



BACK OF
THE BUFFALO
SEAL



*UNITED STATES DEPARTMENT
OF THE INTERIOR*

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The President of the United States and the Secretary of the Interior officiate at the dedication of the new Department of the Interior Building, April 16, 1936.

BACK OF THE BUFFALO SEAL

*An Account of the History and Activities
of the Department of the Interior, the
National Resources Committee, and the
Federal Administration of Public Works*



UNITED STATES
DEPARTMENT OF THE INTERIOR

Harold L. Ickes, Secretary

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Foreword

THE activities of the Department of the Interior are more varied and cover a wider range than those of any other department in Washington. Some who have come in contact with one of the agencies of the Department and are familiar with the work there are sometimes quite hazy in their ideas with respect to the functions and responsibilities of other bureaus and divisions with which they have had no personal experience.

Notwithstanding the variety of the functions of the Department, it has been suggested that the name of the Department is too all-inclusive. The nature and extent of the activities for which the Department is responsible cannot be gathered from the name by which we were baptized. By definition, though not by law, the Department of the Interior, to one hearing the name for the first time, might be regarded as including all Federal Government activities except those relating solely to foreign affairs.

The activities of the Department of the Interior are definite as well as far-flung. They range from the protection and upbuilding of valuable natural resources to the supplying of outdoor recreation and the maintenance of an intimate association with the educational system of the country. The activities of the Department come in contact with a vast number of our people. Accordingly, I have asked that this book be prepared in order that the work and purposes of the Department of the Interior, the National Resources Committee, and the Federal Emergency Administration of Public Works may be clearly set before you in the hope that it will not only be of interest but of use to you and your friends, and that through it we may become better acquainted with each other.

Harold L. Ickes

Secretary of the Interior.

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THE DEPARTMENT OF THE INTERIOR

Introductory Statement

THE DEPARTMENT of the Interior is the Federal agency which functions primarily for "public conservation." This Department is charged with the duties of protecting, safeguarding, upbuilding and rebuilding the majority of the natural national resources in the Nation, for the present as well as for the future, so that these resources may bring the greatest benefit to the largest number of the country's citizens.

Most people know that the Interior Department deals with the conservation of public lands and water resources through the General Land Office, the Geological Survey, the Bureau of Reclamation, and the Division of Grazing. Many realize that the Department has an equally vital interest in mineral and petroleum resources through the Bureau of Mines, the Geological Survey, and the Petroleum Conservation Division, but comparatively few are aware of the wide and varied contacts of the Department with people, with the citizens of this country over a wide and constant front through various subdivisions of the Department.

Through the Office of Education, the Department of the Interior has a conservation activity—an upbuilding—of one of the country's most vital resources, the increase of native intelligence through education. The National Park Service deals basically with recreation, making available for the Nation the superlative scenic, historic, and scientific areas of the country. The Bureau of Indian Affairs, dealing with the First American,

is now engaged in giving our ancient peoples a square deal and a chance to preserve their entities and traditions. The Division of Territories and Island Possessions is the Federal contact center for the peoples of Puerto Rico, the Virgin Islands, Hawaii, and Alaska. The Alaska Railroad is opening up the last great American frontier and providing it with a widening area of activity.

In Washington the internationally famous St. Elizabeths Hospital has pioneered in this country in treatment of mental diseases. Columbia Institute for the Deaf has led the way in the education of deaf mute children, giving them opportunity to live useful lives and to break down the barrier of their afflictions. Howard University and Freedmen's Hospital, dating back to the days following the War Between the States, are national centers for Negro higher education and health.

These are the major contacts of the Department of the Interior with people—with the citizens of the United States, from the Tropics to the Arctic Circle, as well as in the continental United States where the range of public conservation problems is as varied as the temperatures between St. Croix, Virgin Islands, and Nome, Alaska.

The present Department of the Interior, which was established under an act to create a home department, is as different from the original Department founded in 1849 as the Nation of the gold rush days differs from the Nation of today.

Although there was agitation for a Federal department to administer internal affairs and handle problems arising within the borders of the country during the first Congress, no such department was set up until 1849 when the Interior Department was created. Prior to that time the Land Office, which in those days was largely a revenue-raising bureau through the sale of public lands, was in the Treasury Department. The Pension Office and the Indian Office were in the War Department, which was then more or less engaged in subduing the redmen. The Patent Office was in the State Department. The question of States' rights and the ever occurring problem of expenditure in Government were the main reasons for the 60-year delay in creating a department to handle internal affairs.

Hardly had the Interior Department been established than its first Secretary, Thomas Ewing, recommended the establishment of a Bureau of Agriculture to give special attention to the main internal activity of the country, agriculture, as a part of the newly created Interior Department. It is interesting to note that this was the first instance of a recommendation from the Interior Department of a conservational nature. Although the term "conservation" was not used in the various recommendations, the purpose was for the establishment of a research unit to aid agriculture. These recommendations may well be characterized as the first forecast of the present double conservation policy of the Federal Government—Government-aided conservation on privately owned lands and resources, and the policy of public conservation of national resources.

Naturally, conservation, as we know it today, did not actually enter the picture in those days of a westward moving frontier. There were land, minerals, timber, and wildlife to be had for the taking. There was enough for all in an underpopulated and vast country. The land problem was one of use. To get settlers on the land, to increase the use of land was the crying need. In answer to this call the so-called "give away" land policy, which has brought criticism from time to time on the Interior Department from "conservationists" more fond of looking backward than forward, was adopted by the Congress and reflected in the Department.

As the Nation grew the frontier met the Pacific Ocean and the country filled up. The chances of moving to new land began to diminish. During the War Between the States the Free Homestead Act was established. The conservation and reservation theory was developed about the turn of the present century. A great conservation move, the establishment of forest reserves which are now our national forests, was originally under the Department of the Interior. In recent years the Soil Conservation Service was inaugurated as a conservation agency by the Department of the Interior, and later transferred to the Department of Agriculture.

Also at the turn of the century the question of reclamation became so important that a Bureau of Reclamation was estab-

lished in 1902. Those familiar with the West know first hand of the work of this Bureau in restoring water to an arid land where water means life, and expansion not only of agriculture but of commerce and trade. The projects of the Reclamation Bureau function in a number of ways. They prevent floods, furnish water for land, for municipalities, and for power.

During the Theodore Roosevelt administration, Congress established conservation policies covering all public land and water resources. Naturally, conservation in other lines came to the fore under the impetus of these new policies. With the single exception of the Biological Survey in the Department of Agriculture, which deals with the conservation of wildlife, all the major conservation activities of the Federal Government have either originated or been administered in their early stages by the Department of the Interior.

The work of the present Department of the Interior is set forth in further detail in this booklet so that the work of the Bureaus, Offices, and Divisions of the Department may become clearer to the millions of Americans who come in contact with these agencies.

The Nation's most pressing needs for conservation, under the acts of Congress, have been met by the Interior Department. You will find included, as you read this book through, two other separate agencies of government. Harold L. Ickes is Administrator of the Public Works Administration, and he is also chairman of the National Resources Committee. He has brought these agencies into such close cooperation with the long-range work of the Interior Department that the outline of their work has been included.

The National Resources Committee has been and is carrying on surveys throughout the Nation on our national resources, what they are, where they are, and to what extent they may be usable now or in the future. Recommendations from regional surveying committees are studied and correlated and final reports are furnished the President and through him the Congress. The scope of the National Resources Committee's work is extremely broad and truly national. Briefly, it might be said that this Committee is indexing the country so that the Nation

may find and use what it needs as it needs it, and may also protect, safeguard, rebuild where necessary, and upbuild our national resources under a sound program.

In the field of upbuilding our national resources through construction, a form and part of our national wealth, the Public Works Administration has played a prominent part. Although designed as a major attack on one of the depression fronts, an attack which is proving successful, the activities of the Public Works Administration go further than furnishing work directly and indirectly during an emergency. Under the Administrator of Public Works this agency has added to the material well-being and to the structural wealth of the country through building. Since the present Secretary of the Interior is the Administrator of Public Works, the Public Works Administration has properly been included in this booklet as a great conservation activity in the sense that conservation is an upbuilding of our national resources.

To return to the functions of the Interior Department we come first to the General Land Office, organized in 1812 and, like the Indian Service, older than the Department of the Interior itself.

GENERAL LAND OFFICE

ESTABLISHED 1812

THE General Land Office was created by Congress in 1812 for the survey and disposal of the public land. It was at first under the Treasury Department as a real-estate agency selling the public domain to pay the debts of the Revolution. The national debt was extinguished in fact on the eve of the great financial depression of 1837. There came the gradual abandonment of cash sales in favor of a policy of development and enhancement of agricultural values in which the whole Nation would ultimately profit. This came to a fruition in the Free Homestead Act of 1862, whose principle was followed in Canada, Australia, South Africa, and by the French in Algeria. The conservation and reservation theory developed around the turn of the present century, when the end of land and resources that the pioneer could develop unaided was foreseen. As a part of this new con-



UPPER: *Opening of the Cherokee Outlet (Homesteads) in Oklahoma, 1893.*

LOWER: *Reconstructed monument northeast corner of New Mexico, General Land Office, 1928.*

servation theory, the Reclamation Act of 1902 was passed by Congress and signed by the President. This act provided for the construction of reservoirs and water-supply ditches to irrigate desert land where the problem of water supply was too big for private interests.

The present stage in public domain history is the logical development of the conservation period and the change wrought by 25 years of mass organization and new ideas in industrial, economic, national, and social life. It came concretely when Congress in 1934 directed the Department of the Interior to bring under control through a leasing and permit system the grazing of public land, and the subsequent withdrawal from entry of all public land in the United States proper for classification as to its best uses and the development of a new land program.

Thus the first period of public-land history was one of sale; the second was of pioneer development; the third was of reservation and conservation; and the fourth is of cooperative use of the material resources and of embellishment of the States and of the Nation by reserving and protecting the areas of scenic, historic, scientific, and recreational interest. Contemporaneous is the problem of the vast acreage now held by the States under Federal grants or tax foreclosures.

The General Land Office has always been the legal, title record, and money-collecting agency of the public-domain activities of the Federal Government. These activities in the United States proper will extend to an area tentatively set at 410,000,000 acres, or 28 percent of the original public domain, and to Alaska, where only 240,000 acres have so far been patented. They will also extend to about 50,000,000 acres of patented land in which the Government has retained some or all of the minerals. The leasing of the federally owned deposits of oil, gas, coal, phosphate, and certain other minerals, which has become of prime importance in the last 15 years, is likewise committed to the General Land Office as to adjudication, record, and collection of royalties.

Succinctly stated, the work of the General Land Office is to survey and map the public domain; to receive and adjudicate applications for lands, minerals, rights-of-way, etc.; to withdraw

and reserve lands for various purposes; to adjudicate conflicting claims under the public-land laws; to make exchanges of land authorized to round our projects; and to keep a record of the disposition or status of lands. The General Land Office does this work on the entire public domain still in Federal possession, and is thus interdependent with eight bureaus of a more technical nature which administer the lands and resources reserved for their specialties.

The General Land Office is a hall of records in the disposition of the public domain. Its 4,300 tract books contain the base title record or status of every 40-acre tract in 76 percent of the United States proper. These tract books are the index to the millions of original record files of applications for public land. Copies of the entire 6,062,248 patents issued are bound in 9,414 volumes.

The public land activities are largely confined to the 11 westernmost States and the Dakotas and Alaska. Here the General Land Office maintains 25 district land offices and 12 public survey offices for the convenience of the public. Its Cadastral Engineering Service performs practically all surveys for title purposes within the original public domain for the various Federal bureaus and departments. Some 129,291,326 acres of public domain in the United States proper are still unsurveyed. The mapping division revises and issues the official map of the United States and maps of the public land States.

The public domain or original public land includes all the States west of the Ohio and Mississippi Rivers except Texas, and includes in addition the States of Mississippi, Alabama, and Florida. It also includes Alaska.

Relative to the purchase from Texas, the Republic of Texas in seceding from Mexico claimed westward to the Rio Grande and northward to the old boundary set by the treaty of 1819 between the United States and Spain which then claimed Mexico. As part of this conflicted with the Louisiana Purchase, the United States in 1850 purchased the area outside the present State of Texas.

The public domain was acquired in the following manner:

	Acres	Purchase price
State cessions after Revolutionary War	266, 427, 520	\$6, 200, 000
Louisiana Purchase (1803)	529, 911, 680	27, 267, 622
Oregon Territory (by exploration)	183, 386, 240
Purchased from Spain (1819)	6, 489, 768
Florida	37, 546, 240
West of Mississippi River	8, 598, 400
Mexican cession (1848)	338, 680, 960	15, 000, 000
Purchased from Texas (1850)	78, 892, 800	16, 000, 000
Gadsden Purchase (1853)	18, 988, 800	10, 000, 000
Total	1, 462, 432, 640	80, 957, 390
Less water area	20, 232, 320
Total	1, 442, 200, 320
Alaska Purchase (1867)	378, 165, 760	7, 200, 000

The disposition of the public domain in the United States proper under upwards of 5,000 acts of Congress has been extremely complex, but the following table pictures the present situation in its simplest form:

Title passed from the United States:	<i>Acres</i>
Homesteads	276, 767, 000
Military land warrants	61, 000, 000
Cash sales and miscellaneous disposals	357, 229, 000
Grants to railroad corporations	94, 229, 591
Grants to States	230, 092, 013
Total area disposed of	1, 019, 317, 604
Pending and unperfected public-land entries	19, 666, 693
Title remaining in the United States:	
National forests	138, 710, 947
National parks and monuments	8, 724, 732
Indian reservations	57, 518, 590
Military, naval, miscellaneous reservations	1, 000, 000
Grazing districts created in 1935-36	79, 805, 186
Withdrawn for various public purposes	28, 304, 083
Unappropriated public land withdrawn from entry	89, 152, 485
Exact land area of public domain	1, 442, 200, 320

BUREAU OF INDIAN AFFAIRS

ESTABLISHED 1832

ESTABLISHED in the War Department during 1832, the Bureau of Indian Affairs is, like the General Land Office, older than the Department of the Interior itself. Also, like the General Land Office, the Bureau of Indian Affairs has operated under a number of policies which reflected changing attitudes toward the Indians. Today the policy of the Bureau of Indian Affairs is one of economic, social, and cultural rehabilitation of the Indian.

The new Indian policy, which is partly expressed in the Indian Reorganization Act, went into effect June 18, 1934. Through it new hope has flowed through all the tribes who have accepted the act. This policy has three main objectives: the economic rehabilitation of the Indian, mostly on the land; the organization of the Indian tribes so that they can manage their own affairs like other American communities; and the assurance of civic and cultural freedom and opportunity for the Indian.

One hundred and seventy-six of the Indian tribes have voted to accept the act, while 75 tribes have voted against it. Many of these tribes voted almost 100 percent for it, while enthusiasm for the act was shown by over 63 percent of the voters turning out—more than for a presidential election. A number of tribes already have had their constitutions signed by the Secretary of the Interior while a score more are being reviewed in the Washington office or studied by Indians for suggested modifications or corrections. The shaping of these constitutions, the democratic manner in which they have been constructed, has caused a profound change in each community taking part in the meetings. Every phase of the tribal life, social and economic, has been discussed by the Indians.

It has been said:

The Indian in his own land has been virtually a man without a country. Theoretically and legally an American citizen, he has witnessed the forced disintegration of his own tribal and social structures, has been in large measure debarred from any participation in the civic life of white communities, and has been paternally governed by an absolutist bureaucratic administration. His lands have been wasted through the allotment system, while the vast sums derived from the sale of Indian land have been dissipated. The



Julian and Marie Martinez, potters from the San Ildefonso Pueblo. Marie is the outstanding Indian potter of the day.

community life of an intensely social people was further broken up by the allotment system, which tended to scatter Indian families on isolated homesteads.

Not only was this true, but the Indian was deprived of the financial credits by which a white man may develop a valuable property. Now, under the Reorganization Act, a Credit Section has been established in the Extension Division of the Indian Service to administer the credit revolving funds. The Indian Reorganization Act authorized an appropriation of \$10,000,000 for this purpose, of which \$3,480,000 has so far been made available. The sum is a modest one, but it makes financial self-help possible to many tribes.

How this works out can be witnessed by the Rocky boys of Montana, who had a reimbursable fund, decreed them by an act of Congress, before the passage of the Reorganization Act. A few years ago these Indians lived in miserable shacks. Today they live in neat homes. From a total destitution they are worth \$500 apiece, in home, farm implements, stock, etc. They had credit from which to develop their resources. They have paid and are paying back their indebtedness. According to testimony before Congress, in 1933 each farmer had paid back \$85 made by his own efforts off his own land. "They have done better than most white farmers", a Congressman exclaimed.

It is not only among the Rocky boys that a new ambition is seen. The Papagos on the Mexican border have set up a revolving fund which is now above \$12,000, out of their earnings from emergency work in the past year. The San Carlos Apaches owe no one anything, and have financed their own cattle associations.

Saving and building up the Indian land is the center of the new Indian policy. "In a nutshell the new land policy may be summed up as prevention of further land loss, increase in land holding, reintegration of tribal holdings, conservation and upbuilding of the soil and its products, and use of their own soil by and for Indians", according to one authority.

The Indian Emergency Conservation Work—the Indian C. C. C.—has done notable work in building up the Indian estate. Especially have the Indians benefited by a great increase in their needed water supply. Since July 1933 a total of 2,401



A Navajo Indian rug weaver.

reservoirs and 3,042 springs and wells have been developed. Hundreds of thousands of acres have been given back to cultivation through insect pest and rodent control. Hundreds of miles of truck and horse trails and telephone lines have made communication easier. Through these means the hazards of forest fires have been diminished. Streams have been bridged, and miles of fences built. It is hardly possible to overestimate the benefit of the I. E. C. W. in terms of morale, education, and health over and above the obvious benefits of its many projects.

Not the least of the I. E. C. W. work has been that done in relation to soil conservation, for on Indian land the Indians are employed in the saving of their own land. Much has been done to save the Navajo lands and those of the Pueblos from the results of overgrazing. Similar work is being done on the Wind River Reservation in Wyoming. The Indian Reorganization Act makes mandatory the permanent conservative management of these lands.

Irrigation, drainage, and water development work on Indian reservations are cared for by a special division in charge of the director of irrigation. The work of the division involves the design, construction, and operation of irrigation and drainage systems including storage dams, hydroelectric, and Diesel power plants, pumping plants, canal systems, diking works and wells, and the preparation or subjugation of land for irrigation.

There are some 150 active irrigation projects in the arid Western States ranging in size from a few acres irrigated by direct diversion from a small stream to over 100,000 acres irrigated from works involving large storage reservoirs, hydroelectric power plants, and extensive canal systems. The ultimate irrigation development on the various reservations is approximately 1,160,000 acres, of which some 730,000 acres are now provided with irrigation facilities. The present program contemplates the completion of this development over a period of 10 years.

Before 1933 roads on Indian reservations were mainly wagon trails. The Service did not have equipment to build roads nor did it have an organization to direct construction. Road constructing activities have covered 200 Indian reservations. Four thousand miles of roads and 550 bridges have been completed.

The road engineers have under their jurisdiction junior engineers and Indian assistants. These Indian assistants are trained to locate roads, to estimate the cost of construction, to take charge of construction, to operate and repair tractors, graders, air compressors, pile drivers, power shovels, concrete mixers, gravel and stone crushing plants, and large trucks. Indian laborers are taught skilled trades such as stone masons, concrete workers, form building, carpentry, erection of structural steel, laying of concrete and asphaltic pavements, and numerous other trades allied with road building. The policy of the Roads Division is to develop the Indian road worker so that he may in the future assume responsibility for the construction of roads and bridges under the Indian Service.

Through P. W. A. and I. E. C. W. thousands of Indian boys have received practical educations, while through the revolving funds under the Reorganization Act 258 young people are in college and 141 in vocational schools. Increased emphasis on the development of the educational program in the Indian Service to meet the needs of the reservations has resulted in a continued reduction of the segregated boarding school and the substitution of community center day schools. Liberal grants from P. W. A. have made possible the construction of 105 of these day school centers.

There has been a great increase in the enrollment of Indian children in the public schools of the country and attendance in the day schools maintained by the Indian Service has increased from 5,000 in 1932 to over 10,000 today. These day schools, by and large, are serving as pioneering agents, going far beyond the public schools in the flexibility of their curriculum and in the many-sidedness of their uses. Participation on the part of both adults and children in the school and community gardens, shops, home and furniture construction, farm mechanics, canning, cooking, laundering, home sanitation, sewing, child care, Indian arts and crafts, community entertainments and recreation, in short in all phases of community life, is already a reality in many of the centers. Important also in the educational program is the development of the 4-H clubs of which there are 294, with a membership of 4,290.

