. At this point a considerable amount of work remained to be done on other areas:

X No. 4. Bedlows Island

Materials & Workmanship for making the Scarp Counterscarp Parapet & Glacis Wall $358.50 for ten feet, the sum of all the lines being 1360 feet the amount will be 136 x 358.5.....	$48756
Materials & Workmanship for building Barracks & Officers Quarters.....	5618
Magazine....Materials $1000, Building $2440.....	3440
About 100 feet of Wall 10 feet high at the bottom of the bank on the South side, to ward off the sea in storms and high tides & prevent the sand from running into Gulleys.....	3000
Labour in removing Earth from the Ditch to form the Glacis.....	6000
	$66814 X[10]

Construction had been in progress for over a year when this interesting problem developed which has rather a modern ring to it:

X Sir,

I wish to withdraw the fatigue party from Bedlow's Island the last of this month, if in your opinion the work done by them is sufficiently forward to afford employment for two masons the remainder of the season.

Will you inform me if that is the case.

...Constant
lt. Col. 6th Inf...Y[11]

Williams' reply is not available, although it may be not far from the truth to say he must have had few kind words for those in direct command of the work at Bedloe's. Another letter from Constant seems to bear this out:

Y I have received your letter of the 4th instant, in answer to my note of the 25th ult. in which you mention that 'the fatigues at Bedlows Island

have fallen far short of your expectations, and have been so various in number and time (some days but a dozen or twenty, and some days none) and so wolly out of the controul of the engineer that the masons are treading upon the heels of the labourers.'

I have taken the earliest opportunity of enquiring into the supposed neglect of the officer having command of the fatigue party, and I learn from him, and also from the fatigue roles that the three companies on Bedlows Island, averaging thirty privates on each, fit for duty, have done 3133 days work, in the two months they have been there; which is, at the rate of upwards of fifty men a day. I also learn from him, that the instructions of the Engineer, as to manner of employing the men, have been strictly observed.

I was not apprised of your letter to Col. Simonds of the 29th July, which you speak of, and therefore did suppose when I came to the command, that as many men had been detailed for Bedlows Island, as could be employed to advantage. I should, however, on the signature suggestion from the Engineer have increased the number. I regret that such suggestion had not been made, as it has appeared to me, that the men on fatigue at this garrison, have been some part of the time, doing work which is rather ornamental, than substantially requisite for the defence of the place. It is also to be regreted, considering the deficiency of labourers, that by a mistake or alteration in the plan of the work on Bedlows Island there has been much labour lost.

I have thought it proper to make this explanation knowing you had been frequently abroad, and supposing you might have been misinformed as to the number on daily duty. 12

But Col. Williams had the facts from other sources:

Sir

Having received orders from you to repair to this Island and replace Lieut. Buck of our corps who had a leave of absence, I immediately obeyed the order. At my arrival at this place I received the different informations from Lt. Buck that were necessary to continue the work, and found a sufficient quantity of men (Privates of the 6th regt. of Infty.) for the

digging that was to be done, without crowding them: I heard from one of the officers who had command of one of three companies on fatigue at this Island that, they, together mustered one hundred and thirty five men or thereabout. The men worked for some time as well as could be expected. I should suppose that for a fortnight no less than ninety or one hundred of them were at work, after which time they became less in number every day, till at last there were some days but forty or fifty, often from twelve to twenty and sometimes none. I several times asked the officers the reason for which the men were not all at work, the most common answer was, that they had not received their rations from the Contractor.[13]

And this on October 12, 1809:

Sir

When it was determined by the Hon. The Secretary of War, that the labour, necessary in erecting the Fortifications in this Harbour, should be performed by Fatigue parties from the troops & the labourers from the Citizens should be discharged an hundred men was mentioned as the number that would be required for this Island; and three Companies from the 6th Infantry were detached, as fatigue party accordingly, (viz) the Companies of Capts. Bennet, Brooks and the late Capt. Cross. These Companys I believe will average in number, about forty five men each, amounting in the whole to one hundred & thirty five. With that force it was expected that the whole foundation for the Fort might be cleared, the Ramparts formed, & considerable progress made in excavating the ditch, in the course of the season. These expectations have been disappointed, not from insufficiency of the force which has been detached, but from the irregular & varied employment of that force, both as to time & numbers. When the Detachment first arrived & the fatigue parties turned out for work, they consisted of from ninety to a hundred men & this number was employed, with but little variation, for the first twelve or fifteen days when you will recollect you gave me permission to be

> absent on a journey to Vermont & Mr De Russy succeeded me, in the immediate superintendence of the Fortifications. How the fatigues were conducted in my absence & how many men were employed I am not able to say. But upon my return I observed that the numerous fatigue parties which were formerly at work had dwindled to a mere handful of men, & these so irregular that some days they consisted of twelve men, some days twenty, & some days --none. For a number of days previous to last Monday I believe not a man was at work from the Companies of Capts. Cross & Bennet. The Troops had got the idea that it remained at their option to labour or not & I observed them playing ball or idling in the camp.
>
> These facts I presume will sufficiently explain why such a quantity of labour yet remains to be performed.[14]

Evidently this labor problem was ultimately resolved satisfactorily because in January of 1810 Williams reported to Governor Tompkins that:

> ...the Mortar Battery may be ready to receive 8 or 10 mortars as soon as they can be mounted; but the main work which is calculated to mount 40 guns is but about half done: It will be compleated in the course of the next Summer.[15]

By June 1810 the officers' quarters had been completed and Lt. Buck was already suggesting certain alterations in them. In a letter to Williams he also had a question as to construction of certain "underground rooms similar to the kitchen of Capt. Irvings house now building" and whether Williams would have the barracks for soldiers like those on Governor's Island.[16]

Williams' reply went only to the barracks question:

> Being under the necessity of going to West Point, I have the desire that you continue the prosecution of the works at Bedlows Island with the greatest

> activity. The barracks on the North side may be first built, taking care to leave ample space for the Magazine in the N.W. Angle. Let the Barrack be parallel...to the one proposed on the South side, but do not begin another Barrack 'till this be completed. I have much satisfaction in the progress hitherto I doubt not its continuance.
>
> The Magazine is to be modeled precisely after that at Potters-field except as to the thickness of the Dome which is to be bomb-proof....[17]

The work did move with comparative speed that summer for in October 1810 Col. Burbeck reported to the Secretary of War That the Fort was approaching a functional state:

> Relative to Bedlow's Island, the mason work may be called finished, with the exception of the gate, which will be nearly done, and the magazine, which will have its foundation completed: The platforms are ready for laying, but the ground being new and loose, and not settled, they must be deferred till spring. The guns and their carriages are all there ready for mounting.[18]

This report, however, was overly optimistic, for a year later the fort was still not operative:

> ...the work at Bedlows--notwithstanding every exertion on my part will not I fear be finished before the frost commences. The platforms of this work are nearly completing at all events I can in the course of the ensuing week mount fifteen or twenty pieces of Cannon.[19]

On November 1, however, the author of the above report, Capt. Bomford indicated that the works could be completed "by the garrison with the exception of a fortnights work for two or three masons in the

course of next season."[20]

The following June Williams reported to a General Bloomfield that:

> "The fort on Bedlows Island may be considered as finished so far as relates to the Art of the Engineers; but a great deal of Labour is still necessary to give a proper slope to the Glacis, by removing eminences of earth filling Hollows and sodding the whole. I think one hundred men, properly orgainzed and furnished by the Agent with Wheelbarrows for one third, and Shovels for two thirds of the number of Labourers, would be highly beneficial, and I submit this requisition to judgment."[21]

The star fort itself was thus completed (or at least essentially completed) in the year 1812. It mounted 24 heavy guns, contained a stone magazine with a capacity of 200 barrels of powder, a brick barrack for one company of men and officers, and a brick arsenal. Like the other installations for the defense of New York Harbour it "never fired a shot in anger." One may say, however, that the completion of this fort, and the others in Williams' system of defense, gave New Yorkers a certain sense of security against seaborne attack that they had previously and quite reasonably desired.

II.

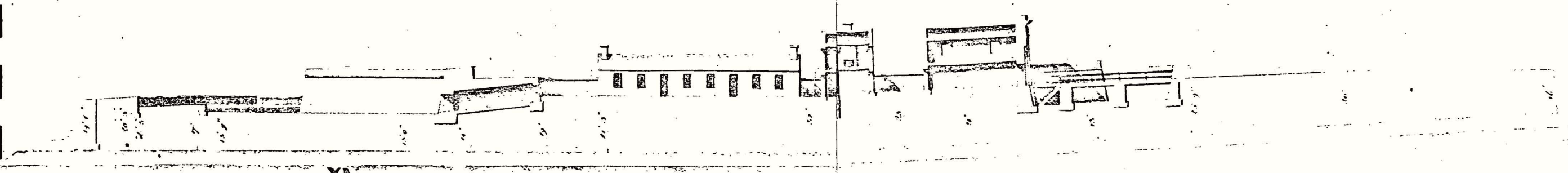
A relatively clear idea of how the fort looked upon completion can be derived from this profile of Bedloe's Island and Fort Wood drawn in the year 1813. The view is from the North or Ellis's Island side. It is possible to distinguish the water battery, a single stairway running to the barracks and the officers' quarters, behind which is the original magazine. There is a draw-bridge running across the ditch. Further west is a building which appears to have been a barracks, and may have existed prior to the construction of the fort. On the other hand its seeming architectural similarity to the barracks in the fort may make it their contemporary rather than a predecessor.* The profile is completed by the wharf at the rear of the island.

The front view of Fort Wood shows the relative heights of the Water Battery and the Fort itself. The mouth of the entrance to the fort from the battery is partially visible. This view is topped by the roofs and upper levels of the barracks.

The second illustration is an undated map of Bedloe's Island which is prior to the fort construction. It is actually impossible to make any concrete statements about this map except that it seems to show the outlines of what may have been the state fortifications which date from 1794.

* A stronger case is made out for the argument that the outbuilding antedates the fort as the result of reference to the undated map. This map shows a similar building about the same distance from the front of the [illegible]

PROFILE of BEDLOW'S ISLAND

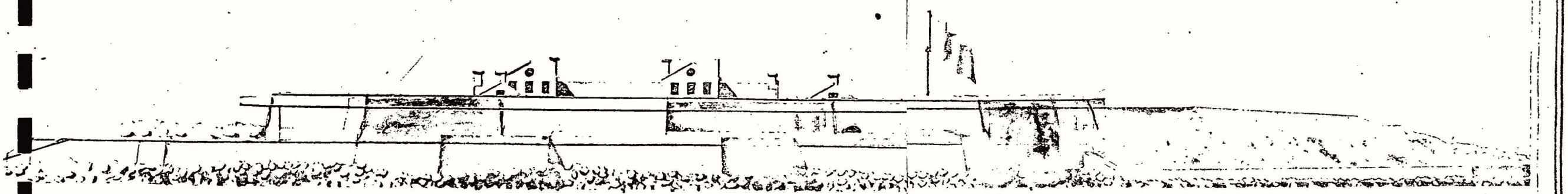


of

FT. LEE

ENGDEPT
U. STATES
FORT BUREAU

also a view of its Fort and Battery.



according to its length;





