WORLD'S FAIRS

FROM LONDON 1851

TO CHICAGO 1893

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WORLD'S FAIRS

FROM

London 1851 TO Chicago 1893

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ILLUSTRATED WITH VIEWS AND PORTRAITS

And Containing Authentic and Official Information of the

WORLD'S COLUMBIAN EXPOSITION, 1893, AND ALL PREVIOUS WORLD'S FAIRS

1892
MIDWAY PUBLISHING COMPANY
Office No. 92, 187 La Salle St.
CHICAGO, ILL.

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LIST OF ILLUSTRATIONS.

INTRODUCTORY

IN presenting this work to the public, the publishers have aimed to put in comprehensive and concise form the great mass of information about the World's Columbian Exposition of 1893, and other previous World's Fairs, for which there is at this time a great interest and popular demand. We have endeavored to confine this work to such general and important information as will best convey an adequate idea of the general plans of all Fairs. All of this information is strictly correct, being gathered from the most authentic sources, and we trust that it will prove instructive and beneficial to our readers. We are indebted to many high officials of the World's Columbian Exposition for much of the material contained herein, and desire here to express our sincere appreciation for the many courtesies extended to us by them in assisting in the compilation of this work. Every item has been carefully secured from official sources, with a view to its completeness and authenticity, and our readers may peruse these lines with the certainty that the information can be relied upon as being strictly correct and in no manner deviating from the official plans of the Exposition. Our articles on previous Fairs are compiled from official reports, and other reliable sources, and must prove of interest at this time when the subject of World's Fairs is uppermost in the minds of so many people throughout the world. An opportunity is here given for comparison between the plans of the World's Columbian Exposition and other great Fairs, showing by progression the advance made in each successive Exposition. We regret the omission of any reference to the World's Industrial and Cotton Centennial Exposition at New Orleans, 1884 and 1885. It is not caused by oversight, but by reason of our inability to find such information as we believe to be of an official and authentic nature, for which reason we are obliged to omit this important Fair from its proper place among the great Expositions of the past forty years. Our illustrations are made from approved architectural drawings, and are prepared with that care and correctness necessary to give our readers a complete idea of the elaborate plans in construction and ornamentation of all great Fairs illustrated. The general view of the World's Columbian Exposition, shown on large sheet following this page, is designed from the latest plans, and in completeness of general outline and ornamental detail it represents a full and picturesque view, as the Exposition will appear when the work of construction and ornamentation is completed. By consulting the Map opposite page 2 the reader can locate all the buildings and other points of interest, and also see the dimensions of all buildings and spaces allotted to Foreign Countries and States of the Union.

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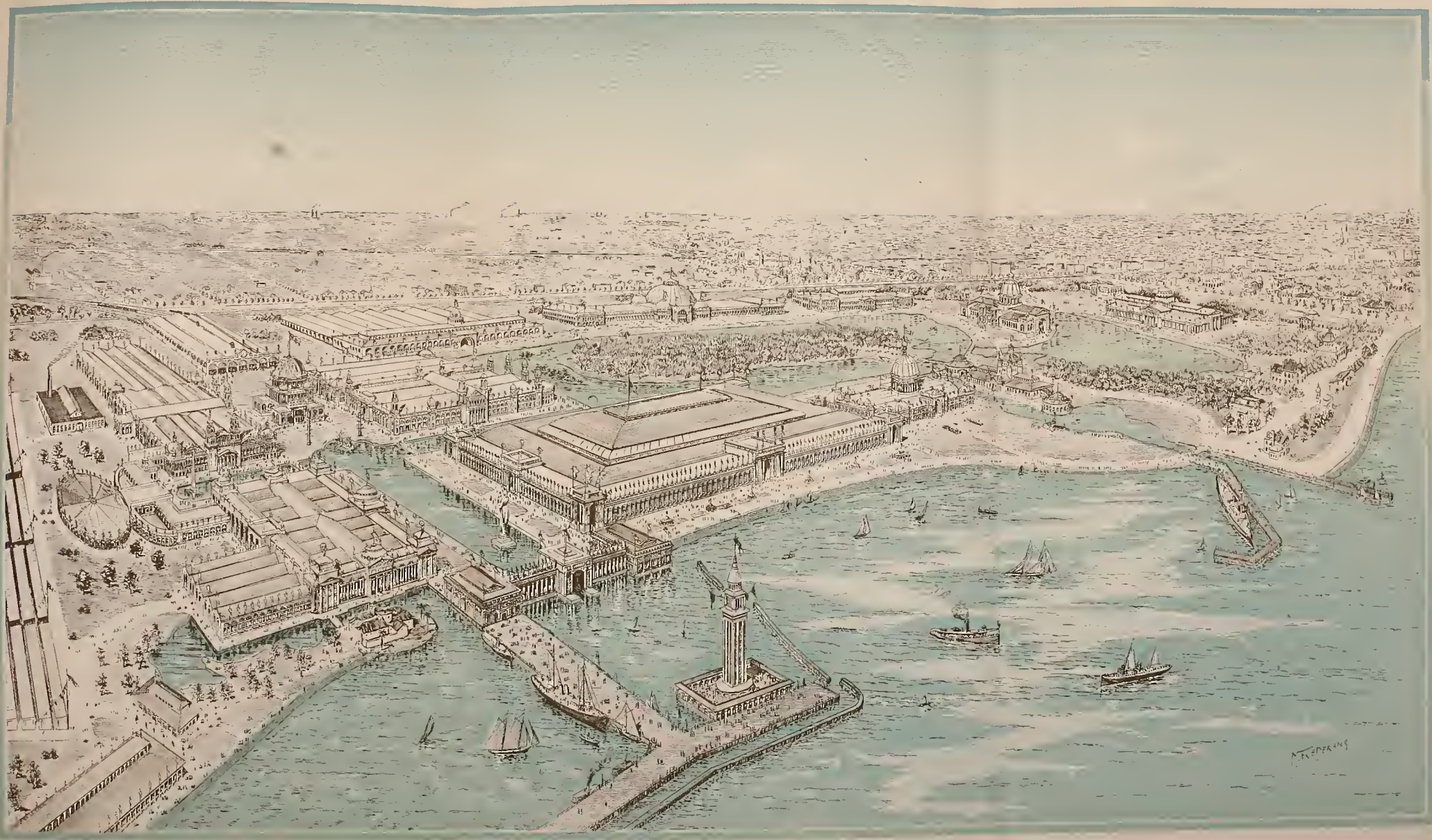

CORRECT GENERAL VIEW WORLD'S COLUMBIAN EXPOSITION.

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THE PRESIDENT'S PROCLAMATION.

WHEREAS, Satisfactory proof has been presented to me that provision has been made for adequate grounds and buildings for the uses of the World's Columbian Exposition, and that a sum not less than $10,000,000, to be used and expended for the purposes of said Exposition, has been provided in accordance with the conditions and requirements of Section 10 of an Act entitled "An Act to provide for celebrating the four hundredth anniversary of the discovery of America by Christopher Columbus by holding an International Exhibition of arts, industries, manufactures and the products of the soil, mine and sea, in the City of Chicago, in the State of Illinois," approved April 25, 1890.

Now, THEREFORE, I, Benjamin Harrison, President of the United States, by virtue of the authority vested in me by said Act, do hereby declare and proclaim that such International Exhibition will be opened on the first day of May, in the year eighteen hundred and ninety-three, in the City of Chicago, in the State of Illinois, and will not be closed before the last Thursday in October of the same year.

And in the name of the Government and of the People of the United States, I do hereby invite all the nations of the earth to take part in the commemoration of an event that is pre-eminent in human history and of lasting interest to mankind by appointing representatives thereto, and sending such exhibits to the World's Columbian Exposition as will most fitly and fully illustrate their resources, their industries and their progress in civilization.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the City of Washington this twenty-fourth day of December, in the year of our Lord one thousand eight hundred and ninety, and in the independence of the United States the one hundred and fifteenth.

By the President: BENJ. HARRISON.

JAMES G. BLAINE, *Secretary of State.*

CHAPTER I.

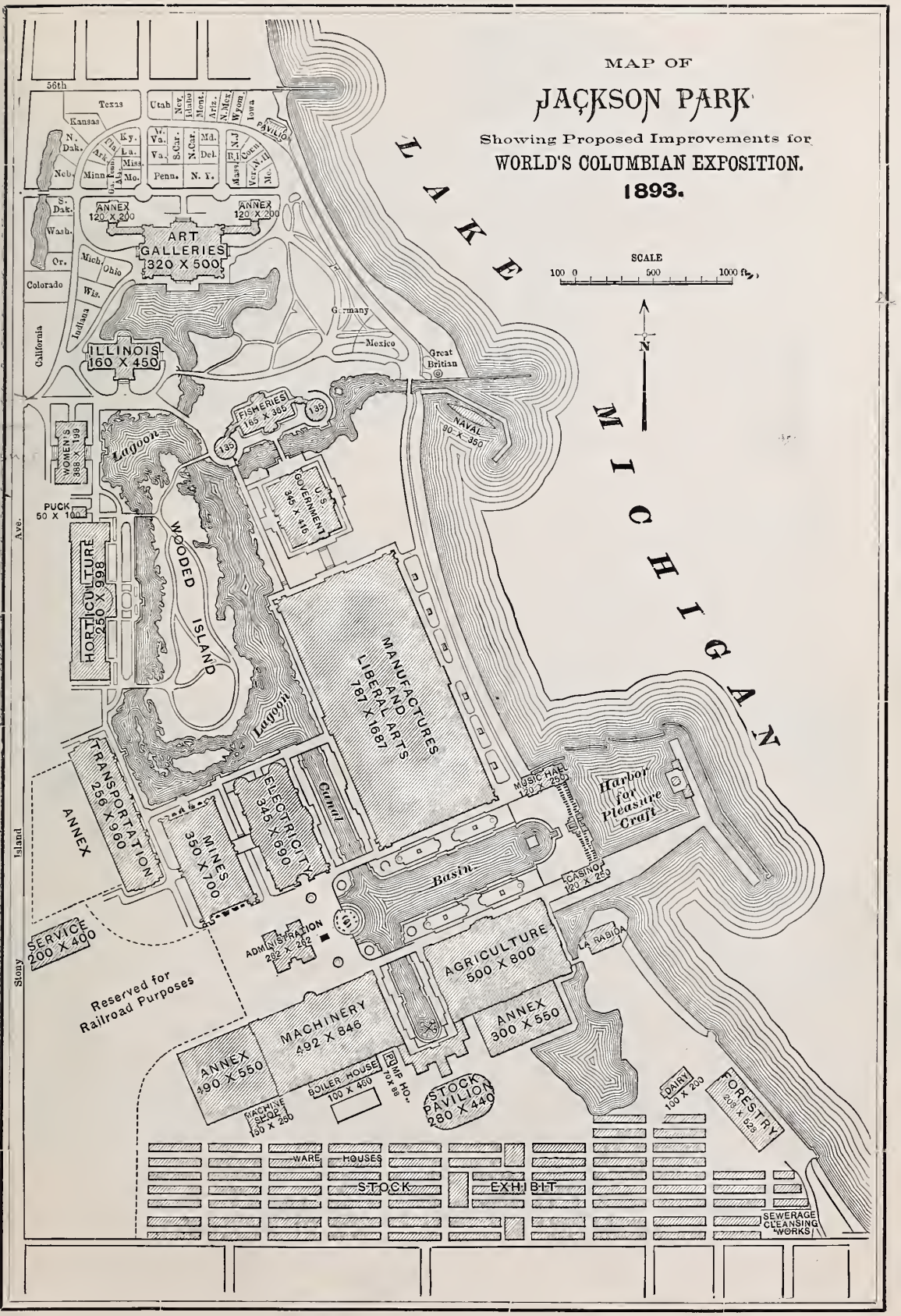
THE WORLD'S COLUMBIAN EXPOSITION 1893.

It will be dedicated to the best and highest aims which the human mind has conceived and expressed in all the centuries. It will be held in the land seen in vision by Christopher Columbus four hundred years ago, which vision neither obstacles nor ridicule could dispel. Upon these shores he implored Ferdinand and Isabella to plant the standard of Castile and the Cross. In 1492 America was presented to the Spanish Crown as with an undaunted faith it had been promised to an incredulous court. In 1893 will be celebrated the discovery of America by the immortal Columbus, since out from this transcendent event came a new civilization which has conferred countless blessings upon the world. In that year all nations will gather at the throne of Genius and Learning that all may be taught that Education, Art, Commerce and above all, international amity, may be exalted, and that man may be led to higher achievements in all things that dignify and immortalize human effort. Events have justified the designation of Chicago for this great work. The development of the new world that Columbus discovered four hundred years ago is what must, in the nature of things, be mainly illustrated by the Fair. The progress of the Western Hemisphere in all that is most characteristic can be set forth at Chicago as well as anywhere else, and probably better. Ideal considerations could, of course, be produced in favor of almost any locality. But the main point now is the more practical one that the business of the Fair is sufficiently advanced to warrant the unqualified statement that there will be brilliant success in every respect. There is organization of great strength, coherency and intelligence actively promoting every department of the work. Not less important, the financial resources of the Fair are to be unprecedented. From $20,000,000 to $25,000 000 will be invested by the Exposition Directory and the Federal and State Governments, and many millions more will be provided by the foreign governments and by

private persons, firms and companies, and by the holders of the various concessions. The individual states will have appropriated in the aggregate four or five times as much as they appropriated for the Centennial at Philadelphia, and the preparations in general are upon a much superior scale of magnitude. The Fair, it will be remembered, is to be far more than an exposition of the world's material progress. Besides illustrating in every visible and tangible way the advances of modern education, it will convene an International Educational Congress. In like manner there will be a series of congresses for the promotion of science, social well being and international unity in various special directions. The Fair will, of course, have its full share of audacious novelties to eclipse the Eiffel tower and other striking features of recent European expositions. Chicago will not fail to profit by the experiences of World's Fairs up to date, and may be relied upon to surpass by far all previous efforts. But it has also a right to claim the enthusiastic co-operation of the whole country.

Can Chicago be ready at the appointed time? is a question frequently asked. Unquestionably the date can be successfully met. Two years in Chicago is as a decade almost anywhere else. Will Europe really show a keen interest in the enterprise? is another question that is propounded. There is sufficient reason already for a reply in the affirmative. The exhibits and the travel from European countries in 1893 will far surpass the record of 1876. As marking the actual progress of modern civilization, the World's Fair at Chicago will be the most completely representative event of the nineteenth century. It should have not only the ardent well-wishes of every American, but also the support of localities and individuals in order that it may depict with faithfulness and with due historical perspective the development of every portion of the United States.

SITE OF THE WORLD'S FAIR.—Chicago, unique in almost everything, possesses four practically available sites, each presenting many good reasons for favorable selection. The Directors of the Exposition, in whose hands was placed the duty of selecting a suitable site, gave such time and attention to this important matter as few business men could or would have given. Working steadily, with competent architects, engineers and sanitary experts, and giving many months of their valuable time to this arduous undertaking, they finally arrived at a result which met the approval of the National Commission and which must be absolutely satisfactory to the millions of visitors in whose interest this great enterprise is to be carried through. The site adopted by the Board of Directors and approved by the National Commission is that portion of the justly celebrated South Park System of Chicago, known as Jackson Park and the Midway Plaisance. Having in view the comfort and convenience of the hundreds of thousands of our citizens and those from abroad, this site affords advantages which upon reflection must be appreciated and clearly understood by the practical mind. This beautiful location is within easy distance of the center of the business portion of Chicago, and is accessible by means of the most complete transportation facilities. Jackson Park has a frontage on Lake Michigan of one and one-half miles, and contains 600 acres of ground. The Midway Plaisance, which forms the connecting link between Jackson and Washington Parks, is one mile long and 600 feet wide, making an additional area of about 85 acres. The frequent illustrations of buildings and grounds, with careful descriptions, shown in this valuable book, will give the reader a very complete idea of the plans contemplated in this stupendous work. The comfort and convenience of visitors will be considered in every arrangement, and the occasion will not only be enjoyable and instructive in the highest degree, but it will be one to cherish as the great event of a life-time. The attractions to be provided are so numerous that it would be impossible to convey an adequate idea of their extent and variety. The architectural groupings and grandeur of highly ornamental design will, collectively, excel all previous attempts at any Exposition. The plan of arrangements for the grounds will present features in landscape effects, statuary, fountains, inland lakes, ornamental bridges, avenues and floral designs so artistic in their beauty as to command the admiration of the world. The frontage of the grounds on Lake Michigan, the queen of all the Great Lakes, affords grand opportunities for marine displays of the most magnificent character, and which will be taken full advantage of by the management to furnish beautiful attractions which otherwise could not be attempted.


MAP OF
JACKSON PARK
Showing Proposed Improvements for
WORLD'S COLUMBIAN EXPOSITION.
1893.
SCALE
100 0 500 1000 ft.
N
LAKE MICHIGAN
56th
Texas
Kansas
N. Dak.
Neb.
Utah
Ky.
La.
Miss.
Mo.
Minn.
Penn.
N. Y.
Md.
Del.
N.J.
Conn.
Mass.
R.I.
Vt.
N.H.
Me.
S. Dak.
Wash.
Or.
Colorado
Wis.
Indiana
California
Mich.
Ohio
ANNEX 120 X 200
ANNEX 120 X 200
ART GALLERIES 320 X 500
ILLINOIS 160 X 450
Germany
Mexico
Great Britian
PAVILION
FISHERIES 165 X 385
135
135
NAVAL 90 X 350
WOMEN'S 388 X 199
PUCK 50 X 100
Lagoon
WOODED ISLAND
Lagoon
U.S. GOVERNMENT 345 X 415
HORTICULTURE 250 X 998
MANUFACTURES AND LIBERAL ARTS 787 X 1687
TRANSPORTATION 256 X 960
ANNEX
ELECTRICITY 345 X 690
MINES 350 X 700
Canal
MUSIC HALL 120 X 250
Harbor for Pleasure Craft
Basin
CASINO 120 X 250
SERVICE 200 X 400
ADMINISTRATION 262 X 262
AGRICULTURE 500 X 800
LA RABIDA
Reserved for Railroad Purposes
MACHINERY 492 X 846
ANNEX 300 X 550
ANNEX 490 X 550
BOILER HOUSE 100 X 460
PUMP HO. 70 X 88
MACHINE SHOP 190 X 250
STOCK PAVILION 280 X 440
DAIRY 100 X 200
FORESTRY 208 X 928
WARE HOUSES
STOCK
EXHIBIT
SEWERAGE CLEANSING WORKS
Ave.
Island
Stony

DEDICATION CEREMONIES.—The four hundredth anniversary of the great historical event which the World's Columbian Exposition commemorates, will be celebrated in October, 1892, by the dedication of the buildings of the World's Columbian Exposition, with an extensive program of ceremonies, and it is expected that at that time the City of Chicago will be the center of attraction for many hundred thousands of strangers from all parts of the world.

October is one of the delightfully pleasant months of the year, and visitors at that time may be assured of a most satisfactory and enjoyable time. This occasion will be made much of, and in its grandeur will be far superior to any event of like character in the history of the United States. A large sum of money has been appropriated to defray the expense of this program. Great interest is being shown in this celebration, and in addition to the participation of the President and other high officials of the Government, it is certain that every State in the Union will be represented by its Governor and staff, with a full detail of its National Guard. The Army of the United States will be represented by a large force from every branch of the service. The industrial and educational features of the program will be surpassingly grand. The whole plan of dedication will fittingly announce to the world that the great World's Fair, on which so much talent and wealth will have been expended, is to be the most magnificent event in the history of the nineteenth century, and from that time forth the people of this glorious country will look forward with pride to the opening of the great Fair of 1893, which is to overshadow in its magnificence all previous enterprises of its kind.

FOREIGN COUNTRIES.—The whole world is interested and all the Nations of the earth will participate with the grandest and most creditable characteristic exhibits of their arts, sciences, natural resources, customs, conditions and progress of their people. All the great countries of Europe, with their extensive possessions, will be represented. From far-away India, Burmah, Siam, China, Japan, Persia, Islands of the Pacific, Australia, Tasmania, Egypt, Turkey and the strange lands of mysterious and almost unknown Africa will come attractions of magnificent and interesting character. All the European nations have displayed the greatest interest in the Exposition, and all give assurances of their unqualified support and co-operation. Their finest collections of art will be gathered here, and each country promises to display in the most complete manner their varied resources. All of the countries of South and Central America with Mexico are making the most elaborate preparation for an extensive exhibition of their splendid resources and products. Millions of money will be expended by these foreign countries, and the beauty of the Exposition will be enhanced thereby to a greater degree. The contemplated plans of many of these countries indicate an intention to construct buildings of the finest character in which to make their exhibits. The style of architecture in each case will be characteristic of the country represented. It will thus be seen that in addition to the beautiful buildings erected by the Exposition there will also be a grand display of architecture from every part of the world, making the variety of design so extensive as to be bewildering in its outlines. The following is a list of the Foreign Countries that have already accepted the invitation of the President to participate in the World's Columbian Exposition. All others will undoubtedly accept:

FOREIGN COUNTRIES AT THE FAIR.

Algeria.	Chili.	Germany.	Nicaragua.	Siam.
Austria.	China.	Guatamala.	New S. Wales.	San Domingo.
Argentine Rep'lc.	Costa Rica.	Hayti.	Persia.	Salvador.
Brazil.	Denmark.	Honduras.	Porto Rico.	Turkey.
Bolivia.	Danish W. Indies.	Japan.	Peru.	Trinidad.
British Guinea.	Dutch Guiana.	Jamaica.	Russia.	Uruguay.
British Honduras.	Ecuador.	Mexico.	Rep. of Colombia.	Venezuela.
Belgium.	France.	Norway.	Spain.	Zanzibar.
Cuba.	Great Britain.	New Zealand.		

UNITED STATES GOVERNMENT EXHIBIT.—Section 16 of the Act of Congress, in reference to the Exposition, provides: "That there shall be exhibited at said Exposition, by the Government of the United States, from its Executive Departments, the Smithsonian

Institution, the United States Fish Commission and the National Museum, such articles and materials as illustrate the function and administrative faculty of the government in time of peace, and its resources as a war power, tending to demonstrate the nature of our institutions and their adaptation to the wants of the people; and to secure a complete and harmonious arrangement of such a Government exhibit, a board shall be created to be charged with the selection, preparation, arrangement, safe keeping and exhibition of such articles and materials as the heads of the several departments and the Directors of the Smithsonian Institution and the National Museum may respectively decide shall be embraced in said Government exhibit. The President may also designate additional articles for exhibition. Such board shall be composed of one person to be named by the head of each Executive Department, and one by the Directors of the Smithsonian Institution and the National Museum, and one by the Fish Commission, such selections to be approved by the President of the United States. The President shall name the chairman of said board, and the board itself shall select such other officers as it may deem necessary."

This board has been appointed, and is now actively at work making preparations for an exhibit which, it is believed, will be fully illustrative of the rapid progress and advancement of the country since the organization of the Government.

One of the interesting features of the Government exhibit will be a life-saving station, erected on the shore of Lake Michigan, and in operation, fully equipped with all apparatus, furniture and appliances now in use in all the life-saving stations of the United States.

NAVAL EXHIBIT.—It is proposed that the exhibit of the Navy Department shall be in a building detached from the main Government exhibit. The building is to be of the form and of the dimensions of one of the new armored coast line battle ships (two of which are being constructed in Philadelphia and one in San Francisco).

It is not proposed to build a fac-simile of a ship in all details, excepting that part which is above the water.

The berth deck of this vessel will be used, in the main, as the exhibit deck of models and various other naval appliances, such as have heretofore been shown on the exhibition floor of the previous exhibitions.

The exterior, the main deck, the battery deck and the military mast, will be a fac-simile of the three battle ships now being constructed. The turrets will be in place, the guns in place, the boats in place, and, in fact, all the appliances as far as may be practicable.

The armament of these vessels, and which will be represented in the proposed armored building, will consist of four 13-inch guns, eight 8-inch guns, four 6-inch guns, twenty six-pounders and a number of smaller guns which will be mounted on the upper deck and on the military mast.

The vessels of which this building will be a prototype are the largest, the heaviest, and the most formidable of any ever built in this country. They are also equipped with torpedo tubes and torpedo boats, and protected by seventeen inch thickness of armor plating.

It is not probable that the interior model of the ship can be exhibited in a satisfactory manner, but these different interiors will be shown in models as far as practicable.

THE STATES AND TERRITORIES.—The great interest shown by all foreign lands is being emulated on a broad scale by the States and Territories of the Union. The Exposition management has provided and allotted a separate and ample site for each and every State and Territory to erect buildings for the purpose of displaying their natural resources to the greatest advantage. These buildings will also be utilized as headquarters, where the people from each State can always feel at home while at the Fair. Large appropriations have been made by many of the States, and in others ample funds are being raised to carry out this purpose in the most appropriate manner. Buildings of appropriate design will be erected, all adding to the beauty and grandeur of the general effect. The people of the United States will have reason to feel greater pride in and patriotic love for their country when they see the magnificent manner in which all the States and Territories of the Union have responded to make this Exposition so grand a success. The

JACKSON PARK. SITE OF WORLD'S FAIR.

following is a list of the States and Territories, showing the amount of money appropriated by each for the purpose of carrying out this great plan of State exhibits.

Arizona	$ 30,000	Michigan	$ 100,000	Ohio	$ 100,000
California	300,000	Minnesota	50,000	Pennsylvania	300,000
Colorado	100,000	Missouri	150,000	Rhode Island	25,000
Delaware	10,000	Montana	50,000	Vermont	15,000
Idaho	20,000	Nebraska	50,000	Washington	100,000
Illinois	800,000	New Hampshire	25,000	West Virginia	40,000
Indiana	75,000	New Jersey	20,000	Wisconsin	65,000
Iowa	50,000	New Mexico	25,000	Wyoming	30,000
Maine	40,000	North Carolina	25,000		
Massachusetts	75,000	North Dakota	25,000		$2,695,000

Within a few months nearly all of the other States will be added to this list. In six or seven the legislators will meet this winter for the first time since the Exposition enterprise took definite shape. Most of them will unquestionably make liberal appropriations, as popular sentiment demands it. It is certain, too, that a number of States, which have already made appropriations, will increase them. In nine States which made no appropriations, either because of constitutional restriction or for other reasons, State conventions have been held, and plans, generally of the stock subscription character, have been inaugurated and are in operation to raise amounts deemed necessary for proper representation at the Exposition. These States and the sums they are endeavoring to raise are:

Alabama	$ 50,000	Georgia	$100,000	South Dakota	$ 80,000
Arkansas	100,000	Kansas	100,000	Tennessee	100,000
Florida	100,000	Oregon	100,000	Texas	300,000
Total					$1,030,000

EXHIBITORS AT THE FAIR.—Combined with the enterprising work and encouraging promises of all the countries of the earth, there is also positive assurance from thousands of individual interests in all parts of the world that encourages the management to expect such a display of the resources and products of the human race as to outshine anything of the kind ever attempted. Thirteen departments have been organized, in which all material things known to man have been carefully and respectively classified. (For Classification of Departments see page 28.)

An able Chief, with a corps of competent assistants, is in charge of each of these departments, and every facility will be provided to enable exhibitors to display their special products to the best advantage.

CHICAGO.—Not the least in importance, the City of Chicago claims a place in this great enterprise. She will occupy the most prominent place of all, as it is to her that the people of the world must come to see and appreciate this mighty undertaking in which she has taken so large a part. Indeed, it is through her efforts that the World's Columbian Exposition has been made possible. Her pride will have been gratified to its fullest extent when, as her guests, the people of the earth shall have come and been welcome to this great event. Chicago is impressed with her responsibility. She is determined that the Fair shall meet the highest expectation. A municipality, equal to every demand, and a public-spirited citizenship whose Americanism is pledged, as is the Nation, to its splendid success.

