

THE GOVERNMENT EXHIBIT AT THE TRANS-MISSISSIPPI AND INTERNATIONAL EXPOSITION.

It is admitted that the government of the United States is one of the most important factors in the Omaha Exposition. Its exhibit is not only unquestionably the best on the grounds, but it is the best selected collection of exhibit material and the best installed of any previous governmental exhibitions, not excepting that of Chicago. The reason for this is that only men of experience have been placed in charge of the work of accumulating the collections and installing them, and, through the experience acquired at many expositions, the work has been done in a most thorough and satisfactory manner.

Out of an appropriation of \$200,000 made by Congress for this purpose, \$62,500 was set aside for the building proper, which was constructed under the direction of the supervising architect's office of the Treasury Department.

The departments of the government represented are the State, Treasury, War, Navy, Post Office, Interior, Justice, and the Agricultural Departments, with the Smithsonian Institution and National Museum and the United States Fish Commission.

The building, which is the largest on the grounds, is 460 feet in length, 146 feet in width at the center, and 100 feet at the ends. One of the chief architectural features of the structure is the dome, the height of which is 185 feet to the torch held in the hand of the colossal figure of Liberty which surmounts it. The facade of the central portion of the building is 58 feet high and of the wings 43 feet. It is built of wood and iron, covered with staff, as were the Exposition buildings at Chicago.

Never before has the Government building at an exposition been so artistically and beautifully decorated, the color scheme and general details having been selected and arranged months before the beginning of the work of construction by a decoration committee made up of members of the board.

It would be impossible, in the limits of this article, to describe in detail even the main features of the exhibit material, but there are particular exhibits, however, which give character to the departmental spaces where installed, and as these are the first to impress themselves upon the great mass of visitors, who, as a rule, seek amusement rather than instruction, they deserve first mention.

Starting at the north entrance, west side, the visitor enters the spacious archway leading to the grotto of the Fish Commission. The exterior is of paneled woodwork finished in imitation ivory and gold. The interior is treated in imitation of a roughly blasted rock tunnel; numerous stalactites, glistening in a pale greenish hue, depend from the roof of the grotto. On either side are the aquaria tanks, richly decorated inside with sand, rock, and aquatic plants, and so arranged that all light entering the grotto passes through the water in the tanks and their plate glass fronts. In the two rotundas, rocky cascades are formed with large pools, illuminated by electric lights. All of the tanks and pools, with the exception of eight, are devoted to the display of fresh water fishes reared by the United States Fish Commission and the indigenous varieties of the Mississippi and Missouri River valleys. In the salt water aquarium are exhibited most of the important fishes of the New England coast.

Other features of the Fish Commission exhibit, and which are arranged outside of the grotto, are the extensive apparatus for collecting, dredging, and trawling, and for preserving collections; for deep sea soundings, transportation, fish hatching and rearing, with a large series of models of boats, vessels, buildings, etc., used in the work of the Commission. There is also a large

and valuable museum collection of marine animals and fishes, both dry and alcoholic, the whole forming a most instructive and beautiful showing of the scientific and practical work of this important branch of governmental aid in the development of our national resources.

The next space is that of the Post Office Department, and, though the exhibit is smaller in size than that made at Chicago, it surpasses any previous attempt to illustrate this branch of the public service, which is so near to the people.

The stamp collection would set a philatelist wild with envy. It includes a complete series of United States postage stamps from their introduction in 1847, including department, special delivery, postage due, and newspaper and periodical stamps; also set of stamped envelopes from 1853 (date of introduction) to date, and sets of foreign stamps, postal cards, and wrappers to 1898 from all stamp-issuing countries of the world.

In the Equipment Division there are models of the "Paris" and of smaller types of mail boats and of postal cars in use in this country, a full sized Western mail coach and models of foreign mail coaches, mountain mail courier, toboggan and dog outfit employed in snow-clad regions, together with life size figures of city mail carriers of the United States and other countries. The exhibit of the Dead Letter Office is particularly interesting, as it is made up of objects sent through the mails that have never reached their destination. In

are very valuable, and there are exhibits of articles of historical interest, such as swords, flags, etc.