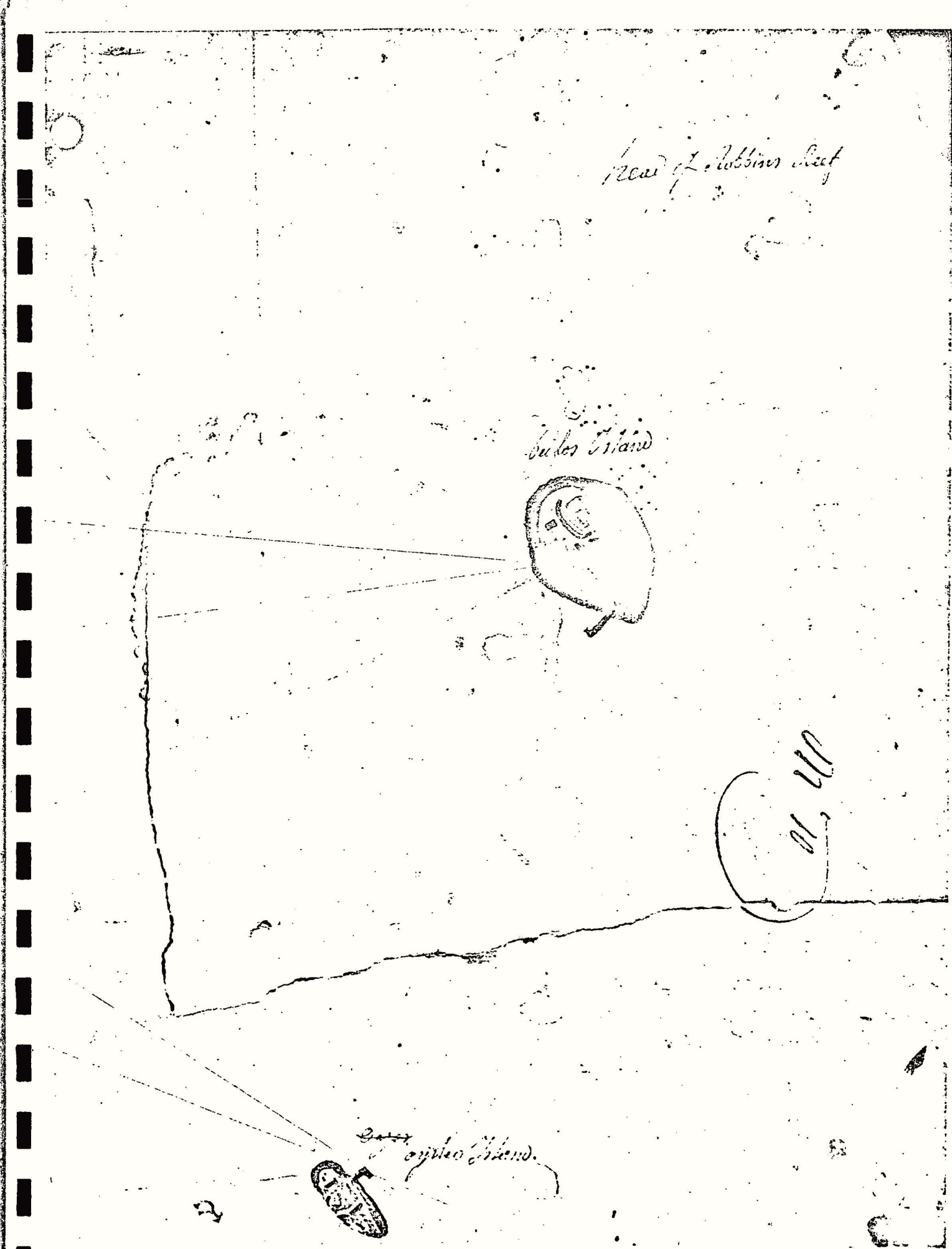

Coral & Rubbish Reef
Cuba Island
Gayo Island

Table of Reference *

1. Description of Fort Jay and other Forts in the Harbour of New York by Major Wadsworth, 15 February 1802.
2. Draft, report of survey of the Narrows and Harbour of New York , November 1805
3. Outlines of a Plan of Defence, for the City and Harbour of New York, July 21, 1807.
4. Copy, ltr, Col. Williams to Capt. Whiley, March 27, 1808.
5. Copy, rept, Col. Williams to Secretary of War, April 5, 1808.
6. Ltr, Secretary of War to Col. Williams, April 11, 1808.
7. Copy, rpt, Col. Williams to Secretary of War, May 1, 1808.
8. Stokes, Iconography V, 1496.
9. Draft copy, rpt, Col. Williams to Secretary of War, November 1808.
10. Copy, ltr, (with enclosure) Col. Williams to Secretary of War, May 24, 1809.
11. Ltr, Lt. Col. Constant to Col. Williams, September 25, 1809.
12. Ltr, Lt. Col. Constant to Col. Williams, October 8, 1809.
13. Ltr, Lt. De Russy to Col. Williams, no date.
14. Ltr, Lt. Buck to Col. Williams, October 12, 1809.
15. Copy, ltr, Col. Williams to Governor Tompkins, January 19, 1810.
16. Ltr, Lt. Buck to Col. Williams, June 17, 1810.

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*(All citations refer to the Williams papers unless otherwise indicated.)

~~front of the island.~~

17. Copy, ltr, Col. Williams to Lt. Buck, July 3, 1810.

18. Ltr, Col. Burbeck to Secretary of War, October 31, 1810: Secretary of War, Letters Received War Records Branch, National Archives.

19. Ltr, Capt. Bomford to Col. Williams, October 17, 1811.

20. Ltr, Capt. Bomford to Col. Williams, November 1, 1811.

21. Copy, ltr, Col. Williams to Gen. Bloomfield, June 12, 1812.

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Illustrations

1. Undated map of N ew York Harbor of which this is a section. 142-90 National Archives.

2. Map of the Islands & Military Points in the Harbour of N York their distances and situations, also profiles and elevations of these areas. June 1813 National Archives 36-20,

FRANK LESLIE'S
POPULAR MONTHLY.

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THE STATUE OF "LIBERTY."

BY JAMES B. TOWNSEND.

THE year 1885 brings to pass the fulfillment of one of the noblest ideas ever conceived, and before its close will witness, in the unvailing of the statue of "Liberty Enlightening the World," on an island in New York Harbor, an event which will attest and make real in a large degree the poet's dream of the universal brotherhood of man.

It is just twenty years since the idea was first



BARTHOLDI'S STATUE OF "LIBERTY ENLIGHTENING THE WORLD," AS IT WILL APPEAR AT BEDLOE'S ISLAND, NEW YORK.

conceived which now finds its full development. In the growth and development of nations, as of individuals, certain lofty ideas, whether of literature, of philosophy, or of art, are impossible of birth or accomplishment until a certain stage of acquirement has been reached. It was fitting, therefore, that the grand idea of a statue of "Liberty Enlightening the World," to be placed at the gateway of the metropolis of a land where liberty had at last found a sure and abiding resting-place, should have been conceived in a country where liberty was equally worshiped, and which has advanced among the furthest in civilization and in art. The ideal of the French nation, "Liberté, Egalité, Fraternité"—an ideal for whose realization the streets and boulevards of their cities have time and again run with blood, and for which countless thousands of their citizens have mourned—they have beheld accomplished, not wholly without bloodshed either, but accomplished to its fullest degree in America, one of the youngest nations of the world. Across 4,000 miles of ocean have been borne to their ears the exultant shouts of a nation of freemen; their writers have described our proud, lofty bearing, our mutual self-respect, and pointed toward America as the true haven of the oppressed. The sons of their noblest houses drew their swords and shed their blood for American independence, and with heart and hand the French have for many years past been our strongest allies. Meanwhile the United States, enjoying a period of peace, has flourished and become one of the mightiest nations upon the earth. In this the French saw the beneficent results of liberty, and cried, "Behold! where liberty reigns how prosperous and mighty is the land!" With two nations thus morally related and at peace, the time grew ripe for some noble act of mutual appreciation and regard. At last came the hour for its fulfillment, and, as ever before in the world's history, "the hour found the man, the man his hour."

It was on an evening in the Summer of 1865, the Summer following the Spring when closed the great Civil War in America, that the idea of the statue of "Liberty" was first conceived. A memorable evening it was, and one that will hereafter hold a prominent place in the annals of France and of America.

At the residence of the celebrated French *littérateur*, M. Laboulaye, now passed away, in the charming suburb of Paris, Glavigny, near Versailles, there was assembled a notable gathering of Frenchmen prominent in politics, in literature and in art. Among these was a young sculptor, M. Bartholdi, then a comparatively newcomer in the world of art, and whose future lay before him. It was at a dinner given by M. Laboulaye that these gentlemen were assembled; and the repast ended, they sought the conservatory, where, amid the curling smoke-wreaths of cigars, a desultory conversation began upon the topics of the day. Drifting from this imperceptibly, as such conversations will, the subject of international relations was broached. A guest remarked that gratitude could not exist among nations, and that the least material interest, the lightest political breath, would sunder every tie of the sort, and he added that, in the case of the United States, France could no longer count on the remembrance of the past. M. Laboulaye, the host, arose at these words and took issue warmly with the guest who uttered them.

"The American nation," he said, "had more sympathy for France than for any other European nation; and this sentiment did not bear the stamp of gratitude, but was based upon the remembrance of the community of thoughts and of struggles sustained with common aspirations." Reviewing briefly the history of the Revolutionary War and the part played by Frenchmen in that struggle, he concluded by saying: "The basis of the sentiments which are felt in the United States toward the French is indestructible, is a sentiment honorable to the Americans as to us, and if a monument were to be built in America as a memorial of its independence, I should think it very natural were it built by united effort, were it the common work of both nations."

Prophetic words, indeed! The guests sat silent as their host ceased speaking, their minds turned to other themes, and the conversation soon flowed in another channel. But the seed had been sown. It sank deep into the young sculptor Bartholdi's heart and brain, to develop in later years into the present statue of "Liberty" whose coming the United States has lately celebrated, and whose unvailing on its lofty pedestal will, as said above, unite France and America in an indissoluble band of brotherhood.

The years rolled by, and again, in 1871, the doors of M. Laboulaye's hospitable mansion at Versailles were thrown open to many of the same guests who had been present on the memorable evening described above, six years before. Among these was Bartholdi. The six years had brought a marvelous change to the country of their birth and love, and it was with sad countenances that the guests regarded each other. The fair lilies of France had been trailed in the dust, and the exultant Prussian had his foot upon her neck. Again was the subject of America's feeling toward France introduced, again was the former's gratitude assailed, and again did M. Laboulaye defend her. He expressed himself as confident that at the Centennial Exhibition in Philadelphia, then approaching, there would be a movement in America, both French and patriotic. Turning to Bartholdi, he said: "Go to America, study it, bring back your impressions. Propose to our friends over there to make with us a monument, a common work, in remembrance of the ancient friendship of France and the United States. We will take up a subscription in France. If you find a happy idea, a plan that will excite public enthusiasm, we are convinced that it will be successful on both continents, and we will do a work that will have a far-reaching moral effect."

Never was an artist before inspired by such words or intrusted with so grand a commission. Fired with the idea, which he embraced with all the ardor of his French and artistic temperament, "imbued," as he himself says, "with the thoughts of such eminent men as Laboulaye and his associates," Bartholdi started for America. No sooner had he reached the Harbor of New York than he discovered the place for the monument and the form it should assume. Listen to the glowing words in which he describes his discovery: "When, after some days of voyaging, in the pearly radiance of a beautiful morning is revealed the magnificent spectacle of those immense cities, of those rivers extending as far as the eye can reach, festooned with masts and flags; when one awakes, so to speak, in the midst of that interior sea covered with vessels, moving to and fro like a crowd upon a public place, it is thrilling. It is, indeed, the New World, which appears in its majestic expanse with the ardor of its glowing life. Was it not wholly natural that the artist was inspired by this grand spectacle? Yes, in this very place, I said, shall be raised the statue of 'Liberty,' grand as the idea which it embodies, radiant upon the two worlds. If then the fame of the accomplished work is mine, to the Americans I owe the thought and the inspiration which gave it birth. I was conscious, when I

landed in New York, that I had found the idea which my friends had hoped for."