The health of the Indian population leaves much to be desired compared with their white neighbors. The susceptibility of the Indian to tuberculosis, trachoma, and other diseases, doctors are in agreement, is to a large extent due to poverty and poor living conditions. The new program will help to change this situation. Meantime, in addition to the hospital facilities now existing in the Indian Service, funds are assured for the construction of seven new hospitals, financed by the Public Works Administration; five more are now under construction; two have just been completed and are now in use; two others have been remodeled and modernized, and funds are available for additional facilities in seven more. When the entire program shall have been completed, 1,000 additional beds will be available throughout the Service for Indian use, thereby providing a total bed-capacity of approximately 5,000.

Only as the rehabilitation program goes forward can it be expected that the high death rate will be reduced. "For the essence of the new Indian policy is to restore the Indians to mental, physical, social, and economic health; and to guide them, in friendly fashion, toward liberating their rich and abundant energies for their own salvation and for their own unique contribution to the civilization of America."

ST. ELIZABETHS HOSPITAL

ESTABLISHED 1855

INTERNATIONALLY known for its work in mental diseases, St. Elizabeths Hospital has pioneered in a number of fields for the treatment of mental illness in this country. It was the first hospital in the Nation to use the malarial treatment in the warfare against paresis. The purpose of St. Elizabeths Hospital in the words of one of its reports is "giving the most enlightened curative treatment to the mentally ill, wards of the United States Government, who are patients in this institution."

The purchase of the site for St. Elizabeths Hospital, then the Government Hospital for the Insane (the name was changed in 1916), was authorized by Congress in 1852. The appropriation, amounting to \$100,000, also permitted the construction of build-



The Administration Building, St. Elizabeths Hospital.

ings. Out of the initial appropriation a site was purchased on the hill across the eastern branch of the Potomac overlooking the city of Washington. The first building was completed in 1855, and at that time 63 patients were admitted. The hospital will celebrate its eighty-first birthday during the year 1936. It now comprises 4 plots of ground totaling 800 acres, on which there are about 168 buildings. The population includes 5,380 patients, 1,654 employees, and about 100 liaison officers, or about 7,134 persons in all.

Patients are drawn from many different walks of life, including the United States Army, the Navy, the Marine Corps, the Public Health Service, and the Revenue Cutter Service. White American citizens from the Canal Zone, or from any foreign country, whose State domicile is not known or cannot be discovered; residents of the District of Columbia; insane prisoners from the penitentiaries; those in custody of the Federal authorities awaiting trial who have been declared insane; Indians, wards of the United States Government; beneficiaries of the United States Employees' Compensation Commission, including those in the C. C. C., are also cared for here.

When patients first come to the hospital they are admitted to what is known as the receiving service. A new receiving building for men and also one for women have just been completed. The entrance for patients is on the ground floor. Arrangements have been made under covered portico for ambulance cases. As the patient enters the building a nurse very carefully examines the admission papers, then notes name of patient, religion, age, the address of friend or relative, measures the height, and takes the weight of the patient. The patient is then disrobed, and all clothing is listed. All valuables are carefully recorded. Notation is made of anything of a dangerous character. All property is marked after being checked, and placed in proper receptacles, the valuables in a vault and the other property in bags or clothes rooms. A careful examination is made for pediculosis; then the patient is examined for scars, bruises, or traumatism of any nature. After this examination the patient is bathed, then partially dressed with hospital bedclothes, bathrobe, etc., and awaits the arrival of the doctor.



A view from the air of St. Elizabeths Hospital and grounds.

Beds are provided in the admission suite when needed. In this suite there is also a litter, and wheel chairs for use when required. After the doctor's examination the patient is vaccinated and sent to the admission ward. The ward is selected by the physicians according to the patient's needs. Disturbed patients may be sent to the special-treatment rooms in wards on the fourth floor.

These buildings contain a vault for the safekeeping of valuables, steel bins in the baggage rooms for the storage of patients' property, and locker rooms for employees, each employee being given a separate locker for his clothes.

There are also a fully equipped barber shop for the men and a beauty parlor for the women which has proved beneficial in a number of mental cases. There is a hydrotherapy room with steam cabinets, Sitz-baths, showers, and pack tables; also flow tubs. Occupational therapy is given on the ground floor. A large room is set aside for recreation and gymnastics.

Radios, with loudspeakers, are installed in each ward. These can be controlled from the central office. A microphone in the central office, connected with this set, furnishes direct communication with the wards for an emergency such as fire, etc. Large day rooms, with porches leading off same, are furnished with card tables, magazines, periodicals, and other means of entertainment. The south center wing at the fifth floor has been designed for a heliotherapy deck for sun treatments.

All provisions are made for the necessary treatment of patients suffering from mental illness. If a patient becomes physically ill he is transferred to what is known as the medical and surgical building, a hospital building manned by a selected staff, including a surgeon, internist, roentgenologist, syphilologist, and internes.

This hospital is recognized by the American Medical Association and the American College of Physicians for interne courses. The various hospital clinics are in the medical and surgical building. There is here the necessary operating unit, including operating tables and anesthetic apparatus. There is a minor dressing room where emergency cases may receive treatment. There are also clinics such as eye, ear, nose, and throat, dental clinic, gynecological clinic, skin clinic, antiluetic clinic, etc. The hospi-

tal contains many mechanical auxiliaries such as diathermy machines; mercury vapor and carbon arc ultra-violet ray machines; a radiographic machine for taking X-rays; a fluoroscopic unit; a 300,000-volt deep X-ray therapy machine; an electrocardiograph; basal metabolism apparatus, etc. The hospital building has a 50-bed isolation building adjacent for the necessary cases. It is connected by a corridor with the laboratory, where research work is carried on.

In addition to the receiving service and the medical and surgical service, there are seven other services. Attached to these are receiving buildings for white men and women, for colored men and women, tubercular groups, etc.

St. Elizabeths Hospital has recently changed the method of providing food for its patients. The manner of serving is the cafeteria style. About 3,000 of the 5,380 patients in the hospital are given full cafeteria service and about 1,000 of the remainder modified cafeteria service. Of the others, 500 or 600 cannot be furnished such service because of physical conditions; the construction in the older buildings, where 1,000 patients are housed, is such that they would not lend themselves to this class of service. Under cafeteria service the patients are permitted a choice of food.

The hospital also specializes in educational work. Not only are the internes of the hospital given a course of instruction, but the hospital conducts a 3-year nurses' training school for registered nurses, and receives, in addition to its own students, affiliates of several schools which require psychiatry in their curricula, and post-graduates of other schools for psychiatric training. Other ward personnel receive a 2-year course of lectures in the care and treatment of mental cases.

A number of the members of the staff are on the faculties of local universities, including Georgetown, George Washington, and Howard Universities, and the Army and Navy medical schools. A number devote time to psychiatric work at the Life Adjustment Center.

The social-service department, which supervises patients on visit from the hospital and investigates home conditions before patients are permitted to return to their homes, trains students from local social-service schools.

The hospital has an extensive medical library. A circulating library is available for the patients. In addition to the books, periodicals, and magazines which are purchased, the Congressional Library donates surplus numbers of various periodicals and magazines for the use of the patients.

The American Red Cross maintains a unit at this institution, located in their own "hut", which looks after the social and recreational activities. These activities include dances, moving pictures, band concerts, trips to the circus, river excursions, and auto rides. Once each week about 70 patients are escorted to the American League ball park to see the national game of baseball. Among the recreations are tennis, baseball, basketball, and field sports.

The hospital carries on many industries, among which are the trade and industrial shop, willow shop, large shoe shop where are manufactured all shoes furnished patients by the hospital, an ice-cream plant, bakery, laundry, dairy, piggery, poultry plant, farms, power plant, book-bindery, sewing rooms, broom and brush making, printing, etc.

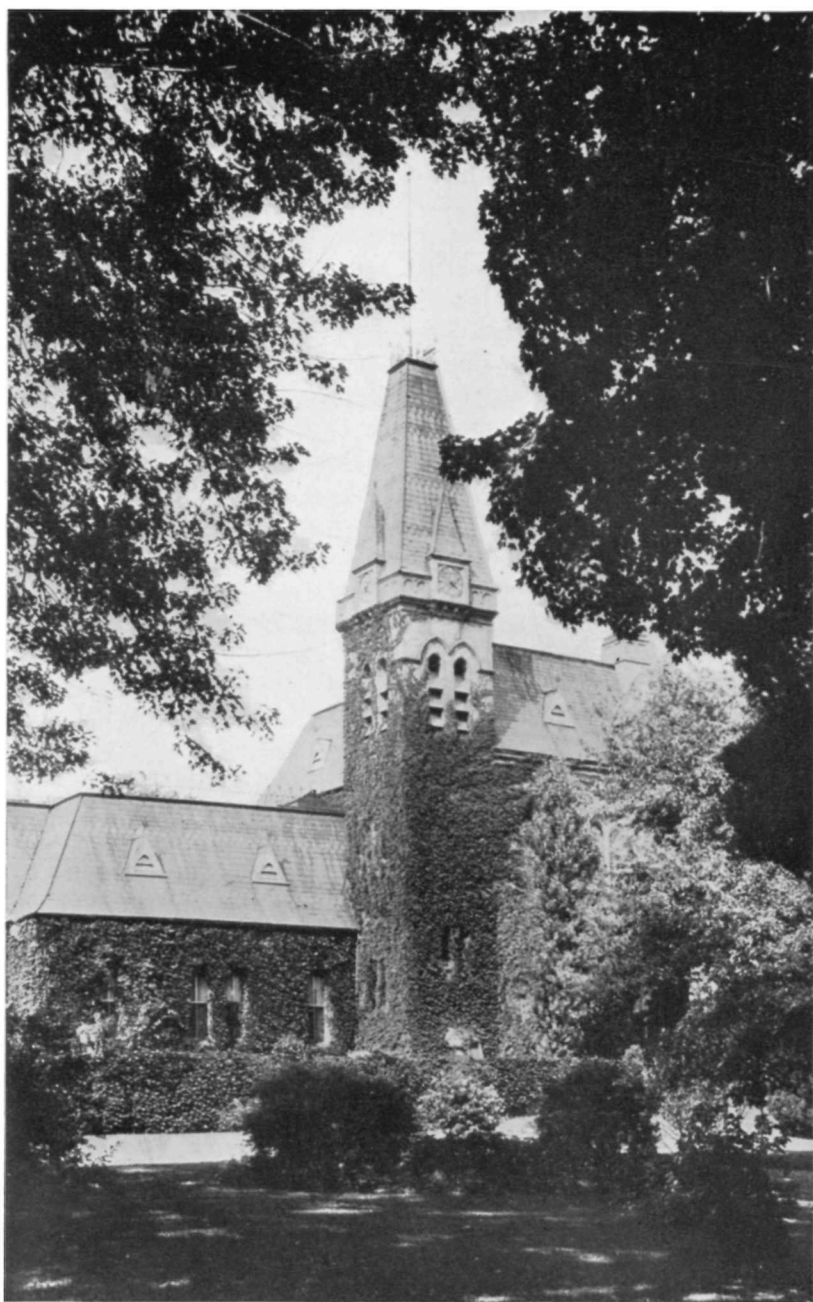
The whole work of the hospital is to effect the most humane and enlightened curative treatment of the mentally ill, and the restoration of as many patients as is possible to useful lives.

COLUMBIA INSTITUTION FOR THE DEAF

GALLAUDET COLLEGE ESTABLISHED 1857

THE Columbia Institution for the Deaf at Washington was first incorporated by Congress on February 16, 1857, under the title of "Columbia Institution for the Instruction of the Deaf and Dumb and the Blind." The instruction of the blind, however, was provided for elsewhere in 1865 and since that time the entire work of the institution has been devoted to the education of the deaf.

An important step in enlarging the original program of work was taken in 1864. In that year, by act of Congress, the board of directors of the institution was authorized to grant and confer collegiate degrees. A faculty was organized, and the advanced department was opened in the fall of 1864. The department bore



Gallaudet College Chapel.

originally the name of the National Deaf-Mute College. The title was changed, however, in 1894 to Gallaudet College in honor of Thomas Hopkins Gallaudet.

In 1891 a department for the instruction of teachers of the deaf was organized so that at the present time the program of educational work may be arranged under three heads.

First, elementary, intermediate, and part-high-school education conducted in the Kendall School particularly for the deaf children of the District of Columbia, for whom Congress provides free education through appropriations in the annual District of Columbia acts. This department has remained fairly stationary in size, offering instruction to nearly 70 deaf boys and girls from the District of Columbia, with a few special pay pupils from other localities.

All children in this department are started in oral classes and are given careful instruction in speech and speech reading. The work of the children is carried on by this method with the assistance of reading, pictures, and other material as long as the pupils are making reasonably good progress educationally. In cases where retardation is noted, use is made of the manual alphabet in instruction, which is of course simply another method of writing but one which is much more rapid than ordinary writing on paper or blackboard. All children are encouraged to use what powers of speech and lip reading they have. Hearing aids are installed in several classrooms so that the pupils who have remnants of hearing may have continual practice in understanding speech through the ear. All pupils are given training in rhythm, which is considered important in proper speech development.

The school course covers instruction in English, arithmetic, geography, United States and English history, civics, general science, and algebra, with much work in various projects and with particular attention to the mastery of every-day English. A special teacher of manual arts is employed to develop hand training. This teacher uses as agencies woodworking, rug weaving, metal work, basketry, and drawing. The older girls are given lessons in sewing and cooking and a few are instructed in typing. The older boys may have training in the institution

greenhouse, on the farm, and in the pressing shop, carpenter shop, paint shop, and print shop.

A great deal of attention is paid to physical welfare. A children's specialist has charge of the health of all the pupils, who are carefully protected by inoculation against the most prevalent dangerous children's diseases. They have physical drill, games, and sports, and maintain a Kendall School basketball team. All of the milk used in the children's diet is produced under careful supervision of the institution farm. Grounds comprising 100 acres are open for their recreation and amusement besides particular play apparatus situated near the children's dormitories. The aim of the program of the Kendall School is to graduate the deaf pupils as independent citizens capable of earning wages and supporting themselves as do their hearing brothers and sisters.

Second, Gallaudet College presents the only educational program for the higher education of the deaf which is given in the whole world. The student body is made up of about 140 young men and women who are carefully chosen by selective tests from the graduates of schools for the deaf throughout the country. There have been a few students in attendance from Canada, England, Wales, Scotland, and Ireland.

Because of the great amount of time spent in starting deaf children in the lower grades and in training them in vocational work, few of the schools for the deaf complete high school educational subjects. Therefore, the curriculum of Gallaudet College covers a 5-year period. By the end of the preparatory year a careful selection is made for entrance into the freshman class, with the result that the educational ability of the freshmen has in recent years been practically the same as that of students in the average college. This is borne out by tests conducted by the American Council on Education. The program of study carries courses in English, French, Latin, mathematics, natural science (including physics, chemistry, biology, geology, astronomy), and a number of courses along the line of civics and political science. English, American literature, and world literature are covered in the program. Certain courses in very practical subjects are given for the girls, such as typing, business practice, filing, library science, dressmaking and design, domestic science, and hygiene.

For the young men courses of this type are given in drawing, printing, agriculture, chemistry, and bacteriology. As a number of the graduates of the college regularly enter the profession of teaching the deaf, special courses are given in the principles and methods of teaching and in psychology.

The students of the college, also, are under the charge of physical directors, and engage regularly in many organized sports, including swimming, basketball, archery, tennis, football, wrestling, and in such intramural sports as volley ball, diamond ball, etc. They engage frequently in contests with other colleges under their own team managers.

The students publish their own combined newspaper and magazine and carry on useful and entertaining activities through literary and dramatic societies.

It is the aim of the college course to give a liberal education to all of the students and to point each one, if possible, along some definite line of endeavor in afterlife. A large proportion of the graduates engage in teaching the deaf in various parts of the country, and many have risen to prominence in this profession. Others have become well known in architecture, chemistry, agriculture, bacteriology, and even in law and dentistry. Practically all graduates are gainfully employed. The total number of deaf persons instructed in the institution to date is 2,944; the total number instructed in the college department is 1,943. The number who have graduated with degrees from Gallaudet College is 988.

The third department conducted by the Columbia Institution for the Deaf is a very small one in which teachers of the deaf are trained. Only candidates are accepted who are graduates of colleges in good standing, and the number is usually limited to six each year. These young people are instructed in the principles of speech and lip reading and the use of the manual alphabet and the language of signs, the history of the education of the deaf, psychology of the deaf, principles of teaching, and are given much practice work in all types of instruction to deaf pupils. Over 200 persons have been graduated from this department, and about half of them are now engaged in the work of teaching the deaf; 25 schools of considerable size in this country and

abroad are in charge of the graduates of this department; 20 of the graduates have been assigned to principalships in various schools throughout the United States and foreign countries in charge of educational work under administrative heads.

The institution is supported by grants from Congress, by District of Columbia funds, by income from endowment, and other miscellaneous sources. The United States maintains in Gallaudet College a maximum of 145 free scholarships for qualified deaf students.

The institution is governed by a board of directors of 11, among whom is always a representation of 3 Congressmen. The activities of the institution are annually reported to the Secretary of the Interior.

Largely through the liberality of the National Government hundreds of deaf young people have been placed among our independent and self-supporting citizens and have lived happy and successful lives because they have received training at the Columbia Institution for the Deaf.

FREEDMEN'S HOSPITAL

ESTABLISHED 1865

FREEDMEN'S HOSPITAL is one of the activities under the supervision of the Department of the Interior. It is a class A institution of 322 beds and 54 bassinets, maintaining an indoor and outdoor department; an emergency, ambulance, and social service. It has an interesting history dating back to March 3, 1865, at which time Congress passed "An act to establish a Bureau for the relief of Freedmen and Refugees." Section 2 of that act provided:

That the Secretary of War may direct such issue of provisions, clothing, and fuel as he may deem needful for the immediate and temporary shelter and supply of destitute and suffering refugees and freedmen and their wives and children, under such rules and regulations as he may direct.

Many of those refugees from the Southland were aged and infirm and urgently in need of medical care. The result was, the Bureau established became Freedmen's Hospital and Asylum.

During the years 1868-69, the Freedmen's Hospital permanent quarters were built; a brick building 54 by 100 feet and three frame wards 24 by 120 feet were constructed. The ground



General view of Freedmen's Hospital.

surrounding them covered a space of nearly 4 acres. The third and fourth stories of the brick building were occupied by the medical department of Howard University, and the rest of this building along with the frame wards were used for hospital purposes.

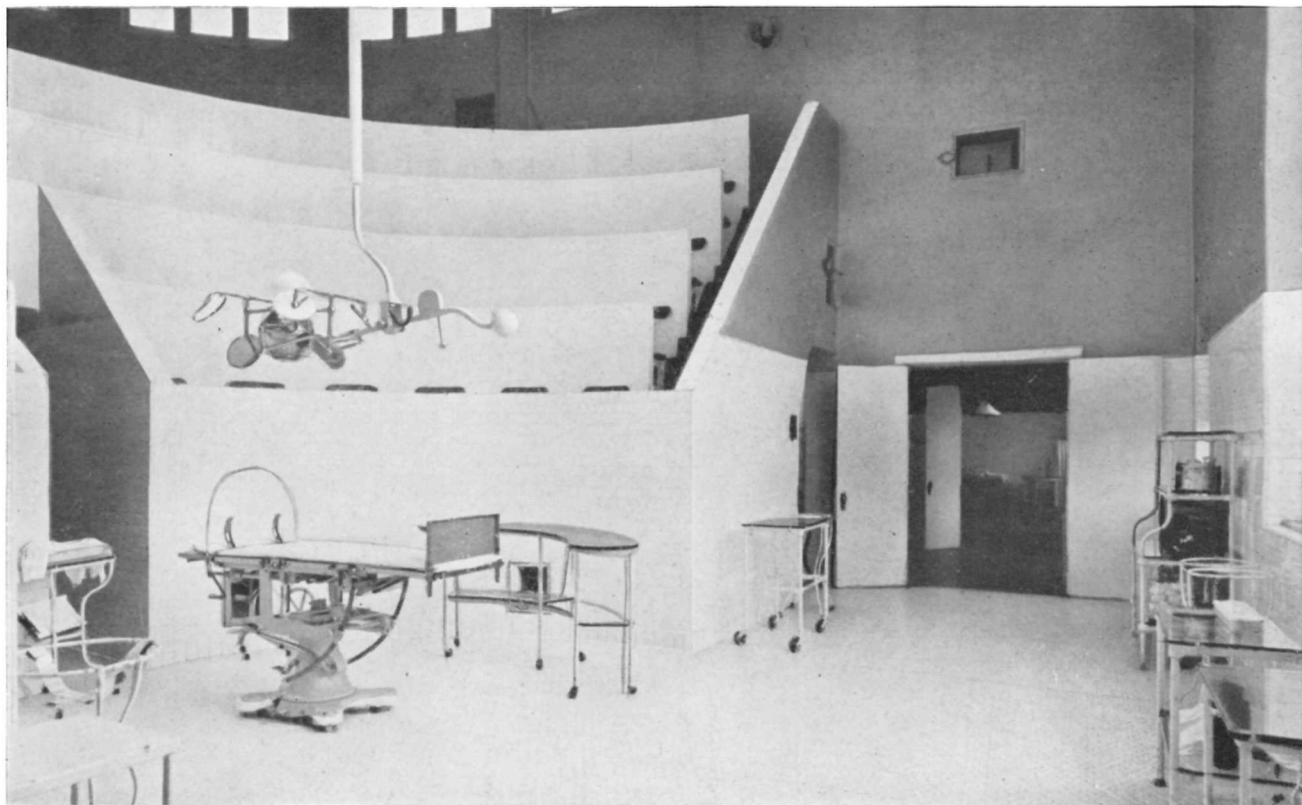
It was not until 1894 that the hospital began to emerge from its poorhouse features and to develop along educational lines. During this year the interne system was organized and a training school for nurses established.