The Treasury Department space is the first in the southwest section of the building after passing under the dome, and its display is particularly attractive. The exhibit of the Lighthouse Board is a source of wonder to the western rural visitor, who gazes curiously at the immense lenses of first and second order lighthouses. Near the model of a fog bell is a large model of Minot's Ledge light on the Massachusetts coast, illustrating the granite-built form of structure erected on sunken ledges. Models are also shown of the airy and graceful open-work form of iron structure, of which the Fowey Rocks light, on the Florida reefs, is an example. Everything connected with government lighthouses has a place in this exhibit, and a keeper is on the ground to explain what is not understood.

The collection of coins includes a specimen of every coin struck by the government since its foundation; in fact, the financial branch of the department is illustrated by a complete exhibit of the currency issued by the government, from a ten cent piece to a ten thousand dollar gold note. The process of coining the money of the government is shown by the operation of a coin press which has been in use in the Philadelphia mint for upward of fifty years. It has a capacity of ninety thousand dollars per hour, and in coining silver dollars, strikes with a force equal to the weight of one hundred tons.

The Marine Hospital Service exhibit illustrates in a very complete manner the efforts of the government in preventing the introduction and spread of epidemic diseases. And in its entirety it embraces every branch of medical science, including the wonderful X ray apparatus, which, naturally, is one of the popular exhibits of the building.

The Life Saving Service is practically illustrated by a crew on the grounds, which gives an exhibition drill in the lagoon daily.

One of the most interesting exhibits in the space of the Agricultural Department is the practical demonstration of the inspection of pork as conducted by this bureau at various packing centers in the United States. Assistant

microscopists are engaged in making examinations of pork samples, furnished daily by packing houses at South Omaha, Nebraska. The microscopes and other appliances are similar to those used elsewhere for this purpose. About 1½ per cent of the carcasses examined show trichinæ, so it is possible for the young lady attendant, in charge of the work, to give visitors an opportunity to see a bona fide example of trichinæ, by means of an extra microscope arranged for the use of the curious public on a table near. A large pathological collection of specimens in alcohol illustrates the many other diseases of animals, while there are models of sheep dipping vats, a collection of cultures of bacteria, etc. The Dairy Division of the department also makes an interesting showing, including a series illustrating the constituent parts of milk.

The Chemical Division illustrates the chemical side of the beet sugar industry, while the progress of entomological science is presented in the next space by interesting exhibits of insects and their work, with the insecticides for their destruction.

A collection of fruit models in wax, prepared by the Division of Pomology, is a very attractive feature.

The instrument tables in the Weather Bureau exhibit are constantly surrounded by inquiring visitors. One delicate instrument, partly the invention of Prof. Marvin, records on a strip of paper the direction and velocity of the wind, the variations in temperature, the duration of sunshine or cloudiness, with the amount of rainfall, when it does rain, during a given time. For



THE LAGOON BY NIGHT—GOVERNMENT BUILDING IN DISTANCE.

this incongruous collection will be found explosive bombs, deadly weapons, tarantulas, and rattlesnakes sent alive, and poisonous liquids and compounds, letters written on collars, cuffs, and boards; children's toys, Indian scalps, skulls, police billy, stuffed birds, etc.

There are voluminous postal records and a fine collection of portraits, engravings, and photographs. A branch post office is located near the space, where all the Exposition mail is handled.

The exhibit of the State Department and the Executive Mansion occupies the space directly in the center of the building, west side, and comprises forty-one exhibits, some of them being collective exhibits of great value. Naturally, the larger portion of this exhibit is in the form of books, printed and written documents, maps, photographs, etc., among which are letters and manuscripts of great historical interest and value, diplomatic papers bearing the signatures of kings, princes, and potentates. Among valuable manuscripts may be mentioned exhibit No. 22, the papers of Benjamin Franklin, arranged in fourteen large volumes, and exhibit No. 23, the papers of Thomas Jefferson, arranged in one hundred and thirty-five volumes.