After a long sojourn in the United States, during which he traveled everywhere, met the most prominent men in the worlds of politics, business, literature and art, and from whom he was able to gain a knowledge of the chief characteristics and feelings of the American people, Bartholdi returned home in 1874, and, as he says, "established a good understanding on which to lay the foundations of the plan of my Parisian friends." He had made a water-color sketch of the statue as it would appear if erected on Bedloe's Island, and he continues: "After becoming assured among my kindly approving friends of the impression that the plan would produce, I acquired the certainty that when we should begin in France the United States would second us, and that the draft drawn by Messieurs Laboulaye, Lafayette, Henri Martin and their friends upon American sentiments should not be protested." Again did M. Laboulaye call together the company of friends at his house, and again the subject of the statue was discussed, but not this time as a mere idea, but a probable reality. Bartholdi told them of his journey and its results, of his impressions, of the welcome he had received, of the American co-laborers secured, and presented the plan of the monument he had conceived. Henri Martin, in an official address five years later, described the impression the sculptor's enthusiastic words and conception made upon his hearers. "It was necessary," said the address, "for us to discover a thought in harmony with the object to be attained. The artist presented it to us in a form that bore the stamp of genius. He had conceived the celebration of the anniversary of Independence, applying to it a sublime phrase, which sums up the progress of modern times, 'Liberty Enlightening the World.' Bartholdi proposed to represent this great idea by a statue of colossal proportions, which would surpass all that have ever existed since the most ancient times."

The effect of Bartholdi's words upon his hearers was magical, as may be supposed. They at once organized a committee, and toward the end of the year 1874 the public was informed of the organization of the French American Union, having for its object the manufacture of the statue as a gift to the United States. In accordance with a plan previously agreed upon, the Union at once circulated subscription lists throughout France, headed with the following address:

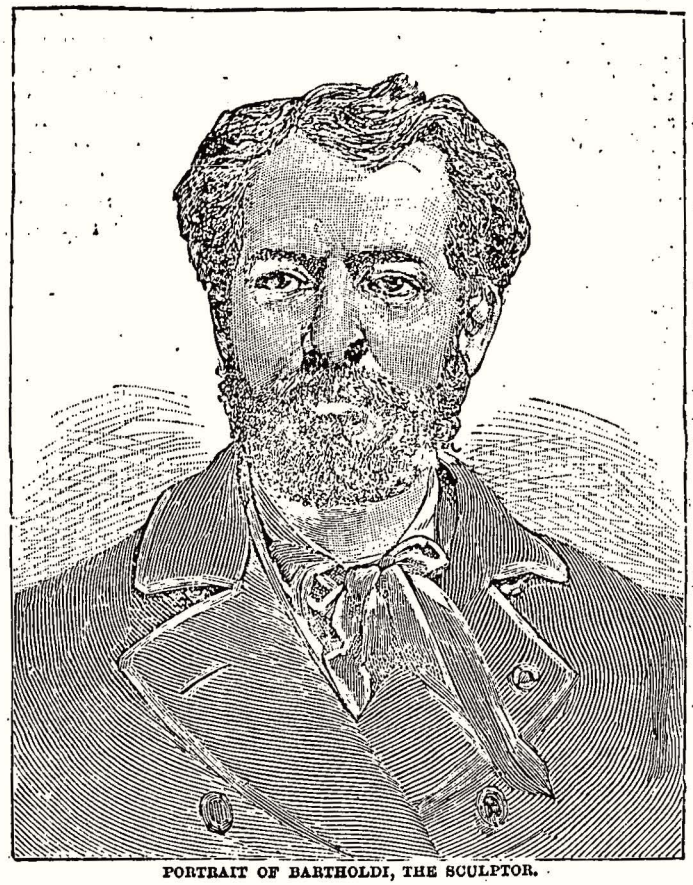
"The Monument of Independence will be executed in common by the two peoples associated in this fraternal work, as they were of old in establishing Independence. In this way we declare by an imperishable memorial the friendship that the blood spilled by our fathers of old sealed between the two nations. It is a treaty of friendship which should be signed by all hearts which feel the love of their country. E. LABOULAYE."

A banquet in the Hotel du Louvre on November, 6th, 1875, at which were assembled representatives of French and American art, literature, politics and journalism celebrated the birth of the work. The first circular brought immediate response, and in a few months the success of the work became assured. The heart of the French people was touched. Not alone the rich, but the poor also contributed. The *ouvrier* and the *bourgeois* emptied their coins into the Union's coffers with the wealthy merchant and the moneyed aristocrat. Festivals, exhibitions and lotteries were held all over the country, and in four years the sum necessary, $350,000, was raised. The right hand of the statue was executed, was sent to the Centennial Exhibition at Philadelphia, and was afterward displayed in Madison Square, in New York city.

In 1875 Bartholdi again visited America. His coming excited still greater interest, and the unvailing in Central Park, New York, of his statue of Lafayette, presented by the French Government in acknowledgment of the sympathy the city had testified for France at the time of the siege of Paris, deepened this interest in the announced far greater and grander gift of the statue of "Liberty." Meanwhile preparatory steps to receive the statue and prepare for it a suitable pedestal had been taken in this country. Upon the call of Messrs. William M. Evarts, S. D. Babcock, William H. Appleton, John Jay, W. H. Wickham and Richard Butler, a meeting was held at the Century Club, in New York, early in 1876, and a permanent committee, consisting of Messrs. William M. Evarts, Chairman, Henry F. Spaulding, Treasurer, J. V. Mumford Moore, Joseph W. Drexel, Parke Godwin, J. W. Pinchot, Frederick Potts, and Richard Butler, Secretary, was formed. It was decided that it should be called "The American Committee of the Statue of 'Liberty.'" Congress was at once memorialized, and on February 22d, 1877, voted to accept the gift of France, and set apart for the site Bedloe's Island, in New York Harbor, owned by the United States Government, and on which there was a fortification.

The head of the statue was executed in 1878, and shown at the Paris Universal Exposition in that year. In 1879 the last funds were raised in France, and on July 7th, 1880, the American Committee were notified by an official communication of the progress of the work and the date of its probable completion. The centennial anniversary of the battle of Yorktown, October 24th, 1881, saw the pieces of the framework and the base put in place; the statue was nearly finished in 1883, but work upon it was delayed, owing to the slow progress made in America toward the erection of the pedestal. On June 11th, 1884, President Ferry stated, at a banquet in Paris, that the French Government had followed with the liveliest interest the progress of the work, accomplished completely outside the range of its influence, and would do its part by transporting it to New York on a state vessel, under the official banner of France. On July 4th, 1884, the statue was officially delivered to the United States Minister, with appropriate ceremonies. On January 1st, 1885, after having been visited by upward of 300,000 persons, it was taken down, its pieces numbered, packed with great care, and transported to Rouen, where they were placed on board the state transport-ship *Isère*. The *Isère* sailed from Rouen on May 30th, and arrived safely in New York Harbor on June 17th, 1885.

Such is the history of the statue of "Liberty," and of the movement which gave it birth, a movement unique and unparalleled in the history of nations. Let us now consider the statue itself, as a work of art, as a work of engineering, and as a colossal monument, for it is all three. We are met at the outset by the difficulty of finding any other work with which to compare it. When a picture or a piece of statuary or sculpture of ordinary size is to be judged or criticised, the first step generally taken is to compare it with either a former one by the same artist, or with one similar in subject or execution by another hand, which has won reputation and the approval of artists and connoisseurs of its time. But in the statue of "Liberty" we find a work which has had no prototype in earlier times, or no counterpart in the present. Among the seven wonders of the ancient world was placed, perhaps, foremost, the Colossus of Rhodes. We are told that this massive figure spanned, with outstretched legs, the entrance to the harbor of Alexandria, and that ships sailed easily to and fro beneath them.



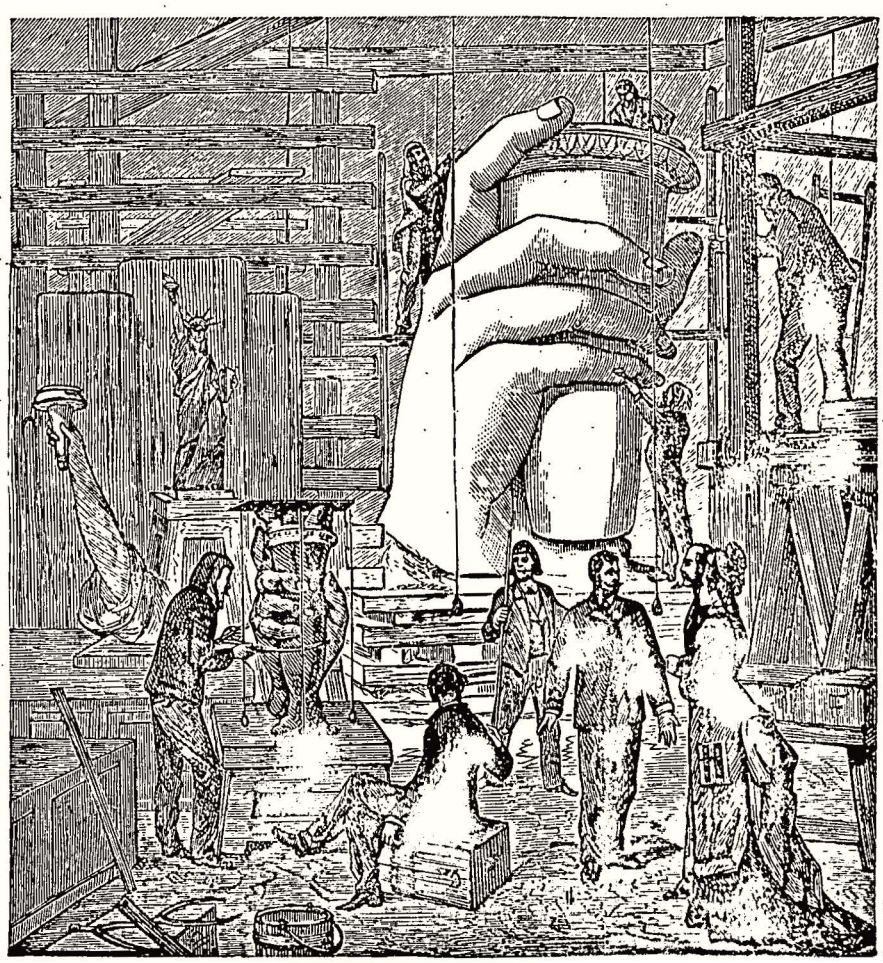
PORTRAIT OF BARTHOLDI, THE SCULPTOR.

its surroundings. It produces no emotion in the heart of a spectator, it conveys to him no sentiment, it brings to him no conception of some noble idea; in fine it fails to inspire or to elevate as a true work of art should inspire him who gazes upon it. How different with the statue of "Liberty." In form, in conception, and the idea it conveys, it moves and thrills the spectator. The poet gazing upon it sings:

"Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land—
Here at our sea-washed, sunset gates shall stand
A mighty woman, with a torch whose flame
Is the imprisoned lightning, and her name,
Mother of Exiles. From her beacon hand
Glows world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.
'Keep, ancient lands, your storied pomp!' cries she,
With silent lips. 'Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me—
I lift my lamp beside the golden door.'"

Well says M. Lesbazeilles in his work on colossal statuary: "It is within its scope when it represents power, majesty, infinity. It can lay claim to that class of effects which are produced in us by the heaving of the boundless sea, the bellowing of the wind, the rolling of the thunder."

The statue of St. Charles Borromeo has, however, interest to the student of colossal statuary, because it is the first example of the use of



Allowing for the exaggeration which comes with time, and remembering that the ships of those days were the merest tiny barks compared to the stately vessels that now glide in and out of our harbors and over the oceans, it is yet safe to say that this far-famed Colossus, if placed alongside the present statue, would reach but a little way above her knee.