EXPOSITION FINANCES.—The finances of the Exposition are in a very satisfactory condition. At the inception of the enterprise Chicago provided $10,000,000, of which $5,000,000 was in subscriptions to the capital stock of the World's Columbian Exposition, and $5,000,000 was in bonds, voted by the City Council of the City of Chicago.

Subscriptions to the capital stock are continually being made, and now aggregate about $6,000,000.

The subscriptions on the capital stock are paid on the call of the Directory as the money is needed in the prosecution of the work.

Up to September 15th, 1891, $3,000,000 had been paid in on call. The balance will be paid in as needed as the work progresses.

The Exposition Directory planned a magnificent exposition. They found that $10,000,000 would not be enough, and so, without entertaining for a moment the idea of modifying

their plans, they decided to raise whatever additional amount of money might be necessary. This they are now doing, and no fear need be felt that they will not succeed.

The Exposition Directory recently made the following estimate of its resources and expenditures:

RESOURCES.		EXPENSES.	
Stock Subscriptions	$ 5,628,000	For grounds and buildings, etc.	$12,966,890
City of Chicago bonds	5,000,000	For administration	3,308,563
Prospective gate receipts	10,000,000	For operation, May to November, 1893	1,550,000
Concessions and privileges	1,500,000		
Salvage	1,000,000		
Interest on deposits	27,035		
Total	$23,155,035	Total	$17,825,453

The President of the Directory stated at the time that the estimate was considered very conservative as far as relates to the resources. It is the belief that the estimate on gate receipts is too small by at least $3,000,000. However that may be, the showing indicates that the financial prospects of the enterprise are far from discouraging. Since that estimate was made it is apparent that fully $3,000,000 more than indicated will be available from stock subscriptions. On the other hand, it is quite certain that one or two millions additional will be expended upon the buildings and grounds.

The Committee on Grounds and Buildings, in their annual report, submitted the following estimates for the completion of the necessary buildings, machinery, decorations, administration and maintenance up to the date fixed for opening the Exposition:

Buildings	$ 7,295,000
Grading and Filling	450,400
Landscape	323,490
Viaducts and Bridge	125,000
Piers	70,000
Waterway Improvements	225,000
Water Supply and Sewerage	600,000
Railways	500,000
Steam Plant	800,000
Electricity	1,500,000
Statuary on Buildings	100,000
Vases, Lamps and Posts	50,000
Fuel and Light during Construction	20,000
Seatings	8,000
	$12,066,890
Appropriated for Purposes of the Congress Auxiliary	$ 200,000
Landscape Gardening, Viaducts, Fountains, etc., on Lake Front	200,000
General Expenses of Construction Department	500,000
	$12,966,890

Bearing upon the very important question of Exposition finances, the following, taken from the official records of the World's Columbian Commission, will be of interest:

CHICAGO, ILL., Sept. 2, 1891.

HON. T. W. PALMER, *President World's Columbian Commission:*

DEAR SIR: In the light of the progress and development already made in the work of preparation, the plan and scope of the Exposition, as defined by the very adequate and comprehensive system of classification adopted by the National Commission, in pursuance of the powers conferred on that body by the Act of Congress, has so grown upon the Directors of the World's Columbian Exposition as to render it now apparent that a much larger outlay will be absolutely needed to accommodate the logical demands thereof than was originally contemplated, so that some method ought to be devised and adopted to supplement the fund already provided and assured. The World's Columbian Exposition has fully complied with the duty it assumed, under the Act of Congress, in providing and furnishing a most admirable site and raising and providing $10,000,000 to be expended for the purposes of the Exposition.

Considering as well the international as the national character of the Exposition, the event it is intended to commemorate, and the growth and development of a great nation

ADMINISTRATION BUILDING—Page 40.

which it is designed to exemplify, as well as the fact that the faith and credit of the Government are measurably involved in making it all that an enlightened and patriotic people desire it to be, it would seem just and proper that an appeal should be made to Congress for a loan of the additional money required, and that such appeal would not be made in vain.

To complete the work of the preparation of the grounds and the construction of buildings comfortably to the requirements of the said plan and scope, and for the defrayal of all expenses incidental thereto, up to the time of opening the Exposition, the sum of $5,000,000, beyond the fund already provided, will be absolutely required.

The situation has been fully considered by the Directors of the World's Columbian Exposition, and it is their unanimous judgment that the Congress of the United States should be asked to enact a law providing for the loan of said last-mentioned sum to the World's Columbian Exposition, to be fully repaid by it out of the receipts of the Exposition, which shall be expressly pledged as a security therefor; and I am directed by the said directors to make this communication to the World's Columbian Commission, and ask the earnest co-operation of that body in this behalf.

Will you please submit this communication to the National Commission, at its present session, for such action in the premises as may be deemed appropriate and advisable.

Very respectfully yours,

WM. T. BAKER, *President.*

In pursuance with this request from the President of the World's Columbian Exposition, the following Report of the Judiciary Committee of the National Commission was adopted September 4, 1891, by the Commission.

WHEREAS, The Executive Committee of the Directors of the World's Columbian Exposition (which Committee is invested with and may lawfully exercise all the powers of the full Board when not in session) on the second day of September, 1891, adopted a resolution declaring the purpose of that corporation to apply to the Congress of the United States, at its next session, for a loan to said corporation of $5,000,000, which sum has been determined by that body to be absolutely necessary to complete the work of preparations of grounds and construction of buildings, said loan to be secured and paid in such manner as shall be satisfactory to Congress; and

WHEREAS, The duty and responsibility of furnishing and providing a suitable site and grounds and buildings adequate to the purposes of the Exposition, devolves upon the World's Columbian Exposition originally, subject, however, to the right of acceptance of the same by the National Commission; and

WHEREAS, From the said resolution, and the communication of the President of that corporation transmitting the same to the Commission, it is apparent that the Directors have determined of their own motion and after careful and scrupulous investigation and estimate, that the said sum is absolutely necessary to be provided, in addition to the sum of $10,000,000 contemplated by the Act of Congress to be raised and furnished by the World's Columbian Exposition, and for which it has already made ample provision in full discharge of the duty in that behalf imposed upon it by the said Act; and

WHEREAS, By the said resolution, as well as official communications from Hon. Wm. T. Baker, President of the said corporation, the earnest co-operation of the National Commission has been requested in aid of the said loan to the World's Columbian Exposition, so as aforesaid determined upon, in such manner as said National Commission shall consider most advantageous to secure the results desired; therefore

Resolved, That the World's Columbian Commission hereby expresses its purpose earnestly and heartily to co-operate with the World's Columbian Exposition in aid and furtherance of a loan of $5,000,000 to the last named corporation, to be secured in such mode and repaid in such manner as shall be satisfactory to the Congress of the United States; and this Commission, in view of the existing necessity therefor as ascertained by the Directors of said corporation, respectfully recommends to Congress the enactment of appropriate legislation in this behalf, upon the application of said corporation.

Resolved further, That a certified copy of this resolution be transmitted to the President of the World's Columbian Exposition, and a like copy to the standing committee on Federal Legislation of this body, when appointed.

Since this action was taken the plan of approaching Congress has been changed so that instead of asking for a *loan* of five millions, Congress will be urged to *appropriate* the amount from the United States Treasury. The same good reason given for the loan will apply for the appropriation as well, and as the popular sentiment throughout the United States demands that the Government should give its financial support to the Exposition, which sentiment is being encouraged by many members of Congress, there seems to be no doubt but that the appropriation asked for will be granted.

The following report and recommendations of the Finance Committee were unanimously adopted by the Exposition Directory December 11, 1891:

Your Finance Committee has carefully considered the matter of financial policy in order to meet the requirements of the estimates submitted at the last meeting of this board, and after thorough investigation and consultation with many of our leading shareholders and citizens, submit the following:

Your committee does not believe it is wise to ask for a loan from Congress, but recommends that proper efforts be made to secure an appropriation of $5,000,000, to be repaid on the same basis that the City of Chicago will receive funds from the results of the Exposition for the aid granted by the city.

The reasons for this conclusion are: First—That it is reasonable to expect the Government of the United States to furnish aid to the extent of $5,000,000 for the Exposition, which was created by an act of Congress, since nearly $11,000,000, or more than the amount called for by the act, has been provided by the people of Chicago, and that this National assistance should be granted on the same basis.

Second—Inasmuch as the enlarged scope of the Exposition calls for about $18,000,000 from this corporation before the opening of the Exposition, in May, 1893, it would seem unwise to exhaust our credit and resources in borrowing of the National Government, so as to render it more difficult to obtain in Chicago the additional amount required.

Third, We believe that the power of Congress to make such appropriation is not as likely to be called into question as its power to loan the amount desired, and that the probability of success is as great in making the application in the form above suggested, as well as being more consistent with the dignity of the undertaking and of its relations to the National Government.

Fourth, The above policy is encouraged and endorsed by nearly all of the shareholders and citizens with whom your committee has communicated, as is evidenced by the accompanying communication addressed to your board.

We therefore recommend that a memorial, in accordance with the above report, be prepared and submitted to Congress, and that proper steps be taken to foward the desired legislation.

FERD. W. PECK,
LYMAN J. GAGE,
J. J. P. ODELL,
E. G. KEITH,
Finance Committee World's Columbian Exposition.

CONSTRUCTION.—The recent report of the Grounds and Building Committee, of the Exposition Board of Directors, indicates a most encouraging condition in the important work of constructing the buildings and preparing the grounds in readiness for the dedication ceremonies in October, 1892. The following extracts from this report will give the reader a complete idea of the enormous amount of work being done in this direction.

"It was difficult to determine the amount of space to be allowed to each building. The Committee on Classification of the Commission had made no estimates of the amount of space required in each, and your Committee, working with the Construction Department and the Board of Architects, and with the best light obtainable from the experience of previous expositions, finally made the arrangement which appears to be satisfactory for all practical purposes."

"There will be a grand fountain, 150 feet in diameter, which will close the basin in the center of the great court, which ends just in front of the Administration Building. The evidences already shown lead to the belief that the sculptural work will be of the highest grade of excellence."

"The buildings of the States of the Union are to be located in the north end of the Park, and many States have already officially applied, and have notified us that they would build structures of such elegance as will do credit to the Exposition."

"The Buildings of Foreign Governments are to be located between those of the Federal States and that of the United States."

Many applications have been made for locations for buildings by private parties, companies and syndicates. As a general policy it has been deemed wise to place those exhibits showing the manners and customs of people in Midway Plaisance. Among the displays already proposed are a Bazaar of all Nations, a Street in Cairo, an Indian Village, and other similar representations of life and manners in foreign countries.

"Dredging and grading were begun in February, 1891, and are practically completed. There has been moved, up to date, 900,000 cubic yards of earth."

"There have been laid about ten miles of railroad for construction purposes. It is proposed to bring two or more lines of railroad into Jackson Park for the transportation of passengers. Negotiations are pending, but not complete, as to one of these methods; the other is through Midway Plaisance and down the east side of the Park, and this is now in the possession of the Exposition. Arrangements for a passenger depot inside of the Park

AGRICULTURAL BUILDING—Page 40.

are not yet determined. The location of railroad tracks for installation purposes has been carefully considered, and a plan prepared which will enable exhibitors to place their goods in close proximity to the point of installation."

"In landscape work, the placing of aquatic plants, the grading of the island with black soil, etc., is practically completed, and the propagating and transplanting at the nursery is progressing satisfactorily."

"A contract has been made with the City of Chicago, by which the city agrees to build pumping works, to be paid for by the Exposition, but for which the city will reimburse the Exposition after its close, to the extent of $200,000. A complete system of water supply has been laid out and 7,859 feet of pipe have already been laid, and the rest is being contracted for."

"A complete system of sewerage has been worked out and will soon be contracted for."

"The present stage of the work in Jackson Park shows much greater progress than was promised by your Committee or expected by you when the plans were adopted, and we have no reason to doubt that all will be completed within the required time."

"The scope of the Exposition has grown upon your Committee as the work has progressed. It has appeared to us that the preliminary estimates of the cost of the work are entirely inadequate to such an exposition as the people of the United States expect to be produced under national auspices. The classification comprises exhibits on an enormous scale in departments that have heretofore either been ignored or lightly treated in great expositions, or made the subject of special expositions at great expense."

"At the Exposition in 1893 all branches of human industry will be included on a complete and comprehensive scale. This requires that each department should have for its installation a building and grounds such as has been previously considered unnecessary or impossible in great expositions. The area embodied in the Exposition grounds will be nearly three times that of the greatest exposition heretofore held. The separate departments of Agriculture, Electricity, Mines and Mining, Horticulture and Transportation, especially, will each be developed on a scale that has not been previously produced even where they have been made the subjects of special expositions."

"The great dimensions of the Exposition are not due to any extravagant ideas of your Committee, but are forced upon us by the comprehensiveness of the 'plan and scope' set forth in the classification adopted by the Commission as authorized by Act of Congress. Your Committee, however, heartily concurs with the Commission that in the presentation of the Exposition all features, whether relating to the comprehensive display of exhibits, the beauty of the grounds, the style of the buildings, conveniences for visitors, facilities for transportation, decorations or general beauty, must, in order to keep pace with American progress and enterprise, be in advance of any of its predecessors, and the honor and dignity of the people of the United States demand that all these conditions should be fully met. To do this, expenditures on a larger scale than was originally estimated are necessary—are indeed absolutely indispensable."

AWARDS.—On this important question the following is a record of the action of the World's Columbian Commission:

REPORT OF SUB-COMMITTEE ON AWARDS.

CHICAGO, September 3, 1891.

TO THE WORLD'S COLUMBIAN COMMISSION.

GENTLEMEN: In the report of your Judiciary Committee made September 15, 1890, upon the question of the rights, duties and powers of the commission under the act of Congress, was named, among the "original and exclusive powers of the commission," the power "to appoint judges and examiners for the Exposition, and to award all premiums."

At a meeting of the Executive Committee, held in Chicago, October 18, 1890, the following resolution was adopted:

Resolved. That a committee of four be appointed to confer with a like committee from the Exposition Directory to recommend to this committee, and to the Exposition Directory, whether awards shall be granted, and what character of awards shall be made, if any.

Subsequently President Palmer appointed as said committee Commissioners Smalley, Thatcher, King and Britton, who, with a like committee of the Exposition Directory, held several meetings, calling in for counsel Prof. Goode, of the Smithsonian Institute. The following summary of recommendations was unanimously adopted:

1. "That there should be awards."
2. "That awards shall be granted upon specific points of excellence or advancement, formulated in words by a Board of Judges or Examiners, who shall be competent experts, and the evidence of these awards shall be parchment certificates, accompanied by bronze medals."

3. "That there shall be but one class or kind of medal; that they should be made of bronze; that they should be works of art, and selected from competitive tests by the Committee on Fine Arts of the Commission, or the joint committees on Fine Arts of the Commission and the Local Directory, if that shall seem most desirable."

4. "The awards and the appointment of all judges and examiners for the Exposition, by the express terms of the sixth section of the act of Congress approved April 25, 1890, fall within the exclusive jurisdiction of the commission. It is not, however, so clear whether the certificates or medals should be furnished by the commission or the local directory. It is, in the opinion of the committee, eminently befitting that the Government should furnish these, especially in the case of foreign exhibits; but there does not appear to be provision made therefor in the existing appropriation of Congress."

The foregoing recommendations were adopted by the commission (see page 266 of the records of the commission), and the committee "continued for such further and additional work in connection with awards as may hereafter seem to be necessary."

At the meeting of the Executive Committee, held September 1, 1891, it was deemed advisable, in view of the large and delicate responsibility devolving upon the National Commission in regard to the selection of such Boards of Awards as are contemplated by the act of Congress, to appoint the undersigned sub-committee of three to prepare and report to the commission, at its present session, a suitable recommendation for the appointment of a committee to have charge of the subject of awards, and who shall, in connection with the Director General, select and appoint the Board of Judges, subject to approval of the commission; said judges to be selected for their known qualifications and character, being experts in the departments to which they are respectively assigned.

To this end your committee recommend:

1. That such Committee of Awards be appointed by the President, to consist of eight Commissioners.

2. That this committee be empowered to employ a secretary at a salary not to exceed $5,000 per annum, who is made an officer of the commission.

3. That the Committee shall be authorized to meet at the call of the chairman.

Respectfully submitted,

WM. F. KING,
M. L. MCDONALD,
B. B. SMALLEY,
Committee.

The above report was amended as follows, and adopted by the Commission September 7, 1891:—

Resolved, That the Committee on Awards shall consist of one from each of the standing committees relating to the twelve great departments of the Exposition.

The following named Commissioners were appointed by the President as the permanent Committee on Awards:—

B. B. Smalley, Vt.	J. B. Thacher, N. Y.	W. J. Sewell, N. J.	A. B. Andrews, N. C.
O. R. Hundley, Ala.	A. T. Britton, D. C.	T. L. Williams, Tenn.	A. M. Cochran, Texas.
W. F. King, Ia.	M. L. McDonald, Cal.	Lloyd Lowndes, Md.	C. B. Hopkins, Wash.

CHAPTER II.

COMFORT, CONVENIENCE AND PLEASURE OF VISITORS.

DEPARTMENT OF PUBLIC COMFORT.—This important department will be organized for the purpose of securing the comfort and welfare of the many strangers during the Fair. Through this department visitors will be able to arrange for comfortable and reasonably-priced accommodation while in the city. They will be protected and cared for in a most satisfactory manner, and in placing themselves under its protection will have no occasion to complain of the arrangements, but, on the contrary, will be made to feel that Chicago's hospitality is truly expansive. The Department of Public Comfort, will, at all times, have under its control a large list of comfortable hotels, boarding-houses and homes to which can be assigned the strangers at rates agreed upon, and which those desiring to take advantage of this arrangement can feel will be reasonable and moderate. Great inconvenience can be avoided in this way. This department will have representatives at all railway depots, also branch offices at convenient and centrally located business sections of the city. By these means the stranger will be enabled to make satisfactory arrangements immedi-

FORESTRY BUILDING—Page 41.

ANDREW DUNNING

Real Estate Investments

92 LA SALLE STREET

SUITE 23 ◁◁◁◁◁CHICAGO, ILL.

SPECIALTIES •••••

Acre Tracts in Northwest sections of Chicago, and inside business properties paying fixed income on gold basis.

If you desire acre tracts for sub-division or investment purposes, write for new list and for information as to the reasons why the northwest sections are now taking the lead in activity and in assurance of profit to the investor.

Mr. Dunning absolutely and exclusively controls every tract he offers for sale, and can offer inducements to brokers as well as investors.

ately on arrival. An efficient corps of employes will always be on hand to impart information of every nature essential to the guidance of the non-resident.

POLICE AND FIRE PROTECTION.—The Exposition management fully appreciates the necessity for protecting the interests of the visitor and exhibitor.

A large, well organized and disciplined force of police will be constantly on duty to attend to everything pertaining to the welfare and protection of the enormous crowds which will daily be present. The average daily attendance will probably reach not less than 150,000 people, and on many days this number will be more than doubled. It will thus be seen that great necessity exists for a perfect organization of police, and the people may rest assured that such a force will be provided, and their interests effectually guarded.

The buildings and valuable property of exhibitors will be thoroughly protected by a fire department of the highest standard of efficiency. Batallions of firemen, with every modern appliance of machinery, will be located in various parts of the grounds. This force will be on duty day and night. A perfect system of electric signals for use in case of fire will be responded to by these trained men with that alacrity which has made Chicago famous for having the best fire department in the world. This responsibility will be great, and as so much depends on the fire department of the Fair, it is certain that no neglect will be permitted to make the organization complete in every detail.

DEPARTMENT OF ADMISSIONS.—This department will have charge of all matters pertaining to the control of tickets of admission to the grounds, and in its work will be embraced one of the most important branches of the Exposition, as on its successful management depends, in a great measure, the entire admission revenue of the Fair. The Department of Admissions will be organized as soon as necessary to prepare its work prior to the opening of the Exposition.

CONCESSIONS AND PRIVILEGES.—The subject of Concessions and Privileges is controlled by the Ways and Means Committee of the World's Columbian Exposition. All applicants for special grants, under this head, must apply to that committee. It will be noted under the heading "Exposition Finances," that the estimated revenue to come from Concessions and Privileges is $1,500,000. It will thus be seen that the work of this committee is of great importance to the financial interests of the Fair.

DEMANDS FOR SPACE.—Large as the area for the forthcoming Exposition undoubtedly is, it will require the greatest circumspection on the part of those entrusted with the allotment of space to make it adequate for the large mass of exhibitors who are preparing to display their varied resources. Already the demand is so great that the management has found it necessary to arrange for the construction of a number of annexes in addition to the vast areas originally planned in the main buildings. This condition gives assurance of a larger number of exibits than at any previous World's Fair. The number of applications is increasing daily, and by the time the allotment of space is begun, which will probably be about July or August, 1892, there is no doubt but that every foot of every kind of available space will be more than covered by the demand from exhibitors. This fact alone assures the success of the Fair.

MEDICAL BUREAU.—This Bureau will be in charge of an eminent Physician, assisted by an able corps of assistants and trained nurses. Hospitals will be located at several points on the grounds. In case of sickness or accident the ambulance corps will be called to convey the sick or injured to the nearest hospital, where everything necessary for their immediate comfort and relief will be provided. This service is intended for emergencies requiring immediate attention. No sick people will be cared for over night, as it is expected, in case of necessity, arrangements will be made outside of the grounds by the patients, or by their friends.

TRANSPORTATION.—As before stated, the Exposition will be located within easy distance of the center of the business portion of Chicago, and accessible by means of the most complete transportation facilities.

All public passenger railways, whether steam, cable, electric or horse, as well the great number of steamboats on Lake Michigan, will deliver passengers conveniently near the numerous entrances to the grounds. With these unlimited facilities it is estimated

that more than one hundred thousand people per hour can be carried to and from the grounds. It is possible that arrangements may be made for the steam railways to enter the grounds at the southwest corner, in which case passengers will be landed near the Administration Building, from which place an intramural railroad will convey them to all parts of the grounds, making it easy to go from one point to another without walking. The distances on the grounds are so great that visitors will find this arrangement to be a great source of convenience and comfort. Other means of transit will also be provided inside of the grounds. One of these, and in fact the most attractive of all, will be the means of water transit through the lagoons, canal and basin. The waterways inside the grounds cover an area of about eighty-five acres. Here will be provided boats, launches and small craft of all kinds. One can board these boats and travel a distance of nearly three miles, passing on the route all of the principal buildings and points of attraction. It will be one of the grandest sights in the world, and one to leave an everlasting impression on the minds of those who view it. No visitor at the Fair should fail to take this short voyage. It will be a panorama of beautiful architecture, landscape effects, floral designs, statuary, fountains, etc., such as has never before been witnessed by human eye.

Music at the Fair.—Among the most attractive and entertaining features of the Exposition will be the great Music Hall and its attractions. On the shore of Lake Michigan, at the end of the basin, is to be erected a beautiful building to be used exclusively for musical entertainments, taking the form of concerts and festivals, and producing the grandest works of the great composers. This building will be beautifully designed and will be located in one of the most pleasing parts of the grounds, surrounded by flowers, shrubbery, trees and artistic garden effects, it will be a gem of beauty and delight to the weary visitor, who, after a toilsome day of journeying through the great Exposition buildings, will gladly find a place of rest and entertainment in this resort. The hall within this building will be arranged on the most artistic and scientific principles, with a view to comfort and to securing the perfect accoustic effects necessary to the enjoyment of the large audiences who will daily gather here. The musical programs will be of the highest standard, and in their production will certainly take rank with the greatest musical occasions in the history of the divine art. The celebrated artists of the world will be gathered together here to make these daily entertainments complete. Great choruses are now being drilled and instructed in the works that will be produced. This work of preparation will continue assiduously until the opening of the Fair. The orchestra is to be chosen from the list of the finest artists in America. As a guarantee that the musical plans of the Exposition will be carried out on a grand and most complete scale, it is only necessary to say that the greatest of all American orchestral and choral directors, viz., Theodore Thomas and Wm. L. Tomlins, have charge of the work. The management of the Exposition, recognizing the importance of making the musical features of the Fair one of its leading attractions, has employed these gentlemen to take full control of all arrangements, and has provided ample funds and given them *carte blanche* to do everything necessary to make the World's Fair of 1893, in this respect, the greatest event in the history of music. In addition to these arrangements there will also be an opportunity to listen to the most famous military bands of the world. Many of the foreign governments propose to send their geatest band organizations; these, with the noted bands of the United States, will furnish such a quality of military music as has never been heard before. These arrangements for the pleasure of the visitors will be a source of enjoyment and do much to make the World's Columbian Exposition even greater as the historical event of the nineteenth century.

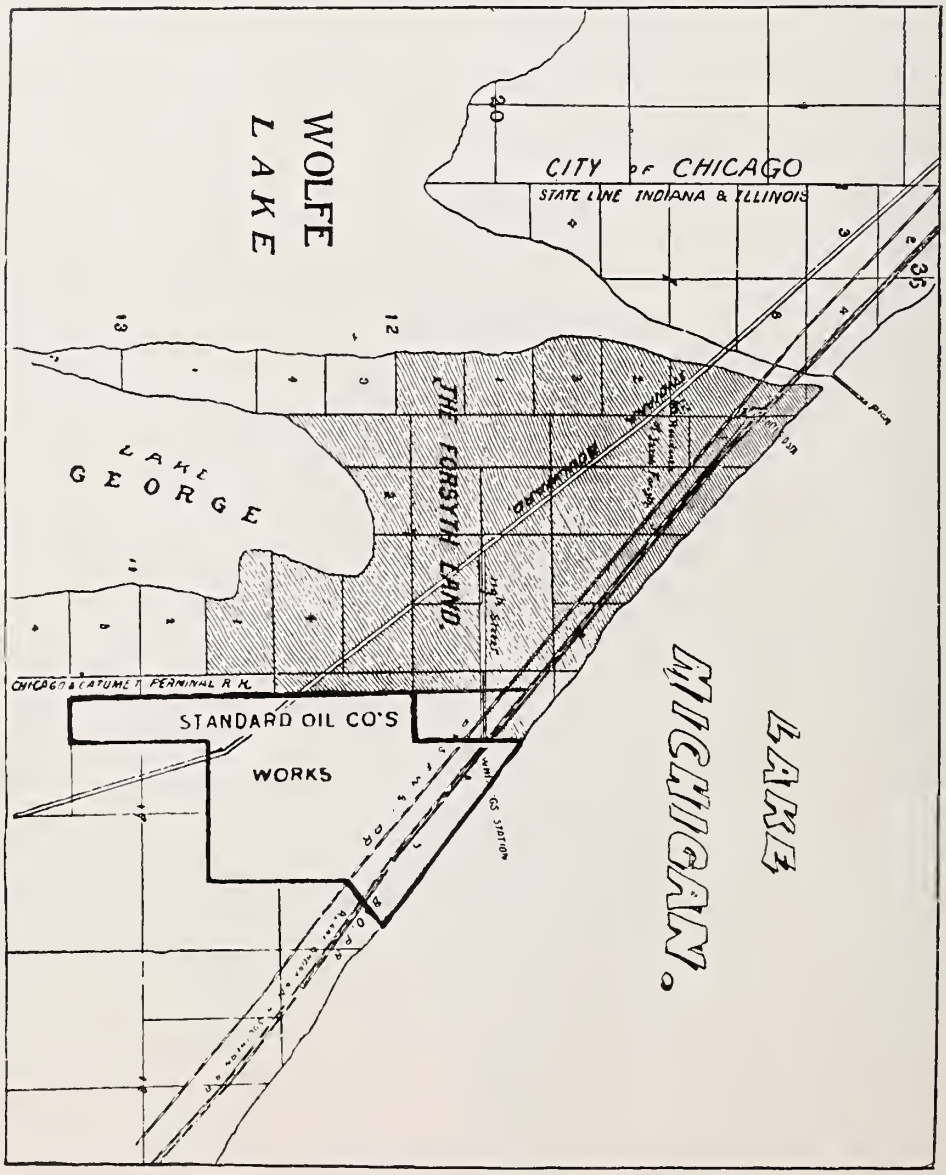
Electric Lights and Spectacular Effects.—Some fifty separate contracts are to be let for the electric lighting of the Exposition buildings and grounds. In all there will be used, according to present plans, approximately 127,000 electric lamps, of which 7,000 will be arc, of 2,000-candle power each, and 120,000 incandescent sixteen-candle power lamps. To run the plant 22,000-horse power will be required. By the awarding of separate contracts for the lighting of each of the buildings and of different sections of the grounds, all electric firms, whether large or small, have an opportunity to participate and to show what they can do, and at the same time a variety in illuminations will be effected. In the

DAIRY BUILDING—Page 41.