By the Sundry Civil Act of March 3, 1903, provision was made for the construction of a new Freedmen's Hospital building, on the site now occupied by the hospital. Actual construction of this building, however, was not begun until August 21, 1905. Not until February 26, 1908, however, was the building completed. The service was organized on a modern basis with up-to-date equipment, placing within reach of the young colored graduates and student nurses, as well as the physicians of Washington who constituted the visiting staff, the best possible scientific opportunities.

The hospital now comprises an area of four city blocks in buildings and grounds. Provision is made for both indigent and pay patients. The visiting staff numbers 115 persons. In many instances they have been students in the Howard Medical School. Here they received, in their early training, the direct benefits of the clinical material afforded by the hospital.

The internes are the immediate aids to the visiting staff. These young men, some of whom have graduated from Howard University Medical School, and others from distant schools, are introduced for the first time to the actual practice of medicine. It is a part of the Freedmen's Hospital program to train them for efficiency. From them surgeons, internists, trained men in tuberculosis, pediatrics, and other branches of medicine are developed. When they have completed their internship, a number spend a year or more in their special fields at Freedmen's.

The department of nurse training gives young women theoretical and practical instruction in trained nursing. Upon graduation they are eligible for membership in the Freedmen's Hospital Nurse Training Association, and to State boards examinations.



The operating room, Freedmen's Hospital.

Many of its graduates have achieved the coveted "R. N." Their services are often required in hospitals as superintendents and head nurses.

In its earliest days, Freedmen's Hospital was an asylum. The care of the sick gradually grew out of the asylum feature. The clinics for visiting patients now have a scope unlimited and a duty in keeping with it.

The clinics are so divided that all diseases are covered. Poor economic and hygienic conditions are as much responsible for disease as "physical susceptibility", if not more so. The hospital advises patients in such a plight as to hygiene in order to protect themselves and the other members of society. The emergency dressing station handles emergencies, without regard to race or creed. These cases, after treatment, are advised as to further care, many of them being admitted to the hospital.

Vaccine and serum therapy are features in the program for the benefit of school children. Vaccinations, antityphoid inoculations, and various scientific tests are employed for the conservation of child health.

Through prenatal clinics, from the time of conception to the time of the birth, the mother is guarded and instructed as to what to do, as well as to what not to do. Such examinations as are indicated are made regularly and periodically. In this way, maximum care results in better babies. The children's clinic begins the problem after birth and carries it to the twelfth year. The parents are happier and healthier, and often the newborn, despite home environments, develop into healthy normal beings.

In an act approved June 26, 1912, authority was granted to establish a "pay patient" system. The provision was as follows:

Hereafter patients may be admitted to Freedmen's Hospital for care and treatment on the payment of such reasonable charges therefor as the Secretary of the Interior shall prescribe. All money so collected shall be paid into the Treasury to the credit of Freedmen's Hospital, to be disbursed under the supervision of the Secretary of the Interior for subsistence, fuel, and light, surgical instruments, repairs, furniture, and other absolutely necessary expenses incident to the management of the hospital. A report as to the expenditures thereof to be made annually to Congress.

The members of the resident and visiting staffs of this institution are formed into an association which meets monthly at the hospi-

tal. Papers on medical and surgical subjects are read and discussed, cases are exhibited, and other matters pertaining to the institution are considered, whereby better service may be rendered the public.

In 1921 an organization of former internes of Freedmen's Hospital was formed, known as "The Association of Former Internes of Freedmen's Hospital." So far as is known, this is the only organization of its kind in the country. Its object is the advancement of the medical science, particularly among colored people. The association meets annually at the hospital. Clinics are held and papers on medical subjects are read and discussed. As a result, members of the association feel that they are better able to practice their profession in the various communities in which they live.

With the expansion of the work of the hospital, and a consequent expansion of its personnel, the staff of internes has steadily grown until, from an original 4 there are now 25 including a dental interne who conducts clinics within the hospital. From an original handful of student nurses, with one staff nurse, the corps has grown until it now numbers 108 student nurses and 27 staff nurses.

There can hardly be any doubt that Freedmen's Hospital justifies its existence. Established primarily as a hospital and asylum for former slaves and refugees, it has grown to be rated a class A hospital by the American College of Surgeons and the American Medical Association. The executive staff of five is colored, as is the interne staff. The visiting staff, clerical, and other employees are less than 1 percent white.

HOWARD UNIVERSITY

ESTABLISHED 1867

PRESIDENT ANDREW JOHNSON signed an act of Congress granting a charter to Howard University on March 2, 1867.

The university grew out of an idea expressed at the monthly concert of prayer for missions which was held in the First Congregational Church of Washington, D. C., November 19, 1866. The first idea was to establish a college for training Negro



The Frederick Douglass Memorial Building, Howard University

ministers and teachers in order to solve the economic and social problems of the freedmen after the War Between the States. The idea grew from this conception to the establishment of an institution of higher education.

At this time, 1865, Maj. Gen. Oliver Otis Howard, who had served with distinction in the Federal forces commanding the Army of the Cumberland and Tennessee in 1863, was the Commissioner of the Freedmen's Bureau. There had been an inflow of refugees and freedmen which quickly tripled the Negro population in Washington. General Howard was faced with tremendous economic and social problems. He did everything from establishing soup kitchens to running the equivalent in that day of a resettlement administration and subsistence homesteads. He became vitally interested in a university for the Negro population, and when the question of a name baffled the sponsors of such an institution they quickly agreed on Howard University. The general demurred. To overcome his objection, the general was told that there was a John Howard, an English philanthropist, and that he might think of John Howard as the philanthropist in honor of whom the school was named. But the Reverend D. D. Nichols, one of the prime movers in the establishment of the university says:

Nevertheless this vote (on the name of the university) meant the American philanthropist, the Commissioner of the Freedmen's Bureau and true friend of the downtrodden and oppressed of every color and nation of the earth.

William W. Patton, president of the university from 1876 to 1889, in his History of Howard University points out that—

the charter does not contain the word, "Negro" or "black" or "African." It simply provides for establishing a university for the education of youth in the liberal arts and sciences. * * * The charter does not contain the word, "male" or "female", but speaks only of "youth." * * * In view of the wide field to be covered, it was deemed unwise to make the university denominational in its religious character, as regards the students, the instructors, or the trustees. Hence the charter contains no religious test or limitation, although the institution originated with men of decided religious convictions who wished to be helpful to Christian truth and work.

An interesting historical sidelight is that the property of the university was secured from John A. Smith, a farmer, who in 1862 owned 14 slaves which he valued at \$5,146.50.

Instruction in the theological department began January 6, 1868. The collegiate department began its work on September 21 of the same year. On April 12, 1868, the medical department was authorized, but it was not until November 8 that sessions in this department were started. The law department formally opened on January 6, 1869.

Financially, the university was allocated \$529,000 from the Freedmen's Bureau during the early years, but from 1867 to 1879 there were no Federal appropriations and the university was entirely dependent on contributions. During the post-war boom years, the trustees of the institution, like others throughout the country, over-extended building and activities of the university. When the depression of 1873 hit, drastic curtailments saved the property of the university and put it in a position to continue its work. From 1879 to the present time, Congress has made direct appropriations for the university. Private contributions have also been given.

From the original three chairs of instruction, one on the Evidence of Christianity and Biblical Interpretation, one on Biblical History and Geography, and one on Anatomy and Physiology in their Relations to Hygiene, the latter being the basis for the school of medicine, the university has grown to its present stature. The schools and colleges of the university are: The college of liberal arts, the graduate school, the school of engineering and architecture, the school of music, the school of religion, the school of law, the school of medicine, the college of dentistry, and the college of pharmacy.

The college of liberal arts offers the usual undergraduate program in English, foreign languages, natural and physical sciences, social studies, commerce and finance, and physical education. The college of liberal arts has absorbed the work formerly administered by the college of education, and offers training for teachers and administrators in public or private high schools and academies; also, it has absorbed the departments of art and home economics which heretofore have been administered by the college of applied science. The latter has been discontinued. The school of engineering and architecture which succeeded the college of applied science, offers courses leading to the degree of



Women's dormitory buildings, Howard University

bachelor of science in architecture, civil engineering, electrical engineering, and mechanical engineering.

The school of music offers courses leading to the degree of bachelor of music in voice, piano, organ, and violin; and courses in public school music, with a degree of bachelor of school music.

The graduate division, organized in 1928 as a separate unit under the direction of the committee on graduate studies, offers the degrees of master of arts and master of science. Beginning with the school year 1934-35, the graduate division began operating as a graduate school with its own dean and faculty.

The school of religion offers courses for graduates of standardized colleges who plan to study religion in preparation for the ministry or other Christian work.

The school of law, approved by the American Bar Association, and member of the Association of American Law Schools, offers a 3-year day course, leading to the degree of bachelor of laws.

The college of medicine is rated by the American Medical Association as class A and is a member of the Association of American Medical Colleges.

The college of dentistry, organized 1882, provides thorough training in dentistry, qualifying its graduates to serve the public health in care and control of oral disease. Its alumni practice in all States and abroad. A course now has been provided for training dental hygienists.

The college of pharmacy offers a 4-year course with the degree of bachelor of science in pharmacy, and prepares students for the professions of retail pharmacists, analytical chemists, and Government service.

The normal enrollment of the university before the depression was 2,600 from 42 States and 17 foreign countries, of whom 59 percent were men, and 41 percent women.

As of June 30, 1935, Howard had 9,205 graduates among whom are members of legislatures in several States; judges and magistrates; assistant United States district attorneys; lawyers in private practice, surgeons in chief, and superintendents of hospitals, together with scores of practicing physicians, dentists, and pharmacists; presidents, deans, and principals of schools; a host of teachers, musicians, architects, artists, engineers, dietitians,

social workers, clergymen, and missionaries in home and foreign service.

The physical plant of the university includes approximately 26 buildings. Among them are three dormitories for women, Frederick Douglas Memorial Hall, a class-room building, a new chemistry building, and a heat, light, and power plant which serves Freedmen's Hospital as well as Howard University. The construction of a new medical school building has been begun. This followed the securing of a half-million-dollar endowment for the school of medicine.

OFFICE OF EDUCATION

ESTABLISHED 1867

ORIGINALLY founded in 1867 as "a Department of Education", the present Office of Education, sometimes during its career also called the Bureau of Education, has become a great national clearing-house and research center for all phases of educational activity in this country. It seeks to gather, analyze, interpret, and disseminate factual information and reports on educational progress throughout the Nation. It not only serves as the Federal agency in the field of research but promotes educational policies, principles, and methods based upon the results of such research, and administers Federal educational funds.

The Thirty-ninth Congress in the year 1867 enacted the law which established the original "Department of Education for the purpose of collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories, and of diffusing such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country." The activities of the Office of Education are divided into two major divisions:

EDUCATION DIVISION

The major division known as general education conducts investigations and serves school officials in the fields of elementary

and secondary schools; higher education; health education; guidance and industrial education; tests and measurements; special problems, dealing with exceptional children, rural education, and the education of Negroes; comparative education; and educational statistics. In addition to these are the Editorial Division and the Office of Education Library.

The Elementary and Secondary Schools Division deals with the wide field of educational problems in State, county, and local school systems. It makes surveys of local school systems, including reports of findings and recommendations for improved conditions. Another far-reaching activity is its advisory services to boards of education, superintendents of schools, and other officials. This Division includes nursery-kindergarten-primary education; parent education; school-building problems; State, county, and city school administration; school finance; and school legislation.

The Division of Higher Education serves in fields of college and university research, administration, teacher training, curriculum. It conducts studies of the more urgent problems on college levels. This division helps organize, and participates in conferences devoted to higher education. During the current period it has been devoting considerable attention to the relationship of the State to higher education and to graduate instruction.

In the field of school hygiene, the Office of Education conducts investigations and furnishes information concerning the planning, equipment, and care of buildings and grounds with reference to health and safety; the prevention of disease; the medical examination and care of school children, college students and teachers; instruction in safety and health and the management of physical education activities.

In the field of educational and vocational guidance, the Office of Education collects and furnishes information on guidance practices carried on in local school systems, in State departments of education, in teacher-training institutions, and on occupational information. It cooperates with communities studying guidance problems. It keeps in touch with occupational information courses such as those in industrial arts given in public schools.

In the field of tests and measurements, up-to-date information regarding the tests available for use in schools is kept; studies of

the uses made of tests and ratings made in schools are carried on, especially in regard to their use in instruction, administration, curriculum construction, and guidance; and testing programs set up by school systems are evaluated upon request. Many conferences are held dealing with phases of measurement which need attention from a central office.

The Special Problems Division deals particularly with the educational problems of exceptional children; rural youth; Negroes; and native and indigenous groups in continental United States and its outlying parts.

The Comparative Education Division assists in obtaining factual data from other countries for the information and helpfulness of the schools and other institutions of learning in this country. This division evaluates credentials of foreign students coming into the United States in pursuit of higher education.

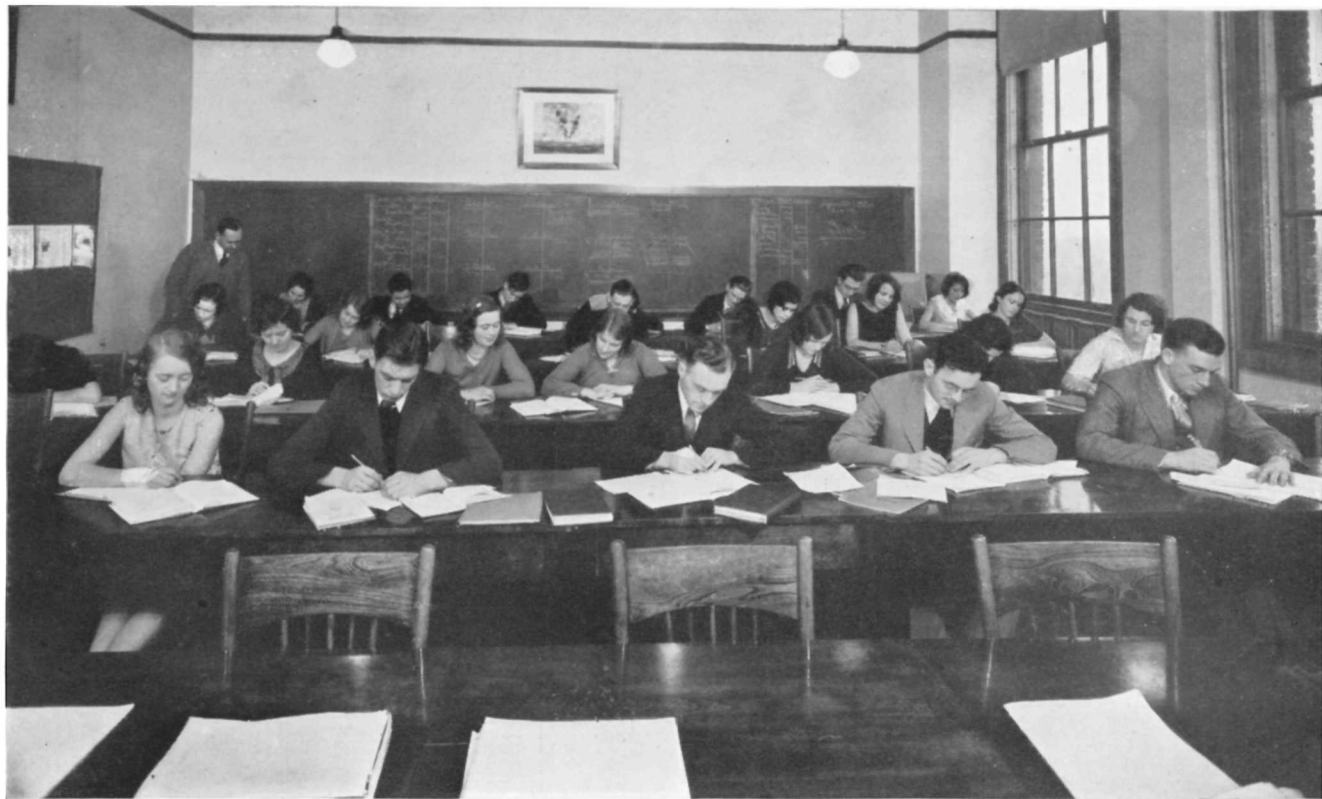
The Statistical Division collects, tabulates, and disseminates statistical information as its major function. Its field staff, though small, enables it to obtain necessary reports from State and local officials and makes it possible for these specialists to advise local educational authorities in establishing more uniform record and accounting systems.

The Editorial Division publishes *School Life*, the official monthly organ of the Office of Education, and the *March of Education*, a monthly news letter to educators; and edits manuscripts growing out of research of the different divisions and has charge of their distribution.

The Office of Education Library numbers more than 200,000 volumes on educational subjects. These are carefully preserved and cataloged and form a storehouse of information on educational progress. The Library seeks to serve as a standard for educational libraries throughout the country, and upon request assists schools by studying and surveying their library activities with a view to improvement.

VOCATIONAL EDUCATION DIVISION

This division covers services in the fields of agricultural education, trade and industrial education, home economics, commercial education, and rehabilitation. It is the continuation of the work



Class in vocational education.

of the Federal Board for Vocational Education, which was transferred to the Office of Education in 1933.

Enrollments throughout the country in vocational education classes in agriculture, trade and industry, and home economics reached a peak of 1,249,189 during the fiscal year ended June 29, 1935. This is an increase of more than 130,000 over the previous year. This increase is divided as follows: Agriculture, 40,622; trade and industry, 51,924; and home economics, 37,503. The increases are based on a total enrollment of 329,983 persons in agricultural courses, 537,983 in trade and industrial courses, and 381,224 in home economics courses.

The record in the field of vocational rehabilitation during the year has been outstanding, according to the statistics of the division. The number of disabled persons actually rehabilitated, as well as the number of persons in process of rehabilitation, exceeds that of any year since the establishment of the program in 1920. These increases were made possible through the allotment of relief funds for rehabilitation purposes. The number of persons rehabilitated during the year was 9,422, while the number in process of rehabilitation at the close of the year was 40,941. These figures are the more impressive when it is understood that rehabilitation cannot be done on a mass basis, but must be carried out on an individual or case basis.

Lately the Office of Education has assumed responsibility for the expansion of many of its services and activities, including:

Public affairs forums, a project to develop a better understanding of public affairs and adult civic education through forums.

Educational radio project is an effort to develop the great potentialities which radio holds for education. Time on the air is being provided gratis by the National Broadcasting Co. and Columbia Broadcasting System.

Research in universities throughout the United States is being carried on by research workers, former graduate students, college graduates, and former college students.

Vocational education and guidance of Negroes is a Nationwide survey in 150 communities of 34 States to learn what opportunities for vocational education and guidance of Negroes are available in the United States.

The local school units study comprises a survey of the present educational conditions in existing school districts of 10 States in an endeavor to determine possibilities for better organization of schools.

NEW RESPONSIBILITIES

Direction of the educational program of C. C. C. camps is now an Office of Education responsibility.