The next colossal statue in the course of history is the Jupiter Pluvius of the Protolino Villa, and then comes the well-known one of St. Charles Borromeo, on the shores of the Lago Maggiore, in Italy. This is about half the height of the statue of "Liberty," and is not in any sense a great work of art. Compare it with the present statue, and the distinction between colossal statuary and ordinary sculpture can be seen at once. The statue of St. Charles Borromeo is simply an ordinary monument enlarged. It is a reproduction in metal of a man's form and features many times multiplied. It is set in its pedestal without reference to



MODELING THE HEAD OF THE STATUE IN THE WORKSHOP OF MOUDINET & BECHER.

repoussé, copper mounted on iron trusses. Metal beaten out into sheets had been used earlier, but simply as a covering modeled on a solid wood or stone form. The repoussé copper of which the Borromeo statue is made was worked with the hammer both outside and inside, and is freely supported on iron beams. This gives lightness to the work, and the statue of St. Charles Borromeo has withstood the storms of two centuries.

Other colossal statues of modern times are those of "Bavaria," at Munich, one-third the height of the statue of "Liberty"; of the Virgin of Puy, a few feet higher than the last named; and the celebrated statue of "Germania," erected a few years since in the Niederwald, which would reach about to the waist of our colossal maiden. This short review of these noted works will enable us to see more clearly the difficulties under which Bartholdi labored in designing and executing the statue of "Liberty." The others have been and are all more or less unsatisfactory, chiefly because their designers did not pay sufficient attention, or were incapable of doing so, first, to the character or thought of the subject, which should be in harmony with the size of the work; second, to the suitableness of the site and the surroundings of the monument; third, to the understanding of the lines and the make-up, which in all colossal works are rendered necessary by the execution. Bartholdi himself sums it up by saying: "The immensity of form should be filled with the immensity of thought, and the spectator, at the sight of the great proportions of the work, should be impressed, before all things else, with the greatness of the idea of which these ample forms are the envelope, without being obliged to have recourse to comparative measurements in order to feel himself moved."

But the site is, after all, what determines most surely the effect of a colossal statue when erected; and let the many critics who have condemned the choice of Bedloe's Island for this purpose reflect that this point was probably the one most carefully studied by the sculptor, and know that the master-mind who designed the great work was better fitted to select the frame for his picture than those who had simply seen models of his work. Says the sculptor again: "The frame should lend itself to the subject. It may be made up or approved by architectural effects, by the flights of stairs which lead up to the statue and contribute to the monumental character, but above all a site favorable by its own nature should be sought. There is an instinct which ought to guide the artist, for he ought to turn Nature to account in such a way as to make her contribute to the aspect of the monument. The neighborhood of large masses should be avoided. The artist ought to choose his site in such a way that the lines of the ground and the coloring of the background will become his assistant in heightening the proper appearance of his work and the impression which it is to produce."

Has Bartholdi not faithfully carried out these ideas? Had the statue been placed in the Battery Park, the buildings behind, to which it would have been in close proximity, would have detracted from its effect; and equally injurious would have been the wooded hills of Staten Island, had the wishes of others prevailed who urged its erection upon the southern bluff of that island. On Bedloe's Island it stands by itself, a part of a harmonious whole, no masses near to detract from it, but framed alone by earth and sky. There is one other most important element in the construction of colossal statuary, and that is, the observance of great simplicity in the lines. The spectator should be able to tell at a glance what meaning the work is intended to convey. His eye should not be led away by the contemplation of details, but should take in at once the stupendous whole. Simplicity of the lines will give simplicity to the movement and to the gesture. This is very clearly shown in the statue of "Liberty." Its whole mass and form impress themselves immediately upon the spectator, he thinks not of the details; he only feels that the figure



MINISTER MORTON RIVETING PARTS OF THE STATUE.

conveys to him instantaneously a sense of power and of grandeur, and he bows instinctively to the idea—that idea of liberty which has led armies to battle, has wrecked thrones and overturned nations, and which to-day still stands forth as the grandest that the mind of man has yet conceived.

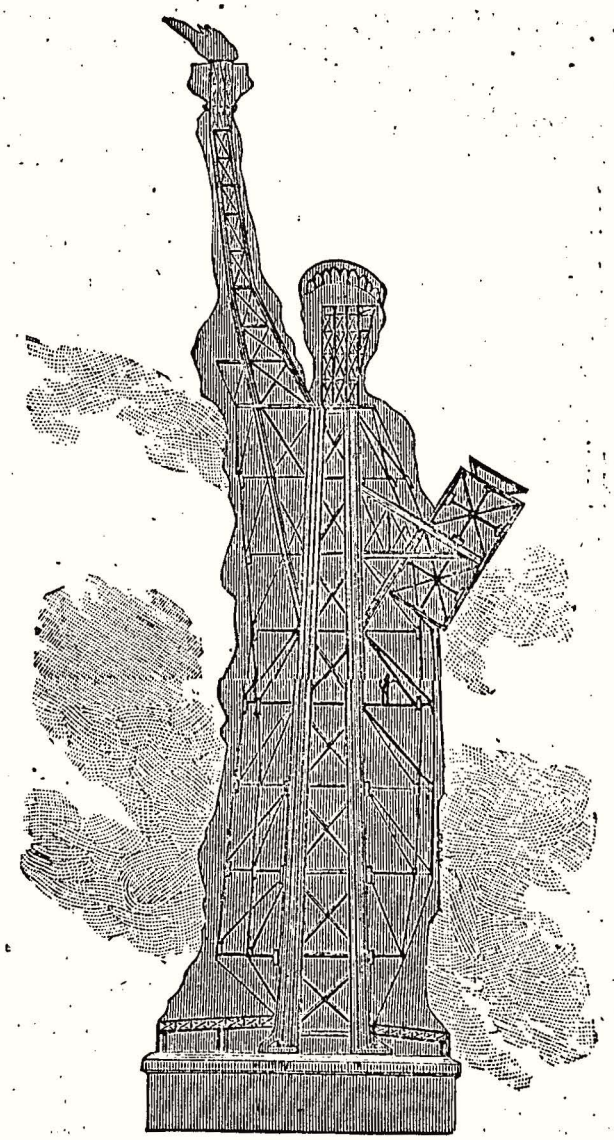
Having glanced at the essential characteristics and elements of colossal statuary, and seen how Bartholdi has conformed to them in the designing of the statue of "Liberty," we pass to a brief review of the details of its manufacture. These presented almost as great a problem as the designing of the statue in the first place, and following this, its adaptation to its surroundings. There having been no statue of the same extraordinary proportions ever erected before—or, at least, none of which there is any record extant—the planning of these details, including the choice of materials, etc., had to a great extent to be done in the dark, as it were. After much cogitation and deliberation, hammered copper was chosen as the material, it being light yet capable of great resistance, and easily subdivided so as to permit easy transportation. This point having been decided upon, a study-model, 4 feet in height, was erected. From this was modeled a statue, 6½ feet high, with the greatest care and exactitude. This statue was then reproduced four times as large by ordinary processes. A model, about 36 feet in height, was made from this. This was large enough, when placed by itself, to give some idea of the statue as a whole. This small statue was then divided into a large number of sections, to be reproduced separately, later, four times their individual size. When this last enlargement was made, changes were no longer possible, so that the greatest care had to be exercised by the sculptor in modeling the surfaces, for if mistakes were at any time made, they could not well be rectified. Four plane surfaces, surrounded by frames, arranged in numbered divisions, were placed on the floor of an immense workshop. Similar frames, corresponding in every way with the former ones, were hung from the ceiling of the shop. Large pieces of the statue were then modeled by sculptors on these frames. The sections reproduced were placed near by in frames one-fourth the size, so that they could be easily studied. The general form was first laid out with wooden beams covered with lathwork. A coating of plaster was next placed over the laths. The forms of the finished portions were then surrounded by boards, cut so as to adapt themselves to the plaster. These were placed one opposite to another, and crossed at top and bottom. The hammerers then approached, and pressed the sheets of copper into the sort of molds the boards formed by hammering with mallets. Sheets of lead were next pressed into the board forms, and the copper was again shaped upon these. Iron braces ran from point to point within the copper sheets. When the pieces were finally completed, they were fastened separately upon the iron beams of the trusswork which supports the whole statue. The core of the trusswork is formed by four great stanchions, bound together by St. Andrew's crosses. From these go out braces to support the surface of the statue. Three bolted braces run from the foot of these stanchions 26 feet into the masonry of the pedestal, and are there connected with an iron framework.

The immense amount of calculation necessary in the manufacture of these detailed portions of the statue may be imagined when it is stated that, in addition to the ordinary mechanical difficulties presented, the resisting power of the iron pieces upon the centre of gravity and upon the action of high winds had to be considered. The most tremendous hurricanes that have blown in Europe and America were taken as a basis, and from this the results were worked out. According to General Stone, the engineer of the pedestal's calculation, the entire structure should withstand a gale blowing 141 miles an hour, a force that is almost unknown, certainly in this latitude.

Thus was the statue built. It was executed in about six years, but the work met with repeated delays, and was not prosecuted continuously until within the last few months of 1884. Not alone Bartholdi, the designer and chief sculptor, but many other French sculptors of note, labored in the erection of the statue; so eminent an engineer as M. Eifiel had entire charge of the ironwork and bracing of the figure, and the work itself was done in the house of Gaget, Gauthier & Co., of Paris.

But the statue needed a pedestal to make it complete, and this Laboulaye, Bartholdi, and his associates in the French-American Union, felt confident the United States would provide.

They have done so—or, rather, New York city has done so—after many months and years of solicitation and constant appeal, and the remainder of the sum needed was finally, only raised by the energetic efforts of a newspaper, the New York *World*. But why repeat at length



THE FRAMEWORK INSIDE THE STATUE

the history of the pedestal movement? Is it not indelibly written on the memories of my readers? It is a chapter in the history of our country to-day which Heaven grant could be sealed up for ever! Public and private apathy and selfishness, lack of patriotism, a hundred other and unworthy causes, have combined to render the securing of the Pedestal Fund what seemed, up till lately, an impossible task. The patience with which our French donors of the statue have borne with us almost passes comprehension, and should make our humiliation great.

As I stated in the opening of my article, the American Committee on the Statue of "Liberty" was first formed at the Century Club, in New York city, in 1877. Some 402 gentlemen, prominent in different sections of the country, were then or afterward elected members of the Statue of "Liberty" Committee. Mr. William M. Evarts was at that time chosen Chairman, Mr. J. W. Pinchot, Treasurer, and Mr. Richard Butler, Secretary, of this Committee, and issued an announcement to the people of the United States. A sub-committee of this general committee, consisting of William M. Evarts, the late ex-Governor Morgan, Parke Godwin, Clark Bell, and J. W. Pinchot, was charged with the duty of procuring the necessary legislation, and obtained from Congress, on the recommendation of President Hayes, the passage of a resolution providing for the acceptance of the colossal statue, and the designation of either Governor's or Bedloe's Island, in New York Harbor, as its site and its future maintenance as a beacon. President Hayes authorized General Sherman to select the site, and he, acting upon a suggestion from the committee, who were aware of Bartholdi's preferences, designated Bedloe's Island. This island, about a mile in circumference, lies at the western edge of the channel of the Upper New York Bay, about two miles from the Battery. It was known in the early days of New York as Love Island, and acquired its present title when it was sold by Admiral Kennedy, of the British Navy, who had occupied it as a Summer residence, to a member of the old and esteemed Bedloe family of New York. It was at one time noted for its rabbits, and the pickled oysters which were prepared there. It became the property of the United States Government early in the present century, and was considered very valuable for purposes of harbor defense. Fort Wood, whose granite sides form an admirable base for the pedestal, was partly built in 1814, and was finished in 1840. It is built in the shape of a six-pointed star, and is surrounded by a moat. The pedestal rises from its centre, and it seems as if it had been purposely built to adorn the base of its new and wonderful occupant.

The site having been selected, the committee issued to the people of the United States an address which was at first quite generously responded to.

An Executive Committee was soon formed. Mr. Richard M. Hunt was appointed Architect of the Pedestal by this committee, and to him was intrusted the design of the exterior of the pedestal. General Charles P. Stone, formerly of the United States Army, and better known by his title of Stone Pasha, bestowed upon him by the Khedive of Egypt, was appointed Engineer-in-Chief. To him fell the task of managing the interior of the statue and designing a proper foundation. His greatest problem has been to arrange with Bartholdi for the attachment of the statue to the pedestal.