TO MANUFACTURERS

The Standard Oil Company's Town of Whitings, Indiana

TWO MILES FROM THE EASTERN LIMITS OF THE CITY OF CHICAGO



The undersigned will make **Unusually Liberal Terms** with manufacturers at this remarkably favored place. **Splendid Sites for Manufacturing Purposes on the banks of Lake Michigan.**

Three of the leading Eastern lines of Railroads from Chicago pass through it; and the Chicago and Calumet Terminal Railway connects there with them.

FOR CHEAP FUEL AND RAILWAY CONNECTIONS IT STANDS UNRIVALED.

Commands a never-failing supply of water from Lake Michigan. Fine sites on the lines of **Four Railroads** for manufacturing purposes at and near the rapidly growing town of Whitings. Two subdivisions laid out in lots.

APPLY TO **JACOB FORSYTH**

405 ROOKERY, CHICAGO

great Manufactures Building alone there will be 33,000 lights. The plans prepared by the electrical experts call for ten times the capacity of all the plants used at the Paris Exposition. The World's Fair Directors will spend $1,000,000 and perhaps more for these electric plants. Exhibitors will not be required to pay anything for light, except in cases where they call for more lamps than are furnished by the construction department. In that event they will be furnished additional lamps at actual cost. Electric power will be conveyed over the grounds in a system of tunnels. Some of the wires will, however, be hung from the structure of the elevated railroad.

Perhaps the general public is looking forward to the electrical exhibition with more interest and with a keener anticipation than to any other single feature of the great celebration. Some attractions are in course of preparation, moreover, which will fully justify this interest, and which will more than satisfy the acutest expectation. Of course an aggregation of 7,000 arc lamps of 2,000-candle power each, and 120,000 incandescent lamps of sixteen-candle power each, distributed about the grounds and buildings, will be a greater demonstration by far than has ever been made before, but this is only the business feature of the electrical exhibition, and will be witnessed by visitors as one of the essentials of such an Exposition.

The special features in this direction, however, will be the spectacular and artistic lighting, the fantastic effects and pyrotechnic displays. Each building is to have on the outside some characteristic lighting effects, unique figures in light, colored and otherwise. The lagoons will be literally sparkling at night with tiny colored lights in fantastic designs. Lamps under the water, hidden among flowers and buried under translucent water-plants will be verily *ignes fatuus* whose hiding places and character cannot be easily guessed. Oriental designs fitted for lighting and the most unique figures will be sent for exhibition from Europe; Chinese dragons, winged horses, sea serpents, aerial, land and marine monsters of all kinds will be placed, each in its proper sphere, and fitted for grotesque lighting, the circuits to be under control from some distant point.

Yet more unique, and certainly more instructive, will be the pyrotechnic displays which are to be a part of the regular program of the Entertainment Committee. Figures representing the discovery of America, the ships of Columbus in electrically lighted outlines are being prepared, the landing of the pilgrims, John Alden and Priscilla, Washington crossing the Delaware, signing the Declaration of Independence, the surrender of Yorktown, the defense of New Orleans by General Jackson, Perry's battle on Lake Erie, some incident of the war with Mexico, an incident or two in heroics of the late civil war, and, finally, an allegorical figure in lighted outlines of America in 1893, and Chicago as pre-eminently her representative city.

A veritable carnival will be held in October, 1892, during the three days of the dedication ceremonies, when electricity will be king. Of all the great allegorical floats which will participate in the formal parade electricity will play an important part, as at least two of them will be devoted to that specialty, and unquestionably to many of the others it will lend a helping hand for purposes of art.

RESTAURANTS.—According to present plans fully 150 restaurants and cafes will be in operation in the various buildings and about the grounds. These will be conveniently distributed and will have an estimated seating capacity of 60,000 to 80,000 people.

PROSPECTUS OF DEDICATION CEREMONIES.—The Exposition buildings, as required by act of Congress, will be dedicated "with appropriate ceremonies" October 12, 1892, the 400th anniversary of the discovery of America by Columbus. The exercises will occupy three days, beginning the 11th and closing the 13th with a grand dedication ball. The committee having the matter in charge has planned to make the ceremonies most impressive in character. Something like $300,000 will be spent to secure this end. The President of the United States and his Cabinet, the Senate and House of Representatives, the Governors of the several States with their staffs, and the representatives of all foreign nations will be invited to be present. The mobilization of 10,000 militia and several thousand regulars is planned, as is also an imposing civic and industrial display. In the evenings there will be magnificent displays of fireworks, and in the Park waterways a pageant of symbolical

floats representing the "Procession of the Centuries." In the dedicatory exercises on the 12th the completed buildings will be tendered by the President of the Exposition to the National Commission President T. W. Palmer will accept them on behalf of that body and will at once present them to the President of the United States, who will fittingly respond. The dedicatory oration will follow. Much attention is being given to the musical portion of the program. This will include a dedicatory ode and orchestra marches written for the occasion. These and other numbers, including "America" and "Star Spangled Banner," will be rendered with full choral and orchestral accompaniment.

Grand, indeed, will be the display of fireworks when the World's Fair Buildings are dedicated next October. It is intended that the people who visit Chicago to witness the dedication of the buildings shall see a sight, in the way of fireworks, which, for grandeur, has not previously been equaled.

Forty pieces of fireworks have been decided upon, and already the castings for the framework of some of them are being made in London. The displays will be given on the nights of October 11th, 12th and 13th, and for something over two hours each night may be witnessed what will be a dazzling exhibit of fiery figures, exploding bombs and shooting stars. The program each evening will be opened with a salute of 100 bombs fired from iron mortars. After reaching a height of 100 feet these bombs will explode with a terrific detonation. Then will follow a magical illumination of the canals, lagoons, and the foliage of the wooded island. To accomplish this there will be one instantaneous flash of 500 prismatic lights. Electricity will be used to touch them off, and spectators will find themselves in the midst of a blaze of blinding light which will disappear almost as quickly as it was produced. Meanwhile a panoramic view of the island, lagoons and canals may be had.

These are to be the preliminary features of the program. Then will follow forty numbers, among which will be some that are gigantic. The largest of all will be a representation of Niagara Falls, including both the American and Horseshoe Falls. This piece will be 1,000 feet long and 100 feet high. It will extend over a space nearly three blocks in extent. Niagara Falls on a small scale has been previously represented, but not in the way it is to be done next October.

Another piece will be the flight of 500 four-pound rockets, and there will be given an ascent of ten gas balloons. Each balloon will carry a magazine of rockets. Its ascent, however, will be marked by the burning of the most powerful magnesium light known. After a certain height has been reached the magazine will take fire, and a loud explosion, followed by a myriad of stars, will take place. Then there are to be 50 four-pound rockets, each containing a representation of the Pleiades. One portion of the program will be the explosion of 5,000 rockets at one time. The greatest number ever previously exploded instantaneously is said to be 1,000. There will be three flights of 100 shells, each twenty-four inches in diameter, and their explosion will create gold and silver stars.

One of the numbers—never before attempted—will be a fiery wheel eighty-four feet in diameter. This is to be a prize production. In the designs to be represented Queen Isabella will not be forgotten. A bunch of roses 40 by 50 will be shown in fire, and the flowers, after burning a few moments, will gradually dissolve and in their stead will appear the portrait of Queen Isabella.

Several building effects will also be produced. A Temple of Fame 300 feet long and 75 feet high will flash out in the sky and burn for several minutes. The Capitol at Washington, and other big pieces 400 feet long and 90 feet high, will be shown. Mammoth portraits of Washington, Lincoln and Harrison will glow in burning lines. A Chinese pagoda 200 feet long and 70 feet high will suddenly appear. One of the feats of pyrotechnic skill will be a representation of the United States flag. It will be formed wholly in the air by the precise shooting of rockets. First of all clouds of smoke will be blown upward to form the blue field for the stars, which will be shot from forty-four mortars. From other mortars will be flights of red and white ribbons of light to make the stripes.

An aerial piece of peculiar interest will be a prismatic fountain 75 feet high.

There are a number of other designs of interest, one of them being produced by 3,000 pieces of fireworks, which will represent about the canals and lagoons all kinds of fish.

MIDWAY PLAISANCE. SITE OF WORLD'S FAIR.

D. L. LIBBEY, President.
OSHKOSH, WIS.

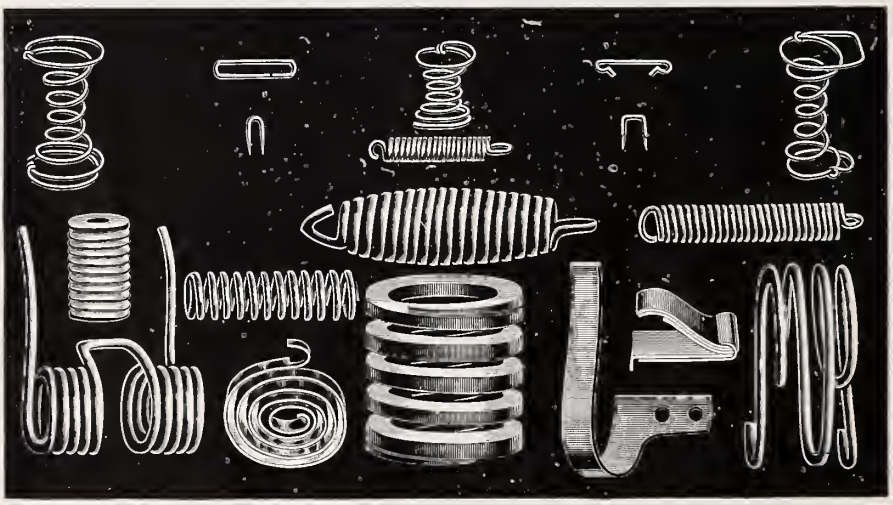
C. M. WILLIAMSON, Vice Pres't.
OSHKOSH, WIS.

The Hintze & Baker Company,

...Chicago

R. B. FARSON, Sec'y and Treas.
CHICAGO,

WM. D. GIBSON, Pres't and Treas. ENOCH PETERSON, Supt. SILAS HOWE, Vice-Pres't and Sec'y.



THE WM. D. GIBSON COMPANY

Manufacturers of Superior Grades of Every Description of

Upholstery Springs, Crucible Cast Steel Spiral Springs and Spring Wire

SPRINGS FOR AGRICULTURAL MACHINERY A SPECIALTY

OFFICE AND FACTORY, 61-69 N. JEFFERSON STREET CHICAGO

CHAPTER III.

ORGANIZATION.

The World's Columbian Exposition was organized under the general statutes of the State of Illinois, upon the following application, which was filed with the Secretary of State on August 15, 1889. It states the name of the proposed corporation as "The World's Exposition of 1892," the object for its formation as "The holding of an International Exhibition or World's Fair in the City of Chicago and State of Illinois, to commemorate on its four hundredth anniversary the discovery of America." The capital stock is $5,000,000, the amount of each share is $10, and the number of shares is 500,000; the location of the principal office at Chicago, Cook County, Illinois, and the duration of the corporation ninety-nine years. The license to open subscription books is dated August 14, 1889, and the entire amount of $5,000,000 was subscribed by March 23, 1890, on which date notices were issued for a meeting of the subscribers, to be held in Battery D, in the City of Chicago,* Ill., on April 4, 1890, at 10 o'clock a. m.

The following named gentlemen constitute the present Board of Directors of the World's Columbian Exposition:

William T. Baker.	H. N. Higinbotham.	Adolph Nathan.	George Schneider.
C. K. G. Billings.	Chas. L. Hutchinson.	Robert Nelson.	Charles H. Schwab.
Thomas B. Bryan.	Egbert Jamieson.	John J. P. Odell.	Henry B. Stone.
Edward B. Butler.	Elbridge G. Keith.	Potter Palmer.	Bernard E. Sunny.
Isaac N. Camp.	Wm. D. Kerfoot.	Ferd. W. Peck.	Charles H. Wacker.
William J. Chalmers.	Wm. P. Ketcham.	Paul O. Stensland.	Edwin Walker.
Robert C. Clowry.	Milton W. Kirk.	Alexander H. Revell.	Robert A. Waller.
George R. Davis.	Marshall M. Kirkman.	Edward P. Ripley.	Hemp. Washburne.
James W. Ellsworth.	Edward F. Lawrence.	A. M. Rothschild.	John C. Welling.
Lyman J. Gage.	Thies J. Lefens.	Martin A. Ryerson.	Frederick S. Winston.
George B. Harris.	Andrew McNally.	George W. Saul.	Charles T. Yerkes.
Franklin H. Head.			

THE ACT OF CONGRESS CREATING THE WORLD'S COLUMBIAN COMMISSION.

An act to provide for celebrating the four hundredth anniversary of the discovery of America by Christopher Columbus by holding an International Exhibition of arts, industries, manufactures and the product of the soil, mine and sea, in the City of Chicago, in the State of Illinois.

WHEREAS, It is fit and appropriate that the four hundredth anniversary of the discovery of America be commemorated by an exhibition of the resources of the United States of America, their development, and of the progress of civilization in the New World; and

WHEREAS, Such an exhibition should be of a national and international character, so that not only the people of our Union and this continent, but those of all nations as well, can participate, and should therefore have the sanction of the Congress of the United States; therefore,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That an Exhibition of arts, industries, manufactures and products of the soil, mine and sea, shall be inaugurated in the year eighteen hundred and ninety-two, in the City of Chicago, in the State of Illinois, as hereinafter provided.

SEC. 2. That a commission, consisting of two Commissioners from each State and Territory of the United States and from the District of Columbia and eight Commissioners at large, is hereby constituted to be designated as the World's Columbian Commission.

SEC. 3. That said Commissioners, two from each State and Territory, shall be appointed within thirty days from the passage of this act by the President of the United States, on the nomination of the Governors of the States and Territories, respectively, and by the President eight Commissioners at large and two from the District of Columbia; and in the same manner and within the same time there shall be appointed two alternate Commissioners from each State and Territory of the United States and the District of Columbia and eight alternate Commissioners at large, who shall assume and perform the duties of such Commissioner or Commissioners as may be unable to attend the meetings of the said commission; and in such nominations and appointments each of the two leading political

* At a special meeting of stockholders held June 12, 1890, the name of the corporation was changed to "The World's Columbian Exposition," and the capital stock increased to $10,000,000.

parties shall be equally represented. Vacancies in the commission nominated by the Governors of the several States and Territories, respectively, and also vacancies in the commission at large and from the District of Columbia, may be filled in the same manner and under the same conditions as provided herein for their original appointment.

SEC. 4. That the Secretary of State of the United States shall, immediately after the passage of this act, notify the Governors of the several States and Territories, respectively, thereof and request such nominations to be made. The Commissioners so appointed shall be called together by the Secretary of State of the United States in the City of Chicago, by notice to the Commissioners, as soon as convenient after the appointment of said Commissioners, and within thirty days thereafter. The said Commissioners, at said first meeting, shall organize by the election of such officers and the appointment of such committees as they may deem expedient, and for this purpose the Commissioners present at said meeting shall constitute a quorum.

SEC. 5. That said commission be empowered in its discretion to accept for the purposes of the World's Columbian Exposition such site as may be selected and offered and such plans and specifications of buildings to be erected for such purpose at the expense of and tendered by the corporation organized under the laws of the State of Illinois, known as "The World's Exposition of eighteen hundred and ninety-two:" *Provided*, That said site so tendered and the buildings proposed to be erected thereon shall be deemed by said commission adequate to the purposes of said Exposition: *And provided*, That said commission shall be satisfied that the said corporation has an actual bona fide and valid subscription to its capital stock which will secure the payment of at least five millions of dollars, of which not less than five hundred thousand dollars shall have been paid in, and that the further sum of five million dollars, making in all ten million dollars, will be provided by said corporation in ample time for its needful use during the prosecution of the work for the complete preparation for said Exposition.

SEC. 6. That the said commission shall allot space for exhibitors, prepare a classification of exhibits, determine the plan and scope of the Exposition, and shall appoint all judges and examiners for the Exposition, award all premiums, if any, and generally have charge of all intercourse with the exhibitors and the representatives of foreign nations. And said commission is authorized and required to appoint a Board of Lady Managers of such number and to perform such duties as may be prescribed by said commission. Said board may appoint one or more members of all committees authorized to award prizes for exhibits which may be produced in whole or in part by female labor.

SEC. 7. That after the plans for said Exposition shall be prepared by said corporation and approved by said commission, the rules and regulations of said corporation governing rates for entrance and admission fees, or otherwise affecting the rights, privileges, or interests of the exhibitors or of the public, shall be fixed or established by said corporation, subject, however, to such modification, if any, as may be imposed by a majority of said Commissioners.

SEC. 8. That the President is hereby empowered and directed to hold a naval review in New York Harbor, in April, eighteen hundred and ninety-three, and to extend to foreign nations an invitation to send ships of war to join the United States Navy in rendezvous at Hampton Roads and proceed thence to said review.

SEC. 9. That said commission shall provide for the dedication of the buildings of the World's Columbian Exposition in the said City of Chicago on the twelfth day of October, eighteen hundred and ninety-two, with appropriate ceremonies, and said Exposition shall be open to visitors not later than the first day of May, eighteen hundred and ninety-three, and shall be closed at such time as the commission may determine, but not later than the thirtieth day of October thereafter.

SEC. 10. That whenever the President of the United States shall be notified by the commission that provision has been made for grounds and buildings for the uses herein provided for, and there has also been filed with him by the said corporation, known as "The World's Exposition of eighteen hundred and ninety-two," satisfactory proof that a sum not less than ten million dollars, to be used and expended for the purposes of the Exposition herein authorized, has in fact been raised or provided for by subscription or other legally binding means, he shall be authorized, through the Department of State, to make proclamation of the same, setting forth the time at which the Exposition will open and close, and the place at which it will be held; and he shall communicate to the diplomatic representatives of foreign nations copies of the same, together with such regulations as may be adopted by the commission, for publication in their respective countries, and he shall, in behalf of the Government and people, invite foreign nations to take part in the said Exposition and appoint representatives thereto.

SEC. 11. That all articles which shall be imported from foreign countries for the sole purpose of exhibition at said Exposition, upon which there shall be a tariff or customs duty, shall be admitted free of payment of duty, customs fees or charges, under such regulations as the Secretary of the Treasury shall prescribe; but it shall be lawful at any time during the exhibition to sell for delivery at the close of the Exposition any goods or property imported for and actually on exhibition in the Exposition buildings or on its grounds,

T. W. PALMER, PRESIDENT WORLD'S COLUMBIAN COMMISSION—Page 25.

subject to such regulations for the security of the revenue and for the collection of the import duties as the Secretary of the Treasury shall prescribe: *Provided*, That all such articles when sold or withdrawn for consumption in the United States will be subject to the duty, if any, imposed upon such articles by the revenue laws in force at the date of importation, and all penalties prescribed by law shall be applied and enforced against such articles, and against the persons who may be guilty of any illegal sale or withdrawal.

SEC. 12. That the sum of twenty thousand dollars, or as much thereof as may be necessary, be, and the same is hereby appropriated, out of any moneys in the Treasury not otherwise appropriated, for the remainder of the present fiscal year and for the fiscal year ending June thirtieth, eighteen hundred and ninety-one, to be expended under the direction of the Secretary of the Treasury for purposes connected with the admission of foreign goods to said exhibition.

SEC. 13. That it shall be the duty of the commission to make report from time to time to the President of the United States of the progress of the work, and, in a final report, present a full exhibit of the results of the Exposition.

SEC. 14. That the commission hereby authorized shall exist no longer than until the first day of January, eighteen hundred and ninety-eight.

SEC. 15. That the United States shall not in any manner, nor under any circumstances, be liable for any of the acts, doings, proceedings or representations of the said corporation organized under the laws of the State of Illinois, its officers, agents, servants, or employes, or any of them, or for the service, salaries, labor or wages of said officers, agents, servants or employes, or any of them, or for any subscriptions to the capital stock, or for any certificates of stock, bonds, mortgages or obligations of any kind issued by said corporation, or for any debts, liabilities or expenses of any kind whatever attending such corporation or accruing by reason of the same.

SEC. 16. That there shall be exhibited at said Exposition, by the Government of the United States, from its Executive Departments, the Smithsonian Institution, the United States Fish Commission and the National Museum, such articles and materials as illustrate the function and administrative faculty of the Government in time of peace and its resources as a war power, tending to demonstrate the nature of our institutions and their adaptation to the wants of the people; and to secure a complete and harmonious arrangement of such a Government exhibit, a board shall be created to be charged with the selection, preparation, arrangement, safe-keeping and exhibition of such articles and materials as the heads of the several departments and the directors of the Smithsonian Institution and National Museum may respectively decide shall be embraced in said Government exhibit. The President may also designate additional articles for exhibition. Such board shall be composed of one person to be named by the head of each Executive Department, and one by the directors of the Smithsonian Institution and National Museum, and one by the Fish Commission, such selections to be approved by the President of the United States. The President shall name the chairman of said board, and the board itself shall select such other officers as it may deem necessary.

That the Secretary of the Treasury is hereby authorized and directed to place on exhibition, upon such grounds as shall be alloted for the purpose, one of the life-saving stations authorized to be constructed on the coast of the United States by existing law, and to cause the same to be fully equipped with all apparatus, furniture, and appliances now in use in all life-saving stations in the United States, said building and apparatus to be removed at the close of the exhibition and re-erected at the place now authorized by law.

SEC. 17. That the Secretary of the Treasury shall cause a suitable building or buildings to be erected on the site selected for the World's Columbian Exposition for the Government exhibits, as provided in this act, and he is hereby authorized and directed to contract therefor, in the same manner and under the same regulations as for other public buildings of the United States; but the contracts for said building or buildings shall not exceed the sum of four hundred thousand dollars, and for the remainder of the fiscal year and for the fiscal year ending June thirtieth, eighteen hundred and ninety-one, there is hereby appropriated for said building or buildings, out of any money in the treasury not otherwise appropriated, the sum of one hundred thousand dollars. The Secretary of the Treasury shall cause the said building or buildings to be constructed as far as possible of iron, steel and glass, or of such other material as may be taken out and sold to the best advantage; and he is authorized and required to dispose of such building or buildings, or the material composing the same, at the close of the Exposition, giving preference to the City of Chicago, or to the said World's Exposition of eighteen hundred and ninety-two to purchase the same at an appraised value to be ascertained in such manner as he may determine.

SEC. 18. That for the purpose of paying the expenses of transportation, care and custody of exhibits by the Government and the maintenance of the building or buildings hereinbefore provided for, and the safe return of articles belonging to the said Government exhibit, and for the expenses of the commission created by this act, and other contingent expenses, to be approved by the Secretary of the Treasury, upon itemized accounts and vouchers, there is hereby appropriated for the remainder of this fiscal year and for the

fiscal year ending June thirtieth, eighteen hundred and ninety-one, out of any money in the treasury not otherwise appropriated, the sum of two hundred thousand dollars, or so much thereof as may be necessary: *Provided*, That the United States shall not be liable, on account of the erection of buildings, expenses of the commission or any of its officers or employes, or on account of any expenses incident to or growing out of said Exposition, for a sum exceeding in the agregate one million five hundred thousand dollars.

SEC. 19. That the Commissioners and alternate Commissioners appointed under this act shall not be entitled to any compensation for their services out of the Treasury of the United States, except their actual expenses for transportation and the sum of six dollars per day for subsistence for each day they are necessarily absent from their homes on the business of said commission. The officers of said commission shall receive such compensation as may be fixed by said commission, subject to the approval of the Secretary of the Treasury, which shall be paid out of the sums appropriated by Congress in aid of such Exposition.

SEC. 20. That nothing in this act shall be so construed as to create any liability of the United States, direct or indirect, for any debt or obligation incurred, nor for any claim for aid or pecuniary assistance from Congress or the Treasury of the United States in support or liquidation of any debts or obligations created by said commission in excess of appropriations made by Congress therefor.

SEC. 21. That nothing in this act shall be so construed as to override or interfere with the laws of any State, and all contracts made in any State for the purposes of the Exhibition shall be subject to the laws thereof.

SEC. 22. That no member of said commission, whether an officer or otherwise, shall be personally liable for any debt or obligation which may be created or incurred by the said commission.

Approved, April 25, 1890.

Under the provision of said act upon the nomination by the Governors of the States, Territories, and the District of Columbia, the President appointed two Commissioners to represent each State, Territory, and the District of Columbia; and eight Commissioners from the country at large, to be constituted and designated as the World's Columbian Commission, as follows:

COMMISSIONERS AT LARGE.

Commissioners.	*Alternates.*
Augustus G. Bullock, Worcester, Mass.	Henry Ingalls, Wiscasset, Me.
Gorton W. Allen, Auburn, N. Y.	Louis Fitzgerald, New York, N. Y.
Peter A. B. Widener, Philadelphia, Pa.	John W. Chalfant, Pittsburgh, Pa.
Thomas W. Palmer, Detroit, Mich.	James Oliver, South Bend, Ind.
R. W. Furnas, Brownville, Neb.	Hale G. Parker, St. Louis, Mo.
William Lindsay, Frankfort, Ky.	Patrick Walsh, Augusta, Ga.
Henry Exall, Dallas, Tex.	H. C. King, San Antonio, Tex.
Mark L. McDonald, Santa Rosa, Cal.	Thomas Burke, Seattle, Wash.

COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Commissioners.	*Alternates.*
Alexander T. Britton, Washington.	E. Kurtz Johnson, Washington.
Albert A. Wilson, Washington.	Dorsey Clagett, Washington.

COMMISSIONERS OF THE STATES.