Federal Radio Education Committee. The Commissioner of Education has been named by the Federal Communications Commission, chairman of the Federal Radio Education Committee. This Committee will study educational broadcasting throughout the Nation and develop fuller cooperation between broadcasters and educators.

Committee on Youth Problems. A conference on youth held in Washington, D. C., in June 1934, recommended that Federal Government activity be organized in behalf of American youth and that such activity be associated with the Office of Education. Acting on this recommendation, the United States Commissioner of Education in August 1934 appointed a Committee on Youth Problems, which carried out a study on this matter through local communities.

The National Youth Survey is designed to assemble definite information concerning the needs and conditions of American youth. About 300 communities will participate and 500,000 young people will supply information. The direction of the several surveys is in the hands of the local school superintendents.

National Committee on Inter-American Intellectual Cooperation, of which the Commissioner of Education is chairman, cooperates with the Pan-American Union in promoting such measures as will facilitate scientific and technical exchange among the American countries in order to raise the cultural level on the Western Continent.

GEOLOGICAL SURVEY

ESTABLISHED 1879

THE daily life of every man, woman, and child in the United States and the continued welfare and progress of our country are dependent upon adequate supplies and wise use of the coun-



Geological Survey measuring stream flow in Ohio.

try's minerals and water. Investigations of these all-important natural resources form a principal part of the work of the Geological Survey, and every citizen benefits directly or indirectly by the many practical tasks with which the Survey is busy throughout the United States, Alaska, and Hawaii.

This effective arm of the Federal Service was created March 3, 1879, replacing the four Government surveys that explored the romantic West in the years that followed the War Between the States. Congress decreed that the Geological Survey should classify the public lands and examine the geologic structure and mineral resources of the national domain, and for more than half a century the Survey has contributed much to the settlement of the vacant public lands and the development of the natural resources of the entire country. Systematic study of the geology of the United States was the original aim of the bureau. It soon became apparent that topographic maps were necessary to that study, and topographic mapping of the country was begun. Later, when it was seen that the full use of the arid and semiarid lands involved the largest utilization of their water supplies, an investigation of the country's water resources became an important function of the Survey. Still later, forestry surveys and studies in mineral technology, undertaken first in the Geological Survey, grew to such proportions and diverged to such an extent from the Survey's general field that they became bases for the organization of the Forest Service and the Bureau of Mines, and the construction program based on the Survey's examination of reservoir sites was made the work of the Reclamation Service (now the Bureau of Reclamation). Thus three important bureaus of the Government trace their origin to the Geological Survey. More recently, in 1925, the task of supervising the development of minerals on leased public lands was added to the Survey's duties.

Today, the investigative and engineering activities of the Geological Survey are distributed among five major units—the Geologic, Topographic, Water Resources, Conservation, and Alaska Branches.

Geologic Branch: The importance of the science of geology to man's very existence is not always apparent to the layman. He

accepts as a matter of course the fact that we are always digging into the earth for something we want and that, in a land so rich in mineral deposits, we usually find it, whether it be oil or coal to run the giant machines of industry and transportation; phosphate, nitrate, and potash as essential aids to agriculture; or sand, pebbles, and limestone to make concrete for the skyscraper of big business; but he does not realize that seldom by chance or "hunch" are the sources of valuable minerals revealed. Just where, in what quantities, and in what form all the needed mineral substances are to be found are problems for the geologist. His intensive study of the earth's crust and his specialized training in important phases of geology enable him to point out, with a remarkable degree of accuracy, the areas that should be developed by private capital for the benefit of all the people.

About 90 geologists and associated chemists and physicists in the Geological Survey are constantly studying the problems of their profession, generally the fundamental regional questions that involve the preparation of basic geologic maps and the interpretation of broad structural conditions—questions that cannot be answered by private study of individual properties, however intensive. These scientists form coordinated groups of specialists, each group engaged in some particular phase within the more general field of the science of geology. The fuels group, for example, has for years devoted a greater part of its energies to the study of coal, oil, and gas. Astonishing as it may seem, it is nevertheless a fact that scarcely more than a generation ago geology was virtually unknown to the oil industry. Today no company of standing acquires property or undertakes drilling unless the action has the approval of its geologic staff, and many of the leading company geologists are Survey graduates, men who obtained their early practical training in geology on the Survey.

The metals group deals with its own special problems. Man will continue the quest for gold and silver and for the base metals as long as these are factors in world progress, and in the development of many renowned mining districts the Survey specialists in mining geology have played an important part. These groups and others in the Geologic Branch are therefore invaluable assets to the mining industry, the second largest industry in the country,

which has long relied upon the sound, carefully prepared, and wholly impartial reports of the Geological Survey. More than 1,000 reports of this kind have been published. About half of the scientific force of the Survey devotes itself to economic problems, the others to fundamental work on which the economic geologist depends in his application of geology to industrial problems and on which educational institutions depend for the general advancement of the science.

Topographic Branch: The principal task of the Topographic Branch is the making of highly accurate topographic maps that show the shape of the land, the location of all natural and man-made features, and the height of all points above the level of the sea. Over 4,000 of these maps have been published, each representing a quadrangle or area bounded by parallels of latitude and meridians of longitude. The topographic map is not an office compilation from notebook records but is actually drawn in the field. Meridians and parallels and the positions of the basic control points are first plotted in the office on a sheet of aluminum-mounted paper. In the field the topographer mounts this sheet on a drawing board supported by a tripod and, after plotting observed directions and distances, draws with pencil on the sheet each feature and the elevation contours in their proper position and shape. On completion of the field work, the map is sent to the office for drafting and publication. Eight presses, one of them the largest multicolor press in any Government establishment, are available for the printing.

The Geological Survey has a stock of about 6,500,000 maps, and distributes between 600,000 and 700,000 annually. The topographic maps are the basis for all planning that involves the physical features of the earth's surface. They are of tremendous value and indeed are indispensable for national defense; for the engineering design and construction of public and industrial projects such as highways, irrigation, drainage, and flood-control systems, canals, and soil-erosion control; and for a countless number of other public and private uses. Engineers, geologists, and educators generally call for a topographic map before they begin any project or study, and those seeking recreation are just as eager to obtain them.

Water Resources Branch: Nothing is of greater importance to the Nation today than the proper control and utilization of its water supplies, a problem to the solution of which the Water Resources Branch contributes essential basic information. Unfortunately, the total supply of water available in any locality is determined by the precipitation, which is strictly limited by nature and cannot be increased by any device of man. It follows, therefore, that when the total supply is utilized, changes in development to meet new or higher needs must be accompanied by more economical use or by readjustments of use. In many regions the limits of use have already been reached or are being approached. Shortages of water necessarily restrict the area that may be irrigated, the location and size of power plants and industrial projects, and even the growth of cities and towns. The knowledge of such deficiencies has resulted in the building of great systems of water supply for large cities, huge investments in irrigation works, and intensive studies for obtaining new supplies of both ground and surface water from nearby or distant sources to be utilized in cities, irrigation districts, and industries. The control of flood waters in streams of all sizes to reduce destruction by washouts, flooding, and erosion presents a most urgent problem.

Four decades ago the Water Resources Branch took up its work. As rainfall and the resulting amount of water in the rivers vary widely from month to month and from year to year, the Branch began to measure and record the flow of rivers and to publish reports of the daily discharge. Today it is making accurate measurements at more than 3,000 gaging stations throughout the United States. It also undertook intensive studies of the waters that lie below the surface of the earth, and of the suitability of waters for industrial uses, and compiled statistics of the power developed by public-utility plants and the fuel consumed in the generation of that power. These data have served and are serving as the basis of planning, financing, constructing, and operating hydraulic works of all kinds, including those relating to irrigation, water power, industrial uses of water, municipal water supplies, flood control, and drainage. They also serve officials in the development and administration of Government projects, both State and National; and in this



Prospecting for bauxite in Arkansas.

connection it is to be noted that in water-resources investigations the Geological Survey cooperates with practically all the 48 States. In order that field work may be accomplished efficiently, that State officials may be freely consulted as to State problems and State needs, and that they may be promptly furnished with results as they are obtained, the work is conducted through about 40 field offices, to which are assigned permanent engineering employees who have become, through long residence and service, local citizens familiar with local problems and requirements.

Conservation Branch: The Federal Government once owned a landed estate of a billion and a half acres, whose vast possibilities awakened the Nation to the need for classifying the public lands to determine their value for mineral and power development. Congress assigned this duty to the Geological Survey. From the unit which began the task has evolved the Conservation Branch, combining the work formerly done by the Land Classification Branch of the Geological Survey and the supervisory and regulatory work of mineral leasing once performed by the Bureau of Mines. As practiced in this branch, conservation means the protection of the public lands from improper use, and aid to the timely development of their great natural resources. The data gathered by this fact-finding agency gave impetus to the first step toward a national policy with regard to publicly owned sources of fuel, power, etc., and the information accumulated in subsequent years has contributed to the development of that policy as expressed in congressional enactments.

First in the national scheme of conservation was the withdrawal policy by which the Government provided for the saving of resources worth hundreds of millions of dollars. It withdrew from entry and settlement vast areas of public lands throughout the West that were known, or from geologic evidence were believed to be, valuable for deposits of coal, petroleum, natural gas, phosphate rock, or potassium minerals, or to involve possibilities of water power or water-storage development. These withdrawals were intended to protect the Government's interests pending examination and classification as to the mineral or utility involved and the enactment of legislation providing for the use or disposition of them. The procedure was a radical step,

to which much opposition was raised at the time, but subsequent benefits have fully justified its adoption. Ultimately Congress enacted laws providing for a system of permits and leases under which the economically important public lands might be privately prospected and developed. As a result of this system many millions of dollars have flowed into the Federal and State treasuries.

When mines are opened or wells drilled on the public lands under lease, the Conservation Branch represents the Government in seeing that operators follow proper technical methods, so as to avoid injuries to workers and damage to the mineral deposits; it also checks up on the proper amounts of rents and royalties to be paid. This work of administration is accomplished through responsible supervisors stationed at a score of strategic points in the West. The magnitude of the operations supervised is indicated by the facts that more than \$300,000,000 is invested in producing operations on public lands and that mineral products, which in 1935 were valued at more than \$40,000,000 are developed under them, paying the Government about \$4,388,000 in royalties and rentals during 1935. It is the duty of these field representatives to demonstrate in every way that the United States is the best landlord; in fact, in respect to practical conservation, the public interests and those of the operator are not opposed, but are parallel.

Alaska Branch: What the other branches of the Survey as a whole do in the States proper, the Alaska Branch does in some degree in our great outlying Territory of Alaska. The Survey's work in Alaska has therefore embraced geologic and topographic surveys, as well as investigations of water resources and cooperation in the classification and leasing activities. In general these activities have been of essentially the same kind as similar work in the States, but the necessity for adapting the methods and aims to work in a frontier country has led to the development of special exploratory and reconnaissance practices in handling the various phases of the work. Thus it has been essential that the geologists and engineers engaged in this work should be not only skilled in their technical fields but able to overcome all the obstacles and hardships that inevitably beset

field work under pioneer conditions, where the party must depend on itself for getting over the country, subsisting itself, and meeting any exigency that may arise. Travel by pack train, dog train, raft, canoe, or back packing presents no novelty to these men, as they have covered thousands of miles by whichever method was most fitted to the project on which they were engaged. They have not only followed the advance guard of prospectors and miners but have actually blazed many trails for those adventurous spirits, and throughout the Territory the Survey maps and reports are the authoritative source of information even to those who know the region best. This information has furnished a reliable ground work on which have been built many of the mining developments that have already yielded minerals worth more than \$700,000,000, or nearly 100 times the \$7,200,000 originally paid to Russia for this great northern area.

BUREAU OF RECLAMATION

ESTABLISHED 1902

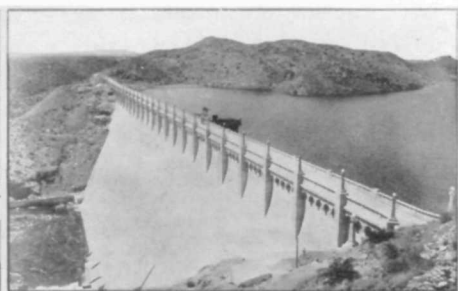
DROUGHT to a large part of the United States is a scourge to be feared and, during its infrequent visitations, to be borne with tragic fortitude. However, in the western third of the Nation drought is perpetual. There is never enough natural rain and snowfall in the region stretching from the one-hundredth meridian to the Pacific Ocean for the growth of lush corn and fine crops. Precipitation remains below the normal needs of agriculture. Here farmers who depend upon the natural rainfall are known as "dry-farmers" and are considered lucky if they make one crop out of three. In vast areas where nothing but deserts exist, even the hazardous dry-farming is not attempted. This arid and semiarid region includes all or part of 17 States. There the Bureau of Reclamation operates.

Irrigation is necessary to overcome the perpetual drought. The Indians found it so in prehistoric times. They watered gardens at the foot of cliffs on which they built their communal castles. An ancient canal system for the irrigation of 250,000 desert acres can be traced in the San Carlos and Salt River

Federal Reclamation in a nutshell



The Source



The Water Conserved



The Desert



The Carrier



Crops



Livestock



Factories



Homes

Valleys of Arizona. The Spanish missionaries, the Mormons, the "49ers", and the American pioneers as they pushed their way into this beautiful, healthful, but dry land, diverted the streams for irrigation at the same time they laid the foundation for their buildings. The civilization of the West literally is built on irrigation. Lawns in the cities are irrigated; crops in the fields are irrigated; and domestic water supplies are brought from far-away sources, some of them hundreds of miles distant.

In short, the water of this region is its most valuable resource. In the arid zone in Arizona, California, Nevada, Oregon, Washington, Idaho, Montana, Wyoming, Utah, Colorado, and New Mexico, and in the western counties of North and South Dakota, Nebraska, Kansas, Oklahoma, and Texas there are literally tens of millions of fertile acres that never can be used by farmers, even with maximum development of water sources, because of inadequate water. The moisture that does fall on the great mountains and plateaus drains into a few extensive river systems, which, for the most part, carry surprisingly small streams of water. Their flow, when completely and most economically used, will irrigate but a fraction of the fertile land available.

From earliest times all development in this area has been toward the point at which the entire water supply will be put to useful work. At first it was not difficult to find places where water could be diverted cheaply and easily from the western streams. By 1902, when the Bureau of Reclamation was set up by Congress, all these opportunities were gone. The potential developments then remaining were of a more costly type, involving construction of storage dams, tunnels, difficult canal systems, and the like. They were none the less valuable because they were more exacting upon the engineer and the financier. They simply were too much for private interests to handle.

Since the time President Theodore Roosevelt asked Congress to establish the Bureau of Reclamation to conserve the West's principal resource, its water, the Bureau has created from those western deserts more than \$1,000,000,000 in taxable property. In the construction of 29 projects now in operation, the Bureau spent \$228,000,000. Of this total nearly \$50,000,000 has been repaid by the water users, who are required to contract for repay-

ment of the full cost of the projects benefiting them although they are charged no interest.

Homes have been created for nearly 700,000 persons on Federal projects. While these homes have been scattered throughout the arid regions in 15 States, the additions they represent to the population of the West approximate the combined populations of New Mexico, Nevada, and Wyoming. Perhaps the best illustration of the value to the West of the work done by the Bureau can be found in the fact that there are seven States in the arid region with less population than the Federal projects. In each of these States, Federal projects support an important section of the population there present.

The Bureau's work is not finished. Today it is engaged in its greatest construction program. Valuable new work is under way in many parts of this distressed region.

Construction of Boulder Dam on the Colorado River, it has been estimated, has made it possible to double the population it now serves. Six million or more people can reside in the circle about Boulder Dam, where now only about 3,000,000 live, because of the conservation of a great water resource, the Colorado River. These persons will not all find homes on irrigated farms. In fact comparatively few of them will. But the cities, without the augmented water supply Boulder Dam provides, could not accommodate them. Without new irrigated farms, which eventually will be cultivated below Boulder Dam, it is doubtful whether these added millions could be fed.

Boulder Dam is one of more than a score of wealth-creating projects now being built by the Bureau of Reclamation to conserve important western water resources. Since it is nearing final completion it makes the best example for illustrative purposes, but there are others as important.

There is another important type of project being built by the Bureau in this territory. Its purposes are less to make possible the expansion of irrigated areas and the growth of populations than to secure the water supplies of areas now under irrigation and to safeguard their present populations. These projects involved construction of dams to regulate the flow of streams upon which irrigation communities depend, and to store their waters.

Any unregulated water supply in the arid region is unsafe and those dependent upon it are insecure. The western streams awake to raging floods when the winter snows melt in the spring, and they dwindle to insignificant brooks when the floods have passed. Summer rains are very rare in most of the arid localities. In the Imperial Valley in California, for instance, in the 30 years that records have been kept by the Government weather bureau, no measurable rain has fallen during the month of June. This will illustrate the necessity for a regulated and dependable artificial water supply during the growing season. No chances can be taken with an erratic river, which may go dry when water is most needed on the farms.

By storage of the spring floods, thus collecting and saving the winter snows until they are needed in the summer and fall, the Bureau is protecting these areas. Storage dams become increasingly important with advancing development of an area. Mature orchards can be killed by failure of the irrigation supply and thus a decade of a farmer's toil can be destroyed. Danger of such catastrophies persists until proper storage protection is provided.

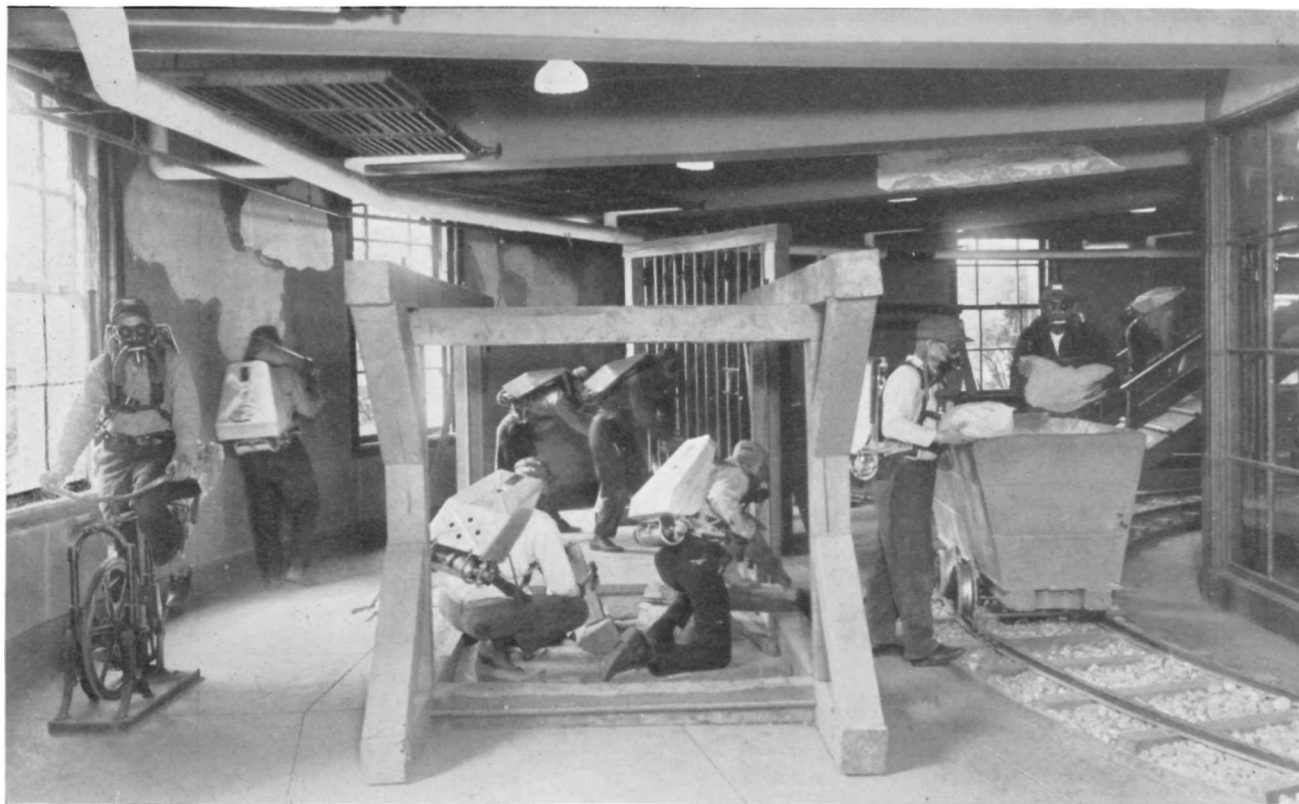
Four storage dams are being built in Utah to stabilize the oldest of the American irrigation settlements. Similar rescue work is in progress in other sections.