As soon as the requisite funds were received the work was begun on Bedloe's Island, contracts were entered into with the lowest bidders for the removal of the buildings in the interior of the fort there, and for the construction of the concrete or béton base of the pedestal, work upon which began October 9th, 1883, and was finished May 17th, 1884. This base is one solid stone, 91 feet square at the bottom and 67 feet square at its completed height of 52 feet 10 inches, having an interior shaft 10 feet square. The material used in its structure exceeds 23,500 tons net weight.

Upon this foundation the granite-work of the pedestal has been begun, to be continued until it reaches 89 feet above the béton base. When at that height it will be ready for the colossal statue of "Liberty," which is 151 feet.

Mr. Hunt prepared an elaborate and beautiful design for the pedestal, which was accepted, but has had many modifications, and has been altered decidedly in consequence of the changes made necessarily evident as the work of building it progressed. The material of which it is built is a gray granite from Leet's Island, near New Haven, Conn.

It is estimated that of the $390,000 that will have been expended before the statue is finally placed in position, the pedestal alone will have cost $250,000, the interior bracings and structure $25,000, and the placing it in position $25,000. This will make total cost of statue, pedestal and erection about $650,000, or over half a million. The pedestal is a truncated cone, with galleries on each side supported by Ionic columns. Its height is 89 feet above low water; the height of bottom of the foundation mass above low water is 13 feet, the height of foundation mass itself 52 feet 10 inches, and the height of the statue 151 feet. The top of the torch will then be 305 feet 11 inches above low water, 21 feet higher than Trinity Church spire, and 23 feet higher than the towers of the Brooklyn Bridge. Some approximate idea of the size of the statue may be gained when it is stated that the forefinger is nearly 7 feet long, and is over 4 feet in circumference at the second joint. The nail measures about 9 by 6 inches, the head is 16 feet high, and the eye is nearly 2 feet wide. Three feet and over is the length of the nose; forty persons can find room inside the head, and twelve in the torch held by the hand.

The debarkation at Rouen of the statue, the arrival of the transport *Isère* with her precious freight, the reception accorded her, are all of too recent occurrence to need retelling here. It is thought that the statue may be placed in position and unvailed during the present year. Be that as it may, it is to be hoped that eleventh-hour enthusiasm, interest and generosity may take the place of our former and long-continued apathy, and that we may prove ourselves worthy to be the custodians of so sublime a conception as that of "Liberty Enlightening the World."

Long centuries past the old Dutch sailor furled
The white wings of his daring shallop, worn
By sea and storm; and saw the golden morn,
Parting the night's dark curtain, swift unvail
A wide expanse of shore, and hill and dale,
As yet untrod by man, in wildness free,
Uncultured and untamed, but soon to be
In glorious garments drest, a newborn world.
The Hendrick Hudson of the World of Art,
Bartholdi, when thine eyes did look upon
Our Bay, in this a freeman's land, so won
Through blood and fire to nobler freedom far
Than in the past, rejoiced thy patriot heart,
And Liberty's great statue lit her glowing star.

PITCH upon that course of life which is the most excellent, and habit will render it the most delightful.

ECCENTRIC BOOK-TITLES.

THE seventeenth century and part of the eighteenth, remarkable as the whole period is for its deep and powerful historical interest, is especially so in the singular style of some of the literature which it produced, both religious and political. It was quite an age of pamphlets and tracts; for, as there were no daily papers in which people could ventilate their fancied grievances, their peculiar political crotchets, or their eccentric religious opinions, the only plan was to put such ideas into print, and then publish them to an admiring and inquiring world in the form of a pamphlet or tract. These pamphlets were produced by scores, often written in language neither choice nor at all guarded; and the consequence was, as the law at that period was only too ready to pounce down upon any unlucky culprit who had given his opinion or spoken his mind a little too freely to please the petty tyrants of the Administration of the day, that many an author found himself, to his great surprise, quickly lodged within the walls of a prison, as was the case with Defoe, Bunyan, and a host of others. Long imprisonment, heavy fines, the pillory, whipping, and often far worse still, were the punishments to which political pamphleteers, who had offended, were frequently subjected during the period referred to.



FORMAL DELIVERY OF THE STATUE TO HON. L. P. MORTON, MINISTER OF THE UNITED STATES, JULY 4TH, 1884.

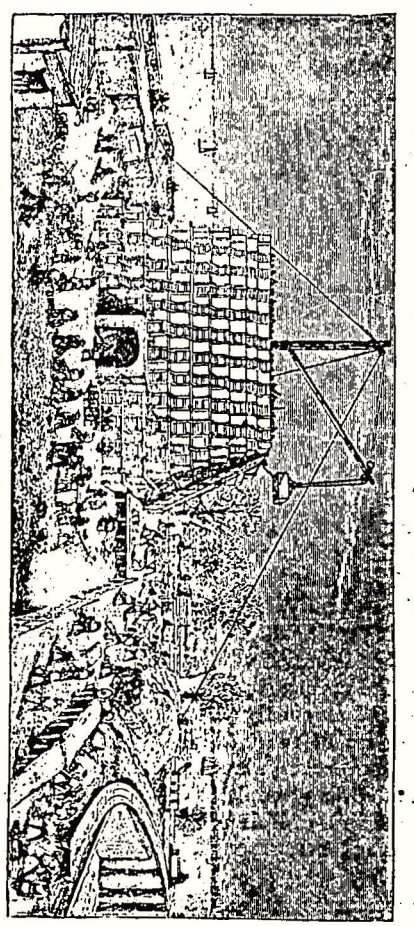
How greatly this system of writing, notwithstanding the severity of the law, was in fashion, may be gathered from the fact that King George III., in the year 1762, presented to the British Museum a most valuable collection of upward of 30,000 tracts and pamphlets, embracing an immense variety of subjects, and supposed to have been written during the seventeenth century. This collection was commenced by Charles I., under the direction of a clergyman named Thomason, and was carried about England as the Royal army marched, disguised as tables covered with canvas, and at length lodged at Oxford, under the care of Dr. Barlow, afterward Bishop of Lincoln. These curious tracts were eventually offered to the library at Oxford, and were at last bought for Charles II., by Mearke, his stationer, and by his representatives ultimately sold to George III. The collection is bound in 2,000 volumes.

It is not so much on the *subjects* of these tracts that I desire now to speak—for that, indeed, would fill volumes—but to select for consideration a few of the extraordinarily eccentric titles which a very large number of them bear, and which, in very many cases, are calculated to excite a smile rather than inspire any feelings of reverence or respect for the real subject actually treated of, which, generally speaking, was of a religious nature. The first of these which I shall notice is dated 1626, and has the following sweetly fanciful title: "A most delectable sweet-perfumed Nose-gay for God's Saints to smell at." The idea of the word "nosegay" applied to a set of prayers was possibly to suggest the thought of picking or selecting therefrom any one or more that might be desired—in itself a very pretty and a very happy thought, certainly.

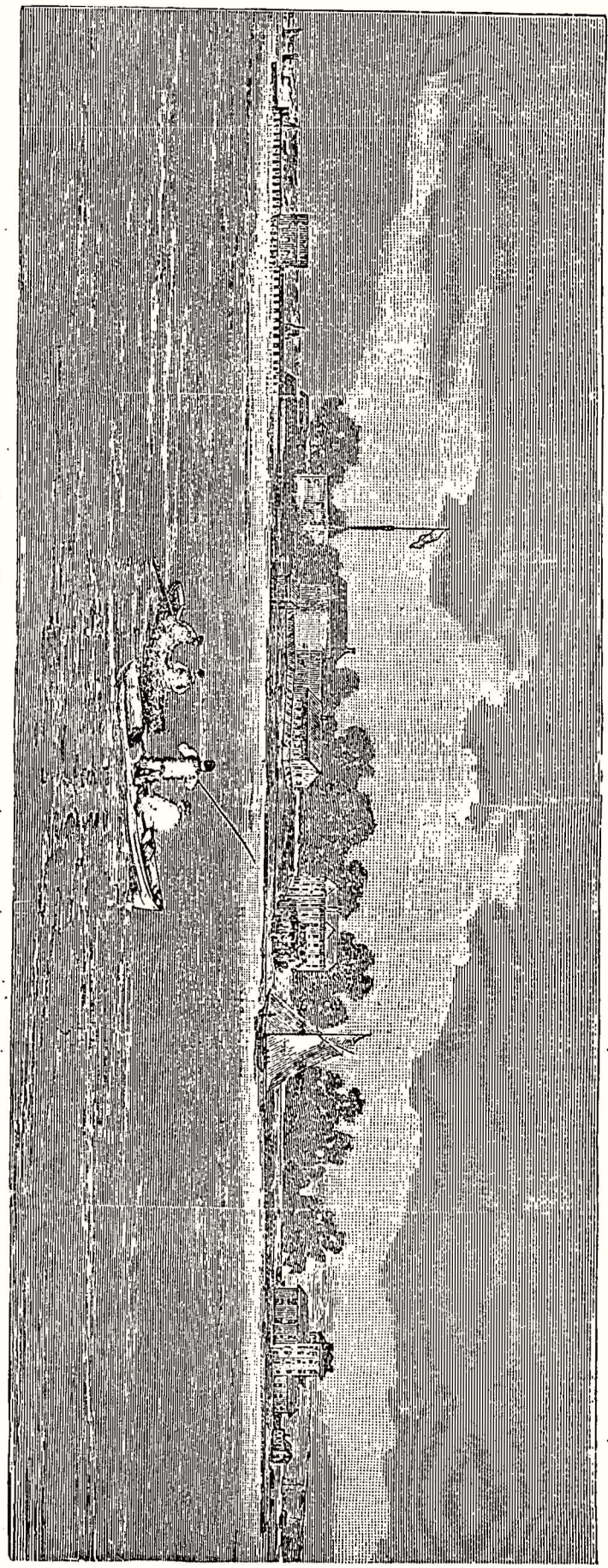
The next one is remarkable for the unmistakable intention of the tract as set forth in its plain and witty title. In 1646 one "John Fry," a Quaker, appears to have got

into trouble of some kind, and found it necessary to publish a defense, entitled "A Pair of Bellows to blow off the Dust cast upon John Fry." In these days he would probably have written to one or other of the daily papers a full statement of his woes and grievances, on the chance of the subject tickling the editor's fancy with the view to political capital, in which case it might, perhaps, have been inserted.

The days of the Protectorate were rather celebrated for tract-titles of the most singular and eccentric character. One, for instance, is so peculiar that it is somewhat



THE RISING PEDESTAL.



THE STATUE OF "LIBERTY."—THE SITE ON BEDLOE'S ISLAND SELECTED FOR THE STATUE.—SEE PAGE 129.

difficult to see the exact meaning of it—"The Snuffers of Divine Love!" Now, who or what was supposed to be snuffed? Was such snuffing intended with the view to the extra brightness of the imaginary candle, or to its total extinguishing?—for snuffers can be used either to increase existing light or to produce darkness. The former, perhaps, may be the idea of the ingenious writer—the heavy snuff of sin being removed by the divine snuffers, the candle of righteousness will, through divine love, burn all the more brightly. The fancy, if far-fetched, is at least most original.

Another was devoted to the cause of charity, more especially in reference to some specific religious object, in which

people are advised to open their pockets, such receptacles in those days being evidently secured by "hooks and eyes" instead of buttons, as with us moderns. Remembering this, we can the more readily understand the gist of the very quaint title, "Hooks and Eyes for Believers' Breeches," clearly referring to the fastening of the pockets in connection with the great religious virtue of charity.