The portrait collection is very interesting, containing the portraits of every President from Washington to McKinley, the portraits of the Secretaries of State, and many others, including old world rulers. Other exhibits illustrate the methods of transacting business in the various bureaus. The medal and coin collections

example, in a recent storm at Omaha a four-tenths fall of rain was recorded in 5 minutes, an inch in 30 minutes, and 2½ inches for the afternoon. Instruments arranged on the roof of the building are connected by wire with those upon the tables in the space, and the work goes on daily with only a simple winding of the clock mechanism and the changing of the record blanks once every 24 hours.

The Botanical Division confines its exhibit to a collection of poisonous plants and to illustrating the government methods of seed inspection. In the same alcove the division of Vegetable Physiology and Pathology has a most attractive exhibit of the wild and cultivated mushrooms of the United States, with a large model of a cellar for mushroom cultivation. Here the mushrooms are found "growing" (in wax) in all stages, and a pamphlet of instructions given out gratuitously tells the visitor how to do it himself if he wishes to embark in the enterprise.

In the Forestry Division space is shown a large series of woods. There are also three very instructive relief models of a farm, showing (1) the devastation consequent upon indiscriminate cutting and other destruction of farm forest cover; (2) the method of restoring the forest cover where needed, and recuperating the wasted soil; (3) rational utilization and proper disposition of the farm forest. An outdoor tree-planting exhibit completes the showing of this division.

A very attractive alcove is that devoted to the flax and hemp of the world prepared by the Office of Fiber Investigations. There are 22 panels measuring 2 x 5 feet, under plate glass, in which are arranged all the leading forms of the flax and hemp of commerce. The examples of flax grown in the United States include one sample, from a departmental experiment, that Irish spinners have valued at \$500 per ton. This and other specimens near it show conclusively the value of the work done by the Office of Fiber Investigations, for they demonstrate the practicability of the culture in this country beyond question. A frame containing 18 reports published by the fiber office forms a part of the exhibit.

We have now reached the south end of the building, having reviewed all the exhibits between the main aisle and the west wall. Starting again at the southeast corner of the building, the visitor finds himself in the interesting space devoted to the War Department.

There is an interesting exhibit of small arms of historical interest, showing the kinds of arms employed in our wars at different periods. There are also a few howitzers and field guns, including a Gatling gun, with many different forms of ammunition and projectiles. The Engineer Department is also well represented by models of fortifications, with miniature siege guns in position, enabling one to get an idea of modern de-



CORNER OF POST OFFICE DEPARTMENT EXHIBIT.

fenses. One of the most interesting exhibits in this branch is the group of torpedoes and ground mines used in harbor defenses, recalling the "Maine" disaster most vividly. The Quartermaster's Department makes a very instructive exhibit of dummies clad in the uniforms of the American soldier at different periods of our national existence, including the Puritan soldier of 1620, his Bible in one hand, his blunderbus in the other. A fine equestrian group shows a major-general and two aides, of the present date, in full dress, and near by are the captains of cavalry and artillery. There are also army tents, beds and bedding, cooking utensils, mess outfits, etc. The Signal Corps is well illustrated, and the Medical Department makes a very instructive exhibit from models of hospitals and equipped Red Cross ambulance, down to such details as field medical and surgical chests.

The next space, on the north, is devoted to the five bureaus of the Interior Department. The United States Patent Office display is one of the most extensive exhibits in this department, and it contains many striking features. A working linotype machine is doubtless the main attraction, and whenever it is in operation it is surrounded by groups of admiring visitors, who apparently never tire of witnessing the working of its complicated mechanisms. The cast type-lines, hot from the assembled matrices, and ready for

printing, are passed from hand to hand among the lookers-on and the various steps in the work of producing them fully explained.