To create new opportunities and to preserve past gains in the Midwest is the purpose of the Bureau of Reclamation.

BUREAU OF MINES

ESTABLISHED 1910

THE Bureau of Mines was created in 1910, and is operated to help the mining industries improve health conditions and increase safety; to assist in promoting economic development through increased efficiency in mining, preparation, treatment, and utilization of mineral substances; and to aid in conservation of resources through prevention of waste. The accomplishment of these ends is sought through investigation of scientific, technologic, and economic problems of the mineral industries, and the dissemination of resulting information.



A class receiving instruction in the use of oxygen breathing apparatus for mine-rescue and recovery work.

The Bureau investigates the causes of mine accidents and seeks means of preventing them; it studies health hazards in the mineral industries and recommends remedial measures; its engineers inspect mines, mills, and smelters for the purpose of assembling, correlating, and later disseminating information which the industry has acquired through long experience; it conducts special studies in field and laboratory with a view to improving methods of mining, treating, and utilizing mineral substances. Economic analyses are made of mineral statistics compiled by the Bureau. Problems of distribution and marketing are studied to aid in promoting commerce in mineral products.

Information regarding the number and cause of accidents is assembled and published for the use of mining companies, insurance companies, State industrial commissions, and other organizations interested in lowering the industrial accident rate.

This Bureau tests fuels purchased for the Government; it operates a plant for production of helium gas required by the Army and Navy air services; and it conducts research into methods of producing helium and supervises explorations for new sources of supply of this gas.

The Bureau is organized in four branches, dealing respectively with technology, economics and statistics, health and safety, and administration.

The Technologic Branch carries on the Bureau's scientific and technological investigations. It consists of seven divisions: the Mechanical Division samples and analyzes coal for the Government and studies combustion problems to improve fuel-burning practice; it investigates mining machinery and tests electrical equipment for use underground. The Mining Division deals with mining and exploration problems of the mineral industries, including mining and milling methods and costs, ventilation, geophysical methods of prospecting, estimation of reserves, and studies of ground movement and subsidence. Investigations in electro-, hydro-, and pyro-metallurgy are conducted in the field and at the experiment stations under the direction of the Metallurgical Division, which also tests typical ores and devises treatment methods. The Division of Petroleum and Natural Gas deals with problems arising in the production, transportation,



Studying the coke-making properties of American coals.

refining, and use of petroleum, petroleum products, and natural gas. Its laboratory investigations are conducted largely at Bartlesville, Okla., although studies are carried on in the major producing fields. It also operates a gas field and plant at Amarillo to supply helium for the Army and Navy, and supervises the helium research carried on at this field station. The Division of Experiment Stations administers the Bureau's 11 experiment stations, located at a number of points throughout the country. Studies of mining and metallurgical problems of special interest in their respective localities are carried on at these stations.

The Explosives Division promotes the efficient use of explosives in mining and tests explosives for "permissibility", a term used to indicate suitability for their use in gassy mines. It also conducts research to develop safer explosives adapted to various uses.

The Economics and Statistics Branch compiles statistics on production and movement of all mineral commodities and studies economic problems of the mineral industries. The work extends to all mineral products, including coal, petroleum and natural gas, iron ores, copper, lead and zinc, nonmetallic minerals, and rare and precious metals. It includes investigation of mineral resources and production, both domestic and foreign, and surveys of consumption, stocks on hand, and prices. Studies are made of distribution, markets, and commercial uses. Trade conditions are investigated and statistical data relating thereto are collected and distributed. Trends in production and consumption of individual mineral commodities are observed and analyzed and their possible economic effect on the industry considered. Weekly and monthly reports are issued giving current data on production, consumption, distribution, and stocks of coal, coke, and petroleum products, and annual reports are prepared on all important mineral commodities. The branch is organized on a combined functional and commodity basis and comprises a Coal Economics Division, a Division of Mineral Resources and Economics, a Petroleum-Economics Division, a Division of Metals and Nonmetals, and a Foreign Mineral Service Division.

The Health and Safety Branch investigates conditions affecting the health and safety of men engaged in the mining, metallurgical, and allied industries. The branch includes two divisions. The Health Division studies working conditions underground, and sanitation in mining communities. It investigates the pathological effect of industrial dusts and toxic gases to which workers in mines and metallurgical plants are exposed. It seeks to identify health hazards and devise means to minimize or eliminate them.

The Safety Division instructs operators and miners in mine-safety methods, accident prevention, and mine-rescue and recovery work. It studies the causes of mine accidents and the methods of preventing them and teaches first aid to alleviate the results of accidental injuries. It supervises the operation of the Bureau's mine-rescue cars and stations. In normal years approximately 100,000 miners are trained in first-aid and mine-rescue methods. The cumulative result is seen in a marked reduction in the number and severity of accidents.

The Administrative Branch handles administrative and fiscal matters for the Bureau as a whole. It comprises the Office Administration and Information Divisions. The Office Administration Division has charge of routine administrative work including purchasing, accounts, contracts for service or construction, personnel, clerical assignments, legal matters, multigraphing, mails and files, and property.

The Information Division reviews and edits approximately 600 manuscripts each year describing the results of the Bureau's technologic and economic investigations; supervises the distribution of the resulting publications—about 750,000 copies annually; summarizes the Bureau's findings to make them available to the technical, trade, and daily press; prepares and conducts exhibits for meetings of technical societies and for expositions; answers approximately 100,000 communications yearly requesting publications or information about the widely diverse matters comprising the field of the Bureau's activities; and supervises the preparation and circulation of motion picture films depicting technical and safety methods or processes used in the mineral and allied industries.

THE ALASKA RAILROAD

ESTABLISHED 1914

THE Alaska Railroad penetrating to the interior of our most northerly possession opens a most unusual vacation land to the tourist, and provides a vital artery for the commerce of Alaska as well.

Entering to the heart of this strange, rich, sparsely settled territory, the Alaska Railroad allows the tourist to see in comfort the advance of our Last Frontier, and scenic marvels unsurpassed anywhere. As the railroad swings north from the ice free port of Seward to the interior city of Fairbanks, it passes close to the base of Mount McKinley, the highest peak in North America, and skirts the edge of Mount McKinley National Park, the greatest big game refuge in the world.

While this railroad to Interior Alaska opens up a brave new world for the tourist and vacationist, it was created in 1914 for the development of Alaska. Under the act authorizing construction of the railroad the President was directed to designate and cause to be located routes for railroad lines in the Territory of Alaska to connect one or more of the open harbors on the southern coast of Alaska with the navigable rivers in the interior, the coal fields, and the agricultural lands. President Wilson issued an order in April 1915 announcing his selection of a route commencing at Seward on Resurrection Bay and extending northward for 416 miles to the Tanana River, where the town of Nenana is located. Later the main line was continued to Fairbanks, and a branch line 38 miles long was constructed to the Matanuska coal fields.

The famous Matanuska colony of 200 selected families totaling 1,000 persons taken from the relief rolls of Michigan, Wisconsin, and Minnesota is situated in the Matanuska Valley near the coal fields. This settlement, primarily agricultural, is an attempt to solve two problems through colonization; first, the problem of unemployment in the States and, second, the problem of underpopulation in the Territory.

A traveler bound for Interior Alaska finds that the main line of the Alaska Railroad extends from Seward to Fairbanks, a



"Loop" on the Alaska Railroad.

distance of 470 miles. The railroad is under the supervision of the Secretary of the Interior. A general manager with headquarters at Anchorage, Alaska, is in immediate charge. In the States the railroad is represented by a purchasing agent and office manager with headquarters in Seattle, and a general freight, passenger, and immigration agent whose headquarters are in Chicago.

The railroad is completely equipped with locomotives, freight cars, work equipment and steel passenger cars, including a modern gas electric train and a number of gasoline motor passenger cars. The railroad operates throughout the year. Service is naturally somewhat reduced during the winter months. During the summer season observation cars are attached to all through passenger trains.

It is not surprising that tourist travel is a constantly increasing factor in the traffic of Alaska transportation lines. Travel to and throughout Alaska is convenient and comfortable, combining rail and water trips and an endless variety of fascinating scenery with visits to interesting settlements and industries. Larger and faster ships, additional trains and equipment on the railroads, new hotels and additions to existing hotels mark the preparations made to provide ample accommodations for all visitors to the northland.

Travelers destined to points on the Alaska Railroad usually go directly to Seward, the southern terminus of the railroad. However, they may go in by way of Skagway, thence over the White Pass & Yukon Railroad to White Horse, and then down the Yukon and up the Tanana Rivers to Nenana. Or, the traveler may leave the steamer at Cordova and take the Copper River and Northwestern Railroad to Chitina and the Richardson Highway to Fairbanks, returning to the coast via the Alaska Railroad.

CITY OF SEWARD

At Seward the steamers from Seattle exchange passengers and freight with the Alaska Railroad. The city of Seward is situated on Resurrection Bay, a nearly land-locked deep water inlet on the south coast of the Kenai Peninsula, lying between rugged mountain ranges and open to navigation, ice-free, the year

round. Seward is the starting point for a steamer making monthly trips to ports along the Alaska Peninsula, as far as Unalaska, a distance of 1,146 miles. It is a supply base for the quartz and placer mines of Kenai Peninsula, and headquarters for an extensive fishing industry in adjacent waters. A large cold storage and fish packing plant is one of the local industries.

On arriving at Seward, the traveler finds a thriving town of about 1,000 people, with well-lighted streets, comfortable and modern hotels, and attractive private dwellings. The summer climate is delightful. With fascinating roads and trails, numerous lakes and trout streams within easy reach, in a setting of magnificent mountain scenery, Seward is an ideal stopping-place for lovers of outdoor life.

BETWEEN SEWARD AND ANCHORAGE

Leaving Seward and Resurrection Bay, the railroad passes a number of suburban gardens and ranches, until the valley narrows to a rugged gorge. Following the ravine for 5 miles it descends again, crosses the swift glacial Snow River, enters a level timbered valley, and reaches the head of Lake Kenai. The track skirts the eastern shore of this beautiful lake for nearly 6 miles. A brief stop is made at the picturesque camp of the Lawings, where Mrs. Lawing (Nellie Neal) maintains a famous collection of big game trophies which she explains to visitors, perhaps including some bear stories relating to her own experiences with those animals. Many tourists stay over night at the comfortable lodge, enjoying its many attractions, including boating and the extraordinary fishing in the lake and nearby streams.

The changes of scenery along the railroad continue; more lakes, rivers, glaciers, waterfalls; with the great rugged mountains confining the railroad to a narrow valley. Beginning at mile 48 the railroad winds about for 6 miles in a glacier region, then drops almost to sea level. The train stops several minutes at various points so that passengers may dwell upon the spectacular views and use their cameras. Close views are obtained of Bartlett and Spencer Glaciers, and a more distant one of Portage Glacier. Reaching the head of Turnagain Arm, the track skirts the north-

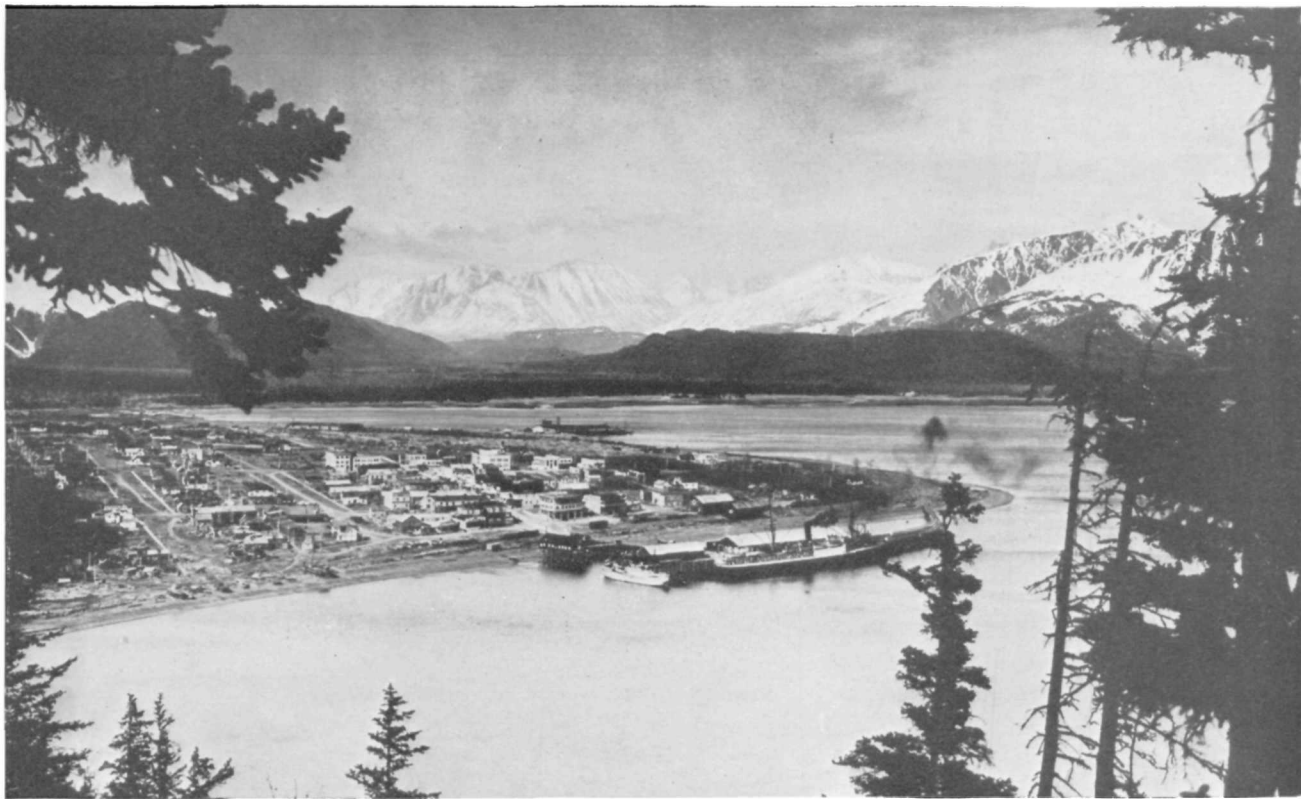
ern shore of this turbulent arm of the sea for about 35 miles. Turnagain Arm has an extremely high tide (second only to that of the Bay of Fundy), which sometimes rushes in with a wall of water estimated to be as high as 10 feet.

CITY OF ANCHORAGE

About 5 hours after leaving Seward the train reaches Anchorage, 114 miles north, at the head of Cook Inlet. Here are located the general offices, warehouses, and shops of the railroad. The townsite was laid out by the Government surveyors in 1915, with broad streets and liberal municipal park reservations. The progressive population of about 2,300 enjoy every convenience of a modern town, including up-to-date hotels. A hydroelectric plant furnishes current to the town and the railroad offices, shops, and yards, and offers an abundant supply of power at low rates for industrial purposes.

At Anchorage the summer visitor is interested in the picturesque cottages with their thrifty gardens of vegetables, flowers, and berries. He is invited to play golf on a well-kept nine-hole course, and may swim in the nearby waters of Lake Spenard. About 40 miles of automobile roads wind through the country around Anchorage, affording attractive views of many thrifty ranches, including a number of fox and mink farms. Additional land is being cleared each year; the forage crops and dairy herds are increasing. The many acres of strawberry beds, red with berries, make a pleasing sight. The visitor finds that hives of bees and flocks of turkeys are being kept successfully by farmers in Alaska. Produce from the nearby ranches is sold in Anchorage, and shipped to other points on the railroad. A road is being extended to the Matanuska Valley, where it will reach a system of 125 miles already built, connecting farms, settlements, and the Willow Creek mining region.

An extensive airport has been constructed for Anchorage by the city in cooperation with the Territorial Road Commission. A number of interesting trips by air are available from Anchorage to Fairbanks, Nome, and numerous other points. There is more commercial aviation in Alaska, per capita, than there is in continental United States.



Seward and Resurrection Bay, in Alaska.

FISHING STREAMS AND LAKES

Good fishing is found in the many streams and lakes along the Alaska Railroad. Trout fishing streams are accessible from Seward, Lawing, Anchorage, Wasilla, Willow, Curry, Nenana, Fairbanks, and other points. Russian River below Kenai Lake teeming with giant rainbow trout, and accessible from either Seward or Lawing, merits a visit. Willow is much favored by fishermen from Anchorage, and in fact has been a camping place for sportsmen from the States who have learned of the abundance of big trout in Willow Creek. Comfortable quarters for fishermen are available at various stopping places.

MOUNT MCKINLEY AND MOUNT MCKINLEY NATIONAL PARK

At several points opposite Mount McKinley, passenger trains of the railroad make stops of a few minutes or longer to enable visitors to enjoy exceptional views of the majestic mountain, the highest in North America, as it rises from its base not many miles from the railroad to a height of 20,300 feet above sea level. Lying close by, in full view to the southwest of Mount McKinley, are other notable mountains: Mount Foraker, 17,000 feet; Mount Russell, 11,600 feet; Mount Hunter, 14,960 feet; and Mount Dall, 9,000 feet.

Mount McKinley National Park is the second largest of our national parks, having a total area of 3,030 square miles. The entrance is at McKinley Park station on the railroad, 348 miles from Seward. An automobile road leading into the park has been completed for a distance of 68 miles, to a point near the base of Mount Eielson. A comfortable hotel is to be built near the base of Mount McKinley. From that point a road is being constructed northeastward to afford additional views of Mount McKinley and to give better access to the promising Kantishna mining district.

McKinley Park station is the point of entry to Mount McKinley National Park, one of the greatest wildlife sanctuaries in the world. Here in the indescribable grandeur surrounding the highest peak on the continent the big game hunter who shoots with a camera will find a paradise, for there are no less than 26 varieties of



A view of Mount McKinley from the Alaska Railroad.

mammals and 86 varieties of birds within the boundaries of the park. The Mountain Sheep, of which it is estimated there are at least 15,000 in the park, may be approached within a few yards. In Sable and Polychrome Passes they hardly move out of the road when a car comes along. Caribou in great numbers; Moose; Brown and Grizzly Bear, as well as numerous varieties of furbearing animals are commonly seen, and having overcome much of their natural timidity through the absolute protection afforded within the park are splendid subjects for either still or motion-picture photography. Automobiles meet all trains at the station. Facilities within the park are of a high order. The season is from June 10 to September 15.

CITY OF NENANA AND YUKON RIVER SERVICE

At Nenana, 412 miles from Seward, the railroad reaches the Tanana River. During the open season, May to September, the railroad operates river steamers from Nenana, down the Tanana and Yukon Rivers via Holy Cross to Marshall, 858 miles. These boats serve a great territory, with its miners, missionaries, prospectors, traders, fishermen, wood choppers, trappers, and natives. Nenana is a terminal point for White Pass and Yukon Route steamers, operating from White Horse and Dawson on the upper Yukon River. A considerable number of passengers, mainly tourists, are exchanged between these steamers and the railroad. The railroad crosses the Tanana River, a tributary of the Yukon, at Nenana, on a steel bridge which is said to be one of the longest single span bridges in existence.

CITY OF FAIRBANKS, HOME OF THE UNIVERSITY OF ALASKA

Fairbanks, the northern terminus of the railroad, 470 miles from Seward, is a thriving city of about 2,200, the center of an active placer and quartz gold-mining district. Several modern hotels provide comfortable accommodations for travelers. An extensive highway system radiates from Fairbanks throughout the adjacent farming and mining sections; a main road (Steese Highway) extends northward a distance of 162 miles to Circle on the Yukon River, and a main road (Richardson Highway) extends southward to Valdez on Prince William Sound, with a branch road to

Chitina on the Copper River & Northwestern Railway, a total length of 410 miles. Automobile stage lines operate over all these roads.

The city of Fairbanks, increasingly prominent for its output of lode gold, is the focal point for the many mining operations that have made the district one of the notable gold-placer regions of Alaska, if not of the world. Examples of practically all types of placer mining from the most elaborate to the most primitive can be found within a short distance. Within an hour's automobile drive from Fairbanks nine dredges, some of which are of the most modern and up-to-date design, are active during the open season. The casual tourist can thus readily visit some of the mines from which the glamorous gold of Alaska is won, or, if more technically minded, can critically study examples of some of the unique Alaska mining practices. On the various roads about Fairbanks there are a number of fox farms and prosperous ranches. Good fishing is within easy reach. Wild game is frequently seen, such as bears, moose, and caribou.