	Commissioners.	*Alternates.*
ALABAMA..	Frederick G. Bromberg, Mobile. Oscar R. Hundley, Huntsville.	Gotthold L. Werth, Montgomery. William S. Hull, Sheffield.
ARKANSAS.	John D. Adams, Little Rock. J. H. Clendening, Fort Smith.	J. T. W. Tillar, Little Rock. Thomas H. Leslie, Stuttgart.
CALIFORNIA	Michael H. de Young, San Francisco. William Forsyth, Fresno.	George Hazleton, San Francisco. Russ D. Stephens, Sacramento.
COLORADO..	Roswell E. Goodell, Leadville. Frederick J. V. Skiff, Denver.	Henry B. Gillespie, Aspen. O. C. French, New Windsor.
CONN.....	Leverett Brainard, Hartford. Thomas M. Waller, New London.	Charles F. Brooker, Torrington. Charles R. Baldwin, Waterbury.
DELAWARE.	George V. Massey, Dover. Willard Hall Porter, Wilmington.	Charles F. Richards, Georgetown. William Saulsbury, Dover.
FLORIDA ...	C. F. A. Bielby, De Land. Richard Turnbull, Monticello.	Dudley W. Adams, Tangerine. Jesse T. Bernard, Tallahassee.

	Commissioners.	*Alternates.*
GEORGIA...	Lafayette McLaws, Savannah. Charlton H. Way, Savannah.	James Longstreet, Gainesville. John W. Clark, Augusta.
IDAHO.....	George A. Manning, Post Falls. John E. Stearns, Nampa.	A. J. Crook, Hailey. John M. Burke, Wardner.
ILLINOIS...	Charles H. Deere, Moline. Adlai T. Ewing, Chicago.	La Fayette Funk, Shirley. De Witt Smith, Springfield.
INDIANA...	Thomas E. Garvin, Evansville. Elijah B. Martindale, Indianapolis.	William E. McLean, Terre Haute. Charles M. Travis, Crawfordsville.
IOWA.	Joseph Eiboeck, Des Moines. William F. King, Mt. Vernon.	Chas. N. Whiting, Whiting. John Hayes, Red Oak.
KANSAS....	Charles K. Holliday, Jr., Topeka. J. R. Burton, Abilene.	M. D. Henry, Independence. Frank W. Lanyon, Pittsburg.
KENTUCKY.	John Bennett, Richmond. James A. McKenzie, Oak Grove.	David N. Comingore, Covington. John S. Morris, Louisville.
LOUISIANA.	Davidson B. Penn, Newellton. Thomas J. Woodward, New Orleans.	Alphonse Le Duc, New Orleans. P. J. McMahon, Tangipahoa.
MAINE	Augustus R. Bixby, Skowhegan. William G. Davis, Portland.	James A. Boardman, Bangor. Clark S. Edwards, Bethel.
MARYLAND.	James Hodges, Baltimore. Lloyd Lowndes, Cumberland.	George M. Upshur, Snow Hill. Daniel E. Conkling, Baltimore.
MASS	Francis W. Breed, Lynn. Thomas E. Proctor, Boston.	George P. Ladd, Spencer. Chas. E. Adams, Lowell.
MICHIGAN..	M. Henry Lane, Kalamazoo. Charles H. Richmond, Ann Arbor.	Ernest B. Fisher, Grand Rapids. George H. Barbour, Detroit.
MINNESOTA	Matthew B. Harrison, Duluth. Orson V. Tousley, Minneapolis.	Thomas C. Kurtz, Moorhead. Muret N. Leland, Wells.
MISSISSIPPI	Joseph M. Bynum, Rienzi. Robert L. Saunders, Jackson.	Fred W. Collins, Summit. Joseph H. Brinker, West Point
MISSOURI..	Thomas B. Bullene, Kansas City. Charles H. Jones, St. Louis.	O. H. Picher, Joplin. R. L. McDonald, St. Joseph.
MONTANA..	Lewis H. Hershfield, Helena. A. H. Mitchell, Deer Lodge City.	Benjamin F. White, Dillon. Timothy E. Collins, Great Falls.
NEBRASKA.	Euclid Martin, Omaha. Albert G. Scott, Kearney.	William L. May, Fremont. John Lauterbach, Fairbury.
NEVADA....	James W. Haines, Genoa. George Russell, Elko.	Enoch Strother, Virginia City. Richard Ryland, Reno.
NEW HAMPSHIRE	Walter Aiken, Franklin. Charles D. McDuffie, Manchester.	George Van Dyke, Lancaster. Frank E. Kaley, Milford.
NEW JERSEY.	William J. Sewell, Camden. Thomas Smith, Newark.	Frederick S. Fish, Newark. Edwin A. Stevens, Hoboken.
NEW YORK.	Chauncey M. Depew, New York. John Boyd Thacher, Albany.	James H. Breslin, New York. James Roosevelt, Hyde Park.
NORTH CAROLINA	Alexander B. Andrews, Raleigh. Thomas B. Keogh, Greensboro.	Elias Carr, Old Sparta. G. A. Bingham, Salisbury.
NORTH DAKOTA..	H. P. Rucker, Grand Forks. Martin Ryan, Fargo.	Charles H. Stanley, Steele. Peter Camerou, Tyuer.
OHIO.....	Harvey P. Platt, Toledo. William Ritchie, Hamilton.	Lucius C. Cron, Piqua. Adolph Pluemer, Cincinnati.
OREGON....	Henry Klippel, Jacksonville. Martin Wilkins, Eugene City.	J. L. Morrow, Heppner. W. T. Wright, Union.
PENN	William McClelland, Pittsburgh. John W. Woodside, Philadelphia.	R. Bruee Ricketts, Wilkes-Barre. John K. Hallock, Erie.
RHODE ISLAND...	Lyman B. Goff, Pawtucket. Gardiner C. Sims, Providence.	Jeffrey Hazard, Providence. Lorillard Spencer, Newport.
SOUTH CAROLINA	A. P. Butler, Columbia. John R. Cochran, Anderson.	E. L. Roche, Charleston. J. W. Tindell, Sumter.
SOUTH DAKOTA..	Merritt H. Day, Rapid City. William McIntyre, Watertown.	S. A. Ramsey, Woonsocket. L. S. Bullard, Pierre.
TENNESSEE	Louis T. Baxter, Nashville. Thomas L. Williams, Knoxville.	Rush Strong, Knoxville. A. B. Hurt, Chattanooga.

W. T. BAKER, PRESIDENT WORLD'S COLUMBIAN EXPOSITION—Page 27.

	Commissioners.	*Alternates.*
TEXAS.....	Archelaus M. Cochran, Dallas. John T. Dickinson, Austin.	Lock McDaniel, Anderson. Henry B. Andrews, San Antonio.
VERMONT..	Henry H. McIntyre, West Randolph. Bradley B. Smalley, Burlington.	Aidace F. Walker, Rutland. Hiram Atkins, Montpelier.
VIRGINIA..	Virginius D. Groner, Norfolk. John T. Harris, Harrisonburg.	Charles A. Heermans, Christianburg Alexander McDonald, Lynchburg.
WASH.....	Henry Drum, Tacoma. Charles B. Hopkins, Spokane Falls.	Geo. F. Cummin, Cheney. Clarence B. Bagley, Seattle.
WEST VIRGINIA.	James D. Butt, Harper's Ferry. J. W. St. Clair, Fayetteville.	John Corcoran, Wheeling. Wellington Vrooman, Parkersburg.
WISCONSIN.	Philip Allen, Jr., Mineral Point. John N. Coburn, La Crosse.	David W. Curtis, Fort Atkinson. Myron Reed, Superior.
WYOMING..	Asahel C. Beckwith, Evanston. Henry G. Hay, Cheyenne.	Asa S. Mercer, Cheyenne. John J. McCormick, Sheridan.

COMMISSIONERS OF THE TERRITORIES.

	Commissioners.	*Alternates.*
ARIZONA...	George F. Coats, Phœnix. William Zeckendorf, Tucson.	W. L. Van Horn, Flagstaff. Herbert H. Logan, Phœnix.
NEW MEXICO..	Thomas C. Gutierres, Albuquerque. Richard Mansfield White, Hermosa.	Louis C. Tetard, East Las Vegas. Charles B. Eddy, Eddy.
OKLAHOMA.	Othniel Beeson, Reno City. John D. Miles, Kingfisher.	John Wallace, Oklahoma City. Joseph W. McNeal, Guthrie.
UTAH.....	Frederick J. Kiesel, Ogden. Patrick H. Lannan, Salt Lake City.	William M. Ferry, Park City. Charles Crane, Kanosh.
ALASKA....	Edward de Groff, Sitka. Louis L. Williams, Juneau.	Carl Spuhn, Killisnoo. N. A. Fuller, Juneau.

BOARD OF LADY MANAGERS.

Section 6 of the act of Congress creating the World's Columbian Commission, authorized and required said Commissioners to appoint "a Board of Lady Managers, of such number and to perform such duties as may be prescribed by said Commission."

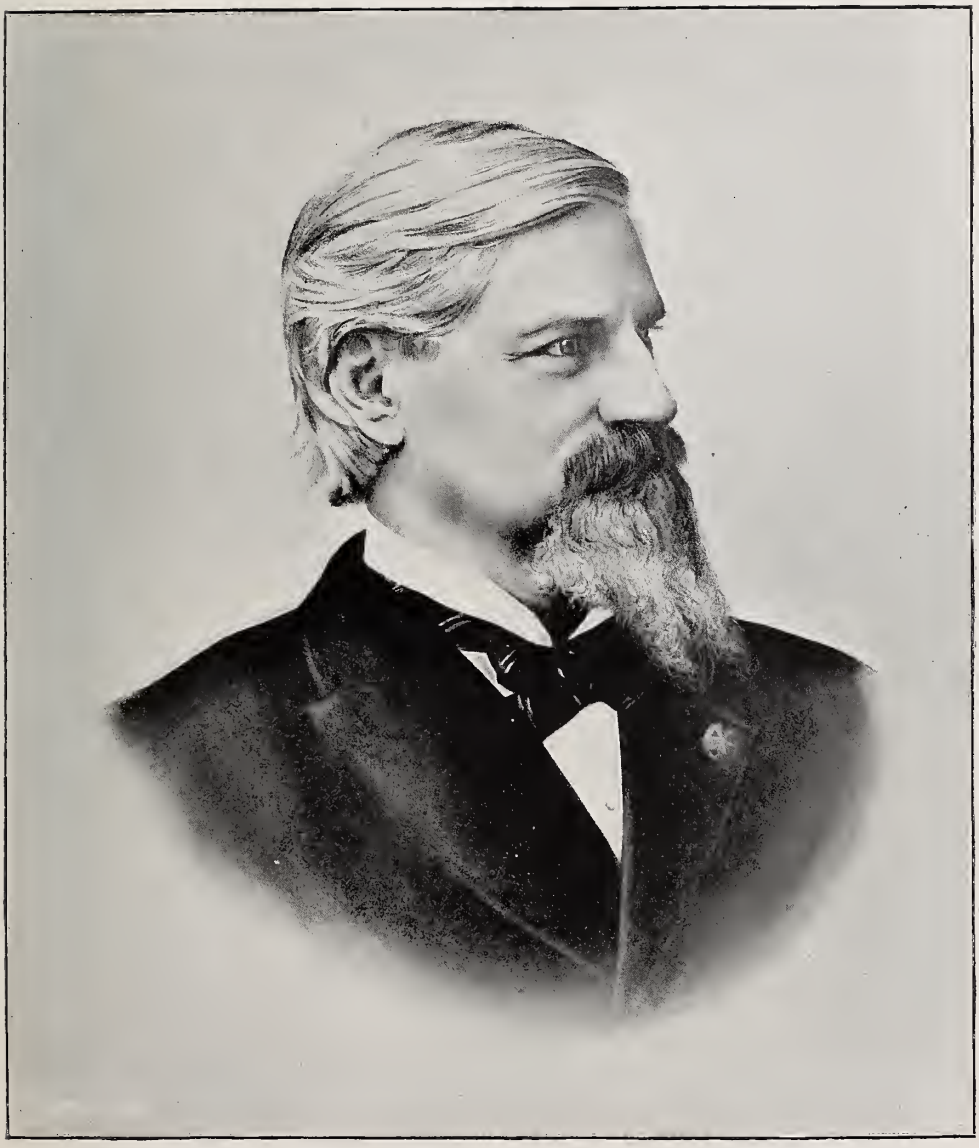
In pursuance of this authority the World's Columbian Commission authorized the appointment of two Lady Managers from each State and Territory and the District of Columbia, eight Managers at Large and nine from the City of Chicago, with alternates respectively.

List of Officers. Lady Managers and Alternates of the Board of Lady Managers of the World's Columbian Commission:

President, Mrs. Potter Palmer, of Chicago.
First Vice-President, Mrs. Ralph Trautmann, of New York.
Second Vice-President, Mrs. Edwin C. Burleigh, of Maine.
Third Vice-President, Mrs. Charles Price, of North Carolina.
Fourth Vice-President, Miss Katherine L. Minor, of Louisiana.
Fifth Vice-President, Mrs. Beriah Wilkins, of the District of Columbia.
Sixth Vice-President, Mrs. Susan R. Ashley, of Colorado.
Seventh Vice-President, Mrs. Flora Beall Ginty, of Wisconsin.
Eighth Vice-President, Mrs. Margaret Blaine Salisbury, of Utah.
Vice-President-at-Large, Mrs. Russell B. Harrison, of Montana.
Secretary, Mrs. Susan Gale Cooke, Knoxville, Tenn. Office, Chicago.

NOMINATED BY COMMISSIONERS AT LARGE.

Lady Managers.	*Alternates.*
Mrs. D. F. Verdenal, New York.	Mrs. Ben C. Truman, Los Angles, Cal.
Mrs. Mary Cecil Cantrill, Georgetown, Ky.	Mrs. Nancy Huston Banks, Morganfield, Ky.
Mrs. Mary S. Lockwood, Washington, D. C.	Mrs. James B. Stone, Worcester, Mass.
Mrs. John J. Bagley, Detroit, Mich.	Mrs. Schuyler Colfax, South Bend, Ind.
Miss Ellen A. Ford, New York,	Mrs. Helen A. Peck, Kansas City, Mo.
Mrs. Mary S. Harrison, Helena, Mont.	Miss Caroline E. Dennis, Auburn, N. Y.
Mrs. Ida A. Elkins Tyler, Philadelphia, Pa.	Mrs. Geo. R. Yarrow, Philadelphia, Pa.
Mrs. Rosine Ryan, Austin, Texas.	Mrs. Lilla C. Baxter, Navasota, Texas.



GEO. R. DAVIS, DIRECTOR GENERAL WORLD'S COLUMBIAN EXPOSITION—Page 26.

By Commissioners from the States.

	Lady Managers.	*Alternates.*
Ala.	Miss Hattie T. Hundley, Mooresville. Mrs. Anna M. Fosdick, Mobile.	Miss Sallie Talula Smith, Birmingham. Mrs. Louise L. Werth, Montgomery.
Ark.	Mrs. James P. Eagle, Little Rock. Mrs. Rollin A. Edgerton, Little Rock.	Mrs. Mary Gray D. Rogers, Fort Smith Mrs. Wm. B. Empie, Newport.
Cal.	Mrs. Parthenia P. Rue, Santa Rosa. Mrs. James R. Deane, San Francisco.	Mrs. Theresa Fair, San Francisco. Mrs. Frona E. Wait, San Francisco.
Colo.	Mrs. Robt. J. Coleman, Beuna Vista. Mrs. Susan R. Ashley, Denver.	Mrs. W. F. Patrick, Leadville. Mrs. M. D. Thatcher, Pueblo.
Conn.	Miss Frances B. Ives, New Haven. Mrs. Isabella B. Hooker, Hartford.	Mrs. Amelia B. Hinman, Stevenson. Mrs. Virginia T. Smith, Hartford.
Dela.	Mrs. Mary Richards Kinder, Milford. Mrs. J. Frank Ball, Wilmington.	Mrs. Mary E. Torbert, Milford. Mrs. Theodore F. Armstrong, Newark.
Fla.	Mrs. Mary C. Bell, Gainesville. Miss E. Nellie Beck, Tampa.	Mrs. Chloe M. Reed, So. Jacksonville. Mrs. H. K. Ingram, Jacksonville.
Ga.	Mrs. Wm. H. Felton, Cartersville. Mrs. Charles H. Olmstead, Savannah.	Mrs. Meta Telfair McLaws, Augusta. Mrs. Geo. W. Lamar, Savannah.
Idaho.	Mrs. Joseph C. Straughan, Boise City.	Mrs. Anna E. M. Farnum, Post Falls. Mrs. Ella Ray Miller, Pocatello.
Ill.	Mrs. Richard J. Oglesby, Elkhart. Mrs. Frances W. Shepard, Chicago.	Mrs. Marcia Louise Gould, Moline. Mrs. Frances B. Phillips, Bloomington.
Ind.	Mrs. Wilhelmine Reitz, Evansville. Mrs. V. C. Meredith, Cambridge City.	Miss Susan W. Ball, Terre Haute. Miss Mary H. Krout, Crawfordsville.
Iowa.	Mrs. Whiting S. Clark, Des Moines. Miss Ora E. Miller, Cedar Rapids.	Mrs. Ira F. Hendricks, Council Bluffs. Miss Mary B. Hancock, Dubuque.
Kansas	Mrs. Jennie S. Mitchell, Leavenworth. Mrs. Hester A. Hanback, Osborne.	Mrs. Sara Blair Lynch, Leavenworth. Mrs. Jane H. Haynes, Fort Scott.
Ky.	Mrs. Jean W. Faulkner, Lancaster. Miss Cora D. Payne, Henderson.	Miss Sarah F. Holt, Frankfort. Mrs. Alice B. Castleman, Louisville.
La.	Miss Katherine L. Minor, Houma. Miss Jose. Shakspeare, New Orleans.	Mrs. Bowling S. Leathers, New Orleans. Mrs. Belle H. Perkins, New Orleans.
Maine.	Mrs. Edwin C. Burleigh, Augusta. Mrs. L. M. N. Stevens, Portland.	Mrs. Sarah H. Bixby, Skowhegan. Miss Kate Hutchins Locke, Bethel.
Md.	Mrs. William Reed, Baltimore. Mrs. Alex. Thomson, Mount Savage.	Mrs. J. Wilson Patterson, Baltimore. Mrs. Eloise Roman, Cumberland.
Mass.	Mrs. Rufus S. Frost, Chelsea. Mrs. Jonas H. French, Boston.	Mrs. Alice Freeman Palmer, Cambridge. Miss Mary Crease Sears, Boston.
Mich.	Mrs. Eliza J. P. Howes, Battle Creek. Mrs. Sarah S. C. Angell, Ann Arbor.	Mrs. Frances P. Burrows, Kalamazoo. Miss Anna M. Cutcheon, Detroit.
Minn.	Mrs. Francis B. Clarke, St. Paul. Mrs. H. F. Brown, Minneapolis.	Mrs. P. B. Winston, Minneapolis. Mrs. M. M. Williams, Little Falls.
Miss.	Mrs. James W. Lee, Aberdeen. Mrs. John M. Stone, Jackson.	Mrs. Geo. M. Buchanan, Holly Springs. Miss Varina Davis, Beauvoir.
Mo.	Miss Phœbe Couzins, St. Louis. Miss Lillian Mason Brown, Kirkwood.	Mrs. Patti Moore, Kansas City. Mrs. Annie L. Y. Swart, St. Louis.
Mont.	Mrs. Eliza Rickard, Butte City. Mrs. Lily Rosecrans Toole, Helena.	Mrs. Frank L. Worden, Missoula. Mrs. Mariam D. Cooper, Bozeman.
Neb.	Mrs. John S. Briggs, Omaha. Mrs. E. C. Langworthy, Seward.	Mrs. M. A. B. Martin, Broken Bow Mrs. Lana A. Bates, Aurora.
Nev.	Miss Eliza M. Russell, Elko. Mrs. Ella M. Stevenson, Carson City.	Miss Mary E. Davies, Genoa. Mrs. M. D. Foley, Reno.
New Hamp.	Mrs. Mira B. F. Ladd, Lancaster. Mrs. Daniel Hall, Dover.	Mrs. Frank H. Daniell, Franklin Falls. Miss Ellen J. Cole, Lake Village.
New Jersey	Miss Mary E. Busselle, Newark. Mrs. Martha B. Stevens, Hoboken.	Mrs. Amanda M. Smith, Newark.
New York	Mrs. R. Trautmann, New York City. Mrs. W. C. Whitney, New York City.	Mrs. John Pope, New York City. Mrs. A. M. Palmer, New York City.
North Caro.	Mrs. George W. Kidder, Wilmington. Mrs. Charles Price, Salisbury.	Mrs. Sallie S. Cotten, Falkland. Miss Virginia S. Divine, Wilmington.

MRS. POTTER PALMER, PRESIDENT BOARD OF LADY MANAGERS—Page 27.

	Lady Managers.	*Alternates*
North Dak.	Mrs. S. W. McLaughlin, Grand Forks. Mrs. W. B. McConnell, Fargo.	Mrs. Alice Vineyard Brown, Lisbon. Mrs. Frances C. Holley, Bismarck.
Ohio...	Mrs. Mary A. Hart, Cincinnati. Mrs. Walter Hartpence, Harrison.	Mrs. Harriet Taylor Upton, Warren. Mrs. Asa S. Bushnell, Springfield.
Ore....	Mrs. E. W. Allen, Portland. Mrs. Mary Payton, Salem.	Mrs. Anna R. Riggs, Portland. Mrs. Hattie E. Sladden, Eugene City.
Penn..	Miss Mary E. McCandless, Pittsburg. Mrs. Harriet A. Lucas, Philadelphia.	Mrs. Samuel Plumer, Franklin. Mrs. W. S. Elkins, Philadelphia.
Rhode Island.	Mrs. A. M. Starkweather, Pawtucket. Miss Charlotte F. Dailey, Providence.	Mrs. George A. Mumford, Pawtucket. Miss Loraine P. Bucklin, Providence.
South Caro.	V've J. S. R. Thomson, Spartanburg. Mrs. Ellery M. Brayton, Columbia.	Miss Florida Cunningham, Charleston. Miss Carrie A. Perry, Walhalla.
South Dak.	Mrs. John R. Wilson, Deadwood. Mrs. Helen Morton Barker, Huron.	Mrs. Minnie Daniels, Watertown. Mrs. Marie J. Gaston, Deadwood.
Tenn. .	Mrs. Laura Gillespie, Nashville. Mrs. Susan Gale Cooke, Knoxville.	Mrs. Carrington Mason, Memphis. Mrs. Charles J. McClung, Knoxville.
Texas..	Mrs. Ida Loving Turner, Fort Worth. Mrs. Mary A. Cochran, Dallas.	Miss Hallie Earle Harrison, Waco. Mrs. Kate Cawthon McDaniel, Anderson.
Vt.....	Mrs. Ellen M. Chandler, Pomfret. Mrs. Eliz. V. Grinnell, Burlington.	Mrs. Minna G. Hooker. Brattleboro. Mrs. Theresa J. Cochrane, Groton.
Va.....	Mrs. John Sergeant Wise, Richmond. Mrs. K. S. G. Paul, Harrisonburg.	Miss Mattie P. Harris, Staunton.
Wash .	Mrs. Melissa D. Owings, Olympia. Mrs. Alice Houghton, Spokane Falls.	Mrs. Chauncey Wright Griggs, Tacoma. Miss Josephine H. Stinson, Colfax.
West Va.	Mrs. W. Newton Linch, Martinsburg. Miss L. Irene Jackson, Parkersburg.	Mrs. George W. Z. Black, Halltown. Miss Annie M. Mahan, Fayetteville.
Wis....	Mrs. Flora B. Ginty, Chippewa Falls. Mrs. William P. Lynde, Milwaukee.	Mrs. Sam S. Fifield, Ashland. Mrs. J. M. Smith, Mineral Point.
Wyo...	Mrs. F. H. Harrison. Evanston. Mrs. Frances E. Hale, Cheyenne.	Mrs. Elizabeth A. Stone, Evanston. Miss Gertrude M. Huntington, Saratoga.

By Commissioners from the Territories.

	Lady Managers.	*Alternates.*
Ariz...	Mrs. Thomas J. Butler, Prescott. Miss Laurette Lovell, Tucson.	Mrs. George Hoxworth, Flagstaff. Mrs. H. J. Peto, Tombstone.
Alaska.	Mrs. A. K. Delaney, Juneau.	Miss Maxwell Stevenson, Juneau.
New Mex.	Mrs. Franc L. Albright, Albuquerque. Mrs. Edward L. Bartlett, Santa Fe.	Mrs. Louise Dakin Campbell, Eddy.
Oklahoma.	Mrs. Marie P. H. Beeson, Reno City. Mrs. Lucy D. Miles, Kingfisher.	Mrs Julia Wallace, Oklahoma City. Mrs. Mary S. McNeal, Guthrie.
Utah ..	Mrs. Thomas A. Whalen, Ogden. Mrs. M. B. Salisbury, Salt Lake City.	Mrs. Susie B. Emery, Park City. Miss Maggie Keogh, Salt Lake City.

By Commissioners from the District of Columbia.

Lady Managers.	*Alternates.*
Mrs. John A. Logan, Washington.	Mrs. Emma Dean Powell, Washington.
Mrs. Beriah Wilkins. Washington.	Mrs. Emma C. Wimsatt, Washington.

By the President, from the City of Chicago.

Lady Managers.	*Alternates.*
Mrs. Bertha M. Honore Palmer.	Mrs. Sara T. Hallowell.
Mrs. Solomon Thatcher, Jr., River Forest.	Mrs. George L. Dunlap.
Mrs. Jennie Sanford Lewis.	Mrs. L. Brace Shattuck.
Mrs. James A. Mulligan.	Mrs. Annie C. Meyers.
Frances Dickinson, M. D.	Martha H. Ten Eyck.
Mrs. M. R. M. Wallace.	Mrs. Margaret I. Sandes, Ravenswood, Ill.
Mrs. Myra Bradwell.	Mrs. Leander Stone.
Mrs. James R. Doolittle, Jr.	Mrs. Gen'l A. L. Chetlain.
Mrs. Matilda B. Carse.	Frances E. Willard, Evanston, Ill.

BOARD OF CONTROL AND MANAGEMENT OF THE UNITED STATES GOVERNMENT EXHIBIT.

Hon. Edwin Willits, Chairman.
Sevellon A. Brown, Chief Clerk of the Department of State, to represent that department.
Allured B. Nettleton, Assistant Secretary of the Treasury, to represent the Treasury Department.
Major Clifton Comly, U. S. A., to represent the War Department.
Captain R. W. Meade, U. S. N., to represent the Navy Department.
A. D. Hazen, Third Assistant Postmaster General, to represent the Post Office Department.
Horace A. Taylor, Commissioner of Railroads, to represent the Department of the Interior.
Elijah C. Foster, General Agent of the Department of Justice, to represent that department.
Edwin Willits, Assistant Secretary of Agriculture, to represent the Department of Agriculture.
Dr. G. Brown Goode, Assistant Secretary Smithsonian Institution, to represent that Institution and the National Museum.
J. W. Collins, Assistant-in-Charge Division of Fisheries, to represent the United States Fish Commission.

Administrative and Departmental Organization.

The administration and control of the affairs of the Exposition have been conferred upon the two bodies designated respectively as the World's Columbian Commission, and the World's Columbian Exposition, the latter being incorporated under the laws of the State of Illinois, and both bodies acting through the executive department and committees and the Board of Reference and Control, as herein enumerated.

Officers of the World's Columbian Commission.

President, Thomas W. Palmer, Michigan.

VICE-PRESIDENTS.

First. Thomas M. Waller, Connecticut.
Second. M. H. de Young, California.
Third. D. B. Penn, Louisiana.
Fourth. Gorton W. Allen, New York.
Fifth. Alexander B. Andrews, N. Carolina.
Director-General, George R. Davis.
Secretary, John T. Dickinson.

Officers of the World's Columbian Exposition.