One kindly-disposed author, in his laudible desire to assist his weaker brethren in their walk to the "higher path," calls his labors "High-heel'd Shoes for Dwarfs in Holiness," a truly plain and suggestive title; whilst another writer, with equal simplicity, calls his book "Crumbs of Comfort for the Chickens of the Covenant." We cannot but admire the alliteration, at that period considered a great beauty in composition; for many such instances occur in these most curious pamphlets. But perhaps the most amazing of all this class is the following, affixed to a book containing psalms and hymns and spiritual songs, to which the "Ditties" are annexed: "Seven Sobs of a Sorrowful Soul for Sin, or the Seven Penitential Psalms of the Princely Prophet David; whereunto are also annexed William Humuis's Handful of Honeysuckles, and divers godly and pithy Ditties, now newly augmented." The inordinate length of this title, and the play of the repeated alliteration, are very witty and amusing, if nothing more.

At this period, as every student of history knows, party spirit ran very high, and as the law—as already hinted at—was unpleasantly summary in its action, men were often cast into prison merely because, in their religious opinions, they happened to differ from their neighbors. Some such delinquent, in the person of a Quaker, was incarcerated about 1655, and poured forth the regrets of his soul in a pamphlet with the following most original and whimsical title: "A Sigh of Sorrow for the Sinners of Zion, breath'd out of a Hole in the Wall of an Earthen Vessel known among Men by the name of Samuel Fish." That man has been called an "earthen vessel" is not, perhaps, anything very new; but that his mouth should be referred to as a "hole" situated in the "wall" of such a "vessel" is most surely as thoroughly original as it is altogether perfectly unique.

Not long after this latter another tract appeared, written in the strong and rather fanatical language so common to the age by some earnest religious zealot, entitled "The Spiritual Mustard Pot to make the Soul sneeze with Devotion," by which, I presume the fiery platitudes of the writer were to act upon the nerves of the moral nose exactly as mustard does on the physical olfactory organ. Here is another: "Salvation's Vantage Ground; Or, A Louping Stand for Heavenly Believers!" A "louping stand" meaning what we should now probably call a "leaping-bar"—the intention being, under the figure of a leaping-bar, to improve the readers in their spiritual athletic exercises, and so endeavor to bring them nearer to heaven.

Cromwell's regiment of "Ironsides" contained many men who could handle the pen as well as the sword or the wheel-lock, and many a fiery vigorous tract issued about this time owed its authorship to one or other of these military enthusiasts in political and religious rights or wrongs. Here is one—the remarkably plain and straightforward language of the title addresses itself to the most illiterate, and could not fail to be comprehended by all classes of readers: "A Shot aimed at the Devil's Headquarters through the Tube of the Cannon of the Covenant." As the author was a soldier, and probably wrote for soldiers, he very acutely employed such terms, in naming his tract, as would be peculiarly familiar to soldiers, and therefore all the more readily understood by them; and it is quite possible that his work, from its very title, proved highly attractive. We cannot but admire the ready and suggestive wit of the gallant Puritan in so cleverly adapting himself to surrounding circumstances.

The next I shall quote is another specimen of one of the inordinately long titles of the period, plentifully interspersed with many choice specimens of alliteration, according to the fashion of the day: "A Reaping-hook well temper'd for the stubborn Ears of the Coming Crop, or Biscuits baked in the Oven of Charity, carefully conserved for the Chickens of the Church, the Sparrows of the Spirit, and the Sweet Swallows of Salvation." The marvelous jumble here of reaping-hooks, biscuits, ovens, charity, chickens, sparrows, swallows, and salvation, almost takes one's breath, considering its many elaborately obscure allegories all crammed into one small title-page.

About the latter part of the sixteenth or beginning of the seventeenth century, a book was published with the following amazing title, which, for unreasonable absurdity of length, is perhaps unequaled: "The Discoverie of Wytchcrafte, wherein the lewd dealings of Wytches and Wytchmongers is notablie detected; the Knaverie of Conjurers, the impietie of Inchanters, the follie of Soothsayers, the impudent falsehood of Couseners, the infidelitie of Atheysts, the pestilent practices of Pythynists, the curiositie of Figure-casters, the vanitie of Dreamers, the beggarlie Art of Alcumystrie, etc., are decyphered. By Reginald Scott, Esq." By the term "figure-casters," I presume, is meant the fanciful belief, prevailing about this period, that if a person desired another's death he must make a waxen image closely resembling the person who was to die. This figure was to be constructed under certain signs and forms of incantation, and then, at certain arranged times, pins were to be stuck through the heart of the figure, or it was to be stabbed, shot at, or beheaded; by which means it was impudently pretended that the death of the person, operated upon through this waxen figure, would assuredly occur at the very same instant. The readers of the "Ingoldsby Legends" will remember a very clever and amusing illustration of this original practice of doing people to death in the inimitable story of the "Leech of Folkestone," only in this case the tables are turned on the would-be murderers with terrible effect.

A remarkable work was published, in connection with this subject, by no less a personage than the celebrated Richard Baxter—sometime Vicar of Kidderminster—and dated 1690, entitled "The Certainty of the World of Spirits, etc., fully evinced by the unquestionable Histories of Apparitions, Operations, Witchcrafts, Voices, etc." By Richard Baxter." It is possibly owing to the manners, teaching, opinions, and habits of thought of the time that we find a man of such great talents and learning sitting down in sober earnest to write an elaborate work to prove the truth of such silly superstitious fancies.

Nor is Baxter the only cleric who wrote on the same subject; for we have a work by "Joseph Glanvil, Chaplain in Ordinary to his Majesty King Charles II., and F.R.S.," with this fine imposing title, "Sadducismus Triumphatus; Or, A Full and Plain Evidence concerning Witches and Apparitions." Here, then, we have another learned divine, and an F.R.S. to boot, using his wit and his influence to assist in the propagation of a belief as foolish and puerile as it was wicked and mischievous.

The subject attracted much attention in the seventeenth century, and was evidently thought a very great deal of, not only by men in holy orders, but by laymen of learning, education, and position as well; and a book was published in 1653 by Sir R. Filmer (a judge, I believe) for the especial benefit of the "jurymen of England," in which he pretends to explain "the difference between an English and an Hebrew witch"! But I cannot close this article without special reference to a very celebrated book touching on the same subject, written by neither priest nor layman, but by a learned and *royal* author. Though possibly already well known to most of our readers, I will just refer to the title in full: "Demonologie; in the form of a Dialogue, divided into Three Books; Written by the Most High and Mighty Prince James, by the Grace of God, King of England, France and Ireland, Defender of the Faith, etc.—1616." So that even his Majesty King James I., with all his Solomonic wisdom and learned pedantry, was not proof against the silly childish beliefs of the age, the very mention of which, in these enlightened days, provokes, not merely a smile of pity and contempt, but a downright honest laugh at the utter folly and credulity of our forefathers.

SOME DINNERS I HAVE EATEN.

By Edwin H. Trafton.

"My Dear Cousin—I cannot tell you how sorry we all were to hear that you had been so ill. There is only one thing for you to do—you need quiet, a good long rest, and plenty of air; still more important, while you are convalescing you require a total change from the rich food to which you are accustomed, to plain, simple country fare. All these things you will find at our home, and a warm home welcome along with them. Your room is ready and waiting for you. Telegraph us when to meet you at the station. You *must* come, and the longer you stay the better we will be pleased."

This letter was from my Illinois cousin, whose farm bordered the Mississippi. I had been having a rather lively wrestle with disease, and the doctors had come out ahead. I could not refuse so cordial and agreeable an invitation. I arrived at the prairie home about eleven o'clock in the morning, where my welcome was hearty enough to put new life into many times more of an invalid than I was.

Dinner was served a few minutes before noon, and this is the bill-of-fare that I found waiting for me on the expansive kitchen-table of that modest farmhouse:

Chicken Soup, with rice.
Roast Veal, stuffed. Roast Turkey.
Broiled Chicken. Broiled Prairie Chicken.
Boiled Mutton.
Cold Ham. Cold Corned Beef.
Potatoes, boiled and mashed.
Turnips. Parsnips. Cabbage.
Cranberry Sauce.
Apple Sauce. Currant Jelly. Pickles.
Plum Pudding.
Mince Pie. Apple Pie. Custard Pie.
Three Kinds of Cake.
Tea. Coffee. Chocolate. Milk.

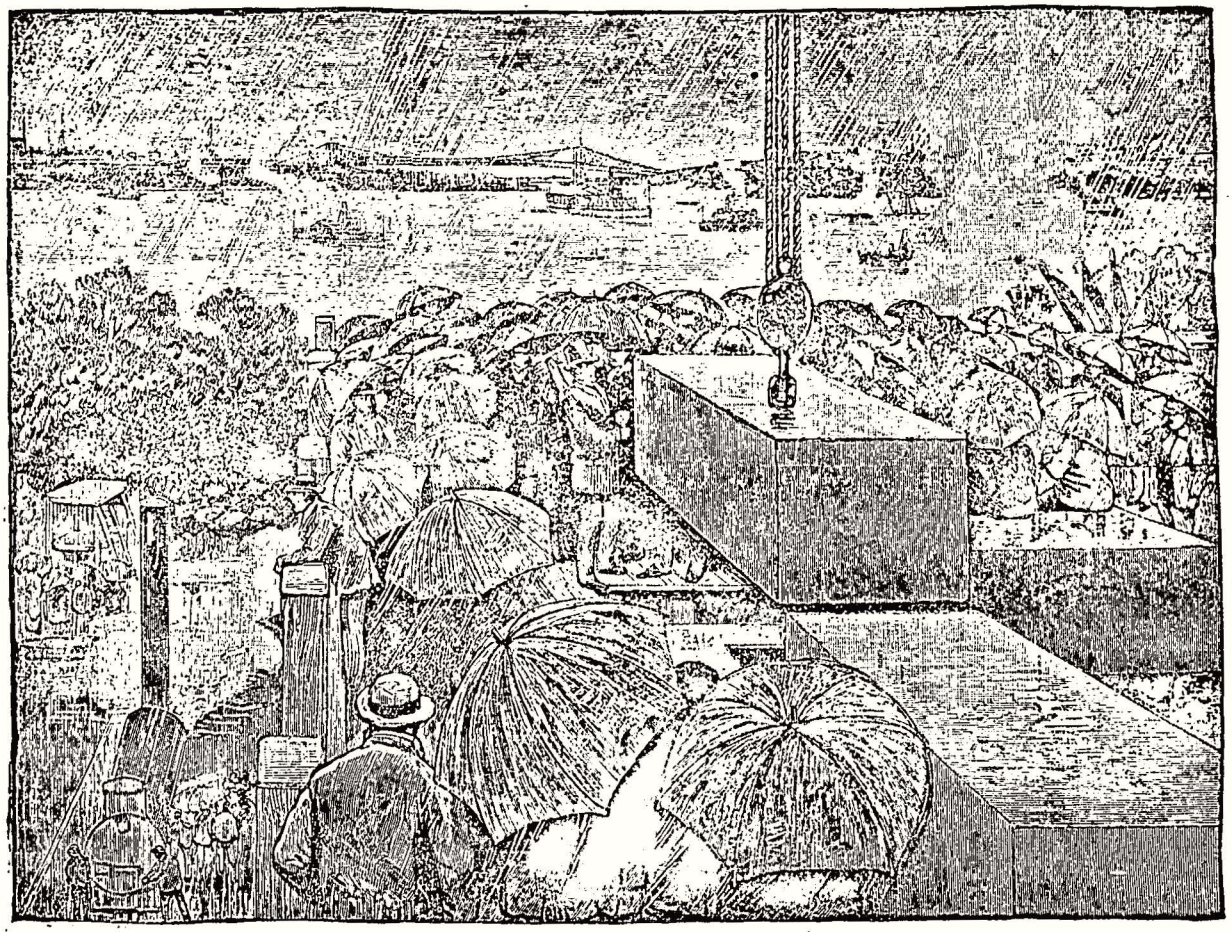
There was only one course. That is to say, this enormous lay-out was all on the table when we sat down. I do not know whether I was more appalled or amused. The "rich food" on which I had been living for the preceding month consisted mainly of tea, toast and gruel. I ventured a remark to the effect that if this was the "plain, simple country fare" on which I was to diet, it might save funeral expenses for me to return without delay to the luxuries of my city *cuisine*. To which came the solicitous response:

"I was afraid we hadn't got a single thing which you could eat. Do try and worry down something."