FISHERIES

Due to the fact that two of the principal towns on the railroad, Seward and Anchorage, are located at tide water, the fishing industry is one of importance to the railroad. Seward is headquarters for a considerable fleet of boats engaged mainly in halibut fishing. At Anchorage there are three salmon canneries. The output of these canneries is shipped over the railroad. A number of canneries located on Cook Inlet draw operatives and supplies from Anchorage and transfer canned fish to Anchorage for shipment over the railroad. The fishing industry is of minor importance in the interior of Alaska, although fish are plentiful and constitute a part of the food supply of the people.

TIMBER

The principal tree species to be found along the Alaska Railroad are hemlock, spruce, and birch. Great numbers of native hemlock cross ties are used on the railroad. Spruce timber is used for building lumber, mine timbers, fencing, fuel and other domestic purposes. Birch has been used extensively for fuel, but is now being considered for veneer, furniture, and paper pulp.

INQUIRIES REGARDING TRAVEL ON THE RAILROAD

Only a few of the many attractions of a journey to and over the Alaska Railroad can be described in the brief space available here. The trip to Alaska can be made with entire comfort and convenience, without excessive cost in time or money. All necessary particulars, with itineraries of the various routes and tours available may be obtained from railroad passenger agents, or any established tourist agency, the office of the Alaska Railroad at Suite 321-322, 333 North Michigan Avenue, Chicago, or the Alaska Steamship Co., Seattle, Wash.

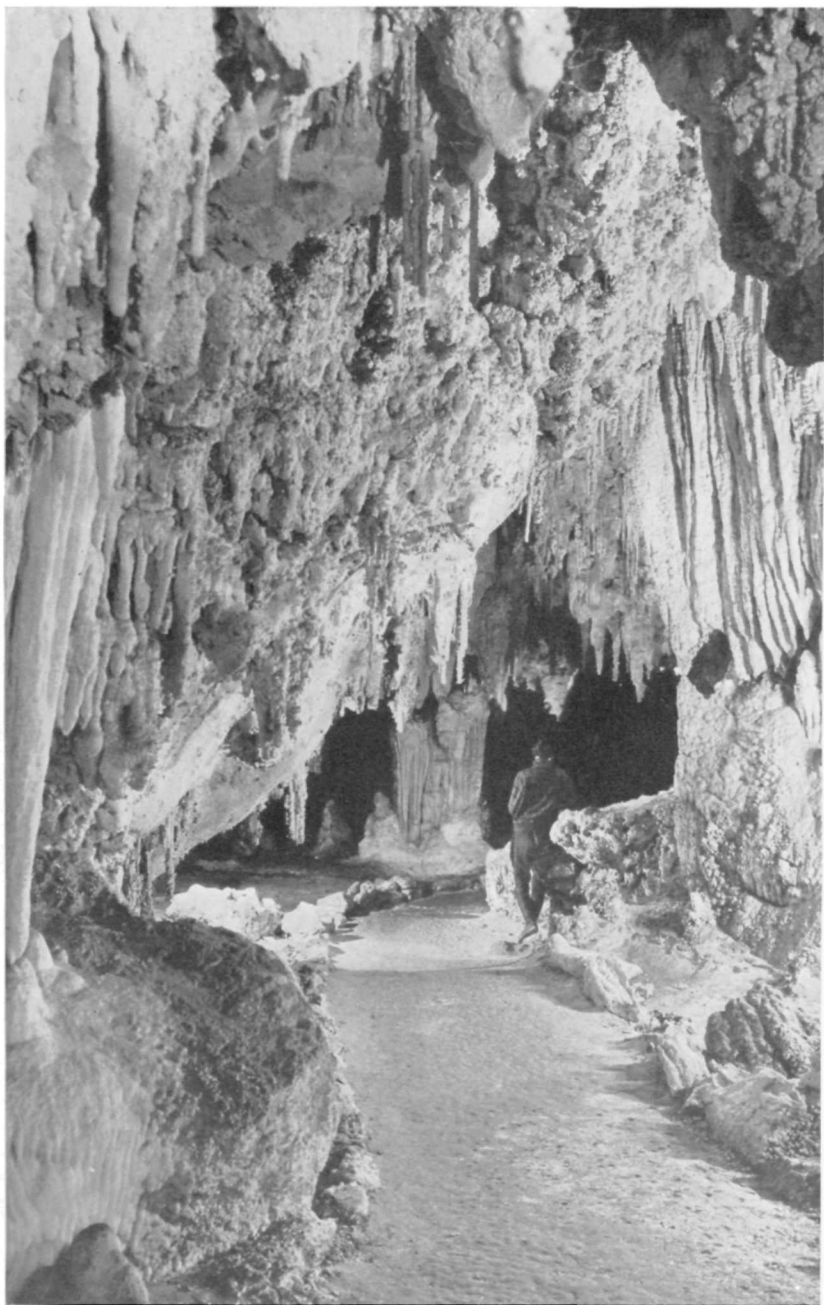
NATIONAL PARK SERVICE

ESTABLISHED 1916

THE people's playgrounds—the great national parks and allied areas that make up the national park and monument system—are supervised and administered by the National Park Service. In the system are 131 separate areas, of wide variety and public appeal.

The United States is fortunate in possessing, in keeping with its great size, unparalleled wilderness scenery, the most spectacular of which has been included in the national parks. To describe them superlatives must be used—among them are the deepest canyons, immense caverns, the Big Trees representing the largest and oldest of living things, active volcanoes, an enormous glacier system covering a volcano seemingly in its last sleep, the largest and most numerous of geysers, extensive primeval forests, and great herds of wild animals. All these national parks are wildlife sanctuaries and museums of nature. In them are demonstrated the dynamic building forces of Nature, many of which are still at work.

In addition to its scenic wildernesses, the national park and monument system includes many areas of historic, prehistoric, or scientific significance. In the archeological field again superlatives must be employed, for some of the ruins of pueblo civilizations in Mesa Verde National Park and in several of the national monuments are unique in size and type, and Stone Age architectural skill.



Entrance to King's Palace, Carlsbad Caverns National Park.

In the field of history are sites connected with the earliest authenticated explorations and settlements of the white man in America; battlefields of all the important wars fought on the soil of the United States from colonial times; eastern colonial developments and western pioneer settlements; early Spanish mission ruins combined with the remains of Indian settlements. In some areas, the prehistoric and historic join, as at El Morro, where inscriptions of Spanish adventurers of the sixteenth and seventeenth centuries overlap prehistoric pictographs. Through these areas may be traced the passing of the Spanish, the French, and the English, as early American history was in the making. Within the national park system the present joins hands with the past, for some of its areas commemorate comparatively recent happenings. For instance, there is the Statue of Liberty, now a national monument. This year the Nation celebrates the fiftieth anniversary of the gift of the statue by the people of France to the people of the United States. Still more modern is the event commemorated by the Kill Devil Hill Monument—for it was there that the Wright brothers made the first successful flight in a heavier-than-air machine. In the purely scientific field, the national park and monument system includes petrified forests, the remains of trees that lived millions of years ago; fossil dinosaurs, those tremendous reptiles that flourished long before man inhabited the earth; active volcanoes; geysers; and fossil tree ferns, also antedating man. There are natural bridges of enormous sizes, glacier areas where may be traced the remains of interglacial forests, steaming fumaroles—all providing outdoor laboratories for the study of the natural sciences.

The first national park, the Yellowstone, was established in 1872. Cornelius Hedges, a member of the Government party sent to explore the Yellowstone region in 1870 and to report on the authenticity of the tales of startling and weird sights encountered therein by trappers and hunters, was the father of the idea. He suggested that a national park be established, to preserve the wonders of the Yellowstone for the use of all the people, rather than to have them exploited under personal ownership. It was a revolutionary idea of land use, but its very daring eventually fired the imagination and won the support of

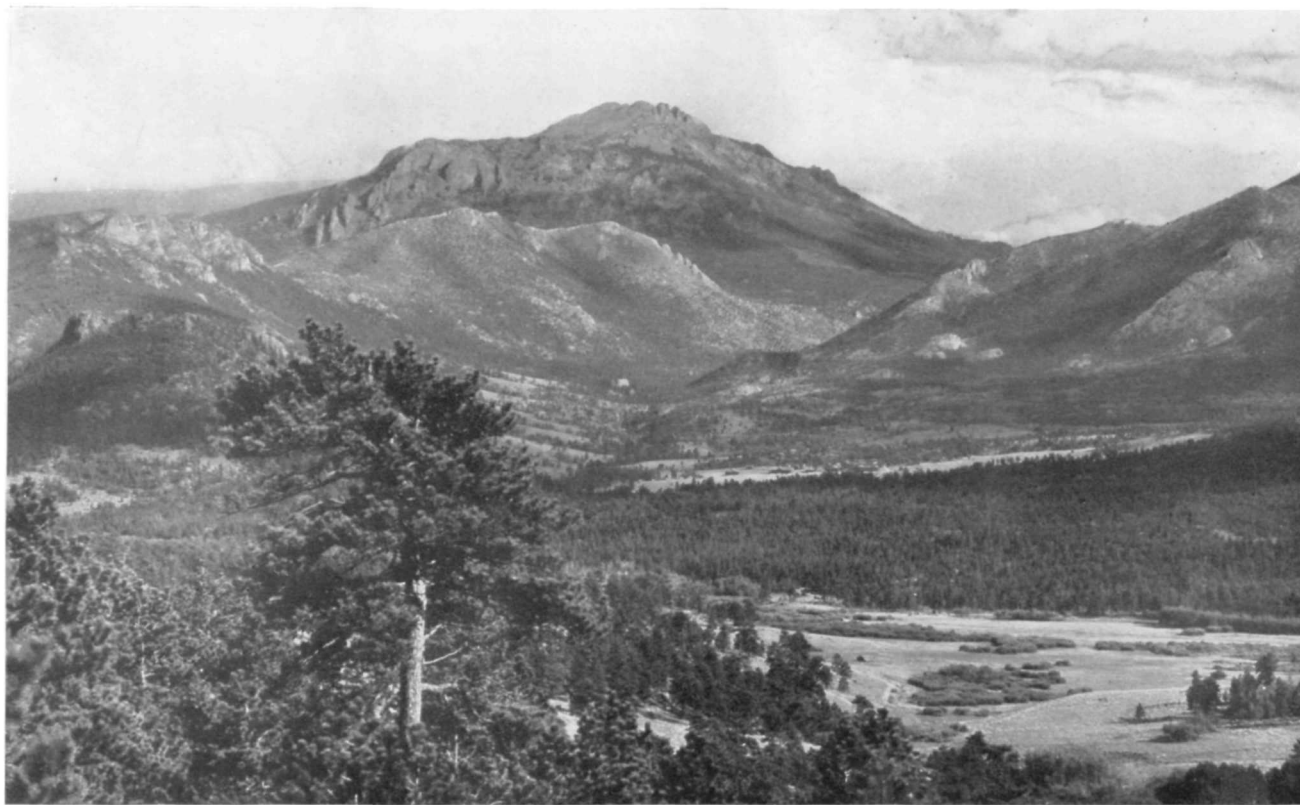
the exploring party. Yellowstone National Park, and the magnificent system of which it today is but one member, grew out of Hedges' campfire vision.

In 1890 three more national parks were created—Yosemite, Sequoia, and General Grant in California—and in 1899 Mount Rainer followed. After the turn of the century national park establishment, together with public use of the parks took on an accelerated pace. In 1906 a new class of reservations—national monuments—was authorized by Congress. This legislation, popularly known as the “Antiquities Act”, authorized the President to establish by proclamation as national monuments areas of national significance in the scientific, historic, or prehistoric field.

Meanwhile, as the national park and monument system under the jurisdiction of the Department of the Interior was growing apace, other Federal park areas were being established and administered by the Secretaries of War and Agriculture. To the War Department were assigned military parks, national monuments with a military significance, special memorials, and even a few areas commemorating peaceful events in our history; while certain national monuments contiguous to national forests were assigned to the jurisdiction of the Department of Agriculture.

Consolidation of all these Federal park activities under the National Park Service was effected in 1933 by Executive order of President Roosevelt. As a result of this consolidation, the National Park Service now administers 25 national parks, 1 national historical park, 68 national monuments, 11 national military parks, 10 battlefield sites, 4 miscellaneous memorials, 11 national cemeteries, and the national capital parks system—a combined area in excess of 15,000,000 acres. In addition, it exercises administrative supervision over certain parkway projects, the majority of Federal buildings in the District of Columbia, and a few such structures within the States.

Establishment of four other national parks has been authorized by Congress, contingent upon donation to the Federal Government of the lands within certain specified boundaries. These proposed parks include the tropical Everglades of Florida, Mammoth Cave in Kentucky, Isle Royale in Michigan, and the Big Bend



The Twin Sisters, Rocky Mountain National Park.

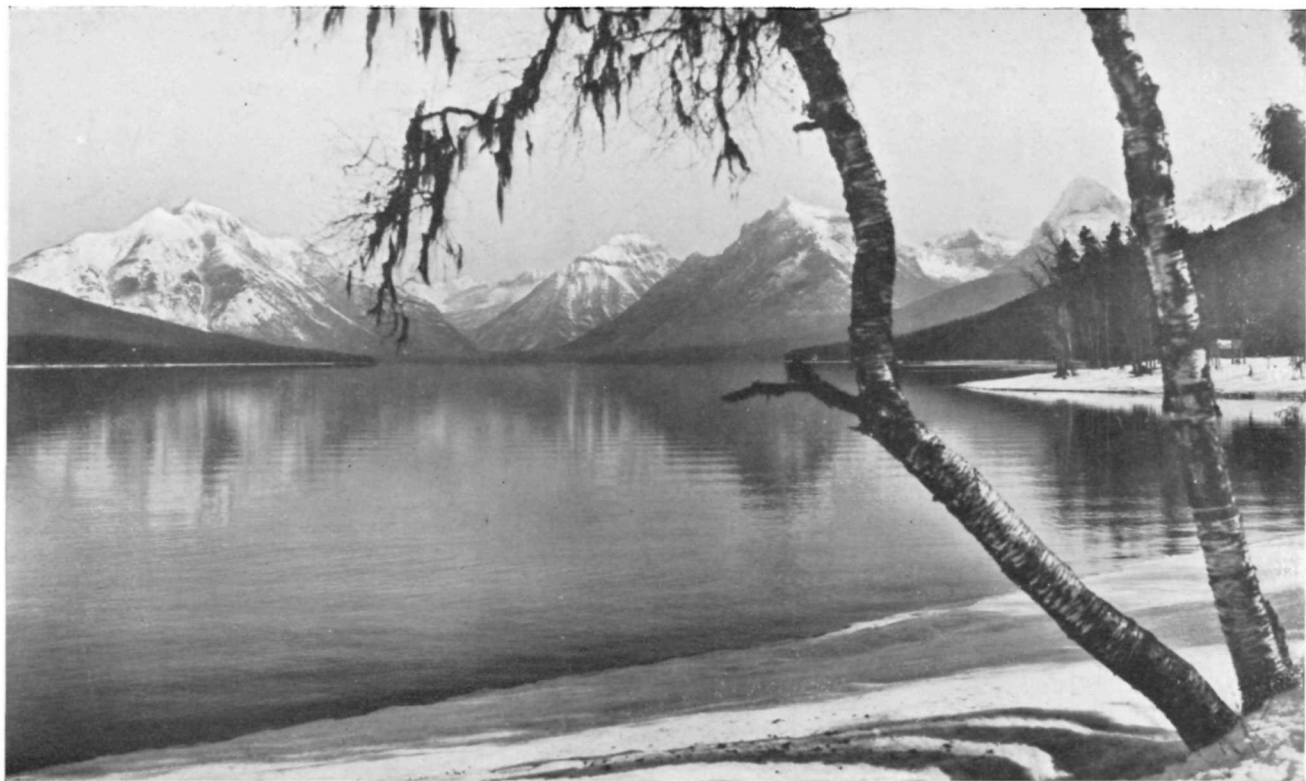
area of Texas. Other areas especially needed to round out the system of wilderness parks are the Kings River Canyon country of California's High Sierras, and lands adjacent to the Mount Olympus National Monument.

Establishment in 1932 of the Waterton-Glacier International Peace Park on our northern border marked an interesting step forward in international relations. By Presidential proclamation, as authorized by the Congress of the United States and the Canadian Parliament, the Waterton Lakes of Canada and Glacier National Park in the United States were joined together in one continuous recreational area, to symbolize the more than one hundred years of peace that has existed between the peoples of the two countries. It is hoped that when the Big Bend area in Texas becomes a park, an adjoining park in Mexico will be established, the two to form a similar international park on our southern border. The Government of Mexico already has indicated its interest in such a project.

Increased activity by the National Park Service in the field of history was provided by legislation enacted in 1935 empowering the Secretary of the Interior, through the National Park Service, to conduct a Nation-wide survey of historic sites and buildings throughout the country, to determine those which should be preserved for national shrines. Cooperation is authorized with State and local governments in preserving and restoring such shrines as are locally significant, but not linked with the Nation's history as a whole.

The mandate of Congress to promote the public use of the national park and monument areas, while preserving them for posterity, has always presented a problem of no small proportions. Engineer and architect, forester and wildlife expert, geologist and historian, all must be consulted to make sure that developments fit into the landscape inconspicuously and do not destroy the natural science or historical interest.

A limited mileage of roads, trails, public automobile camps, and facilities for visitors such as hotels, lodges, housekeeping cabins, motorbus transportation, and stores handling campers' and outing supplies are an inevitable part of the picture. The Federal Government builds and maintains highways, trails, auto camps,



Lake McDonald in Glacier National Park.

and buildings needed in connection with the administration of the park. Accommodations for visitors are provided by private capital, under franchise from the Secretary of the Interior who approves the rates charged and exercises close supervision over the service rendered. Although roads necessarily must be provided to enable motorists to reach the points of greatest interest and the centers of tourist concentration, very little new road work has been undertaken in the national parks in recent years. The greater percentage of major road work has been relocation and reconstruction of old roads, often original wagon routes, to enable them to bear the burden of modern transportation. At present about 10 percent of the area of the larger scenic parks may be reached directly by highway. The remaining 90 percent is held inviolate in wilderness condition, to be reached only afoot or on horseback. The major road work in the parks and monuments is handled by the Bureau of Public Roads for the National Park Service, and is subject to close scrutiny by the landscape staff of the Service.

Each of the national parks is in the charge of a superintendent, and the more important national monuments are administered by superintendents or custodians. A group of 25 southwestern monuments is supervised by a superintendent through whom the custodians report.

The protective work in the parks and monuments, including fire fighting, repairing telephone lines, checking travel, furnishing information to visitors, and numerous other duties, is carried on by the park rangers. In winter the ranger patrols the park to prevent poaching; and in summer he supervises traffic and stocks the lakes and streams with trout, for the benefit of visiting Waltonians.

The entertainment provided for visitors in the parks and monuments is in keeping with the spirit of the outdoors. Horseback riding and hiking are close rivals of fishing, with mountain climbing becoming ever more popular. Swimming and boating are afforded in some of the parks, and in increasing numbers these areas are available for the enjoyment of winter sports.

As an aid to greater enjoyment and appreciation of visitors, ranger naturalists and historians are provided to conduct hikes and caravans, and to answer questions at museums, and to give



The Rio Grande in the Big Bend country, Texas. The United States is on the right hand side and Mexico is on the left.

informal talks at the evening campfires, in community houses, or in lodge and hotel lobbies.

The National Park Service is participating in the Emergency Conservation Work program by providing work for the Civilian Conservation Corps in the National Park areas and by assisting State park officials in the planning and development of State park areas. Through availability of various emergency funds, the development programs of the Nation's historic and recreational areas have shown remarkable progress.

Public interest in and use of the national parks, national monuments, and other areas under the jurisdiction of the National Park Service is manifested by the increased number of visitors to these reservations each succeeding year. During the 1935 travel year the attendance was nearly eight millions. The parks and monuments are destined to an everwidening use as greater numbers of our own people, and citizens of foreign countries as well, learn to know and enjoy them. By railroad, by motorbus, by private car, and increasingly by airplane these millions come, many of them urged to take the trip by friends and neighbors who have experienced the satisfaction and thrills of a vacation in the national parks.

DIVISION OF GRAZING

ESTABLISHED 1934

GRAZING ranges of the West, the scene of the growth of the great livestock industry, and once the setting of hair-raising tales of hard riding cowboys and two-gunmen when there "was no law west of the Pecos", have undergone vast changes since the days when the frontier was carried forward by men on horseback.