President, William T. Baker.
Vice-Presidents, Thomas B. Bryan, Potter Palmer.
Secretary and Solicitor-General, Benjamin Butterworth.
Assistant Secretary, J. H. Kingwill.
Auditor, William K. Ackerman.
Treasurer, Anthony F. Seeberger.
Traffic Manager, E. E. Jaycox.

Board of Reference and Control.

WORLD'S COLUMBIAN COMMISSION.

T. W. Palmer.	M. H. de Young.	Geo. V. Massey.	E. B. Martindale.
J. A. McKenzie.	William Lindsay.	J. W. St. Clair.	T. M. Waller.

WORLD'S COLUMBIAN EXPOSITION.

Wm. T. Baker.	Potter Palmer.	Edwin Walker.	Ferd. W. Peck.
Thos. B. Bryan.	Lyman J. Gage.	H. N. Higinbotham.	Fred. S. Winston.

Departments of the Exposition.

George R Davis, Director-General.
Department A.—Agriculture, Food and Food Products, Farming Machinery and Appliances. W. I. Buchanan, Chief.
Department B.—Horticulture. John M. Samuels, Chief.
Department C.—Live Stock—Domestic and Wild Animals. E. B. Cottrell, Chief.
Department D.—Fish, Fisheries, Fish Products and Apparatus of Fishing. J. W. Collins, Chief.
Department E.—Mines, Mining and Metallurgy. Frederick J. V. Skiff, Chief.
Department F.—Machinery. L. W. Robinson, Chief.

Department G.—Transportation Exhibits, Railways, Vessels and Vehicles. Willard A. Smith, Chief.
Department H.—Manufactures. James Allison, Chief.
Department J.—Electricity and Electrical Appliances. J P. Barrett, Chief.
Department K.—Fine Arts, Pictorial, Plastic and Decorative. Halsey C. Ives, Chief.
Department L.—Liberal Arts, Education, Engineering, Public Works, Architecture, Music and the Drama. S. H. Peabody, Chief.
Department M.—Ethnology, Archæology, Progress of Labor and Invention—Isolated and Collective Exhibits. F. W. Putnam, Chief.
Department N.—Forestry and Forest Products. Thomas B. Keogh, Chief.
Department O.—Publicity and Promotion. Moses P. Handy, Chief.
Department P.—Foreign Affairs. Walker Fearn, Chief.
Secretary of Installation, Jos. Hirst.

Bureau of Construction.

D. H. Burnham, Chief.

Board of Architects.—By recommendation of the Committee on Grounds and Buildings, approved by the Board of Directors at its meeting of January 9, 1891, the following architects were constituted a board to decide, in conference with the Chief of Construction, upon the preliminary problems in arrangement and grouping of buildings and their architecture, submitted to them.

The general arrangement and harmony of the buildings, which promise to be among the most attractive features of the Exposition, were decided upon by the Chief and staff and the Board, and the designs of the proposed buildings of the Exposition were allotted among the architects by the Chief of Construction, as follows:

Robert M. Hunt of New York, Administration.
W. L. B. Jenny, of Chicago, Horticulture.
McKim, Mead & White, of New York, Agriculture.
Adler & Sullivan, of Chicago, Transportation.
George B. Post, of New York, Manufactures.
Henry Ives Cobb, of Chicago, Fisheries.
Burling & Whitehouse, of Chicago, Casino and Entrances.
Peabody & Stearns, of Boston, Machinery.
S. S. Beaman, of Chicago, Mines and Mining.
Van Brunt & Howe, of Kansas City, Electricity.
C. B. Atwood, of Chicago, Art and Forestry.

Medical Bureau.

John E. Owens, M. D., Medical Director, Morton R. Yeager, M. D., Assistant Surgeon.
W. H. Allport, M. D., Assistant Surgeon.

The World's Congress Auxiliary of the World's Columbian Exposition.

Chas. C. Bonney, President. Lyman J. Gage, Treasurer.
Thos. B. Byran, Vice-President. Benjamin Butterworth, Secretary.

Object.—To promote the holding of appropriate conventions during the World's Columbian Exposition of 1893 for the consideration of the living questions in all the departments of human progress, and, in addition thereto, a Union Congress for each department, under the direction of the Auxiliary, in which the important results accomplished will be set forth by the most eminent representatives who can attend, thus securing freedom and independence of separate organizations, and union and harmony in presenting to the world the higher achievements of mankind, while the people who will come to the Exposition may enjoy the privilege of seeing and hearing many of the distinguished leaders whose names have become familiar to the enlightened world.

This Auxiliary has no jurisdiction over any exhibit of material things, but will deal exclusively with conventions of persons and their proceedings. The Exposition will present the progress of mankind as represented by material forms; while the Auxiliary will portray that progress with the pen and the living voice, and will endeavor to crown the whole glorious work by the formation and adoption of better and more comprehensive plans than have hitherto been pursued to secure the progress, prosperity, unity, peace and happiness of the world.

HORTICULTURAL BUILDING—Page 42.

THE PRESIDENT OF THE WORLD'S COLUMBIAN COMMISSION.—Hon. Thomas Witherell Palmer, the President of the World's Columbian Commission, was born in Detroit, Mich., June 25, 1830, being now in the prime of life. He comes from New England by descent, his father, Thomas Palmer, having been born in the town of Ashford, Windham County, Conn., in 1789. Thomas Palmer emigrated to the west, and in 1809 was carrying on a lucrative trading business in the town of Detroit, with the Indians on the frontier. The mother of the subject of our sketch was born in Rhode Island, and is a direct descendant from Roger Williams. Her father was a native of Mansfield, Mass., and served as a private at the battle of Bunker Hill. He was appointed by President Jefferson as Judge of the Territory of Michigan, and in his official capacity became acquainted with the celebrated Chief Tecumseh, for whose good qualities he had the highest appreciation. Senator Palmer has every right to feel proud of such an ancestry. He received his education at St. Clair College and the University of Michigan, graduating at the latter institution. He made with some friends a pedestrian tour through Spain. and thus became familiar with a people and country to which he was later accredited as Minister from the United States. On his return he entered into mercantile life in Wisconsin and later in Detroit, where he has since resided, securing to himself the universal good will and esteem of his fellow citizens, of both city and State. He became active in state politics, serving as a member of the Board of Estimates and also as State Senator. He was elected United States Senator from Michigan and served six years, to the great advantage of his native State and the interests of the great west. Senator Palmer was elected President of the water-ways convention held in Sault Sainte Marie, under the auspices of the Duluth Chamber of Commerce, in August, 1887, to consider the condition of affairs resulting from the increase of commerce between Lake Superior and the lower lakes, an important position, which he filled with great credit. In 1889 he received his appointment as Minister plenipotentiary and envoy extraordinary to the court of Spain.

At the first meeting of the World's Columbian Commission, held in Chicago, June 26, 1890, Hon. Thomas W. Palmer, of Michigan, was unanimously elected President. Senator Palmer has taken hold of this great enterprise with his usual energy and a conviction of success which nothing can shake and no obstacle deter.

The following extracts are taken from the eloquent address of President Palmer at the banquet given to the Columbian Commission by the States Association, on June 26, 1890, at the Palmer House, Chicago:

* * * "Education is the chief safeguard for the future, not education through books alone, but through the commingling of our people from East, West, North and South, from farm and factory. Such great convocations as that of our projected Fair are the schools wherein our people shall touch elbows, and the men and women from Maine and Texas, from Washington and South Carolina, learn to realize that all are of one blood, speak the same language, worship one God, and salute one flag.

"If we are to remain a free people, if the States are to retain their autonomy, if we are to take a common pride in the name of America, if we are to avoid the catastrophe of former years, Americans must commingle, be brought in contact and acquire that mutual sympathy that is essential in a harmonious family. Isolated, independent travel may do this, but not to any such extent as will be accomplished by gatherings like this, where millions will concentrate to consult and compare the achievements of each other and of those from across the sea. All must have observed the effect of the Centennial Exhibition in educating even what are called educated people, and in the impetus derived therefrom. It gave to all a larger outlook, it repressed egotism, quickened sympathies and set us to thinking.

"It has been well said that 'Industrial expositions are the mile stones of progress, the measure of the dimensions of the productive activity of the human race. They cultivate taste, they bring nations closer to one another, and thus promote civilization, they awaken new wants and lead to an increased demand, they contribute to a taste for art and thus encourage the genius of artists.'

"And this is civilization—process by which the citizens of each state, foreign as well as domestic, will learn their inter-dependence upon each other. Many will come from selfish motives, possibly, but the social atmosphere they will here breathe, that indefinable influence that pervades and affects people who come together in masses with a common purpose, will broaden them and teach them that discussion and not violence is the proper way to adjust differences or promote objects—and thus prepare humanity for that good time so long coming.

"The world will come to us, by its representatives if not *en masse*, and our own people should be drawn to this great school of the citizen by every device which can be imagined and afforded, while it remains for all connected with this management to see that no just expectation shall be disappointed.

"In other times there were convocations where the spirit of rivalry and comparison appeared, but in them few were invited to participate and only a limited number of spectators could afford to attend. In those tournaments muscle was of more importance than mind. Those exhibitions taught how to destroy, and not how to create. The rivalry now is in methods to create and not to destroy, and the knights who participate are those of the active brain and cunning hand, whose spectators and judges are the better behaved and better educated citizens of to-day.

"This Exposition—on a new site, in a new world—assumes greater dimensions than a market for merchandise or than figures of finance. We should make it a congress of the nations wherein agriculture, manufactures and commerce should be the handmaids of ideas—where art should paint the allegory of peace and chisel the statue of fraternity—where music should play a dirge to dead hates and an epithalamium on the marriage of the nations.

"Our country has led the advance in peaceful arbitration. The Geneva Commission, the Fisheries Commission in the settlement of difficulties already existing—the Pan-American Congress has opened the way for the peaceful settlement of questions that may arise hereafter to the people of the hemisphere. I regard these three great achievements of our capital government as more illustrious than any act of any government since our great Civil War.

"Let the Exposition be fruitful in profit, not only to the exhibitors, but to all comers, and that they shall carry away a higher conception of the duty of the citizen and the mission of the state. Our material power is very great, too great for us to act on any other plane than the highest. Our resources and capacity to meet our financial obligations are a wonder to the powers of the Old World. It should be our aim to make our moral altitude on all public questions, national or international, as unassailable as our monetary credit. Our bonds are higher in the markets of the world than any other—our opinions and acts should, relatively, hold as high a place.

"The first 400 years have passed—they have been illuminated by the heroic deeds of men and women, and shaded by crimes, national and individual. The descendants of the Puritan and the Cavalier, of the Huguenot and the Catholic, of the slave and the Indian, together with those from other continents and the isles of the sea, meet in peaceful rivalry where the forest fades away and the prairie expands.

"At last we are a nation with a common inheritance. Lexington and Yorktown, Bunker Hill and Eutaw Springs, Saratoga and Guilford Court House, New Orleans and Plattsburg are our common glory.

"We have people to the North and South who can be linked to us with hooks of steel if we continue to retain their respect and confidence. I want no forcible additions to our territory, were it practicable. I want them to come as a bride comes to her husband—in love and confidence—and because they wish to link their fortunes with ours, to make their daily walk by our side. To bring about this consummation, will be the work of time, of forbearance, of rigid observance of their rights, of due regard for their prejudices, of an unselfish desire for welfare—wherein all the amenities of life shall be cultivated. We must enforce their respect by order at our own home and show them that our composite civilization—wherein we select all that is good from abroad and retain all that is good in our own—is calculated to make them also happier and greater.

"Should this occasion, this National Exposition, promote such a purpose as if we are rightly inspired—this meeting of all peoples would be more than a financial success—more than a vain commercial triumph. It would emphasize the new era which I hope is dawning and take the initiative in what may result in the federation of this hemisphere.

THE DIRECTOR-GENERAL.—Colonel George R. Davis, unanimously selected as Director-General of the World's Fair Chicago 1893, has in every way a national reputation, having served in the councils of the nation as well as on the battlefield. He was born at Three Rivers, Palmer, Mass., in 1840, received his education first in the public schools of Ware, Mass., where his father and grandfather had lived for over 100 years, and graduated at Williston seminary, East Hampton, Mass., in 1860. At the commencement of the war, young Davis volunteered and served in the Army of the Potomac and Army of the Gulf, being promoted to the rank of Major in 1863, with command of the regiment. His services in connection with the important business of transportation were so valuable that he was placed in charge of that department, and when Gen. Sheridan changed his station from the command of the Department of the Gulf to that of the Missouri, Col. Davis proceeded with headquarters at Fort Leavenworth, Kansas, and later he moved with headquarters to Chicago. His record in the army in connection with the difficult duties of the

FISHERIES BUILDING—Page 43.

GRAND PALACE HOTEL

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Quartermaster's Department of the Army is much to his credit, as he indicated a natural aptitude for rapid and thorough organization, which has specially fitted him for his present important position. Col. Davis resigned from the service in 1871, and went into business in Chicago in connection with the financial management of some of the largest insurance companies in the United States, with great success to their several interests. In 1878 Col. Davis was elected to Congress, was re-elected in 1880 and 1882, and served in the XLVIth, XLVIIth and XLVIIIth Congresses. In the fall of 1886 he was elected Treasurer of Cook County by nearly 10,000 majority, which office he held for a term of four years. It was largely through the unremitting labors of Col. Davis that the success of the World's Fair Chicago has been so far insured, and his present position and its consequent responsibilities are fully appreciated by one whose experience and reputation are a guarantee of the most favorable results.

The President of the World's Columbian Exposition.—W. T. Baker was born at West Winfield, N. Y., in 1841. He began commercial life, when 14 years old, as a clerk in a country store in Groton, N. Y., with H. K. Clark. He was afterward for six years in the employ of D. B. Marsh & Co., of McClean, N. Y. He came to Chicago in 1861 and engaged as bookkeeper with Hinckley & Handy, commission merchants, then in the old Board of Trade building on South Water street.

On the dissolution of the firm of Hinckley & Handy, Mr. Baker continued the business. In 1868 he formed a copartnership with C. A. Knight and W. F. Cobb, under the firm name of Knight, Baker & Co., which continued until 1872, when Mr. Knight retired and the firm became W. T. Baker & Co. Immediately after the fire of 1871 the firm occupied temporary quarters in the Wigwam on the West Side, then moved to 86 LaSalle street, where it remained seven years, and removed to the Chamber of Commerce building. On the completion of the new Board of Trade building the firm removed to No. 240 LaSalle street and then to the Phœnix building, its present location.

Mr. Baker was, until recently, President of the Board of Trade, in which position he served two consecutive terms.

Mrs. Potter Palmer, President Board of Lady Managers.—On November 20, 1890, during the first session of the Board of Lady Managers of the World's Columbian Commission, Mrs. Potter Palmer, of Chicago, was unanimously elected to the presidency of that body. Mrs. Palmer's name was placed in nomination by a truly representative American woman, Mrs. John A. Logan, widow of the universally admired and lamented Gen. John A. Logan. Mrs. Potter Palmer, before her marriage, had acquired fame as the beautiful Bertha Honore. She was born in Louisville, Ky., her father being of French descent and her mother belonging to one of the oldest and most aristocratic Southern families. Her childhood and early girlhood was spent in Louisville, and there also her education was begun. According to old Southern custom, her education was finished in a convent, the one selected being that near Baltimore, Md. From the quiet of the convent Miss Honore stepped into a field of conquest. Her mental acquirements and inherited grace and refinement soon gave her an enviable position in society. In 1871 she married Potter Palmer, one of Chicago's representative and wealthy citizens, and has since then resided in Chicago. She has traveled much, and has a wide acquaintance among both the wise and fashionable people of the two continents. Her contributions to City and State charities, while large, are surpassed by the good she privately does. Mrs. Potter Palmer is well calculated to adorn and fill the office to which she has been called, and her known energy, combined with her acknowledged executive ability, presages that the Board of Lady Managers, under her guidance, will accomplish much.

CHAPTER IV.

GROUPINGS OF THE CLASSIFICATION AND RULES AND REGULATIONS.

DEPARTMENT A.—Agriculture, Food and its Accessories, Forestry and Forest Products, Machinery and Appliances.

Group 1.—Cereals, grasses and forage plants.
Group 2.—Bread, biscuits, pastes, starch, gluten, etc.
Group 3.—Sugars, syrups, confectionery, etc.
Group 4.—Potatoes, tubers and other root crops.
Group 5.—Products of the farm not otherwise classed.
Group 6.—Preserved meats and food preparations.
Group 7.—The dairy and dairy products.
Group 8.—Tea, coffee, spices, hops and aromatic and vegetable substances.
Group 9.—Animal and vegetable fibres.
Group 10.—Pure mineral waters, natural and artificial.
Group 11.—Whiskies, cider, liqueurs and alcohol.
Group 12.—Malt liquors.
Group 13.—Machinery, processes and appliances of fermenting, distilling, bottling and storing beverages.
Group 14.—Farms and farm buildings.
Group 15.—Literature and statistics of agriculture.
Group 16.—Farming tools, implements and machinery.
Group 17.—Miscellaneous animal products, fertilizers and fertilizing compounds.
Group 18.—Fats, oils, soaps, candles, etc.
Group 19.—Forestry, forest products.

DEPARTMENT B.—Horticulture, Viticulture, Pomology, Floriculture, etc.

Group 20.—Viticulture, manufactured products. Methods and appliances.
Group 21.—Pomology, manufactured products. Methods and appliances.
Group 22.—Floriculture.
Group 23.—Culinary vegetables.
Group 24.—Seeds, seed raising, testing and distribution.
Group 25.—Arboriculture.
Group 26.—Appliances, methods, etc.

DEPARTMENT C.—Live Stock, Domestic and Wild Animals.

Group 27.—Horses, asses, mules.
Group 28.—Cattle.
Group 29.—Sheep.
Group 30.—Goats, llama, camels and other domesticated animals.
Group 31.—Swine.
Group 32.—Dogs.
Group 33.—Cats, ferrets, rabbits, etc.
Group 34.—Poultry and birds.
Group 35.—Insects and insect products.
Group 36.—Wild animals.

DEPARTMENT D.—Fish, Fisheries, Fish Products and Apparatus of Fishing.

Group 37.—Fish and other forms of aquatic life.
Group 38.—Sea fishing and angling.
Group 39.—Fresh water fishing and angling.
Group 40.—Products of the fisheries and their manipulation.
Group 41.—Fish culture.

DEPARTMENT E.—Mines, Mining and Metallurgy.

Group 42.—Minerals, ores, native metals, gems and crystals. Geological specimens.
Group 43.—Mineral combustibles—coal, coke, petroleum, natural gas, etc.
Group 44.—Building stones, marbles, ornamental stones and quarrying products.
Group 45.—Grinding, abraiding and polishing substances.
Group 46.—Graphite and its products; clays and other fictile materials and their direct products. Asbestos, etc.
Group 47.—Limestone, cements and artificial stone.
Group 48.—Salts, sulphur, fertilizers, pigments, mineral waters and miscellaneous useful minerals and compounds.
Group 49.—Metallurgy of iron and steel with the products.
Group 50.—Aluminium and its alloys.
Group 51.—Copper and its alloys. Metallurgy.
Group 52.—Metallurgy of tin, tinplate, etc.
Group 53.—Metallurgy of zinc, nickel and cobalt.
Group 54.—Metallurgy of antimony and other metals not specially classed.
Group 55.—Extraction of gold and silver by milling.
Group 56.—Extraction of gold and silver by lixiviation.
Group 57.—Extraction of gold, silver and lead by fire.
Group 58.—Quarrying and working stone.
Group 59.—Placer, hydraulic and "drift" mining.
Group 60.—Tools and appliances of underground mining, timbering and supporting.
Group 61.—Boring and drilling tools and machinery and apparatus for breaking out ore and coal

MINES AND MINING BUILDING—Page 45.

J. H. HILAND
General Freight Agent

GEO. H. HEAFFORD
General Passenger and Ticket Agent

CHICAGO, ILL.

Group 62.—Pumps, engines and apparatus used in mining for pumping, draining and hoisting.
Group 63.—Moving, storing and delivering ores, coals, etc.
Group 64 —Apparatus for crushing and pulverizing.
Group 65.—Sizing appliances.
Group 66.—Assaying apparatus and fixtures.
Group 67.—History and literature of mining and metallurgy.
Group 68.—Originals or reproductions of early and notable implements and apparatus used in mining and metallurgy.

DEPARTMENT F.—Machinery.

Group 69.—Motors and apparatus for the generation and transmission of power—hydraulic and pneumatic apparatus.
Group 70.—Fire engines—apparatus and appliances for extinguishing fire.
Group 71.—Machine tools and machines for working metals.
Group 72.—Machinery for the manufacture of textile fabrics and clothing.
Group 73.—Machines for working wood.
Group 74.—Machines and apparatus for typesetting, printing, stamping, embossing and for making books and paper working.
Group 75.—Lithography, zincography and color printing.
Group 76.—Photo-mechanical and other mechanical processes of illustrating, etc.
Group 77.—Miscellaneous hand tools, machines and apparatus used in various arts.
Group 78.—Machines for working stone, clay and other minerals. (See also Department E.)
Group 79.—Machinery used in the preparation of foods, etc.

DEPARTMENT G.—Transportation—Railways, Vessels, Vehicles.

Group 80.—Railways, railway plant and equipment.
Group 81.—Street car and other short line systems.
Group 82.—Miscellaneous and special railways.
Group 83.—Vehicles and methods of transportation on common roads.
Group 84.—Aerial, pneumatic and other forms of transportation.
Group 85.—Vessels, boats; marine, lake and river transportation.
Group 86.—Naval warfare and coast defense.

DEPARTMENT H.—Manufactures.

Group 87.—Chemical and pharmaceutical products. Druggists' supplies.
Group 88.—Paints, dyes, colors and varnishes.
Group 89.—Typewriters, paper, blank books, stationery.
Group 90.—Furniture of interiors, upholstery and artistic decoration.
Group 91.—Ceramics and mosaics for clays and other materials.
Group 92.—Marble, stone and metal monuments, mausoleums, mantels, etc. Caskets, coffins and undertakers' furnishing goods.
Group 93.—Art metal work, enamels, etc.
Group 94.—Glass and glassware.
Group 95.—Stained glass in decoration.
Group 96.—Carvings in various materials.
Group 97.—Gold and silverware, plate, etc.
Group 98.—Jewelry and ornaments.
Group 99.—Horology, watches, clocks, etc.
Group 100.—Silk and silk fabrics.
Group 101.—Fabrics of jute, ramie and other vegetable and mineral fibres.
Group 102.—Yarns and woven goods of cotton, linen and other vegetable fibres.
Group 103.—Woven and felted goods of wool and mixtures of wool.
Group 104.—Clothing and costumes.
Group 105.—Furs and fur clothing.
Group 106.—Laces, embroideries, trimmings, artificial flowers, fans, etc.
Group 107.—Hair work, coiffures and accessories of the toilet.
Group 108.—Traveling equipments, valises, trunks, toilet cases, fancy leather work, canes, umbrellas, parasols, etc.
Group 109.—Rubber goods, caoutchouc, gutta percha, celluloid and zylonite.
Group 110.—Toys and fancy articles.
Group 111.—Leather and manufactures of leather.
Group 112.—Scales, weights and measures. (See also Group 151.)
Group 113.—Material of war; ordnance and ammunition. Weapons and apparatus of hunting, trapping, etc. Military and sporting small arms.
Group 114.—Lighting apparatus and appliances.
Group 115.—Heating and cooking apparatus and appliances.
Group 116.—Refrigerators, hollow metal ware, tinware, enameled ware.
Group 117.—Wire goods and screens, perforated sheets, lattice work, fencing, etc.
Group 118.—Wrought iron and thin metal exhibits.
Group 119.—Vaults, safes, hardware, edge tools, cutlery.
Group 120.—Plumbing and sanitary materials.
Group 121.—Miscellaneous articles of manufacture not heretofore classed.

DEPARTMENT J.—Electricity and Electrical Appliances.

Group 122.—Apparatus illustrating the phenomena and laws of electricity and magnetism.

Group 123.—Apparatus for electrical measurements.

Grou 124.—Electric batteries, primary and secondary.

Group 125.—Machines and appliances for producing electrical currents by mechanical power—dynamical electricity.

Group 126.—Transmission and regulation of the electrical current.

Group 127.—Electric motors.

Group 128.—Application of electric motors.

Group 129.—Lighting by electricity.

Group 130.—Heating by electricity.

Group 131.—Electro-metallurgy and electro-chemistry.

Group 132.—Electric forging, welding, stamping, tempering, brazing, etc.

Group 133.—Electric telegraph and electric signals.

Group 134.—The telephone and its appliances. Phonographs.

Group 135.—Electricity in surgery, dentistry and therapeutics.

Group 136.—Application of electricity in various ways not hereinbefore specified.

Group 137.—History and statistics of electrical invention.

Group 138.—Progress and development in electrical science and construction, as illustrated by models and drawings of various countries.

DEPARTMENT K.—Fine Arts. Painting, Sculpture, Architecture and Decoration.

Group 139.—Sculpture.

Group 140.—Paintings in oil.

Group 141.—Paintings in water colors.

Group 142.—Paintings on ivory, enamel, metal, porcelain or other wares; fresco painting on walls.

Group 143.—Engravings and etchings; prints.

Group 144.—Chalk, charcoal, pastel and other drawings.

Group 145.—Antique and modern carvings, engravings in medallions or in gems; cameos, intaglios.

Group 146.—Exhibits of private collections.

DEPARTMENT L.—Liberal Arts. Education, Literature, Engineering, Public Works, Music and the Drama.

Group 147.—Physical development, training and condition; hygiene.

Group 148.—Instruments and apparatus of medicine, surgery and prosthesis.

Group 149.—Primary, secondary and superior education.

Group 150.—Literature, books, libraries, journalism.

Group 151.—Instruments of precision, experiment, research and photography; photographs.

Group 152.—Civil engineering, public works, constructive architecture.

Group 153.—Government and law.

Group 154.—Commerce, trade and banking.

Group 155.—Institutions and organizations for the increase and diffusion of knowledge.

Group 156.—Social, industrial and co-operative associations.

Group 157.—Religious organizations and systems, statistics and publications.

Group 158.—Music and musical instruments; the theatre.

DEPARTMENT M.—Ethnology, Archæology, Progress of Labor and Invention.

Group 159.—Views, plans or models of prehistoric architectural monuments and habitations.

Group 160.—Furniture and clothing of aboriginal, uncivilized and but partly civilized races.

Group 161.—Implements of war and the chase. (See also Groups 86 and 113.)

Group 162.—Tools and implements of industrial operations.

Group 163.—Athletic exercises, games.

Group 164.—Objects of spiritual significance and veneration, representations of deities, appliances of worship.

Group 165.—Historic archæology, objects illustrating the progress of nations.

Group 166.—Models and representations of ancient vessels, particularly of the period of the discovery of America.

Group 167.—Reproductions of ancient maps, charts and apparatus of navigation.

Group 168.—Models and representations of ancient buildings, cities or monuments of the historic period anterior to the discovery of America.

Group 169.—Models and representations of habitations and dwellings built since the discovery of America.

Group 170.—Originals, copies, models or graphic representations of notable inventions.

Group 171.—Objects illustrating generally the progress of the amelioration of the conditions of life and labor.

Group 172.—Woman's work.

Group 173.—State, national and foreign government exhibits.

Group 174.—The North American Indian.

Group 175.—Portraits, busts and statues of great inventors and others who have contributed largely to the progress of civilization and the well being of man.

Group 176.—Isolated and collective exhibits.

MACHINERY BUILDING—Page 46.