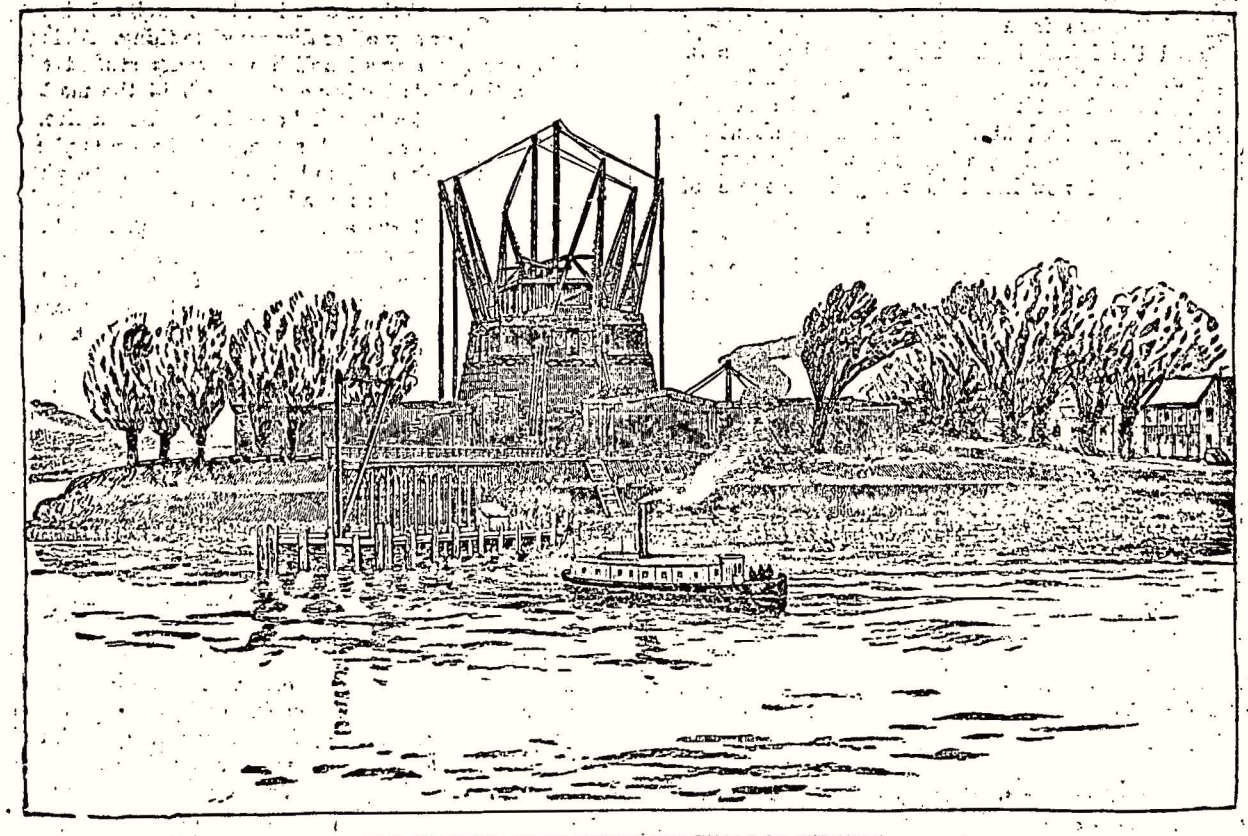
I did try, and with such excellent results, that it was with a genuine regret and an avoirdupois increased by several pounds, that a fortnight later I returned to town.

It was the Winter following the burning of Chicago that all of us who persisted in remaining to keep the ruins company were, by universal consent, known as "fire-sufferers." A large army of the more unfortunate existed on the disbursements of the Relief and Aid Society, the beneficent and wisely-managed almoner of the millions contributed by a sympathizing world. Some got along on such funds as they received from their insurance companies, and others pulled through on money sent them by friends in the East. Altogether it was a tough Winter, as Winters go, but a combination of local pride, clear grit, and an undaunted belief in the future of the city, smoothed over the rough places, and a magnificent, but thoroughly practical, philosophy carried every one through till the bravest hopes were vindicated. There was scarcely less than a touch of bravado in that Winter's high-pressure opera season, when the one little west-side theatre was crowded with people who paid eight dollars a seat to hear Wachtel sing; and I fear there was reckless display of the same spirit in a little dinner which four of us enjoyed one cold, blustering night in Ibach's restaurant. We gave our favorite restauranteur *carte blanche* to furnish forth the most elaborate *menu* within the possibilities of the establishment, and the result was a gastronomic triumph. We sat down at eight o'clock, but it was perilously near gray dawn when we sought our homes. In the interim we did not mind that the storms beat against the windows and rattled the panes, while wine flowed, the merry jest passed around, and the music of the zither, played by Ibach himself, made us forget that there ever had been such a being as the Fire Fiend, or any other disagreeable thing. A single item in our *menu* was English pheasants stuffed with chestnuts, the birds having cost $4 each in the market. The dinner was not a "swell" one, in the Delmonico, or Hotel Brunswick, or Pinard, sense, but there was plenty to eat and to drink, and the bill was exactly $30 a plate, or $120 for the quartet; not a large sum for a millionaire to pay, but quite large enough for "fire-sufferers," two of whom were newspaper-men.

Without reference to the amount of money invested, there have been many times since when the pleasures of that night have been recalled with sighs of regret. For example, during the culinary horrors of a trip I made in company with the late Colonel Delaplaine, of Wheeling, down through the wilds of West Virginia, from Clarksburg to White Sulphur Springs. West Virginia is a State possessing enormous natural resources; but its resources and its cooking are both in the same condition—they need development. One must have an iron will, a cast-iron digestion, and an empty stomach, to eat what is usually found on the table of the West Virginia farmer. Pork, in all its forms, is the principal—often only—article of diet; pork baked, pork fried, pork boiled; all the changes are rung on ham, each a trifle more intense, a trifle less palatable, than the other. Eggs are rare, and broiled chicken is a positive oasis in the Sahara of porcine abominations. Then potatoes and cornbread and coffee afford a positive relief, when attainable, but none of these are very filling. It was after a hard drive, after a meagre breakfast, over impossible—I had almost said impassable—roads, that the colonel and myself stopped



THE STATUE OF "LIBERTY."—THE LAYING OF THE CORNER-STONE OF THE PEDESTAL, AUGUST 5TH, 1884.—SEE PAGE 129.



THE PEDESTAL RISING WITHIN THE WALLS OF THE FORT.

at a house for a midday meal—dinner, by force of habit, it was called. The lady of the establishment was hospitable, as all West Virginia folk are, according to their lights and to the extent of their larder, to their credit, be it said; but there was a lack of neatness in her dress and personal appearance that was far from appetizing. When the feast was ready we found it consisted of cold boiled pork, dyspeptic bread and cucumber pickles. Now these cucumbers were of extraordinary size, and had nearly gone to seed before they had been drowned in a brine of most remarkable flavor, the ingredients of which could by no possibility be identified through the sense of taste. Hungry as I was, I could not attack any part of the solid mass of fat pork, and so confined my attention to one of the seed cucumber pickles. Noticing my dainty preference for this table luxury, the hostess encouragingly remarked:

"If you like them pickles, don't be afraid of 'em, but eat all you want. *We* don't none of us eat any of 'em."



ARRIVAL OF THE FRENCH TRANSPORT "ISÈRE," WITH THE BARTHOLDI STATUE ON BOARD, AT THE BASE OF THE PEDESTAL.

There was one place, though, while *en route* to the Greenbrier White Sulphur, where we had vastly better luck. It bears the poetic name of Mingo Flats, but I shall recall it kindly to my dying day, for there it was that we were feasted, and enjoyed our fill of delicious brook-trout, with which the West Virginia streams are fairly alive. They were served up on an enormous

platter, and piled a foot high, laid crosswise like cord-wood. As fast as inroads were made on the mountain of speckled, pink-tinted fish, fresh relays were brought smoking hot from the frying-pan to supply their place. Mingo Flats and brook-trout are for ever linked in my memory, where they hold a sacred place that many a French *chef* has vainly sought to invade.

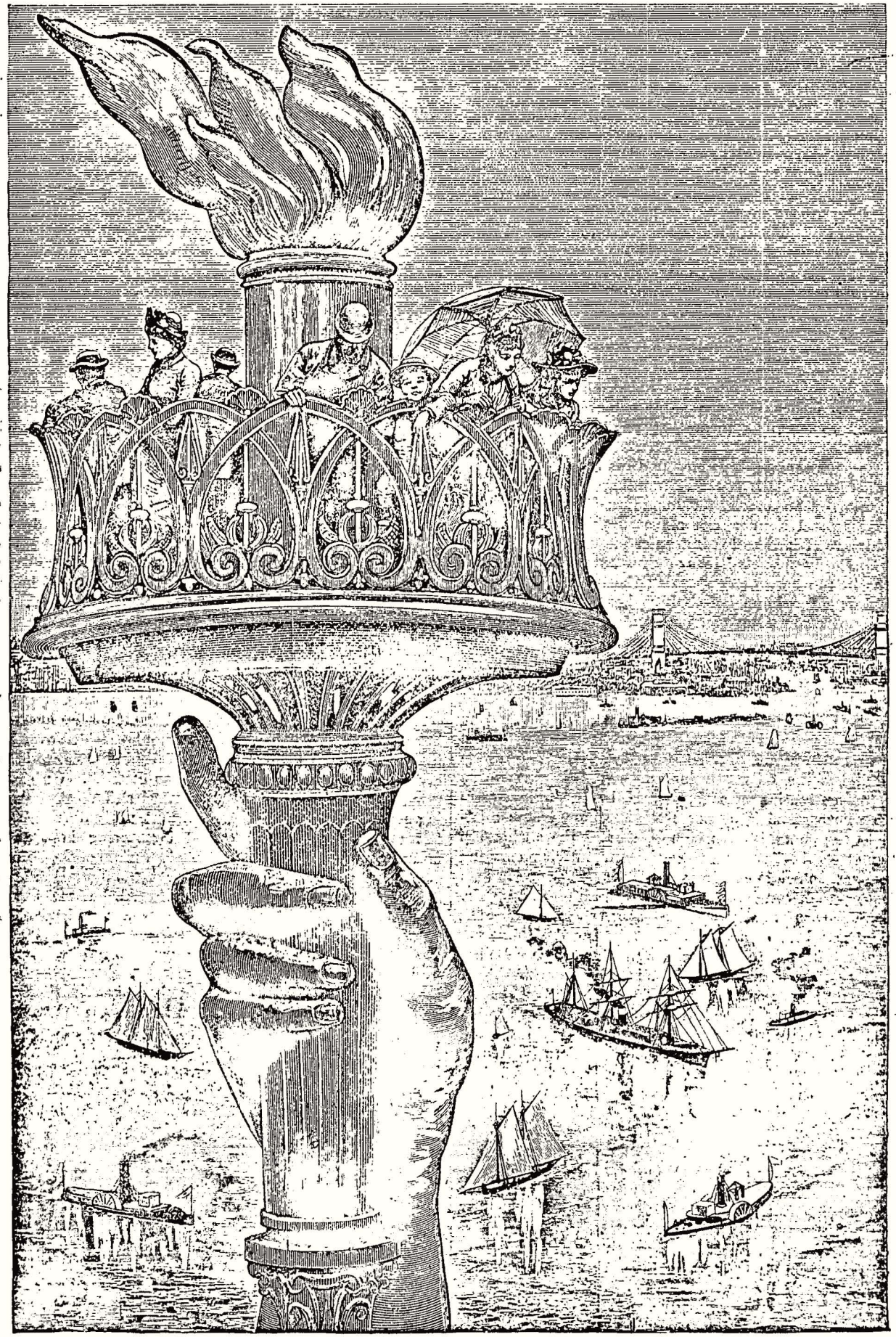
Once upon a time I had a friend who was an Englishman. He had been everywhere, had seen everything, and his experiences were legion. He was a clever writer, a fascinating talker, a most delightful companion. Suddenly he fell heir to a considerable legacy, and insisted that I should leave the paper with which I was connected to join him in a literary enterprise, for which he stood ready to furnish all the capital. I at first refused, but he finally pressed so hard that I yielded, and resigned my position. His programme included a trip to London, in which I was to join him, and passage was engaged for both. He asked the honor and pleasure of giving a farewell dinner to my friends the night before we were to sail, and I could do no less than accept with hearty thanks. A Broadway restaurant was selected, and in the afternoon we together made up the *menu* and selected the wines. At the appointed hour the invited guests, a dozen or fifteen in number, were promptly on hand, but my English friend was unaccountably absent. I was sure some accident had befallen him, and I sent out messenger-boys in all directions. The dinner was a depressing and gloomy occasion, and after it was over I hunted the police-stations and hospitals, but without success. I have never seen my English friend since. I did not make the trip to London, but I did have the pleasure of paying for the dinner he had ordered.