Although more law than six guns long ago came to the country west of the Pecos, it was not until 1934 that the greatest fundamental change was made in laws governing grazing lands. In that year Congress passed the Taylor Grazing Act which put 80,000,000 acres of public domain, an area greater than the New England States and New York combined, under the Department of the Interior to administer as grazing lands.

As the frontier moved west in the pioneering era much public land was taken over into private ownership. On the public domain left, at the present time it amounts to approximately 165,000,000 acres, cattle and sheep were grazed by whoever got there first or could hold the range against others. In the absence of Federal law the police powers of the States to regulate grazing on national lands was recognized by the courts in a number of instances.

When the national forests were set up no mention was made of grazing control in the law and this power was an administrative assumption, later upheld by the courts. Under these chaotic conditions and the spur of strong competition, public grazing lands were in danger of deteriorating to wastelands through overgrazing, and wind and water erosion. To save these lands national policy and national control were needed. These the Taylor Grazing Act furnished. Fundamental and needed as was this act for grazing and the restoration of public lands, it has an even greater significance as a major force in national conservation.

The Taylor Grazing Act authorizes the Secretary of the Interior to provide protection under regulation for orderly use of the public domain grazing ranges. The Secretary is authorized to do whatever is necessary to maintain and improve the natural forage resources and to provide for the welfare of the livestock industry.

In setting up the administration of this act, the Division of Grazing took for its text a quotation from a recent Supreme Court decision which said, "When the task which is set before one is that of cleaning house, it is prudent as well as usual to take counsel of the dwellers."

Before exercising the authority granted by Congress in the Taylor act, the Division of Grazing called for preliminary public hearings in the 10 Western States affected, to discuss and explain the law. All public lands were withdrawn from entry or selection until they could be classified for grazing districts. Notices were published as provided by law for a hearing in each of the 10 Western States at a location convenient for the State officials, settlers, residents, and livestock owners.

The procedure followed at these meetings was to present the material facts as to acreage of public, private, and State lands by charts and maps, and other relevant information by figures, and then open the meeting for questions and discussion. This was followed by a vote to determine whether grazing districts were desired. In all of the States where such meetings were held this vote was overwhelmingly in the affirmative. After the result of the vote was announced, the stockmen of each State were requested to caucus by themselves to elect a representative committee, to be known as the "State committee", to assist the Department in fixing the boundaries of such grazing districts within their respective States. On these committees and on all subsequently elected grazing district advisory boards, the number of sheepmen and cattlemen has been kept the same, as their class interests are divergent.

From the 10 State maps, approved by these State committees of stockmen, the Department obtained the size and location of 50 grazing districts in various States, comprising a total of 142,000,000 acres. But the Taylor Grazing Act authorized only 80,000,000 acres for inclusion in grazing districts. Consequently, only 35 districts have been created. The districts selected for establishment included areas in which range administration was most urgently needed and the lands conveniently located for administration.

At all of these State meetings other matters of importance were brought up, for instance, the status of State and railroad lands and the protection to be afforded wildlife within the proposed grazing districts. These 10 States owned some 40,000,000 acres of land, interspersed with the public domain, and the railway interests therein owned an additional 10,000,000 acres in a similar status.

To deal separately with the officials in charge of administering State lands, railroad grant lands, and wildlife in each State was deemed inadvisable and the Department arranged a conference at Denver, Colo., February 11 to 16, 1935, for the purpose of assembling representatives of all the State land boards, the fish and game departments, and railway companies—2 days of the week to be devoted to each group.

This conference was opened by the Secretary of the Interior who proposed that advisory committees of stockmen be elected in all grazing districts to be formed, who should have original responsibility to recommend the issuance of licenses and rules of fair range practice in each district, subject to final approval by the Department of the Interior. He declared for the Government that "on our part we want to work with you in a spirit of helpful cooperation." This sounded the keynote of relations between the Department and stockmen from that date.

The sessions of the conference with the State land commissioners and private land agencies resulted in a set of resolutions for the working out of land exchanges. At the session with the fish and game commissioners of the 10 States they unanimously endorsed the adoption of the so-called New Mexico Plan whereby a State land use committee representing not only wildlife agencies and livestock operators but also other interested parties of the State should be the final recommendatory agency for the use of public grazing lands within each State.

The week's conference in Denver crystallized the preceding seven months' preliminary survey of the situation and "counsel with the dwellers", and definitely established the outline for a grazing policy which has been adhered to ever since.

Following the Denver conference 25 grazing districts were created in 10 States and rules for the election of district advisors, Circular No. 1, and for the issuance of grazing licenses, Circular No. 2, were promulgated.

The field area of the 10 States has been divided into nine administrative regions, each under a regional grazer, and the headquarters for such regions are established in the following named cities: Salt Lake City, Utah (for 2 regions); Albuquerque, N. Mex.; Reno, Nev.; Billings, Mont.; Boise, Idaho; Burns, Oreg.; Grand Junction, Colo.; and Phoenix, Ariz.

Each regional grazer is assisted by a small staff of graziers and clerical employees. This small staff supervises the work of the district with the assistance of a board of district advisors elected in each district by the qualified licensees. Effective help is given by the General Land Office, Geological Survey, and the Division of Investigations. In 10 States 15,081 stockmen were completely

organized into 35 local associations. The Division of Grazing has, with the help of the stockmen, divided each grazing district into voting precincts and so well arranged and supervised the elections in accordance with the terms presented in Circular No. 1 that only one protest has ever been received by the Department, and it was withdrawn 2 days after being made when a local hearing on it was ordered.

The chosen representative body of range stockmen consists of 492 district advisors. The majority of these advisors are stockmen with small or moderate size herds. This is readily explained by the fact that 96 out of every 100 licensees in the 34 grazing districts, who were the electors in their selection, are men and women owning less than 500 cattle or 2,000 sheep, which are the size herds considered necessary for the support of one American family throughout the arid regions where grazing districts are established.

Many of these advisors have university and college degrees. Some are judges, bishops, or holders of other offices of trust in their communities. All are men with a reputation for fairness. The principal duty of the district advisors is to recommend those to whom grazing licenses shall be issued under the rules and regulations.

Although this idea of home rule under Federal supervision has not altogether been satisfactory as a matter of principle to some people on whom it has no bearing, it is interesting to see that this policy has been adopted in the working out of the agricultural soil erosion program. With rules and regulations worked out by the Division through cooperation with the advisory boards and grazing licenses issued for the first year, one part of the tremendous task was well under way.

Although the Taylor Act provides that 25 percent of the money received from each grazing district when appropriated by Congress shall go for the construction, purchase and maintenance of range improvements, there was the problem of starting range improvements immediately. This was solved through Emergency Conservation Work. In April 1935 seven C. C. C. camps were assigned to the Grazing Division and this number was later increased to forty-five.

On the theory that a stockman himself is the best judge of what are necessary improvements for the proper use of the range, E. C. W. projects are originally submitted to the advisory boards of the grazing districts involved. After approval by the board, the projects are submitted to the Division for approval and coordination with the general program.

These C. C. C. projects include rodent control measures for the extermination of various ground pests that deplete the feed and forage values of public domain ranges; water development, which includes the drilling of wells at strategic points, the improvement of springs and water holes and the construction of reservoirs and storage facilities; the construction of truck and stock trails to facilitate the movement of incoming or outgoing stock to the range lands; fencing areas for segregating different types of stock, the construction of corrals, chutes, and shearing pens; and the construction of water troughs and storage tanks so that a sufficient amount of water for stock may be available at all times.

In 1935 the total grazing licenses issued in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Wyoming totaled 15,081. These licenses covered 8,396,232 head of livestock. Of this 1,576,976 were cattle, 145,753 horses, 6,515,825 sheep, and 172,481 goats. Fifty-two percent of all cattle licensees were owners of less than 50 head and 38.5 percent of all sheep licensees owned less than 500 head. While 93.1 percent of all cattle licensees owned less than 500 head, 86.3 of all sheep licensees owned less than 3,000.

Beginning with the 1936 spring grazing season a charge of 5 cents a head for cattle or horses and 1 cent a head for sheep or goats per month will be made when temporary grazing licenses are issued. With the issuance of long-term permits which under the law may not exceed a term of 10 years, the grazing fee may be adjusted. Fifty percent of the money collected under the licenses, according to the act, will be returned to the States where the legislatures may prescribe its use for the benefit of the counties in which the grazing district is located.

At the first annual conference of representatives from each grazing district advisory board held in Salt Lake City, Utah,

January 13-14, 1936, the following message from President Roosevelt was delivered:

The grazing program on the public domain under the Taylor Grazing Act is a new conservation movement that promises to have historic significance. It is the first time since the settlement of the West that there is an opportunity to regulate overgrazing on the public domain. In less than 15 months after the law was enacted the cattle and sheepmen have buried their differences and combined in a joint effort to abolish unfair range practices and to conserve natural resources. The most noteworthy feature of the program, however, is the unique coordination of local and Federal effort whereby 15,000 stockmen have participated successfully in the policy of the Department of the Interior to give local autonomy in the administration of the new law.

DIVISION OF TERRITORIES AND ISLAND POSSESSIONS

ESTABLISHED 1934

THIS Division was created by Executive order dated May 29, 1934. Puerto Rico was transferred from the War Department to the new Division, which was likewise given jurisdiction over Hawaii, Alaska, and the Virgin Islands. For the first time the purpose to coordinate some of the overlapping functions in these territories and possessions was made clear, and the desire for the development of a policy manifested. Previously, nothing that could be deemed a consistent policy had been developed for our territories and possessions. An illustration of the lack of any consistent policy may be seen in the successive administration of Alaska by the Departments of State, War, Treasury, Navy, and Interior. The Virgin Islands, until 1931, were administered by the Navy Department, and until 1934 the War Department had jurisdiction over Puerto Rico.

Alaska was acquired from Russia in 1867 for \$7,200,000; in 1898 the Hawaiian Islands were acquired by annexation; Puerto Rico was acquired by annexation in 1898; and the Virgin Islands were acquired by purchase from Denmark in 1917 for \$25,000,000.

The territories and possessions of the United States constitute a vast overseas domain. The relative vastness of Alaska, with its slightly less than 600,000 square miles, may be estimated



Typical hillside residence, St. Thomas, Virgin Islands.

from the astonishing fact that if a map of Alaska is superimposed upon one of the United States it touches the Canadian and Mexican Borders, the Atlantic and Pacific Oceans. Its population, just under 60,000 or fewer than one inhabitant to 10 square miles, makes this still an almost empty territory, but within this sparse population there is wide diversity including white settlers, Eskimos, Indians, and cross-breeds. Alaska's greatest problem is that of underpopulation. This the Government is meeting by undertaking, for the first time, a carefully controlled colonization project by which some 200 selected families—totaling 1,000 persons—have been taken from the relief rolls of three northern agricultural States, Michigan, Wisconsin, and Minnesota, and settled in the Matanuska Valley in south-central Alaska.

By contrast Puerto Rico is the most thickly settled portion of the Western Hemisphere, exceeded in density of population, 470 to the square mile, by few regions on the globe. Containing about 900,000 inhabitants at the time of its annexation in 1898, its population is now close to 1,700,000, and is increasing steadily in an area smaller than the State of Connecticut. It is not industrial but destined always to be agricultural; that is to say, it is obliged to sustain its population from the soil. The culture and language of Puerto Rico remains today, as it has been for centuries, Spanish.

Most self-sufficient, most independent, spiritually and economically, are the Hawaiian Islands. Hawaii likewise is significant as a racial "melting pot." Both its original Hawaiians and its American white settlers are a small minority, the majority of the population being made up of Japanese who now number 39 percent, and lesser proportions of Chinese, Filipinos, Koreans, Portuguese and Puerto Ricans. Yet American standards and ideas prevail and the amalgamation of immigrants, which for so many decades was a part of the American epic on the mainland, is in a somewhat different way taking place in Hawaii.

The Virgin Islands contain only 22,000 people, almost wholly Negro but English speaking. They present an acute economic problem and in consequence of this condition Virgin Islanders have been steadily migrating to the mainland. Unable to interest



Statue to Ponce de Leon, Discoverer of Florida and first Governor of Puerto Rico.

private capital and confronted only with the alternative of continuing deficits and chronic "relief", the Federal Government has launched a general program for economic and social rehabilitation based largely upon expansion of the cane acreage of St. Croix and the processing of the cane into rum for sale and distribution principally in continental United States. St. Croix previous to prohibition had a world-wide reputation for the high quality of its rum and it was only natural that this once profitable industry should be restored. In addition to these industrial projects, the Government has launched a subsistence homesteads-housing program as the basis of improved social conditions among the people. An agricultural and vocational school has been established under the supervision of the personnel of the agricultural experiment station to stimulate interest among the younger generation in these pursuits, with the objective of making them self-supporting. The station personnel also have assisted materially in the success of the homesteads program to date to the extent that they are in direct contact with each homesteader, assisting him in every way possible to make his land productive and to market his produce to the best advantage. As the nucleus of a broad tourist development program the Government-owned Bluebeard Castle Hotel at St. Thomas was opened to the public January 1, 1935, and is operating successfully.

The various Federal relief agencies, including the Public Works Administration, Civilian Conservation Corps, Subsistence Homesteads Corporation, etc., have extended their activities to the various territories and possessions in a most beneficial manner, and an extensive economic and social rehabilitation program to effect permanent improvements in Puerto Rico is being carried out by the Puerto Rico Reconstruction Administration.

This Division maintains close relationships through correspondence, the radio, and personal contacts with the governments of the respective territories and island possessions in order to cooperate with and serve them to the best advantage possible. It is extremely interested in all legislation introduced in the Congress of the United States and the local legislative bodies affecting the welfare of the territories and possessions; it is constantly striving



Iolani Palace, Honolulu, now the Territorial Building.

to improve conditions through the formulation of constructive policies as well as through advice and assistance to the respective governors in the performance of their duties. Aside from the activities of the Department of the Interior and its jurisdiction with respect to the territories and possessions there are innumerable other departments and agencies of the Federal Government whose activities extend to these farflung parts of the United States. The Division is endeavoring to coordinate these activities to the fullest extent possible. As an illustration of this activity, effective plans are being formulated by the Inter-Departmental Committee on Alaska, appointed by the President, and under the chairmanship of the Director of this Division. When it is considered that the Division's supervisory responsibility and activities embrace four separate and distinct political entities, a wide variety of racial elements with totally divergent economic and social problems, natural barriers, handicaps to agriculture, industrial development, etc., it will be seen that the political, economic, and social welfare of over two million of our fellow citizens is a large problem with many difficult aspects.

PETROLEUM CONSERVATION DIVISION

ESTABLISHED 1936

THE major purpose of the Petroleum Conservation Division is the administration of the Connally "Hot Oil" Act passed by Congress in 1935. This act was designed to regulate "interstate and foreign commerce in petroleum and its products by prohibiting the shipment in such commerce of petroleum and its products produced in violation of State law."

In addition, this Division is authorized to discuss the work of agencies dealing with oil and gas, to recommend action to the Secretary of the Interior on cases brought to its attention, to attend oil and gas conferences in which the Department is interested, and to cooperate with oil-producing States in the enactment of uniform oil and gas conservation laws and in the study of physical waste.

The Federal Tender Board, which issues certificates of clearance, usually called "tenders", permitting the shipment of

petroleum and its products, was set up under the Connally Act in the East Texas field on March 1, 1935, with its principal office at Kilgore. Six weeks later Federal Petroleum Agency No. 1 was set up in the same field.

At the cornerstone laying of the new Interior Department Building on April 16, 1936, on which occasion the President of the United States made the dedicatory address, the Secretary of the Interior made the following statement which, briefly, describes the purpose for which the Petroleum Conservation Division was created: "First under the Petroleum code of the N. R. A. and later under the Connally Act, at least a beginning has been made toward stopping the reckless overproduction and consequent waste of petroleum and its products which are exhaustible and irreplaceable resources upon which not only prosperity but the very life of the Nation depends."

GENERAL

There are a number of divisions and offices in the Department doing special work or carrying out administrative functions. In the specialized lines are the Division of Motion Pictures, the Office of Exhibits, and United States Board of Geographical Names.

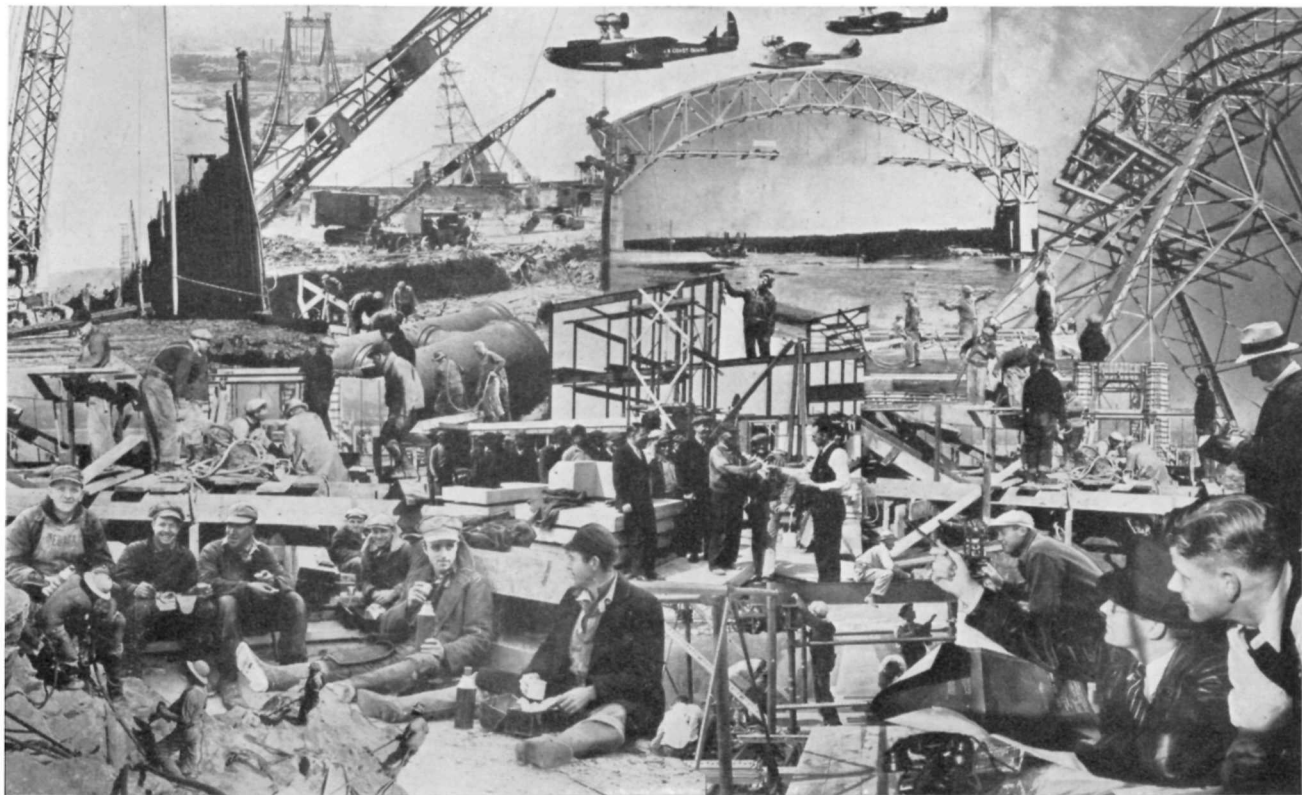
The Division of Motion Pictures produces and distributes motion pictures descriptive of the activities of the various bureaus within the Department. The films are available for the use of schools, churches, Civilian Conservation Corps, and other non-theatrical groups or organizations. In addition, it prepares photographs and enlargements for publicity and display purposes.

The United States Board of Geographical names is a little-known unit which keeps the Atlas alive. This Board passes on new names and changes of names; and the proper spelling, pronunciation, and history of geographical names in the United States and its possessions.

The Office of Exhibits designs, constructs, installs, and supervises exhibits of all kinds which portray the work and various activities of the Department and the subdivisions thereof, in connection with national, State, and international expositions, conventions, etc., and makes necessary arrangements for departmental displays at such expositions and conventions.

In connection with administrative matters there are the Office of the Solicitor, which handles legal matters for the Department; the Division of Investigations; the Office of Information with a director in charge; the Office of the Chief Clerk with its customary and necessary functions; and the Purchasing Office which handles all purchases for the Department of the Interior.