Many of the patent exhibits have an historical interest as illustrating the progress of invention in familiar lines. The sewing machine may be taken as an illustration, the models showing the earliest forms of machines, together with the crude attempts at invention



ONE OF THE WEATHER BUREAU INSTRUMENT TABLES.

made before the sewing machine became a substantial reality, and so on down to the latest modern device. The typewriter, the printing press, agricultural implements, and many other labor-saving machines of the present day are thus shown in series, enabling the visitor to study step by step the improvements of a decade or a century. A wide range of invention is thus illustrated, from musical instruments to firearms, ordnance, and explosives.

The United States Geological Survey exhibits, first, a wall series of geologic and topographic maps. Second, a series of relief maps and geologic models, including large models of the State of Nebraska and the Yellowstone National Park. The Yellowstone Park is also represented by sixteen photographic transparencies, illuminated by electric lights, and by two cases of specimens illustrating its geology. Two cases of rare minerals and one of fossils complete the survey display. The Bureau of Education has for its principal duty the collection and diffusion of educational information, but it also administers the schools of Alaska, and exercises a limited supervision over the expenditures of the moneys appropriated to Land Grant Colleges under the Morrill act of 1890.

All three of these functions are most completely illustrated in the space devoted to educational matters, the Alaska exhibit, with its lay figures, and natural history specimens, proving especially attractive to the masses who throng the government building in quest of novelty. An Alaskan sled outfit, drawn by a reindeer, over a platform covered with artificial snow, is a prominent object facing the main aisle.

The exhibits of the Smithsonian Institution and National Museum occupy nearly one-half of the northeast section of the building, beginning at the main entrance.

The exhibition of the Smithsonian Institution proper occupies a quadrant under the dome, and its handsome installation material, painted in a soft greenish gray, is in strong contrast to the mahogany cases beyond in which the National Museum exhibits are displayed. The exhibits as a whole tell the story of the founding and perpetuation of the Institution, notable among which are many personal relics of Smithsonian, a cast from the bronze tablet recently placed upon his tomb in Genoa, Italy, and a complete set of the publications of the Institution and its many bureaus. There are several copies of the history of the first half century of the Institution in different bindings—a most valuable document and a superb exhibit of the printer's art as well.

The exhibit of the National Museum proper is one of the most complete and interesting that has ever been made. In preparing this display, two principal objects have been considered: to indicate the comprehensiveness of the scope of the Museum and to represent the manner in which series of objects are arranged, labeled, and displayed in the Museum at Washington. The cases and general installation materials, for the most part, were brought from Washington, though some special features have been introduced that are new. The exhibit is arranged in three grand divisions, namely, the Departments of Anthropology,

Biology, and Geology. Space will not admit even of an enumeration of the subject material in the three sections of the Museum display, and a few examples therefore, briefly stated, must suffice.

The group of anthropological exhibits is intended to illustrate the achievements of the race along a few of the more important lines of activity. Each series of objects epitomizes the subject treated, and presents the leading steps of progress in the simplest possible manner. Here is the story of fire making and illumination: The discovery of the use of fire and the making of fire by artificial means is illustrated by a single series of objects. The story begins with the fire of volcanoes and lightning, is followed by the kindling and keeping of fire, and closes with the utilization of the electric spark. Illumination is represented by two series: (1) the torch, (2) the lamp.

In like manner are completely illustrated the subjects of tools and utensils, weapons, ceramic art, and metal working, musical instruments, land and marine transportation, sculpture and stone shaping, book making, electricity, and many others.

The Department of Biology covers the entire field of zoology and botany. In selecting a topic for illustration in the small space available, two ideas have been in view: first, to present a series of objects significant in itself and at the same time likely to be of especial interest to visitors to the Exposition; and, second, to have this series sufficiently diverse in character to show the various methods employed in the department. It comprises the characteristic animals of the salt and fresh waters of North America, from the lowest to the highest forms, and the principal types of sea weeds.

The Department of Geology is in several divisions, as follows: Systematic and applied geology, mineralogy, and stratigraphic paleontology, the latter embracing three sections, as paleobotany, invertebrate fossils, and vertebrate fossils.