If one is in search of an appetite, with food to match, there are several places that may be recommended as fully adequate to both demands. For geographical extremes, with about 2,000 miles between, Moosehead Lake and the Rocky Mountains might be suggested. Six weeks' camping around the shores of the great inland sea of the Pine Tree State taught me that with the incense of the woods in the atmosphere, the hunger born of tramping and rowing from daydawn till nightfall, with the incidental and compensating labor of fishing and shooting, nothing can be more satisfactory to the most jaded palate than the dinner composed of the contributions from rod and gun. And if the overture of fish and the oratorio of game be supplemented by a liquid form of bottled beer, cooled air in a shady nook by sparkling brook-water, with the benediction of a fragrant pipe whose dreamy wreaths lazily loose themselves in the uprising flames of the camp-fire, then has a happy care-free mortal known the bliss of dining in a Maine camp. I might add that if there is any one thing more which could make one wish that camp-life and vacation-days might last eternally, it is to have a parson along with the other good fellows—a parson who tells good stories and who, forgetting pulpits and creeds, becomes a very priest of Nature to enthusiastic neophytes of the universal religion. All these harmonious elements were a part of my fortunate experience in never-to-be-forgotten *al fresco* dinners in the grand old woods of the Sunrise State.

Then, if one seeks the mental and physical exhilaration of high altitudes, these are to be found—I know, because I found both—in a trip to the Rockies. There one's dinner may include such epicurean luxuries as sage hens—very like quail in that they are not to be too continuously indulged in—black-tailed deer, elk, bear, antelope and other fragrant game. Occasionally a "maverick" falls a prey to the predatory purveyor, whereupon the "outfit" is excited by the announcement that there will be "buffalo-steaks" for supper—a meal that corresponds with the orthodox dinner as to lateness of hour and substantial quality. I recall many nights, after weary rides across alkali deserts and along trails lined with sage-brush, with incidental prairie-dogs, casual rattlesnakes and sporadic jack-rabbits, when a juicy antelope-steak, smoking hot, garnished with canned fruits and condiments, and a tin dipper of steaming hot coffee, produced an internal and all-pervading satisfaction that a Clover Club dinner at the Bellevue in Philadelphia might approximate but never wholly equal. The diners may be as first-class, but the dinners are not so elevated—not so many thousand feet above sea-level.

It has never been my fortune, good or ill, to dine *en famille* with a royal or imperial personage—but I had a narrow escape, in the Fall of 1873, in Russia. By a special act of courtesy which I fully appreciated at the time—and have sometimes wondered at since—I was allowed, with two other American friends, to thoroughly inspect every part of the Summer Cottage, a short distance out of St. Petersburg, which was at the time occupied by the then Prince Imperial and now Czar of Russia. As a matter of fact, palaces, and all that sort of buildings, are regular show-places, open to any one who has the time or curiosity to visit them. It is not often that the sight-seeing tourist has a chance to invade the privacy of apartments which are being lived in by people on the throne, or those presently doomed to that miserable existence. From a knowledge of that fact, we especially appreciated our run of the rooms where the heir-apparent and his wife, with their children, were supposed to enjoy their domestic seclusion. The Crown Prince was off somewhere officially reviewing a military parade, or some such pageant, while the Crown Princess, *née* Princess Dagmar of Denmark, was, I suppose, engaged in shopping on the Rue de Nevsky. Everything about the establishment was designed for comfort, and there was not half as much style as is affected by some of New York's new rich residents. I remember I was sitting at the writing-table in the suite sacred to the occupancy of the Crown Princess, now Czarina, mentally enjoying the exquisite daintiness of her stationery, and wondering what friends and admirers had showered such a collection of ravishing paper-cutters on her, when to us suddenly entered a liveried servant in trepidation, who, with a Parisian accent that I could only envy and admire, conveyed the information that their Imperial Highnesses would presently arrive to dine. Even in our democratic simplicity, having no desire to be *de trop*, when we had been the recipients of special courtesies, we presently took our departure. Our way out led us through the dining-room, where plates were laid for only two, and I felicitated myself that we had not insisted on remaining where our presence might have been awkward for all concerned. I knew from experience how disagreeable it is for a host or hostess to be obliged to provide for unexpected guests at short notice. That evening we dined, as usual, at the Hotel d'Angleterre, just across the square from St. Isaac's Cathedral.

Popular superstition has led many simple people to suppose that the heroes who devote their lives to the newspaper business—or profession, if you please—lack the time or money, or both, to dine according to the accepted canons of good living. From ample and extended personal experience I can vouch that such is not the fact. Never in my life have I sat down to a more perfect dinner—and I have been something of a student of gastronomy in two continents—than at the



THE STATUE OF "LIBERTY."—VIEWING THE HARBOR FROM THE TORCH IN THE HAND OF THE STATUE.—SEE PAGE 129.

table of the then editor of a newspaper in Rochester, N. Y. Although he has since reformed and quit journalism, he was at the time in the harness, and was equally familiar with the traditions of the elder Bennett, Raymond and Greeley, and the culinary conceits of Brilliat Saverain. Combining the rare qualities of a true sportsman—who enjoys with keenest zest the pleasures of purveying in forest and stream—with those of the genuine gourmet, he is equal to all the demands of the table, whether viewed as a science or a high art, being at once hunter, *chef* and connoisseur. On a New Year's Day not very long ago he gave a dinner to a small party of "literary fellows." For elaborate simplicity, for perfect poise in the relations of each dish to all the others, for artistic completeness of piquancy only to satisfy the appetite, I venture the assertion that even the late Sam Ward, in his rarest inspirations, could have produced no *menu* to surpass it. A single item was the blue violet salad which delighted the eye only to entrance the palate. The fame of this salad has since traveled the whole country over, and I am not sure that it has not reached the *salons* of Paris. If it has, this one noble achievement will have sufficed to convince them that all Americans are not savages.

The gastronomic dude may find his highest enjoyment in ordering ortolans cooked according to his own secret formula, or an omelet of humming-bird's eggs; the New England Yankee has a platonic affection for that nightmare of indigestion known as pie, and becomes correspondingly addicted to every nostrum reputed efficacious in the cure of dyspepsia; the Baltimore gourmet registers an opinion before high heaven that there are not more cooks than can be counted on the fingers of one hand who know how to treat a terrapin—with unanimous consent including Secretary Bayard as one of these immortals; the ex-Reverend Adirondack Murray modestly confesses the belief that there is only one man possessed of sufficient genius of the proper brand to broil an oyster, and that that man is now keeping a restaurant in Montreal; the Hoboken Turtle Club asserts that it has the only genuine and soul-satisfying recipe for the concoction of a soup from the amphibious creature whose name it bears; like the conundrums relating to the Man with the Iron Mask and the authorship of the "Junius" letters, there is still a division among those competent to decide as to whether the famous Fish House punch can hold a candle to those brewed by Mr. Henry Watterson; the Ichthyophagous Club assumes the airs of a philanthropist for having introduced octopus and hell-benders to Christian palates; Philadelphia calls her Liberty Bell to witness that there is a divinity that shapes the happy fate of one who eats Delaware planked shad at Gloucester; but, whatever differences may exist as to the axiomatic truth of each or all of these propositions, there is no civilized man who will not agree that to be late in keeping a dinner engagement is a social crime of such magnitude that no adequate punishment has ever been devised or ever can be inflicted.

On the other hand, the prompt fulfillment of such obligations is one of the few experiences when one is comfortably made aware that virtue is its own reward.

It was in 1873 that I kept a dinner engagement, made at long range, which has never ceased to afford gratification in the retrospect. It was in April of the year mentioned that Mr. A. B. Pullman, of the Pullman Palace Car Company, came into the Chicago newspaper-office where I was then employed. He called to say Good-by just before starting on a trip to England, whence he was going to introduce the cars of his company.

"Where will you live while in London?" I asked.

"At the Langham," he said.

"I may be over later, and will call on you," I continued.

"I'll be glad to see you. Be sure and dine with me, will you?"

"With pleasure, but when? I don't like dinner invitations that are too general and indefinite."

"Fix your own date," replied Mr. Pullman, with a laugh.

"Six o'clock, August 1st," I responded, with the same matter-of-fact tone as though arranging to dine with him at the Tremont House that day week in Chicago.

"Mind you don't let the soup grow cold," were his last words, as I wished him *Bon voyage!*

After a tedious twelve days' passage I landed in Liverpool on the last day of July. A party of friends insisted I should remain over with them a day or two in Liverpool, get rested, and do some sightseeing.

"Impossible," I told them. "I have an engagement in London with which nothing can be allowed to interfere."

Going on to London, I reached the Langham Hotel about five o'clock of the afternoon of August first. After being assured that Mr. Pullman was stopping there, I was shown to my rooms, and made my toilet for dinner. It yet lacked fifteen minutes to six o'clock when I came down-stairs, and was informed that I would find my friend in the smoking-room. He was sitting at a table with some English gentlemen, enjoying a *tête-à-tête* over glasses of brandy-and-soda. Walking up behind him, I touched him lightly on the shoulder, and quietly asked: "Isn't it about dinner-time?"

He turned, gazed at me in a dazed sort of a way for a moment, then springing up and giving my hand an honest, old-fashioned, hearty, North American shaking, exclaimed: "Great Scot! You *did* keep it, didn't you?"

As no plausible denial suggested itself on the instant, he at once took me to the department presided over by the barmaid, whom he had successfully inducted into the mysteries of a highly ornate Yankee cocktail. On sampling the efforts of his accomplished and most charming pupil, while pledging far distant mutual friends, I felt myself so amply rewarded for having kept to a minute a dinner engagement made four months before and four thousand miles away, that the Langham *table d'hôte* dinner, which presently followed, became but a mere incident, although a thoroughly agreeable one, in the achievement.

Major Johnson, in a recent book of travels, thus relates an ancient Hungarian custom: "When a young man wanted to 'pop' to the object of his affections, he called at the house one evening, and paid a long visit, but made no allusion to the subject nearest his heart. On going away he forgot his cloak, and the next day watched the house. If the cloak was still inside, he was the happiest of men; but were it hanging outside, he took the fact as his *congé*. This is all very well for would-be Benedicts, but if a confirmed bachelor should happen to leave his cloak by mistake, he might be let in for an action for 'breach,' or a stab from an infuriated brother."

Pride is as loud a beggar as want, and a great deal more saucy. When you have bought one fine thing you must buy ten more, that your appearance may be all of a piece; but it is easier to suppress the first desire than to satisfy all that follow it.