The War Minerals Relief Commission which reviews previous awards or denials, and renders decisions for the approval of the Secretary of the Interior in connection with losses incurred in producing or preparing to produce manganese, chrome, pyrites, or tungsten during the World War, is likewise under the Interior Department.



PWA in action: Needed jobs, useful work, prevailing wages.

PUBLIC WORKS ADMINISTRATION

ESTABLISHED 1933

THE proper use of the national resources is as much a part of conservation as protection, safeguarding, and rebuilding. During a national emergency when the raw materials for construction are turned, through a government program, to the upbuilding of a nation's physical assets so that the unemployed may have work on construction jobs, and also in furnishing the necessary materials and transportation, a real conservation job has been done. This job has been and is being done by the P. W. A., or, to give it its formal title, the Federal Emergency Administration of Public Works. The humanitarian, economic and social benefits of P. W. A. to the Nation are clearly apparent.

Organized to meet the exigencies of an economic crisis unparalleled in the Nation's history, the Federal Emergency Administration of Public Works has realized its objectives successfully and influenced our times profoundly. The Public Works Administration, as it is popularly known, was charged by Congress with two principal objectives: the creation of employment by large governmental expenditures for labor at a time when private industry was reducing the number of available jobs, and the creation of this employment by the building throughout the country of sound public works of recognized and lasting social value. To carry on this new program of employment by public works Congress made, in June 1933, an initial appropriation of \$3,300,000,000 available to the President to carry on his plan. A year later, following the Nation's enthusiastic acceptance of a relief plan which resulted in multiple durable civic benefits, Congress sup-

plemented this appropriation with \$300,000,000 additional for public construction; and in 1934 the President made available from emergency relief funds another \$300,000,000 to continue the P. W. A. program.

The Secretary of the Interior was appointed Federal Emergency Administrator of Public Works in June 1933, and under his supervision America's first large scale public works program was launched. All in all, P. W. A. has had approximately 4 billion dollars for the creation of sorely needed employment and for the construction of undertakings of great social significance.

From the start, the Administrator and a staff of brilliant and able engineers and lawyers whom he summoned to officer his formidable attack on the depression were hampered by the absence of any predetermined program for public works and the lack of precedents for this phase of the new planned economy. The advisability of the Federal Government launching a heavy construction campaign during periods of business depression had long been advocated, but when the money was actually appropriated P. W. A. found hundreds of thousands of workers eager for jobs but no prepared program of undertakings which would provide employment. True, many Federal departments had prepared detailed plans and specifications of needed projects in anticipation of Congressional appropriations for their execution. But States, counties, and municipalities were not accustomed to plan for the future and were unprepared for the execution of this program, which held so much for them in the way of Federal grants. The Administrator invited non-Federal governmental units to submit suggestions for undertakings of a nature that would combine the provision of the maximum of needed employment with the construction of socially desirable improvements. The Federal Government and the communities benefiting would share the cost. Originally, P. W. A. allowed a free grant of 30 percent of the cost of labor and materials as its substitute for a Federal dole, and as an incentive for the community's cooperation. The participating communities furnished all additional funds necessary for completion of the undertakings.

In cases where a community, eager for a project, was unable to obtain financing for its share of construction costs, P. W. A. in

addition to the free grant made a secured and interest-bearing loan up to 70 percent of the project. Later, using funds made available in the 1935 Emergency Relief appropriations, P. W. A. provided grants of 45 percent to be matched by contributions of 55 percent by local governmental units.

From its inception, P. W. A. was hailed by the country's leaders as one of the most intelligent weapons in the many-fronted campaign to restore to America the prosperity it had enjoyed before its great economic catastrophe. Thousands of communities saw in the P. W. A. program a twofold blessing; it provided work for a community's jobless, and it enabled the community to establish those necessary civic improvements whose execution had been hampered only by a lack of funds. As the P. W. A. program progressed, its benefits spread over the entire Nation, building useful projects in 3,070 of the country's 3,073 counties.

First to share actively in the program were Federal agencies. With P. W. A. funds the Bureau of Reclamation was able to launch new works and to complete vast undertakings, such as Boulder Dam, for the rehabilitation of arid lands, turning great desert stretches into fertile farming areas. The Army received an allocation for nonmilitary purposes, providing its posts and stations new housing for officers and men, enabling the quartermaster corps to replace shoddy barracks whose inadequacy had long been condemned and whose replacement had been delayed because of insufficient appropriations. The Army Corps of Engineers was enabled to pursue further its vast program for improvement of rivers, expediting navigation on the country's streams and protecting millions of acres of land from the ravages of floods. The first P. W. A. appropriation enabled practically every Federal department to extend its useful work and at the same time to provide needed jobs.

The non-Federal program, affecting more closely the lives of millions of Americans, has in the brief space of 3 years left a permanent and beneficial mark upon American life. The material requisites for a rounded, wholesome community life conforming to modern American ideals had long been lacking in thousands of communities. Pure water is essential to the health of a city; modern sanitation methods are equally neces-

sary if the community's health is to be preserved; modern hospitals and institutions are recognized as indispensable; American ideals of education demand that children of the poorest residents of remote rural districts be given opportunities comparable to those afforded children of the wealthy in urban schools. The prosperous years before the depression had made the automobile a necessity to all except the least fortunate citizens. An increased traffic for business and pleasure required new and wider roads and bridges. The growth of the automobile's popularity was marked by an alarming increase in fatalities from traffic accidents, which required the elimination of grade crossings and the provision of every known safety device.

All of these needs of modern American life and many more have been met by P. W. A. A summary of its accomplishments to date would show that in addition to employing some 3,400,000 men, it has established upward of 8,200 individual projects—all civic boons financed in part by the communities benefiting by them. Beyond these, it has financed 15,500 work-giving, useful undertakings of the Federal Government.

A close scrutiny of the types of work executed by P. W. A. reveals the extent of its contributions to the national wealth. P. W. A.'s accomplishments include the construction of more than 3,100 educational buildings, ranging from tiny ideal crossroads schools to great university structures; 380 modern hospitals and institutions; 570 other public buildings; 2,800 sewer and water systems and other utility projects; 740 street and highway undertakings; 225 large engineering structures; and 90 aids to water navigation and airplane transportation. Work-making loans totaling \$198,000,000 to railroads financed new construction, speeded American travel with new type trains and new roadbeds, and rehabilitated the old equipment. These are definite, lasting achievements. They are byproducts of P. W. A.'s primary purpose: the reemployment in useful pursuits of the depression's jobless.

When the great depression of the thirties is but a memory in the minds of a passing generation which struggled through it, P. W. A. will be remembered by monuments of steel and stone



A touch of Gothic architecture.

which it has erected. The 50 low-rent housing projects, undertaken as a demonstration experiment by P. W. A.'s Housing Division, may well commemorate the first efforts of the Federal Government to ameliorate the lives of its least fortunate citizens by providing them with decent dwellings at a price within their means.

In New York, the next and succeeding generations will speed over the Tri-Borough Bridge and ride beneath the North River through a Mid-Town Hudson Tunnel, both P. W. A. projects. In Chicago, future generations will have their health safeguarded by the monumental Sanitary District project, a P. W. A. undertaking ranking as the greatest sanitary engineering job in history. In Florida, residents of the Lake Okeechobee region will thank P. W. A. for security against floods that once devastated their lands.

Along the lower Mississippi, the constant threat of loss of lives and property during river floods has been removed through protective measures financed by P. W. A. In the West, the great dams built by P. W. A. will furnish cheap power, enable navigation along once narrow and shallow streams, or provide irrigated farm lands for prosperous settlers in the future. In practically every county in the United States there will be a permanent P. W. A. memorial in a school, a hospital, a bridge, a utility system, or some other durable benefit.

The theory of governmental public works as a business stimulant contemplates reemployment not only of workers at the site of construction but also in the production, fabrication, and the transportation of materials needed in actual building. Behind every worker on a P. W. A. project, according to the estimates of conservative statisticians, there are four workers recalled to jobs in quarries or in forests, in mills or in factories, and in the shipment of these materials.

Employment benefits of the program extend well beyond those capable of measurement. The hundreds of thousands of idle workers summoned to work on P. W. A. building jobs or in the provision of materials for them are responsible for a tremendous increase in national buying power. Once more on pay rolls, they are enabled to purchase those necessities which want had

long denied them. All the servicing professions, the retailers, and the industries supplying them, feel the welcome impetus of the increased purchasing power of job-given workers. To supply these new demands, consumers' industries which had been struggling along in the slough of the depression began again the purchase of supplies and reopened their factories, their warehouses, and their shops, giving employment to thousands more who had been jobless. Just how many American unemployed took this road back to pay rolls is unknown; many statisticians, however, concur in the belief that their number is easily equal to those employed at the site or in providing building material. Early in 1936 statisticians estimated that approximately 21 million man-months of work in direct and primary indirect employment has been provided by P. W. A., and that an equal amount had been created through the increased demand for consumers' goods, making a total of some 42 million man-months of employment created by the Federal Government's first huge public works program.

These accomplishments are concrete and are to an extent measurable. However, the P. W. A. program extended beyond these definite attainments and provided America with benefits considerable although intangible and difficult of measurement. At the outset of the program, the Administrator laid down certain hard-and-fast rules which demanded safeguards for the taxpayers' money, which inaugurated a new era in public construction in America. Political considerations and the unsavory "pork barrel" did not affect the execution of the P. W. A. program. Under instructions from the Administrator, P. W. A. officials in making allocations for projects considered only whether the undertaking supplied a definite social need, whether its engineering plans were practical and economical, and whether the loan from the Federal Government was amply safeguarded. Once a project was inaugurated, P. W. A. assumed the responsibility of strict and rigid inspection to insure the taxpayers of an honest dollar of construction for every dollar of their money spent. P. W. A. became the hallmark of sound, honest, municipal construction. The early critics of P. W. A. who foresaw scandalous waste were confounded; the 4-billion-dollar program moved forward without

a major scandal to mar its record—an achievement unparalleled in governmental history.

Many who have closely followed the course of P. W. A. are still unaware of the fact that every loan of Federal moneys to a borrower bears interest and that its repayment to the P. W. A. revolving fund has been assured. They are also unaware of the neat profit accrued by P. W. A. through the sale of State and municipal securities and railroad bonds pledged as collateral for loans. With the disposal to the public of some \$300,000,000 of these securities, which at the time of issuance could find no private investors willing to buy, P. W. A. had realized a profit of nearly \$5,000,000 early in 1936.

Economists and business leaders have proposed that the Public Works Administration be continued as a permanent Government agency, planning in times of economic peace to do its share in stabilizing industry and business in times of economic distress. Thousands of thinking, responsible Americans who have witnessed the execution of the first P. W. A. program, the most monumental in world history, have been impressed by its achievements in providing a substitute for a direct dole and at the same time leaving as a memorial of its activity thousands of improvements to benefit our own and future generations. For the first time the Nation has come to the realization of the desirability of an intelligently conceived long-term public works program. The National Resources Committee has taken the initial step on the road to a planned economy which includes public works as an integral factor. Just as we have a general staff preparing war-time defenses in time of peace, so may we have a permanent public works agency planning in years of plenty economic defenses against the lean years.

NATIONAL RESOURCES COMMITTEE

ESTABLISHED 1935

BRIEFLY, the National Resources Committee is a correlating, fact-finding clearing house of vital information on national resources, functioning under the chairmanship of the Secretary of the Interior. It works with the agencies of the Federal Government, with local and State governments, with State planning boards, and with regional planning boards in the gathering of information and recommendations. These facts and suggestions are correlated by the committee into recommendations to the President. These recommendations furnish a basis for the sound and necessary use of national resources.

The objective of the National Resources Committee, as described in one of its reports, is the creation of a national plan for the Federal Government, in cooperation with the States, which would:

1. Provide for the systematic development of our water resources for purposes of sanitation, power, industrial uses, transportation, recreation, domestic consumption, and other collateral uses on a far higher level than ever before.
2. Remove the recurring menace of great floods and vast losses to persons and property.
3. Reduce the heavy losses of soil caused by uncontrolled erosion.
4. Eliminate the use of land incapable of affording a minimum standard of living, develop agricultural production on the most suitable soils only, and aid in raising the standards of living in many agricultural regions.



Flood control will lessen disasters such as this at Elba, Ala.

5. End the wasteful use of our mineral resources and substitute a national policy of mineral conservation.

6. Make available large areas of land for purposes of popular recreation.

7. Assemble basic data in regard to mapping, public finance, and population, necessary for national planning.

8. Avoid the extravagance caused by failure to coordinate public works—Federal, State, and local; bring about better programming of socially useful public works, prepare public-works projects suitable, if desired, for use in emergency situations.

9. Provide for continuous long-range planning of land, water, and mineral resources in relation to each other and to the larger background of the social and economic life in which they are set.

“It is, of course, idle to expect” says the report, “that the mere declaration of a set of policies will automatically produce such results. Legislation, administration, cooperation of many different types of government on many levels, and strongly supporting public opinion—all are necessary to bring about substantial changes of the kind just indicated. Nor can it be forgotten that the use of national resources is not a thing apart, but involved closely in the whole mass of human activities, with industry, labor, finance, taxation. National resources planning is not planning at all if it leaves out of account the many vital factors in our economic and social life, the resultant of which makes a standard of living.”

In reference to this report and to that of the Mississippi Valley Committee, appointed under P. W. A. at the recommendation of the National Planning Board, the President said:

For the first time in our national history we have made an inventory of our national assets and the problems relating to them. For the first time we have drawn together the foresight of the various planning agencies of the Federal Government and suggested a method and a policy for the future. * * *

These documents constitute a remarkable foundation for what we hope will be a permanent policy of orderly development in every part of the United States. It is a large subject but it is a great and inspiring subject. May I commend to each and every one of you who constitute the Congress of the United States a careful reading of these reports.

The National Resources Committee was created by Executive order in 1935. It succeeded to the functions of the National

Planning Board and the National Resources Board. The National Planning Board was appointed by the Administrator of Public Works, July 20, 1933—

to advise and assist the Administrator * * * through the preparation, development, and maintenance of comprehensive plans * * * through surveys and research * * * and through the analysis of projects for coordination and sequence * * * and to obtain the maximum amount of cooperation and correlation of effort among the agencies of the Federal, State, and local governments.

The report of the National Planning Board was submitted to the President on June 24, 1934, and led directly to the reorganization of the Board as the National Resources Board with a somewhat wider field of activity.

The National Resources Board was established by Executive order of the President on June 30, 1934—

to prepare and present to the President a program and plan of procedure dealing with the physical, social, governmental, and economic aspects of public policies for the development and use of land, water, and other national resources and such related subjects as may from time to time be referred to the Board by the President.

The National Resources Board prepared a series of reports for the President as required by the Executive order, the most comprehensive being the document dated December 1, 1934, transmitted to Congress with a special message from the President on January 24, 1935. This report dealt with problems of land, water, and minerals, the organization and timing of Public Works programs, basic data for planning, and State and regional planning. A second report was submitted on June 14, 1935, the day the Board was succeeded by the National Resources Committee.

In transmitting to Congress the reports of the National Resources Board and the Mississippi Valley Committee, in January 1935, the President said:

* * * We seek to use our natural resources not as a thing apart but as something that is interwoven with industry, labor, finance, taxation, agriculture, homes, recreation, good citizenship. The results of this interweaving will have a greater influence on the future American standard of living than all the rest of our economics put together. * * *

A permanent national resources board, toward the establishment of which we should be looking forward, would recommend yearly to the President

and the Congress priority of projects in the national plan. This will give to the Congress, as is entirely proper, the final determination in relation to the projects and the appropriations involved.

The National Resources Committee was created in order to continue the work of the previous agencies which drew their authority from the National Industrial Recovery Act

Among the duties charged to the committee are the collection of data and the preparation of such plans "as may be helpful to a planned development and use of land, water, and other national resources, and such related subjects as may be referred to it by the President."

Other specific duties include cooperation and consultation with Federal, State, municipal, and private agencies in the formulation of conservation or development programs and the recording of all proposed Federal projects involving the acquisition of land or land research projects and, in an advisory capacity, to provide the agencies concerned with pertinent information. All executive agencies are required to notify the National Resources Committee of such projects as they develop and before major field activities are undertaken.

In carrying out its instructions from the President, reports of the National Resources Committee and its predecessors have brought together for the first time exhaustive studies and plans for public-works land use, water use, minerals, and other related subjects, in relation to each other and to national planning. These reports are designed to provide a sound basis for comprehensive long-range national conservation and development policies.

To keep in touch with public opinion and to obtain special knowledge on various problems, the advisory committee of the National Resources Committee has cooperated with national institutions and has met with special groups and consultants in different parts of the country. Cordial working relations have been established, after approval by the President, with the National Academy of Sciences, the Social Science Research Council, and the American Council on Education, each of which has designated special committees to work with the Resources Committees.



Land in the Tennessee Valley ravaged by soil erosion.

The major coordinative committees of the federal planning agency deal with land planning, water resources, mineral policy, industrial resources, science, population, technology, and competing fuels.

Miscellaneous research projects have also been undertaken under a variety of methods. The President requested two major studies, one in the field of regional planning and the other on the allocation of costs of public works. Other studies in the field of urbanism have been undertaken at the request of various agencies.

One of the most important functions of the National Resources Committee is the maintenance of helpful contacts with State planning boards throughout the country. The formation of 46 of these State planning organizations in the short space of 2 years is cited as evidence of the rapid growth of interest in planning better conservation and use of state resources. The committee's report on the progress of State planning shows that 32 of these new State planning boards, and the Territory of Alaska and District of Columbia, have received the endorsement of their legislatures and now have permanent planning boards. In the 15 other States, boards have been appointed by the governors on a temporary basis.

Referring to the growth of the State planning movement, the President has said:

The rapid organization and progress of 46 State planning boards, the accomplishments of which are outlined in the report of the National Resources Committee show that the people of our country understand and want long-range planning and foresight in public affairs.

To give lasting substance and direction to the planning for the wise use of our human and natural resources we need permanent advisory planning boards for towns, cities, counties, States, and the Nation.

Two interstate, or Regional Planning Commissions, also have been organized with the cooperation of the State planning boards with notable progress in New England and the Pacific Northwest. The new State planning boards fill a gap between some 700 city planning boards and 400 county planning boards, on the one hand, and the National Resources Committee on the other. Cooperation among the local, State, Regional, and Federal planning agencies has been facilitated through the assignment of planning consultants by the National Resources Com-

mittee to the State planning boards. These consultants have furnished information and technical aid to the State boards, which, in turn, have assisted in the development of county and municipal planning progress.

Concrete examples of the work of the National Resources Committee include the first national inventory of land which may be reclaimed, and the national water plan now in preparation. The first national inventory of land which might be reclaimed for agriculture by irrigation or drainage has been completed. Final figures of the inventory, which are contained in a report published by the National Resources Committee, show that there remain in the United States approximately 100,000,000 acres which could be adapted to agricultural pursuits by drainage and more than 30,000,000 acres which could be reclaimed by irrigation.

A "National Water Plan" directed to the control of floods, erosion and water pollution; to the uses of water for domestic purposes, irrigation and power; and to the drainage of waterlogged and overflowed lands, will be delivered to the President before December 1, 1936, by the National Resources Committee. The request for the "National Plan" came to the Resources Committee some weeks before the spring floods of 1936 and calls for a "developed" or long-range plan for each important drainage basin in the United States and a listing of projects for the execution of the plan.

The study, which has already been begun by the National Resources Committee, will be in line with the general recommendations made in the committee's report of December 1934 and transmitted to Congress by the President January 24, 1935. It will be conducted in cooperation with State and regional planning boards.

Afterword

THE history and activities of the organizations which stand back of the Buffalo Seal, the insignia of the Interior Department, have been set forth in the foregoing pages. The Buffalo Seal, commemorating the conservation of the Bison which were on the verge of extinction before the Interior Department, through the National Park Service, gave them protection and aid, symbolizes the coordinating of various conservation organizations into one Federal department operating under one head, the Secretary of the Interior. Since the Secretary of the Interior is also Administrator of Public Works and Chairman of the National Resources Committee, these two agencies may also be said to be back of the Buffalo Seal. In the performance of their duties, men and women of the Department and these allied agencies are doing their utmost to support the Buffalo Seal in its fullest significance, for the full benefit and enjoyment of the people.

Should you wish further information regarding any of the work being done by the Department of the Interior, the National Resources Committee, or the Public Works Administration, you have only to address the organization in which you are interested, at Washington. The organizations named in this booklet are public agencies of general service, and a real understanding of the work they are doing, on the part of the people generally, will enable them to be of even greater service and benefit to you and to the Nation.