W. H. EMERY, President
W. H. PREBLE, Sec'y and Treas.
A. B. SPURLING, Vice-President

Established 1878
Incorporated 1879

THE ONLY MANUFCTURERS OF RAWHIDE BELTING IN THE COUNTRY

The Chicago Rawhide Mfg. Company

MANUFACTURERS OF

RAWHIDE BELTING, LACE LEATHER, ROPE

Lariats, Fly-Nets, Picker Leather, Stock and Farm Whips, Washers, Hame Straps, Halters and other Rawhide Goods of all Kinds, by Krueger's Patent, Rawhide Pinions and Mabb Rawhide Hydraulic Packing a specialty

This Belting and Lace Leather is not affected by steam or dampness; has more grip than any other; never becomes hard; is stronger, more durable and the most economical Belting made. Especially adapted for the Southern trade on account of its resistance to moisture. The Rawhide Rope for Round Belting Transmission is **SUPERIOR TO ALL OTHERS.**

NOS. 73 AND 75 OHIO STREET, CHICAGO

Sprague, Smith & Co.

WHOLESALE DEALERS IN

POLISHED PLATE GLASS
WINDOW GLASS OF ALL KINDS
ROUGH AND RIBBED GLASS
FOR SKY-LIGHTS
CUT, ENAMELED
AND COLORED GLASS
FRENCH PLATE
AND GERMAN MIRRORS

207-209
RANDOLPH ST.

CHICAGO

John Alston
President

Alexander Squair
Sec'y and Treas.

ESTABLISHED 1848

The Alston Mfg. Co.

CHICAGO

Importers and Manufacturers of

Colors and Paints

GROUND IN OIL, IN JAPAN AND IN VARNISH

Chemically Pure Ready-Mixed Paints, Dipping Paints and Primers, all Shades

PAINT FACTORY
COLOR WORKS AND
LINSEED OIL MILL

WADE, CURRIER AND CRITTENDEN STS.

And Wis. Div. N. W. R'y.

General Rules and Regulations.

Rule 1. Exhibitors will not be charged for space. A limited amount of power will be supplied gratuitously. This amount will be settled definitely at the time space is allotted. Power in excess of that allowed will be furnished by the Exposition at a fixed price. Demands for such excess must be made before the allotment of space.

Rule 2. Any single piece, or section, of any exhibit of greater weight than 30,000 pounds will not be accepted if machinery is required for its installation.

Rule 3. Exhibitors must provide, at their own expense, all show-cases, cabinets, shelving, counters, fittings, etc., which they may require, and all countershafts, pulleys, belting, etc., for the transmission of power from the main shafts.

Rule 4. Exhibitors will be confined to such exhibits as are specified in their application. When the allotment of space is definitely made, exhibitors will be notified of their allotment of space and its location, and will be furnished with a permit to occupy such space, subject to the general rules and regulations adopted for the government of the Exposition and the special rules governing the Department in which their exhibit will be made.

Rule 5. Special rules will be issued governing each Department and the sale of articles within the buildings or on the grounds.

Rule 6. Decorations, signs, dimensions of cabinets, shelving, counters, etc., and the arrangement of the exhibits must conform to the general plan adopted by the Director-General.

Rule 7. Reasonable precautions will be taken for the preservation of exhibits, but the World's Columbian Exposition will not be responsible for any damage to, or for the loss or destruction of, an exhibit, resulting from any cause.

Rule 8.—All packages containing exhibits intended for the several Departments must be addressed to the "Director-General, World's Columbian Exposition, Chicago, Illinois, U. S. A." In addition, the following information must be written on the outside of each package:

(*a.*) Department in which exhibit is to be installed.
(*b.*) The State or Territory from which the package comes.
(*c.*) The name and address of the exhibitor.
(*d.*) The number of the permit for space.
(*e.*) Total number of packages sent by the same exhibitor. The serial number must be marked on each package and a list of the contents enclosed in each package. Freight must be prepaid.

Rule 9. Favorable terms will be arranged by which exhibitors may insure their own goods. Exhibitors may employ watchmen of their own choice to guard their goods during the hours the Exposition is open to the public. Such watchmen will be subject to the rules and regulations governing employes of the Exposition.

Rule 10. The expense of transporting, receiving, unpacking and arranging exhibits, as well as their removal at the close of the Exposition, shall be paid by the exhibitor.

Rule 11. If no authorized person is at hand to take charge of exhibits within a reasonable time after arrival at the Exposition buildings, they will be removed and stored at the cost and risk of whomsoever it may concern.

Rule 12. The installation of heavy articles requiring foundations should, by special arrangement, begin as soon as the progress of the work on the buildings will permit. The general reception of articles at the Exposition buildings will commence November 1st, 1892, and no article will be admitted after April 10th, 1893. Space not taken possession of April 1st, 1893, will revert to the Director-General for re-assignment.

Rule 13. If exhibits are intended for competition it must be so stated by the exhibitor, or they will be excluded from examination for award.

Rule 14. The Chief of each Department will provide cards of uniform size and character, which may be affixed to exhibits, and on which will be stated only the exhibitor's name and address, the name of the object or article exhibited, and its catalogue number.

Rule 15. Articles that are in any way dangerous or offensive, also patent medicines, nostrums and empirical preparations whose ingredients are concealed, will not be admitted to the Exposition.

Rule 16. Exhibitors' business cards and brief descriptive circulars only may be placed within such exhibitors' space for distribution. The right is reserved by the Director-General to restrict or discontinue this privilege whenever, in his judgment, it is carried to excess or becomes an annoyance to visitors.

Rule 17. The Chief of each Department, with the approval of the Director-General, has the power to order the removal of any article he may consider dangerous, detrimental to, or incompatible with the object or decorum of the Exposition, or the comfort and safety of the public.

Rule 18. Exhibitors will be held responsible for the cleanliness of their exhibits and the space surrounding the same. All exhibits must be in complete order each day, at least thirty minutes before the hour of opening. No work of this character will be permitted

during the hours the building is open to the public. In case of failure on the part of any exhibitor to observe this rule, the Chief of the Department may adopt such means to enforce the same as circumstances may suggest.

RULE 19. The removal of exhibits will not be permitted prior to the close of the Exposition.

RULE 20. Sketches, drawings, photographs or other reproductions of articles to be exhibited, will only be allowed upon the joint assent of the exhibitor and Director-General; but general views of portions of the interiors of the buildings may be made by the approval of the Director-General.

RULE 21. Immediately after the close of the Exposition, exhibitors must remove their effects, and complete such removal before January 1st, 1894. Goods then remaining will be removed and disposed of under the direction of the World's Columbian Exposition.

RULE 22. An official catalogue will be published in English, French, German and Spanish. The sale of catalogues is reserved exclusively by the Exposition Company.

RULE 23. Each person who becomes an exhibitor thereby agrees to conform strictly to the Rules and Regulations established for the government of the Exposition.

RULE 24. Communications concerning the Exposition, applications for space, and negotiations relative thereto, should be addressed to the "Director-General, World's Columbian Exposition, Chicago, Illinois, U. S. A."

RULE 25. The management reserves the right to construe, amend, or add to, all Rules and Regulations, whenever it may be deemed necessary for the interest of the Exposition.

GEORGE R. DAVIS, *Director-General.*

General Regulations for Foreign Exhibitors.

1. The Exhibition will be held on the shore of Lake Michigan, in the City of Chicago, and will be opened on the 1st day of May, 1893, and closed on the 30th day of October following.

2. All governments have been invited to appoint Commissions for the purpose of organizing their departments of the Exhibition. The Director-General should be notified of the appointment of such foreign Commissions as soon as the appointment is made.

Diagrams of the buildings and grounds will be furnished to the foreign Commissions on or before January 1, 1892, indicating the localities to be occupied by each nation, subject, however, to revision and readjustment.

3. Applications for space and negotiations relative thereto must be conducted with the Commission of the country where the article is produced.

4. Foreign Commissions are requested to notify the Director-General not later than June 1, 1892, whether they desire any increase or diminution of the space offered them, and the amount.

5. Before November 1, 1892, the foreign Commissions must furnish the Director-General with approximate plans showing the manner of allotting the space assigned to them, and also with lists of their exhibitors and other information necessary for the preparation of the official catalogue.

Products brought into the United States at the ports of Portland, Maine, Boston, New York, Philadelphia, Baltimore, Tampa, New Orleans, San Francisco, Wilmington, Portland, Oregon, Port Townsend, Wash., Seattle, Wash., Tacoma, Wash., and Chicago, Ill., or at any other port of entry intended for display at the International Exhibition, will be allowed to go forward to the Exhibition building, under proper supervision of customs officers, without examination at such ports of original entry, and at the close of the Exhibition will be allowed to go forward to the port from which they are to be exported. No duties will be levied upon such goods, unless entered for consumption in the United States.

6. The transportation, receiving, unpacking and arranging of the products for exhibition will be at the expense of the exhibitor.

7. The installation of heavy articles requiring special foundations or adjustment should, by special arrangement, begin as soon as the progress of the work upon the buildings will permit. The general reception of articles at the Exhibition buildings will commence on November 1, 1892, and no article will be admitted after April 10, 1893.

8. Space assigned to foreign Commissions and not occupied on the 10th day of April, 1893, will revert to the Director-General for readjustment.

9. If products are intended for competition it must be so stated by the exhibitor; if not, they will be excluded from the examination by the international juries.

10. An Official Catalogue will be published in English, French, German and Spanish. The sale of catalogues is reserved to the World's Columbian Exposition.

The twelve departments of the classification which will determine the relative location of articles in the Exhibition—except in such collective exhibits as may receive special sanction—also the arrangement of names in the catalogue, are as follows:

A. Agriculture, Forest Products, Forestry, Machinery and Appliances.

B. Viticulture, Horticulture, Floriculture.

C. Live Stock: Domestic and Wild Animals.
D. Fish, Fisheries, Fish Products and Apparatus for Fishing.
E. Mines, Mining and Metallurgy.
F. Machinery.
G. Transportation: Railways, Vessels, Vehicles.
H. Manufactures.
J. Electricity.
K. Fine Arts: Pictorial, Plastic and Decorative.
L. Liberal Arts: Education, Engineering, Public Works, Architecture, Music and the Drama.
M. Ethnology, Archæology, Progress of Labor and Invention, Isolated and Collective Exhibits.

11. Foreign Commissions may publish catalogues of their respective sections.

12. Exhibitors will not be charged for space.

A limited quantity of steam and water power will be supplied gratuitously. The quantity of each will be settled definitely at the time of the allotment of space. Any power required by the exhibitor in excess of that allowed will be furnished by the World's Columbian Exposition at a fixed price. Demands for such excess of power must also be settled at the time of the allotment of space.

13. Exhibitors must provide at their own cost all show cases, shelving, counters, fittings, etc., which they may require, and all countershafts, with their pulleys, belting, etc., for the transmission of power from the main shafts in the building where the exhibit is located. All arrangements of articles and decorations must be in conformity with the general plan adopted by the Director-General.

The World's Columbian Exposition will take precautions for the safe preservation of all objects in the Exhibition; but it will in no way be responsible for damage or loss of any kind, or for accidents by fire or otherwise, however originating.

14. Favorable facilities will be arranged by which exhibitors or foreign Commissions may insure their own goods.

Foreign Commissions may employ watchmen of their own choice to guard their goods during the hours the Exhibition is open to the public, subject to the rules and regulations of the Exposition.

15. Foreign Commissions, or such agents as they may designate, shall be responsible for the receiving, unpacking and arrangement of objects, as well as for the removal at the close of the Exposition; but no person shall be permitted to act as such agent until he can give to the Director-General written evidence of his having been approved by the proper Commission.

16. Each package must be addressed "To the Commission (name of country) at the World's Columbian Exposition, Chicago, United States of America," and should have at least two labels affixed to different but not opposite sides of each case, and give the following information:

17. (1) The country from which it comes; (2) Name of firm of the exhibitor; (3) Residence of the exhibitor; (4)Department to which objects belong; (5) Total number of packages sent by that exhibitor; (6) Serial number of that particular package.

18. Within each package should be a list of all objects.

19. If no authorized person is at hand to receive goods on their arrival at the Exposition buildings, they will be removed without delay and stored at the risk and cost of whomsoever it may concern.

20. Articles that are in any way dangerous or offensive, also patent nostrums and empirical preparations, whose ingredients are concealed, will not be admitted.

21. The removal of goods on exhibition will not be permitted prior to the close of the Exhibition.

22. Sketches, drawings, photographs, or other reproductions of articles exhibited will only be allowed upon the joint assent of the exhibitor and Director-General; but views of portions of the building may be made upon the Director-General's sanction.

23. Immediately after the close of the Exhibition exhibitors shall remove their effects, and complete such removal before January 1, 1894; goods then remaining will be removed and sold for expenses, or otherwise disposed of under the direction of the World's Columbian Exposition.

24. Each person who becomes an exhibitor thereby acknowledges and agrees to be governed by the rules and regulations established for the government of the Exhibition.

Special regulations will be issued concerning the exhibition of fine arts, awards, the organization of the international juries, and sale of special articles within the buildings, and on other points not touched upon in these preliminary instructions.

25. All communications concerning the Exhibition will be addressed to the Director-General, World's Columbian Exposition, Chicago, Illinois, U. S. A.

The management reserves the right to explain or amend these regulations whenever it may be deemed necessary for the interest of the Exhibition.

GEORGE R. DAVIS, *Director-General.*

Regulations Governing the Free Importation of Articles for Exhibition.

Treasury, Department,
Office of the Secretary,

Washington, D. C., November 5, 1891.

On April 25, 1890, the President of the United States approved an act passed by the Congress, providing for celebrating the four hundredth anniversary of the discovery of America by Columbus, which act contains the following preamble:

"Whereas it is fit and appropriate that the four hundredth anniversary of the discovery of America be commemorated by an exhibition of the resources of the United States of America, their development, and of the progress of civilization in the new world; and

"Whereas such an exhibition should be of a national and international character, so that not only the people of our Union and this continent, but those of all nations as well, can participate, and should therefore have the sanction of the Congress of the United States."

And Section 11 of said act is as follows:

"That all articles which shall be imported from foreign countries for the sole purpose of exhibition at said Exposition upon which there shall be a tariff or customs duty, shall be admitted free of payment of duty, customs fees, or charges under such regulations as the Secretary of the Treasury shall prescribe; but it shall be lawful at any time during the exhibition to sell for delivery at the close of the Exposition any goods or property imported for and actually on exhibition in the Exposition buildings or on its grounds, subject to such regulations for the security of the revenue and for the collection of the import duties as the Secretary of the Treasury shall prescribe: *Provided*, That all such articles when sold or withdrawn for consumption in the United States shall be subject to the duty, if any, imposed upon such articles by the revenue laws in force at the date of importation, and all penalties prescribed by law shall be applied and enforced against such articles and against the persons who may be guilty of any illegal sale or withdrawal."

Under the authority conferred upon him by the above section and by previous statutes of the United States, the Secretary of the Treasury prescribes the following regulations, viz.:

1. It is the purpose of this Department to secure expedition and security to all articles imported for exhibition at the Chicago Exposition, without the exaction of custom duties, fees, or charges, and to arrange the proceedings on entry so as to afford the utmost convenience and dispatch.

2. In order to obtain the benefits of this arrangement, every package destined for the Exposition should have affixed to it by the foreign shipper one or more labels representing the flag of the country to which it belongs. This label should be about 8 by 12 inches in size, and should bear across the face, in plain black letters, the inscription "Exposition at Chicago."

All packages should be plainly marked, as follows:

(1) "Collector of Customs, Chicago."

(2) "Exhibits for Columbian Exposition."

(3) Name of consignee or agent at the port of first arrival in the United States.

(4) The shipping marks and numbers of the exhibitor.

(5) Name and address of the exhibitor.

3. Every foreign exhibitor will prepare, in duplicate, a statement in the form of an invoice, which shall show the name of the exhibitor, the marks and numbers of the packages, with a description of their contents and a declaration of the quantity and the market value of each separate kind thereof in the country of production. This statement must be signed by the exhibitor, but will require no further verification. One of the invoices will be transmitted by mail to the Collector of Customs at Chicago, and the other to the consignee of goods at the port of first arrival.

4. As a matter of convenience, it is recommended that all packages intended for the Exposition shall be consigned to an agent or forwarder or commissioner, at the port of first arrival, who will attend to customs business incident to the transfer of packages from the importing vessel to a bonded route for transportation to Chicago.

All the bonded transportation lines will discharge their freight at stations in Chicago to be arranged within the Exposition grounds, and packages marked as suggested in Article 2 may be taken to their respective divisions as soon as they have been identified by the customs officers.

5. The following list of companies, bonded for the transportation of merchandise to Chicago, without appraisement, is furnished for the information of parties whom it may concern:

From Portland, Me.—Grand Trunk Railway Company, of Canada; American Express Company.

From Boston, Mass.—Central Vermont Railroad Company; American Express Company; New York and New England Railroad Company; the Fitchburg Railroad Company; Merchants' Despatch Transportation Company; Boston and Maine Railroad Company.

MANUFACTURES AND LIBERAL ARTS BUILDING—Page 48.

Rappleye Plating & Mfg. Co.

16 CUSTOM HOUSE PLACE,

CHICAGO, ILL.

Electro-Platers of Architectural Iron Work

ALSO OF

GOLD, SILVER, COPPER, BRASS, BRONZE AND NICKEL.

All the Imported Finishes on Metal in Art, and any other Finishes known to Metal.

CORNELIUS CURTIS,

WHOLESALE

SASH, DOORS, BLINDS

Mouldings, Stair Work, Etc.

FIRST-CLASS goods and PROMPT shipments.
Estimates and Price Lists furnished on application.
Correspondence Solicited.

W. TWENTY-SECOND AND FISK STS.

CHICAGO.

THE

••BYRKIT-HALL

Sheathing Lath

The most **practical** and **common sense lath** made. Gives benefits and advantages not to be had with any other lath. Makes every house **warmer, stronger** and **dryer.** Is much **cheaper** and **better** than wire or metal lath; used for **exterior** as well as **interior** work, and it gives the very best foundation for Adamant, Acme or Portland Cement or any hard plaster.

Endorsed by the leading architects and builders, and has been used in thousands of buildings all over the country. Can be supplied by all lumber dealers.

Be Sure and see our exhibit at the World's Columbian Exposition.

Send for circulars, samples and prices.

The Byrkit-Hall Sheathing Lath Co.

230-236 LA SALLE STREET,

CHICAGO, ILL.

A. F. FISHER & CO.

LUMBER

LATH

SHINGLES • PICKETS

MOULDINGS

CORRESPONDENCE INVITED.
SEND FOR DELIVERED LIST.

To reach our Yard take State street Cable and transfer to 35th street Horse Car.

35TH & IRON STS., CHICAGO.

From New York, N. Y.—Pennsylvania Company; American Express Company; Pennsylvania Railroad Company; New York, West Shore and Buffalo Railroad Company; Michigan Central Railroad Company; Merchants' Despatch Transportation Company; New York, Lake Erie and Western Railroad Company; Central Vermont Railroad Company; Chesapeake and Ohio Railroad Company; Baltimore and Ohio Railroad Company; Wells, Fargo & Co.; Lehigh Valley Railroad Company; West Shore Railroad Company; Delaware, Lackawanna and Western Railroad Company; United States Express Company.

From Philadelphia, Pa.—Pennsylvania Company; Pennsylvania Railroad Company; Delaware, Lackawanna and Western Railroad Company; Merchants' Despatch Transportation Company; Baltimore and Ohio Railroad Company.

From Baltimore, Md.—Baltimore and Ohio Company; Northern Central Railway Company.

From Norfolk, Va.—Norfolk and Western Railroad Company.

From Newport News, Va.—Chesapeake and Ohio Railway Company.

From Key West, Fla.—Plant Investment Company.

From Mobile, Ala.—Mobile and Ohio Railroad Company.

From New Orleans, La.—Morgan's Louisiana and Texas Railroad and Steamship Company; St. Louis, Iron Mountain and Southern Railway Company; Illinois Central Railroad Company; Louisville, New Orleans and Texas Railway Company; Texas and Pacific Railway Company; Southern Pacific Company; Mobile and Ohio Railroad Company.

From Galveston, Tex.—St. Louis, Iron Mountain and Southern Railway Company; Southern Pacific Company.

From San Francisco, Cal.—The Central Pacific Railroad Company; Southern Pacific Company; Wells, Fargo & Co.

From Port Townsend, Wash.—Northern Pacific Railroad Company.

From Portland, Oregon.—Northern Pacific Railroad Company; Oregon Short and Utah Northern Railway Company.

From Port Huron, Mich.—Chicago and Grand Trunk Railway Company.

From Detroit, Mich.—Michigan Central Railroad Company; Lake Shore and Michigan Southern Railway Company; Wabash Railroad Company.

6. The consignee of the merchandise at the first port of arrival must present at the customs-house the invoice above described with a bill of lading and an entry in duplicate made out upon the special form to be provided for this purpose by the Treasury Department, which shall show the name of the foreign shipper or owner, the name of the importing vessel, the marks and numbers of the packages, with a statement of the nature of their contents and of their foreign value, as declared in the invoice. The entry must also indicate the bonded route by which the goods are to be transported to Chicago, and must be signed by the consignee. No other declaration will be required. The goods will be consigned, on the customs entry, to "Collector of Customs, Chicago," and there need be no computation of duties upon this entry, but the amount charged against the bond of the transportation company shall be double the invoice value.

7. The collector will thereupon issue a special permit bearing the words "Chicago Exposition," authorizing the transfer of the goods from the ship to the bonded railroad for transportation to Chicago, and will record and file one of the entries in his office and send the other by mail, with the invoice, to the Collector at Chicago.

8. The permit will be taken by the agent or consignee to the inspector on board the importing vessel, who will thereupon send the goods, by a cartman duly licensed, to be delivered under the supervision of a customs officer to the transportation company.

9. The consignee will also prepare a manifest of the goods, which, after being duly certified, will be handed to the conductor of the car carrying the same, and a duplicate copy must be sent by mail to the Collector of Customs at Chicago. Upon arrival at Chicago of any car containing such articles, the conductor or agent of the railroad company will report such arrival by the presentation of the manifest to the customs officers designated to receive it, who shall compare the same with the copy received by mail, and superintend the opening of the car, taking care to identify the packages by marks and numbers as described in the manifests. In case of the non-receipt of the manifests, the unlading of cars need not, for that reason, be delayed, but the invoice may be used to identify the packages.

10. Articles sent by foreign governments to the Exposition, which are used solely for government purposes and are not intended for sale, will be admitted to entry at the exterior port of arrival on certificates of the proper foreign Commissioner, without the production of invoice. But it is desired that the estimated value of each package shall be stated on the certificate or the bill of lading, in order that the pecuniary responsibility of the transportation company may be fixed.

11. These regulations will also apply to goods sent to the Exposition from foreign contiguous territory. All articles destined for the Exposition arriving from Canada on through cars under consular seal, and articles which are sent direct by vessel from any foreign port to Chicago, must be consigned by the foreign shipper to the "Collector of Customs" at that port, and on entry being made, as in the case of goods arriving at the seaboard, a permit will be issued for the transfer of the goods directly to the Exposition grounds.

12. The buildings and spaces set apart for the purposes of the Exposition are constituted "constructive bonded warehouses and yards," and all foreign articles placed therein under the supervision of the customs officers, and which have been specially imported for exhibition therein, will be treated the same as merchandise in bond. No warehouse entry will be required at Chicago in order to obtain entrance for such goods, but the latter will be kept under customs supervision, in accordance with the general regulations governing merchandise in bonded warehouses, except as herein otherwise provided for. The Collector at Chicago will keep a special record, in the form of a warehouse ledger, of every invoice, assigning serial numbers to the same in order of their reception, and the transportation entry received from the collector at the port of arrival will be considered the warehouse entry.

13. After the packages have been placed in the respective positions assigned to them by the officers of the Exposition, they will be opened by an officer of the customs, who shall primarily identify the contents with the invoice only as to quantity and character. Due examination of the contents and appraisement of values will be subsequently made by the appraiser, who shall be furnished with the invoice of the articles to be appraised, and shall indorse his report of appraisement upon such invoice in like manner as if such articles were regularly entered for consumption or warehouse. The entry will then be liquidated, the full amount of duties ascertained, and the whole transaction entered upon the prescribed record. All the proceedings relating to the examination, appraisement and liquidation shall be the same as on ordinary importations.

14. As, under the United States tariff, the cost of packages is made a part of the dutiable value of imported goods, the empty boxes, barrels and casks from which imported articles have been taken in order to be displayed should be carefully preserved so as to be repacked for exportation at the close of the Exposition. Dutiable packing cases not exported will be subject to the payment of duty. It is expected that a place will be provided for the storage of such empty packages, and the latter should be recorded and numbered for identification.

15. Packages containing articles imported for gratuitous distribution, or for actual use and consumption in restaurants, refreshment rooms, etc., must be regularly entered for consumption and duty paid thereon before being delivered by the customs officers.

16. The articles after having been received in the Exposition will remain under the custody of the customs officers, and must not be removed from the place assigned without a permit from the Collector of Customs or the officer who may be designated by him to grant such permit. In no case shall such articles be released from the custody of the customs officers, unless the same shall have been regularly withdrawn for consumption, for warehouse or for export.

The requisite number of customs inspectors will be stationed at every place containing foreign exhibits, each of whom will be placed in charge of a section, which shall be numbered and designated as a customs divisions.

A list of the articles entered for exhibit in his section will be furnished to each of such inspectors, who shall retain a copy thereof, certify the original and transmit it to the collector.

17. Sales may be made, during the Exposition, of articles imported for exhibition, but deliveries of the same will be allowed only at the close of the Exposition. For this purpose a regular withdrawal as from bond will be required, and duty must be paid according to law. In case the articles are sold for delivery at some port other than Chicago, a withdrawal may be made for transportation and re-warehouse, duty to be paid at the place of destination. Any exhibitor of articles which shall be sold may authorize withdrawal of same by the purchaser, such authority to be contained in a written notice to the Collector at Chicago. After the filing of such notice the person specified in the same shall be recognized as entitled to all the rights and subject to all the liabilities of the original importer.

18. Withdrawal from bond cannot be made for less than one entire package, but in case of accidental damage or destruction it is not intended to assess duties upon such articles as shall not have entered into actual consumption in this country. On articles which shall have suffered diminution or deterioration from incidental handling and necessary exposure, the duty, if paid, will be assessed according to the appraised value at the time of withdrawal for consumption.

19. At the close of the Exposition all goods intended for exportation will be transported in bond to the seaboard or exterior port and exported therefrom under the general regulations for immediate export in bond, as modified by special regulations to be in due time provided.

20. Any exhibitor who may import merchandise in excess of that which he desires to place on view in the Exposition may make regular warehouse entry of the same on its arrival at Chicago, whereupon it shall be taken to a United States bonded warehouse and stored without payment of duty, subject to the regulations provided for bonded goods.

Withdrawals of merchandise stored under these conditions, if made for the purpose of placing the same within the Exposition, will be treated under the provisions for entry on

LAKE FRONT PARK.

arrival at first port of entry and no duty will be required to be paid. Such merchandise must be delivered at the Exposition in charge of a customs officer.

Should any merchandise be abandoned by the owner at the close of the Exposition, it will be placed in a general-order warehouse for twelve months, and, if then unclaimed, will be sold for account of the owner.

21. The privileges granted by virtue of these regulations are intended solely for the benefit of exhibitors at the World's Columbian Exposition, and with the view of relieving them, so far as practicable, of delays and vexations in connection with the customs business pertaining to their importations.