The Department of Justice has a small space between the National Museum and Navy exhibits, chiefly devoted to portraits of Attorney-Generals of the United States, important departmental publications, law books of the present and past centuries and papers and objects referring to important periods in the history of our country. In the department of prisons and prisoners there are many objects illustrating prison manufactures, including work of individual prisoners, such as embroideries, carvings, and the many curious objects denoting skill and patience that are produced where time is of little value.

The Navy Department exhibit of models of our navy is one of the most interesting and instructive exhibits of any in the Government building, for they include first and second class battleships, cruisers, gunboats and the smaller fighting vessels, among which the "Katahdin" and the "Vesuvius" are prominent. These models are from 3 to 6 feet in length, and cost perhaps \$3,000 to \$5,000 apiece.

Near the wall is a full-sized model in section of a 13-inch gun, surrounded by projectiles of various sizes, from a 13-inch shell down to those employed in guns of small caliber. There are a few light machine and rapid-fire guns, small arms of every description, and other exhibits illustrating every branch of the service, which are studied with interest. Lieut.-Com. F. M. Stedman is the representative of the Navy Department. Perhaps the most striking and attractive exhibit in this section is a \$2,000 model of a naval dry dock, built to scale. It represents the type and size of docks to be built at Boston, Philadelphia, Portsmouth and Mare Island. A model of the battleship "Illinois" is floated into the dock from a tank and the whole process of docking is illustrated. The illustrations used in this article, it is hardly necessary to state, are from government negatives.



PORTION OF PATENT OFFICE EXHIBIT.

Regarding the government exhibit as an educator, it is worth all the money it has cost the United States, for among the daily throng of visitors the most superficial mind must carry away some impressions of the meaning of the term "The Government" that will make the man a better citizen.

SCIENTIFIC AMERICAN

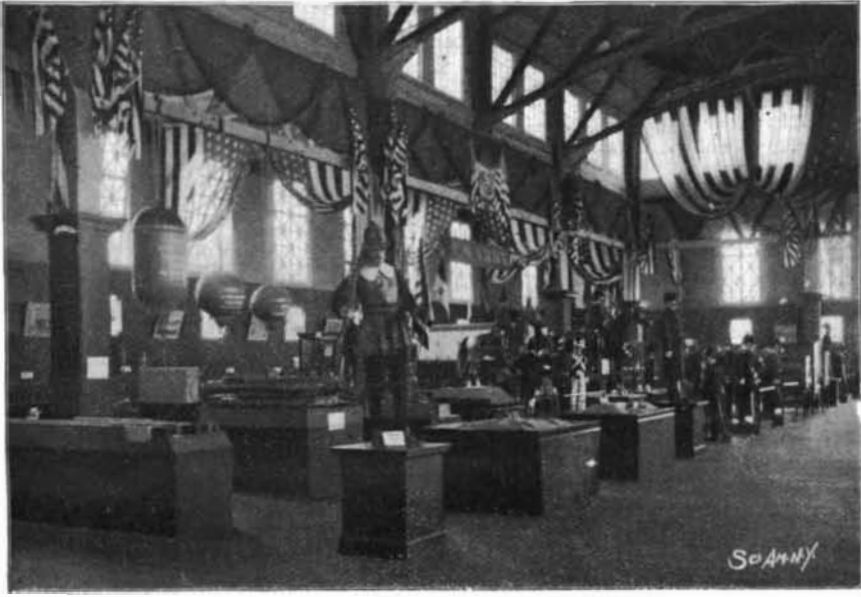
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WAR DEPARTMENT EXHIBIT.



PORTION OF FISH COMMISSION EXHIBIT—ENTRANCE TO GROTTTO.



DOME OF THE GOVERNMENT BUILDING.



SMITHSONIAN INSTITUTION AND NATIONAL MUSEUM EXHIBITS



UNITED STATES GOVERNMENT BUILDING—FRONT FACADE.

THE GOVERNMENT EXHIBIT AT THE TRANS-MISSISSIPPI AND INTERNATIONAL EXPOSITION.—[See page 168.]