Any attempt to take advantage of these regulations in order to evade the tariff laws of the United States will subject the offender to all the penalties prescribed by those laws, including confiscation of goods and fine and imprisonment.

22. The regulations issued by this department on January 7, 1891, are hereby revoked, and the foregoing adopted in lieu thereof.

CHARLES FOSTER,
Secretary.

FINE ARTS.—The Fine Art Works will be arranged in a building erected especially for the purpose. The structure will be of modern style, and built with stone, iron, brick and glass, being thoroughly fire-proof, and adapted in every respect to all the requirements of this department. The interior arrangements will be designed with a view of affording unusual and superior facilities for the proper display and safety of all works of Art.

GENERAL REGULATIONS.

FIRST. The Exposition will be opened on the 1st day of May, 1893, and closed on the 30th day of October following.

SECOND. Works of Art will be admitted for exhibition, whether previously exhibited or not.

THIRD.—No charge will be made for space.

FOURTH.—All works of Art must be of the highest order of merit, and whether produced by citizens of the United States, or works of foreign artists, belonging to residents of the United States, will be admitted on the approval of the Committee of Selection.

FIFTH. The installation of the works of Art admitted to the Exposition will be under the supervision of the Chief of the Department of Fine Arts, and such assistant as he may appoint.

SIXTH. Packages forwarded by exhibitors in the United States for admission to this department must be marked "Art Department, World's Columbian Exposition, Chicago." There must also be attached to the outside and inside of each package a label giving the name and address of the exhibitor, and the title and number of articles in the package. Cases containing pictures should have the name and address of the exhibitor on the outside and inside of the cover; also on the inside of the case, the number of pictures, and title of each. On the back of each picture and frame there should be attached a label, giving the name of the artist, the title and the name and address of the exhibitor.

SEVENTH. All pictures, round or oval, should be placed in square frames. Excessive breadths in frames or projecting mouldings should be avoided. Shadow boxes will not be allowed to project more than one inch beyond the frame. Glass over oil-paintings will only be allowed by special permission.

EIGHTH.—Works of Art intended for sale will be so designated in the Official Catalogue.

NINTH. Works intended for competition must be so stated by the exhibitor, or they will be excluded from the examination by the jury.

TENTH. All works of Art must be in Chicago prior to March 1, 1893, and after having been admitted under the rules, cannot be removed before the close of the exhibition. Applicants will be notified of the time and place to present their work to the Committee on Selection for examination.

ELEVENTH. Each person presenting works of Art for admission thereby agrees to comply with the special rules established for this department and the general rules for the government of the Exposition.

GEO. R. DAVIS,
Director-General.

RULES AND REGULATIONS GOVERNING STATE EXHIBITS.

Rules and Regulations adopted by the Board of Reference and Control of the World's Columbian Commission and the Board of Directors of the World's Columbian Exposition, for the establishment and maintenance of separate State exhibits.

FIRST. All exhibits intended to be competitive and within the jurisdiction of juries or committees authorized to award prizes must be located in some one of the general Exposition buildings, and be grouped according to the official classification, except such exhibits as can only be properly and advantageously displayed in the grounds; provided, however,

that this exception shall only operate in those cases where, in the judgment of the Director-General, he shall deem it expedient to grant the express permission.

SECOND. Each of the States of the Union, the Territories and the District of Columbia, shall be entitled to erect and maintain on the Exposition grounds, a building for the use of State, Territory, or District of Columbia (or two or more States or Territories, if so desired, may erect and maintain a building in common), and each State or Territory desiring to erect such a building (or two or more proposing to erect a building to be used in common), shall, through their official representatives or their State World's Fair Boards, file with the Director-General an application, in writing, for ground space for such building, and, as soon as possible, give a general description of the character and style of the building proposed to be erected, and the sum of money appropriated for the construction thereof; and after the ground space shall have been allotted, as hereinafter provided, and before any occupation thereof, there shall be filed with the Chief of the Bureau of Construction detailed plans and specifications for each such proposed building, and when such plans and specifications shall have been approved by the Chief of the Bureau of Construction and by the Director-General, a permit to erect the building shall be issued by the last-named officer.

THIRD. That, preparatory to the assignment of ground space for State buildings, the Director-General, after conference with, and the concurrence of, the Grounds and Buildings Committee of the Exposition, shall cause the States and Territories of the Union to be grouped in such manner as shall appear most likely to produce the best results to the Exposition as a whole, and shall allot suitable ground space to each of such groups; and after such allotment shall be made, the space in each allotment shall be again properly subdivided so as to provide suitable independent location for each such State or Territory (or any two or more of them desiring a location in common), and the location of each individual State or Territory (or any two or more of them desiring a location in common), within the territorial space assigned to that group wherein they are included, shall be determined in the order of their application; subject, however, to harmony of grouping of buildings, which shall be determined by the Chief of the Bureau of Construction and Director-General.

FOURTH. That correct plans and specifications for every State building, as approved by the Chief of the Bureau of Construction and the Director-General, shall, before the issuance of the permit, be filed in the office of the Director-General and Chief of the Bureau of Construction, and be preserved as a record of the Exposition.

FIFTH. That, in the construction of said State buildings, each State or Territory may use such material or materials produced in such State or Territory as the State Board shall determine, with a view of promoting a full exhibition of the structural materials produced in such State or Territory.

SIXTH. Such State buildings shall be maintained as a State or Territorial headquarters, under the control of the State Board, but subject to the rules and regulations governing the Exposition, for the convenience and entertainment of residents of the particular State or Territory, and the reception and entertainment of their friends and such guests as they may invite to share the hospitality of such State or Territory; and shall also, if desired by the State or Territory, be used as a depository for a collective exhibit of such a line as shall best illustrate and exemplify the natural resources of such State, as well as its historical and archæological features. Each such collective State exhibit shall, however, be installed and maintained only subject to the following conditions, limitations and restrictions, to-wit:

(A.) These exhibits shall not be catalogued, nor considered as competitive, or at all entitled to participate in prizes or awards, nor be within the jurisdiction of the committees or juries of award.

(B.) They shall embrace no manufactured goods or products.

(C.) No processes shall be included therein, and no motive power permitted in any such building.

GEORGE R. DAVIS, *Director-General.*

APPLICATIONS FOR CONCESSION.

Applications to sell goods of any kind, not manufactured on the grounds as the products of a machine or process exhibited, or lessees of concessions for restaurants, soda water, cigars and tobacco, photographs, guide books, rolling chairs, cut flowers, confectionery, bakery, lemonade, messenger service, telegraph service, perfumery, and all other concessions not named in above list, must apply to the Committee on Ways and Means, setting forth the size of building, if special building is required, in the column headed "Size of Building," or length and breadth of space required, if located in any of the Exposition buildings, under the head of "Space Desired." The Exposition management reserves the right to accept or reject any or all applications for concessions.

GENERAL RULES TO GOVERN LESSEES OF CONCESSIONS.

RULE 1. Lessees and such employes or assistants as may be necessary for the proper conduct of the business will have full access to the Exposition grounds, but they will be

subject at all times to the general rules and regulations of the Exposition, and shall enter at such gates and at such hours as may be designated by the Exposition management.

RULE 2. No business under any of the concessions shall be conducted in other than a first-class, orderly manner. No gambling or games of chance will be allowed anywhere within the Exposition grounds.

RULE 3. All buildings, stands or booths, leased or erected for concessions, shall be open at all reasonable hours to the inspection of the Director-General and such agents as may be designated by the Exposition management.

RULE 4. No transferring or sub-letting of any interest in the concessions granted will be allowed without the written consent of the Exposition management.

RULE 5. No employe or assistant of lessee of concessions shall enter upon his duties until his name and address have been registered in the office of the Committee on Ways and Means, who will designate an official number, which shall attach to said employe or assistant, and such number must be worn conspicuously by said employe or assistant when on duty, and used as the rules may designate.

RULE 6. All goods sold must be what they are represented, and no deception will be allowed.

RULE 7. Wagon gates will be open at 5 a. m. and closed at 8:30 a. m., for the purpose of admitting supplies to all those having concessions; all supplies must be brought in between those hours. Only such articles as are covered by the concession will be admitted without a special permit.

RULE 8. All stands, counters and fittings, together with all decorations, to be erected at the expense of the lessee; plans of the above to be subject to the approval of the Director-General.

RULE 9. Solicitation for the sale of goods will not be allowed.

RULE 10. Concessions will be limited to a given number of the same in each class or branch concerning which concessions are granted.

RULE 11. Lessees will be required to keep their premises clean and in complete order at all times, and shall not permit any violence, coarse or insolent language, or unnecessary noise about their premises. Any employes or assistants wearing the number assigned by the Exposition management, appearing upon the grounds at any time intoxicated, making unnecessary noise, or using coarse or insolent language, will be deprived of their number and be immediately and permanently expelled from the grounds.

RULE 12. Persons procuring concessions to sell foreign goods will be subject to the above rules in addition to the regulations issued by the Secretary of the Treasury of the United States for the protection and collection of the revenue.

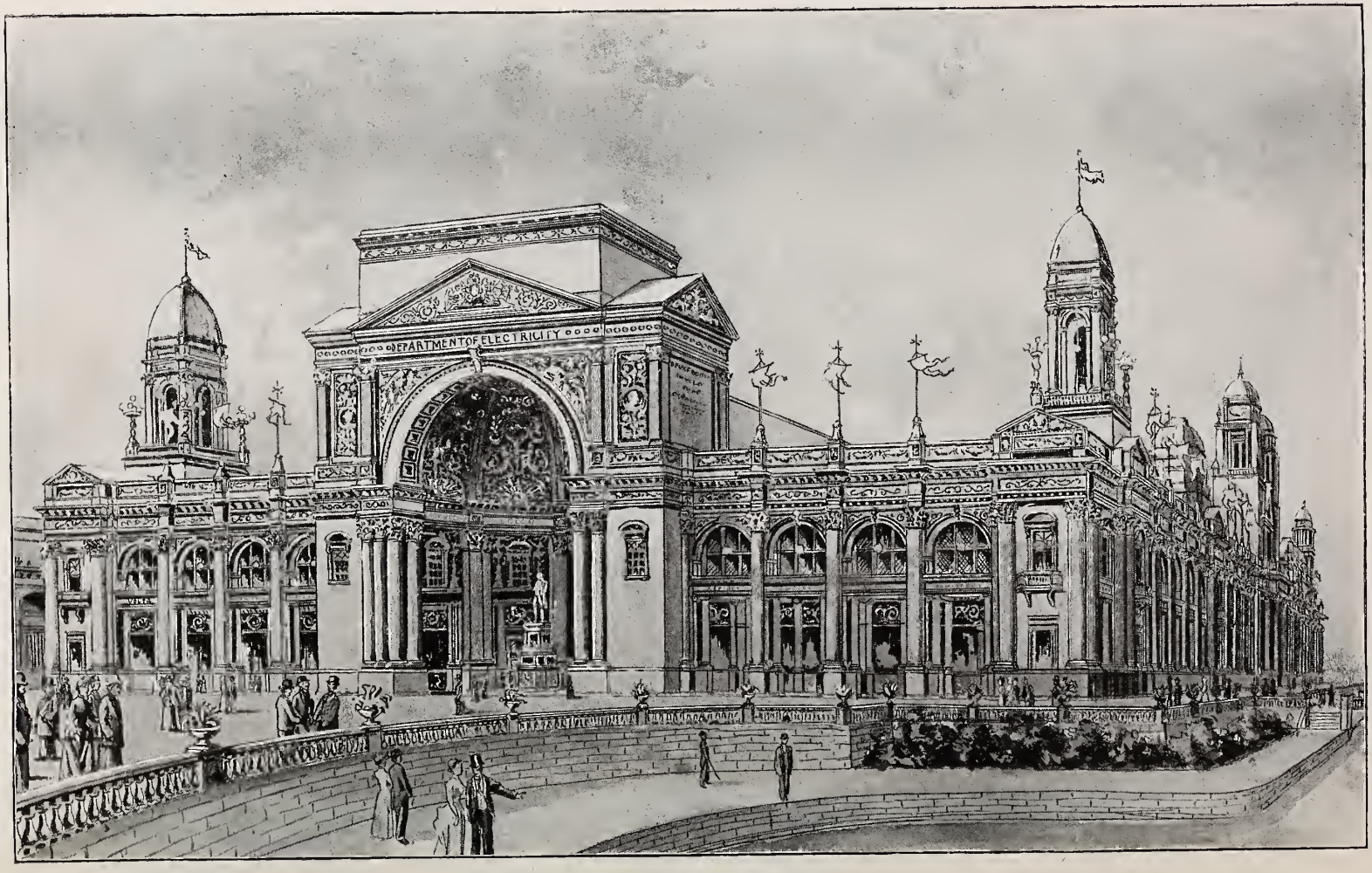
RULE 13. Any person who attempts to sell or expose for sale, on the Exposition grounds, or in any of the buildings erected thereon, any article whatever, without having first obtained a concession for such purpose, will be forthwith ejected from the Exposition grounds, and prosecuted to the full extent of the law.

RULE 14. Any violation on the part of lessees of any of the rules governing the Exposition or concessions will make void their contract at the option of the Exposition Managers.

RULE 15. All lessees, assistants and their employes must leave the grounds within two hours after the close of the Exposition.

RULE 16. Persons procuring concessions will be required to furnish the Exposition management with a good and sufficient bond for the faithful performance of their contract.

RULE 17. The Exposition management reserves the right to amend or add to these rules whenever it may be deemed necessary for the interest of the Exposition and the public good.



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CHAPTER V.

BUILDINGS AND DEPARTMENTS.

THE ADMINISTRATION BUILDING.—By popular verdict the Administration Building is pronounced the gem and crown of the Exposition palaces. It is located at the west end of the great court in the southern part of the site, looking eastward, and at its rear are the transportation facilities and depots. The most conspicuous object which will attract the gaze of visitors on reaching the grounds is the gilded dome of this lofty building. This imposing edifice will cost about $450,000. The architect is Richard M. Hunt, of New York, President of the American Institute of Architects, to whose established reputation it is a notable contribution. It covers an area of 260 feet square and consists of four pavilions 84 feet square, one at each of the four angles of the square, and connected by a great central dome 120 feet in diameter and 275 feet in height, leaving at the center of each facade a recess 82 feet wide, within which are the grand entrances to the building. The general design is in the style of the French renaissance. The first great story is in the Doric order, of heroic proportions, surrounded by a lofty balustrade and having the great tiers of the angle of each pavilion crowned with sculpture. The second story, with its lofty and spacious colonnade, is of the Ionic order.

The four great entrances, one on each side of the building, are 50 feet wide and 50 feet high, deeply recessed and covered by semi-circular arched vaults, richly coffered. In the rear of these arches are the entrance doors, and above them great screens of glass, giving light to the central rotunda. Across the face of these screens, at the level of the office floor, are galleries of communication between the different pavilions.

The interior features of this great building even exceed in beauty and splendor those of the exterior. Between every two of the grand entrances, and connecting the intervening pavilion with the great rotunda, is a hall or loggia 30 feet square, giving access to the offices and provided with broad, circular stairways and swift-running elevators.

Above the balcony is the second story, 50 feet in height. From the top of the cornice of this story rises the interior dome, 200 feet from the floor, and in the center is an opening 50 feet in diameter, transmitting a flow of light from the exterior dome overhead. The under side of the dome is enriched with deep panelings, richly moulded, and the panels are filled with sculpture in low relief, and immense paintings representing the arts and sciences. In size this rotunda rivals, if it does not surpass, the most celebrated domes of a similar character in the world. In this building will be located the principal offices of the management.

THE AGRICULTURAL BUILDING, DEPARTMENT A.—One of the most magnificent structures raised for the Exposition is the Agricultural Building, of which McKim, Meade & White, of New York, are the architects. The style of architecture is classic renaissance. This building is put up very near the shore of Lake Michigan, and is surrounded by the lagoons that lead into the Park from the Lake. The building is 500 x 800 feet, its longest dimensions being east and west. The north line of the building is almost on a line with the Pier extending into the Lake, on which heroic columns, emblematic of the forty-four States, are raised. A lagoon stretches out along this entire front of the building. The east front looks out into a harbor which affords refuge for numerous pleasure craft. The entire west exposure of the building faces a branch of the lagoon that extends along the north side. With these picturesque surroundings as an inspiration, the architects have brought out designs that have been pronounced all but faultless. For a single story building the design is bold and heoric. The general cornice line is 65 feet above grade. On either side of the main entrance are mammoth Corinthian pillars, 50 feet high and 5 feet in diameter. On each corner and from the center of the building pavilions are reared, the center one being 144 feet square. The corner pavilions are connected by cur-

tains, forming a continuous arcade around the top of the building. The main entrance leads through an opening 64 feet wide into a vestibule, from which entrance is had to the rotunda, 100 feet in diameter. This is surmounted by a mammoth glass dome, 130 feet high. All through the main vestibule statuary has been designed, illustrative of the Agricultural industry. Similar designs are grouped about all of the grand entrances in the most elaborate manner. The corner pavilions are surmounted by domes 96 feet high, and above these tower groups of statuary. The design for these domes is that of three women, of herculean proportions, supporting a mammoth globe.

THE FORESTRY BUILDING, DEPARTMENT N.—The Forestry Building is located in the southeastern portion of the Park, and is the most unique structure on the grounds. It is 200 x 500 feet, with a central height of 60 feet, of rustic design quite suggestive of the purpose to which it is devoted.

Surrounding the building is a spacious portico, 16 feet wide, each of the columns of which is formed of three tree trunks in their natural state, contributed by the various States and territories, and several South American countries, illustrating their characteristic woods. Each trunk will contain a tablet on which will be engraved the name of the tree; the name of the State, territory or country furnishing the same, and an estimate of the quantity of such timber standing thereon. The sides, window-frames and roof will also present a rustic appearance, the roof being thatched with tan and other barks. The main and minor entrances, as well as the interior, are elaborately finished in different kinds of wood. From the colonnade surrounding the building rise flag staffs, from which will be displayed the coat of arms of the States, placed directly over the tree trunks furnished by them, the stars and stripes and the flags of all foreign nations.

The entire building, in connection with the exhibits contained therein, will illustrate in the most complete manner possible the forest resources of the world.

THE DAIRY BUILDING.—The Dairy Building, by reason of the exceptionally novel and interesting exhibits it will contain, is quite sure to be regarded with great favor by World's Fair visitors in general, while by agriculturists it will be considered one of the most useful and attractive features of the whole Exposition. It is designed to contain an exhibit of dairy products and also a Dairy School, in connection with which will be conducted a series of tests for determining the relative merits of different breeds of dairy cattle as milk and butter producers.

The building stands near the Lake Shore in the southeastern part of the Park and close by the general live stock exhibit. It covers approximately half an acre, measuring 95 x 200 feet; is two stories high and cost $30,000. In design it is of quiet exterior. On the first floor, besides office headquarters, there is in front a large open space devoted to exhibits of butter, and farther back an operating-room, 25 x 100 feet, in which the Model Dairy will be conducted. On two sides of this room are amphitheatre seats capable of accommodating 400 spectators. Under these seats are refrigerators and cold storage rooms for the care of the dairy products. The operating-room, which extends to the roof, has on three sides a gallery where the cheese exhibits will be placed. The rest of the second story is devoted to a cafe, which opens on a balcony overlooking the Lake.

The Dairy School, it is believed, will be most instructive and valuable to agriculturists. Its plan was first proposed by the Columbian Dairy Association, an organization formed with the express purpose of insuring the success of the dairy exhibit at the Fair, and has been widely approved by dairy associations throughout the country. The School will include a contest between both herds and individuals of the chief breeds of dairy cattle, with a view of ascertaining the respective merits of each in milk-giving and butter-producing. Each herd will be charged each day with the food consumed, accurately weighed, and will be credited with the milk and butter produced. Manufacturers of dairy utensils and appliances gladly offer to furnish all that will be required in their line. Spectators will be able to obtain an excellent view of the processes in all their stages. The results of this test and of the exhibition which will be made of the latest and most advanced scientific methods known in connection with the feeding and care of cattle, the treatment of milk and the production of butter and cheese, cannot fail to be of great and lasting benefit

to the dairy interests of this country. These interests, it is scarcely necessary to state, are of enormous importance and extent, and, indeed, are scarcely surpassed by any other branch of industry in respect to the amount of money invested. It cannot be doubted that the Exposition Dairy School will cause a more economic and scientific management of the dairy interests of the entire country and consequently a greater return from the capital and labor invested.

LIVE STOCK, DEPARTMENT C.—The most ample preparations are being made to care for the great Live-Stock interests at the Exposition. A commodious amphitheatre for exhibition purposes will be erected, as well as the necessary stables, barns, hospitals, etc.

The rules and regulations governing the eligibility of Live Stock for entry are being distributed, and while care will be taken to secure specimens of the best established breeds, the rules are sufficiently liberal to permit the entry of animals from every part of the world, which have such characteristics as to make them objects of interest to visitors at an International Exposition. The correspondence of the department shows that considerable interest is being taken in this exhibit by breeders in Europe and other foreign countries.

The Live-Stock exhibit will open in June, 1893, with a Kennel Show, lasting six days, followed in August, September and October by the exhibition of horses, cattle, sheep, swine, poultry, pigeons, etc. The liberal money premiums—amounting to $150,000 besides the medals and diplomas to be awarded by the National Commission, which the Exposition Management offer—have already stimulated a widespread interest in this exhibition—in addition to this a number of breeders' associations have already offered special prizes for animals in their registers who carry off medals at the Exposition.

HORTICULTURAL BUILDING, DEPARTMENT B.—All nations of the world are cordially invited by the management of the World's Columbian Exposition, to make an Horticultural display that will be extensive, unique representative, worthy and instructive.

The facilities offered exhibitors will surpass those of any previous exposition, and will consist of a magnificent horticultural building with extensive grounds adjacent and the greater part of a beautiful elevated island, from which excellent views of all the great buildings can be had.

The plan of the building is a central glass dome with two end pavilions, each connected with it by front and rear curtains, forming two interior courts 88 x 270 feet. In these courts will be placed bearing orange groves from California and Florida, to illustrate the manner of growing and cultivating the "golden fruit" in the States. This will be a novel and attractive, as well as an instructive, exhibit.

The front curtains are each 270 x 69 feet, the roofs are made of glass, and will be used for tender plants. The rear curtains are each 346 x 46 feet, and while designed to give an abundance of light, are not entirely covered with glass, and are adapted to fruit and other exhibits that require a cool temperature.

The building is 1,000 feet long by an average width of 287 feet. The dome is 187 feet in diameter and rises to an altitude of 113 feet inside, thus giving room for the largest palms, bamboos, tree ferns, giant cacti, eucalyptus, etc.

It will take ten miles of 1¼-inch pipe to heat the dome alone, besides an additional amount for the front curtains.

The first story of each pavilion is 117 x 250 feet and will be used for an extension of the fruit display and for installing horticultural appliances, seeds, etc.; the second story for restaurants.

Architecturally, the building is the finest ever erected for a similar purpose. The exterior will be painted a warm buff color, and decorative planting in the immediate vicinity will harmonize with the general design of the building.

The island and other grounds will be ornamented with rhododendrons, azaleas, herbaceous and other plants suitable for out-door decoration.

It will be the policy of the department to invite the best displays possible of all meritorious exhibits in the various groups of pomology, viticulture, floriculture, culinary vegetables, seeds, arboriculture, methods and appliances of horticulture, and avoid or prevent the use of valuable space for unworthy exhibits.

The classification embraces everything of interest to Horticulturists, and should they desire to be progressive they cannot afford to miss the instructive object lesson which will be presented. Assurances of cordial support from all parts of the world indicate a revelation in advanced horticulture that will be a surprise to the profession.

Collective exhibits from the different States and territories will be the most complete. The fruit exhibits will afford an excellent opportunity of comparing the influence of climate and soil on the same varieties, and present at a glance to the interested observer a list of fruits adapted to his own State.

Great Britain and the Continent of Europe will display the finest specimens of rare plants from numerous conservatories; Australia and New Zealand will contribute ferns, palms and bamboos; the Latin American countries, tropical fruits and many curious plants; and even far away Japan will send specimens of trees, several hundred years old, to illustrate their skill in dwarfing trees. Trees over one hundred years old, and not more than two feet high, will greet the gaze of the wondering visitor.

Many States and territories have arranged to make a complete herbarium of their flora and wax models of all their fruits; and from the whole it is intended to make a grand collection for the United States. This has never been attempted before, and it is expected will attract the attention of botanists in every part of the world.

The Floricultural display will be on a scale of magnitude equal to all other sections of the World's Fair, of such flowers as tulips, lilies, pansies roses, asters and sweet peas, etc. They will be in array by hundreds of thousands, to say nothing about many novelties which have not yet been unearthed. There will be many remarkable plants collected together which have never been in companionship before. Notably is a plant belonging to the same genus and family as the calla lily, and with a very expressive and euphonius name, to-wit:—*Amorphophallus Titanum.* This giant is a veritable Titan. The flowers are on stems coming directly from the ground to a height of five or more feet. The one flower surmounting each stem is in the shape of a bowl or cup, fully three feet in diameter. The color of the flower on the inside is a pale green, marbled with deep purple. The outside of the flower is of dark green, corrugated and mottled with bronze and chocolate. A single leaf which resembles the form of a wrecked umbrella, covers an area of forty-five feet in circumference. This plant is a native of Sumatra, and was introduced to cultivators in 1878. It was stated in 1885 that it was the giant of the vegetable kingdom, but like the changes of each day, in all other phases of life, a still more remarkable plant will be seen at the World's Fair. This is one of the Birthworts, or Dutchman's pipes; the correct name is, however, *Aristolochia.* This new and remarkable variety has been called the "pelican," the "swan" and the "giant duck" flower. It resembles a giant pelican with tails of eighteen inches attached to each wing. The largest flowers measure sixty-four inches in length and twelve inches wide in the body of the pelican. The flowers are a creamy yellow, veined and spotted with chocolate brown. It is a curiosity and will create a great furore. The plant is a climber, grows very rapidly and resembles a grape vine in general appearance, the leaves being smaller, and it requires protection during winter.

THE FISHERIES BUILDING, DEPARTMENT D.—The graceful beauty of the Fisheries Building at the World's Columbian Exposition has gained for it from the severest of critics, architects, the title of "an architectural poem."

While the extreme dimensions of the building are very large, yet the structure is so laid out that the general effect is rather of delicacy than of the grandeur to be expected from the mere statement of dimensions. It is composed of three parts, a main building 365 feet long and 165 feet wide, and two polygonal buildings each 133 feet 6 inches in diameter, connected with the main structure by two curved arcades.

The main building is provided with two great entrances in the centers of the long sides. These entrances are by pavilions 102 feet long, projecting 41 feet beyond the line of the main building, and flanked at each corner with circular towers.

The quadrangular first story is surmounted by a great circular story capped with a conical roof. A graceful open turret crowns this roof and four smaller towers spring from and surround the base.

TRANSPORTATION BUILDING.—Page 47.

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The general design of the whole structure is Roman in masses with all the details worked out in a realistic manner after various fish and marine forms. Thus the double row of engaged columns which form the exterior face of the building have capitals which are formed of a thousand varied groupings of marine forms, while the delicate open work of the gallery railings display as many different fishes.

The circular story is surrounded by a broad exterior gallery, and the four flanking towers of the entrances and the four smaller towers of the central roof terminate in open turrets, from all of which views of every part of the grounds can be obtained.

The main entrance leads past the broad winding stairs which give access to the turrets of the flanking towers into a wide vestibule and thence to the main floor of the building. All of the floors will be of asphalt concrete, and the floor of the second story is disposed as a gallery, leaving the interior open to the great elliptical ceiling of the dome far overhead. This ceiling will be enriched with brilliant frescoes. The wide gallery of the second story will permit visitors to have a general view of the principal part of the exhibits. From this gallery the summits of the four smaller towers of the roof are reached by winding stairs. The spaces over the entrances are set apart for storage rooms and work rooms.

The two curved arcades leading to the aquarial exhibit on the east and the angling exhibit on the west are open to the air and are provided with wide staircases on both of their sides, thus adding four means of access to the various parts of the building.

The two circular buildings, in one of which will be installed the angling exhibit and in the other the aquaria, are precisely similar in size and exterior appearance. They are not in reality circular, but polygons of many sides. The result is that the severity of the simple curve is obviated by a succession of obtuse angles which lends grace and lightness to the general design. The western building is perfectly plain within, as in it the varied exhibit of angling appliances is to be placed. The aquaria will be found in the eastern building, and there is little doubt but that this will be one of the chief points of interest of the whole Exposition.

In the center will be a circular basin 30 feet in diameter, in the middle of which will rise a towering mass of rockwork. From clefts and crevices in this rockwork miniature cascades will ripple down to the masses of reeds, rushes and ornamental semi-aquatic plants in the basin, amid which will be seen gorgeously brilliant fishes disporting. Around this basin there will be a circular walk 16 feet wide, reached by two broad entrances. These entrances pass through the inner series of tanks. The larger section of these tanks will be devoted to fresh water fishes, the smaller to those from salt water. This series contains the tanks of greatest capacity. They will have vertical sides, as they will be inspected from both sides, and the bottom will be rounded. They will vary in capacity from 7,000 to 17,000 gallons each. The sea water for the marine fishes will be secured by evaporating the necessary quantity at the United States Fish Commission Station at Wood's Holl, Mass., to one-fifth its bulk, thus reducing both quantity and weight for transportation about 80 per cent. The fresh water required to restore it to its proper density will be supplied from Lake Michigan. From this same source will be drawn all the fresh water needed. In transporting the marine specimens from the coast to Chicago about 3,000 gallons of pure sea water will be brought on each trip.

Surrounding these great tanks, which will be about 7 feet wide, there will be a second annular walk 16 feet wide. This walk will be vaulted over and the walls above the clear glass fronts of the tanks will be made of stained glass, so that all of the light will perforce come through the tanks. Around the outer circumference of the walk will be placed the second series of tanks. These will be somewhat smaller than those in the inner series, ranging from 750 to 1,500 gallons each in capacity. The entire length of the glass fronts of the aquaria will be about 575 feet, or over 3,000 square feet of surface. The panorama presented will be one of surpassing interest and beauty, and the whole exhibit will rival the greatest permanent aquaria of the world, not only in size, but in the number and character of the specimens displayed.

The total water capacity of the aquaria, exclusive of the two huge reservoirs which are to be placed in the main structure, will be 18,725 cubic feet, or about 140,000 gallons. This

will weigh 1,192,425 pounds, or almost 600 tons. Of this amount about 40,000 gallons will be devoted to the marine exhibit. In the entire salt water circulation, including reservoirs, there will be about 80,000 gallons.

Not only will marine creatures of all sorts be shown, but the finny denizens of the streams also, and likewise the whitefish, the catfish, the big pickerel, and the huge sturgeons of the interior waters. Such a task will necessarily be of great magnitude, inasmuch as the labor and skill required to fetch the fishes in good condition from points so remote over thousands of miles of railway must be enormous and of the very highest order. The marine fishes will be captured off the coast and forwarded alive by rail, in tanks filled with sea water, to Chicago. They will secure the scaly captives in seines, select such desirable ones as are caught in the pound nets of the fishermen, and take them in tanks ashore, where they will be shipped to the Exposition. The tanks utilized for transportation will be of sufficient size not to crowd the occupants and provided with a device for circulating and aerating the water.

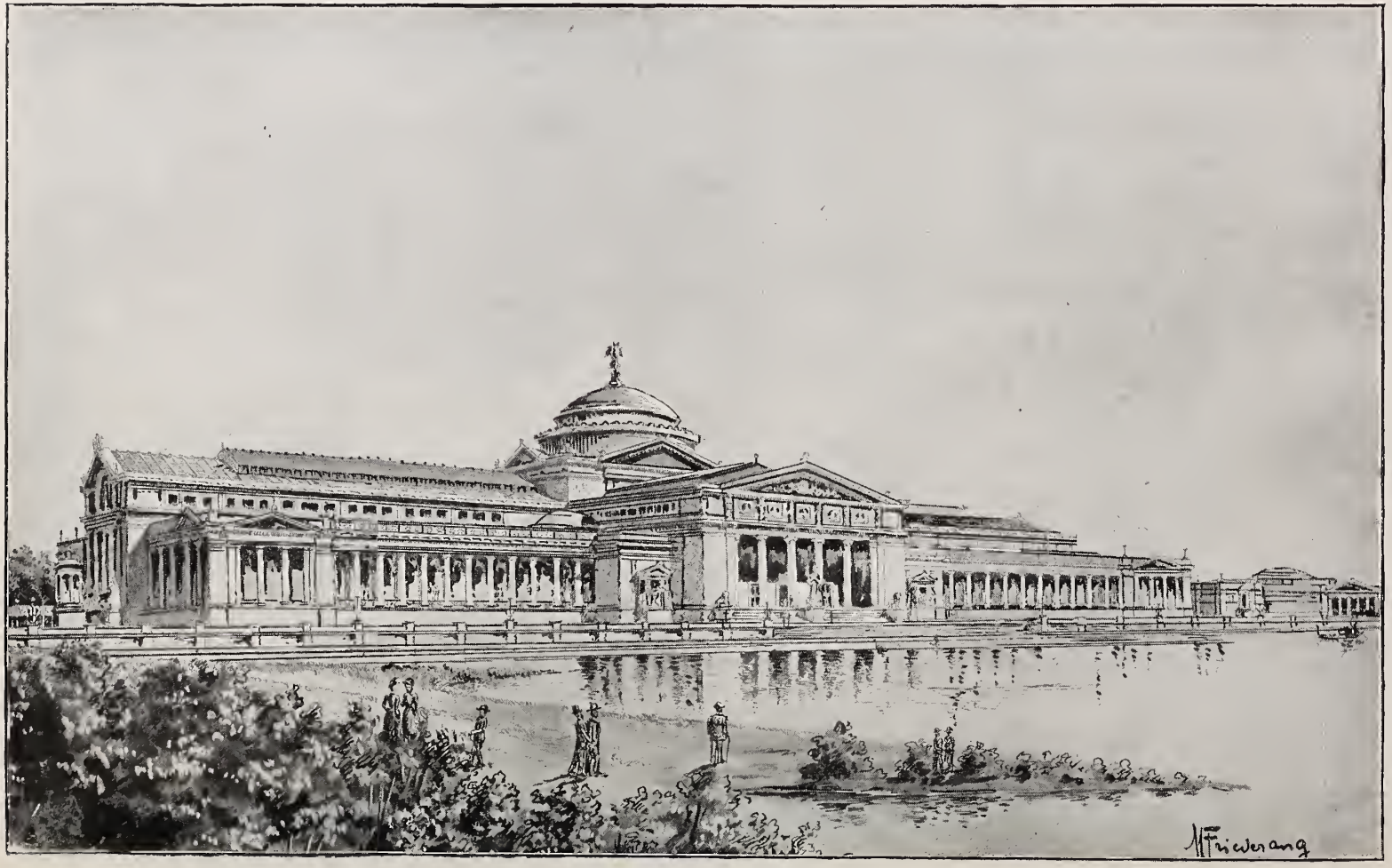
The main structure will contain a full and complete exhibit of all the various appliances used in the fishing industry in all countries and in all times, while the special department of angling will have the whole of the west wing for its exhibit. It is the intention of the department of fish and fisheries to make the exhibits of foreign nations as large as possible, and thus far there is every reason to believe that the highest degree of success in this direction will be attained.

Mines and Mining Building, Department E.—Located at the southern extremity of the western lagoon or lake, and between the Electricity and Transportation Buildings, is the Mines and Mining Building. This building is 700 feet long by 350 feet wide. Its architecture has its inspiration in early Italian renaissance, with which sufficient liberty is taken to invest the building with the animation that should characterize a great general Exposition. There is a decidedly French spirit pervading the exterior design, but it is kept well subordinated. In plan it is simple and straightforward, embracing on the ground floor spacious vestibules, restaurants, toilet-rooms, etc. On each of the four sides of the building are placed the entrances, those of the north and south fronts being the most spacious and prominent. To the right and left of each entrance, inside, start broad flights of easy stairs leading to the galleries. The galleries are 60 feet wide and 25 feet high from the ground floor, and are lighted on the sides by large windows, and from above by a high clearstory extending around the building.

The main fronts look southward on the great Central Court, and northward on the western and middle lakes and an island gorgeous with flowers. These principal fronts display enormous arched entrances, richly embellished with sculptural decorations emblematic of Mining and its allied industries. At each end of these fronts are large square pavilions, surmounted by low domes, which mark the four corners of the building and are lighted by large arched windows extending through the galleries.

Between the main entrance and the pavilions are richly decorated arcades, forming an open loggia on the ground floor, and a deeply recessed promenade on the gallery floor level, which commands a fine view of the lakes and islands to the northward and the great Central Court on the south. These covered promenades are each 25 feet wide and 230 feet long, and from them is had access to the building at numerous points. These loggias on the first floor are faced with marbles of different kinds and hues, which will be considered part of the Mining Exhibit, and so utilized as to have marketable value at the close of the Exposition. The loggia ceilings will be heavily coffered, and richly decorated in plaster and color. The ornamentation is massed at the prominent points of the facade. The exterior presents a massive, though graceful, appearance.

The Department of Mines and Mining of the Columbian Exposition is working upon a system that is elaborate, extensive, exhaustive and complete in all its details. The department is one of the thirteen great subdivisions of the Fair, and from an insight into the methods employed and ends which are attainable, it promises to take front rank. All the principal mineral-producing States have expressed a determination to make their exhibit in this department as complete as possible. Foreign nations which have signified an inten-



ART PALACE—Page 52.

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tion to participate in the general exposition—and there are many of them, with more to hear from—nearly all lay great stress upon the Mines and Mining Department. It is impossible thus early to outline the character and extent of these proposed exhibits, as requisitions for space, the starting point, have not all been received, while statements of the nature of the exhibit, in many cases, have not been formulated. The Latin-American States have been particularly prompt in arranging for representation, a large portion of which will be of a nature to present their mineral resources.

The United States takes first rank among the nations of the world in the development of its mineral deposits and the treatment of most kinds of ores, and its display cannot fail to be instructive. The different States, especially those of the South and West, have entered upon the plan of making an exhibit that in point of detail will give the uninitiated a most complete idea of the nation's mineral resources.

This department also has charge of the display of all kinds of Machinery and Appliances which pertain to the Science of Mining and the handling, converting and refining of Minerals.

MACHINERY BUILDING, DEPARTMENT F.—Foremost among the triumphs to be recorded at the World's Columbian Exposition will be the displacement of manual labor by machinery. The century whose closing decade will be immortalized by a greater union of all nations on a more peaceful plain than the world has ever seen, will be remembered in history as the age of machinery. And peerless in the ranks of nations, which have given to mankind the fruits of invention in mechanical form, will stand the United States of America. Necessity, the parent of man's inventive faculty, has nowhere been encountered in such a formidable shape as in this country, which may appropriately be called the cradle of invention. Within two generations this vast continent has been developed by a race of energetic people, whose inventive faculties have been quickened alike by the obstacles encountered and by the experience of the benefits of civilization left behind in the Old World. Crude experiment has begotten inventive genius, and the pioneers who fought nature in its sternest shape have returned to become the preceptors of those whose researches have led to theoretical, rather than practical discoveries.

The Machinery Exhibit at the World's Columbian Exposition will of necessity, therefore, be one of the most important of the entire exhibition. The United States of America will put forth her best efforts to demonstrate to the world the justice of her claims to supremacy, while, on the other hand, the great manufacturing nations of Europe will spare no pains to prove to the world at large that their artificers have not lost their skill, and that in the great competition for wealth the Old World is still abreast with the New. The contest will be a contest of giants and the result, whatever the verdict of the international jury may be, cannot fail to prove of exceeding interest to visitors and exhibitors.

Recognizing the importance of the Department of Machinery, the Directors of the World's Columbian Exposition, in allotting space for the various buildings to be erected at Jackson Park, have assigned to the display of machinery the second largest area set apart for any single branch of exhibits. The enormous extent of the space under roof in the buildings devoted to the display of machinery, in round figures nearly eighteen acres, is a proof of the appreciation of the importance of this branch of the Exposition entertained by the management. That this vast enclosure will be filled, there is no reason to doubt. On the contrary, the problem which threatens to confront the executive is not how to fill this space, but rather how to find adequate space for the exhibits.

Situated at the main entrance to the Exposition Grounds, at a point where all visitors by rail will necessarily pass its doors on entering the Exposition, the Machinery Building or, as it is officially termed, the Palace of Mechanic Arts, will possess an exceptional advantage in point of location.

The exterior design for the Palace of Mechanic Arts has been pronounced the grandest in the whole array of architectural wonders to be seen at the Exposition.

The Main Building of Machinery Hall is 850 feet long and 500 feet broad. The interior will present the general appearance of three railroad train houses placed side by side. These train houses are spanned by arched trusses, with spans of about 125 feet each, and these

trusses are about 50 feet on centers. Each of these arched naves is lighted and aired from above by large monitor roofs. In the center three domed roofs, each covering an open space 125 feet square, take the place of monitors. Outside of this immense three-naved room, on the northeast and south, runs a 50-foot wide two-story building. This opens directly into the main hall, both on the first floor and on the second floor on the north and east fronts, forming a great gallery.

There are two main entrances to Machinery Hall, one on the north, facing Administration Building, and one on the east, facing Agricultural Hall. In each of the four corners of the building is a domed pavilion containing a grand staircase, and there are other staircases adjacent to the two grand staircases referred to. There will be other entrances along the sides and ends of the Main Hall Annex, giving ample accommodation for the immense crowds that will daily visit the great exhibition.

The Annex Building is a similar structure but more simply roofed; it contains three naves and runs 550 feet to the westward, carrying out the long naves formed by the trusses in the main building, so that each will measure 1,400 feet in length.

On the south of the Main Building for its whole length is a one-story structure, which is to contain the vast steam and electrical plant which is to supply power and light to the whole of the Exposition buildings and grounds. This will be an extraordinary display of applied energy and one of great interest.

The whole of Machinery Hall throughout rests upon planking and trestle work foundations; its frame is very largely of wood, but the main trusses spanning the building are of iron, and are of such width that they will be serviceable in the future in the construction of railroad train houses. These three naves, when the length of both Main Building and Annex is added together, will give each a perspective of nearly 1,400 feet in a straight line. It is the intention to have in each of these naves an electric traveling crane moving from one end to the other. These will be used for installing and moving the machinery exhibits, and when the Exposition opens platforms will have been built on these traveling cranes and they will be used to carry visitors from one end of the building to the other.

The exterior of the building is to be covered with the plaster material called staff, which is to be used for the covering of all other buildings at the Columbian Fair. The south and west sides of the building and the whole exterior of the Annex being not visible from the general public portions of the ground, are designed in a more plain and simple style. On the north and east fronts, however, where the Machinery Hall fronts on the great plaza and the wide lagoon, it was essential that the fronts should be rich and ornamental, to serve as a scene for the spectacles and festivities which will be held in this great court. These two fronts have therefore been made as magnificent as possible. They are ornamented with colonnades and a great deal of sculpture. In the figure and ornamental work every attempt has been made to indicate the purpose of the building, the statues representing mechanical forces, or carrying portraits or the names of inventors. The small ornamental boys, or genii, representing blacksmiths and machinists, and the architectural festoons are frequently formed of bits of machinery where flowers and fruits are generally seen.

TRANSPORTATION EXHIBITS BUILDING, DEPARTMENT G.—The Transportation Building (now in course of erection), in the grandeur of its proportions, and the convenience and elegance of its interior plan and decorations, fitly responds to the magnitude and attractive variety of the interests it will represent. It occupies an eligible site on the lagoon, near the center of the Exposition and main entrance, and is convenient of access to all avenues of approach. It covers a space 960 by 256 feet, and with the annex and entresol includes a total area of nearly seventeen acres, all under cover. The heaviest locomotives and cars will be transferred from the installation track to tracks for their reception in the annex, whose accommodations are such that entire trains can be shown connected as in actual use. Eight elevators will run from the center of the main building to balconies 115 and 128 feet high. The observatory commands a beautiful and comprehensive view of lake, urban and suburban scenery. The main entrance is of noble dimensions, consisting of a series of receding arches treated in gold leaf, and decorated with carvings,

JACKSON PARK, SITE OF WORLD'S FAIR.

bas-reliefs and paintings. Other entrances are provided, and near them seats, terraces, fountains and statues are grouped. The interior is admirably arranged for advantageous display, and into its broad nave and aisles the annex will open in such a manner as to afford long and striking vistas.

The scope of this department is suggested by its classifications, which recognize or are associated with nearly all diversities of industrial development, and include interests as broad as the world itself. Its object is to illustrate with some degree of historical accuracy the successive stages of improvement in methods and appliances of transit and conveyance (on land and water, or in air) peculiar to all countries from the remotest period of invention to the present time. This will be effected by means of actual specimens, or models, drawings and photographs, when the originals cannot be obtained. By comparison and contrast these "objects of interest" will impart a vast deal of information at once novel, entertaining and instructive.

The Railway exhibit, within its own exclusive area of over eight acres, will epitomize the wonderful story of the adaptation of steam to practical uses, from the crude experimental engines of Watt, Trevethick, Stephenson and Cooper to the immense and powerful locomotives of to-day.

In the Marine Division will be seen vessels peculiar to the navigable waters of all races and peoples, embracing an infinite variety of rowing and sailing craft—from the Indian birch canoe, the clumsy Chinese junk, the Egyptian galley, the Roman trireme and warboats of barbarous tribes to the clipper, the graceful yacht and stately steamship of the nineteenth century; besides everything of interest pertaining to the science of navigation —to life-saving apparatus, etc.

The third division will show all forms and types of vehicular construction and movement on land (except railways), and grouped in strange juxtaposition, the old and new—the palanquin of Japan, the primitive ox-cart of the Roman farmers, the Greek chariot, the English sedan, and the modern bicycle, omnibus and pleasure carriage. Saddlery, harness, trappings, etc., will also be shown in this division. Nor will aerial, pneumatic and other systems of transportation be neglected.

While all requisite efforts are being made to induce a full representation of interests local to the United States, the Chief of this department is also vigorously urging its claims upon the attention and co-operation of foreign nations through personal correspondence and the friendly offices of our accredited agents abroad, with thus far gratifying success.

The Manufactures and Liberal Arts Building.—Notable for its symmetrical proportions, the Manufactures and Liberal Arts Building is the mammoth structure of the Exposition. It measures 1,687 by 787 feet, and covers nearly 31 acres, being the largest exposition building ever constructed. Within the building a gallery 50 feet wide extends around all four sides, and projecting from this are 86 smaller galleries, 12 feet wide, from which visitors may survey the vast array of exhibits and the busy scene below. The galleries are approached on the main floor by 30 great staircases, the flights of which are 12 feet wide each. "Columbia Avenue," 50 feet wide, extends through the mammoth building longitudinally, and an avenue of like width crosses it at right angles at the center. The main roof is of iron and glass, and arches an area 385 by 1,400 feet, and has its ridge 150 feet from the ground. The building, including its galleries, has about 40 acres of floor space.

In the centre of the building is an enormous hall, without columns, 386 feet 10 inches wide by 1,275 feet 10 inches long, covered with a roof formed of great iron arches springing from all sides and rising to a height of 210 feet above the floor. This magnificent space will be lighted by continuous clearstory windows and by an enormous spread of glass in the roof covering. Around this enormous hall are run a system of continuous naves 107 feet 9 inches wide and 115 feet high, which are also lighted by clearstory windows and glazed roofs, and aisles on eithes side of these naves 23 and 46 feet wide respectively, covered by galleries of the same dimensions.

The Manufactures and Liberal Arts Building is in the Corinthian style of architecture, and in point of being severely classic, excels nearly all of the other edifices. The

long array of columns and arches which its facades present, is relieved from monotony by very elaborate ornamentation. In this ornamentation female figures, symbolical of the various arts and sciences, play a conspicuous and very attractive part.

Designs showing in relief the seals of the different States of the Union and of foreign nations also appear in the ornamentation. These, of course, are gigantic in their proportions.

The exterior of the building is covered with "staff," which is treated to represent marble. The huge fluted columns and immense arches are apparently of this beautiful material.

There are four great entrances, one in the center of each facade. These are designed in the manner of triumphal arches, the central archway of each being 40 feet wide and 80 feet high. Surmounting these portals is the great attic story ornamented with sculptured eagles 18 feet high, and on each side above the side arches are great panels with inscriptions, and the spandrils are filled with sculptured figures in bas-relief. At each corner of the main building are pavilions forming great arched entrances, which are designed in harmony with the great portals. The interiors of these pavilions are richly decorated with sculpture and rural paintings. The long facades of the great hall surrounding the building are composed of a series of arches filled with immense glass windows. The lower portion of these arches, up to the level of the gallery floor, and 25 feet in depth, is open to the outside, thus forming a covered loggia, which forms an open promenade for the public, and will provide a very interesting feature, particularly on the east side where it faces the lake. It is intended to locate here a number of cafes, where the great crowds can loiter at their ease and enjoy the breezes and cool shadows of the afternoon.

The building occupies a most conspicuous place in the grounds. It faces the lake, with only lawns and promenades between. North of it the United States Government Building, south the harbor and the in-jutting lagoon, and west the Electrical Building and the lagoon separating it from the great island which in part is wooded and in part resplendent with acres of bright flowers of varied hues.

DEPARTMENT OF MANUFACTURES, H.—The exhibition in this department will certainly prove an attraction of supreme interest, not only to the people of the United States, but to the world at large. Under the liberal classification prepared by the National Commission, the Department of Manufactures embraces thirty-three exceptionally large groups, divided into two hundred or more classes of the leading industries, collectively representing the products of the modern machinery and man's most skillful handiwork in every conceivable form and design. The scope of the department will be best exemplified in a careful perusal of the classification on the within pages.

The constantly increasing interest of our home manufactures, and the world-wide rivalry of inventive genius in the production of labor-saving devices and improved machinery to meet the ever growing popular demand, will be fittingly illustrated in the varied exhibits in this department, and make it one of the most interesting and instructive features of the Exposition.

THE DEPARTMENT OF LIBERAL ARTS, L.—The central idea of the World's Columbian Exposition is its power to educate. Each succeeding world's fair, beginning with that held in London in 1851, has been the school-master of the nations. No other single educational influence has been so instantly and so intensely active. This is because each national exhibit has been the exponent of that nation's advancement. The nation which has borne the palm of victory is that whose progress in education, taken in its broadest and fullest sense, has been most pronounced. Recognizing these truths, the promoters of the Columbian Exposition have given to education the position of highest prominence in the center of interest and in the grandest of all the great structures. Here Education is surrounded by her handmaids—Music, Science, Literature, Charity, Religion—and these, grouped together as by their nature is most fitting, form the constellation of the *Liberal Arts*. These are the arts whose advancement has made the closing century glorious, and has made all mankind free in the light of truth and law and liberty.

In a still larger way the Department of the Liberal Arts is surrounded by those special departments which have grown up in the world by reason of her educative and vital forces

—those of Agriculture, Mechanism, Electricity and the engineering of the Mine, the Railway.

The oft-repeated question, What does Liberal Arts include? is thus generically answered. More specifically it includes, first and largest, Education; then Hygiene, Sanitation, Charities, Medicine and Surgery, Literature, Books, Libraries, Journalism, Physical Science in all departments, Engineering, Architecture, Government and Law, Commerce, Social and Religious Organizations, Music and the Drama. Side by side, and separated for the first time, comes Archæology and Ethnology. The space assigned to this group of subjects is more than three times that ever granted to them in any former exhibitions. In most of the other departments the commercial instinct is the motive power. In these the commercial gives place to the educative force. The space given to them will exceed twelve acres. The Liberal Art exhibits will be installed in the south end of the Manufactures Building.

ETHNOLOGY AND ARCHÆOLOGY, DEPARTMENT M.—Occupying a large and prominent place in the Manufactures and Liberal Arts Building, the Department of Ethnology and Archæology must be classed as among the most attractive and interesting features of the Exposition.

All possible phases of prehistoric man in America and the life of the aborigines at the time of the landing of Columbus will be illustrated at the World's Columbian Exposition by this department.

The conditions under which man was living when his existence in America is first traced, will be shown in diagramatic paintings representing the terminal portions of the ice-sheet, with the clay and gravel deposits and boulders at the edge, the flora and fauna of the time, and man associated with animals since extinct. This series is planned to contain the skeletons of the mammoth and the mastodon, with mounted specimens of northern animals living at that early period far south of their present abode. With portions of skeletons of man will be objects of handiwork and other representations pertaining to the life of that time. In connection with the habitations of the Eskimo, models of men, women and children will be shown, made from casts taken and colored from life and dressed in native costumes. These figures will be made in extended number to illustrate all types of mankind. The work, in part, is in papier mache, with the figures draped in actual garments.

One of the most interesting and striking representations will illustrate the architecture of Yucatan in casts taken from some of the ruins. To make the moulds for a complete cast of any single building will be not only a gigantic operation, but will cost several thousand dollars. The selection of subjects is not determined with absolute certainty, but the great portal from the court at Labna is one of the subjects approved for the series. Others are the Temple of the Sun, at Chichen-Itza; the House of the Nuns, at Uxmal, and an old house at Merida (1549) with richly carved ornamentation. The entire collection of casts recently arrived at the Peabody Museum from Paris, which were made from moulds taken by M. Desire Charnay during the Lorillard expedition to Yucatan and other southwestern parts of the continent, will also be exhibited.

In another group will be shown the origin and development of the primitive arts, and the progress of nations during the historic archæological period will be illustrated. This representation will contain such important objects as models of ancient vessels and models to illustrate ancient buildings, particularly the various habitations in the form of huts, etc., built in this country. A third group will be an illustration of navigation and cartography. A complete series of maps of the world will be collected, both of those anterior to Columbus and of others illustrating discoveries down to the present time. In the case of the most rare maps only reproductions will be presented, although the loan of many originals is expected. A fourth group will exhibit inventions, arranged to illustrate progress, with amelioration of life and labor. In this will be shown originals, copies and models of notable inventions, supplemented by a collection of portraits of distinguished inventors.

Other collections of similar completeness will represent all the principal tribes of the northern part of the continent, the Indian races of the interior, the inhabitants of the

U. S. GOVERNMENT BUILDING.

West Indies and the eastern tribes of North America at the time of Columbus, the native tribes of the southwest, those of Mexico, Central America, and South America, in all cases with their habitations and costumes and arts and industries extensively shown, with the addition of the previously mentioned models of the varied types made from life.

The various material required for these exhibits will be largely secured by new explorations, though much is expected from private collections; and much, if need be, can be furnished from the Peabody Museum. At present there is every indication that the entire department will form as complete an illustration as possible of American life before the coming of the Spaniards, honorable to the Exposition and to American archæologists in general.

Electrical Building, Department J.—The Electrical Department will have at its disposal a substantial and beautiful building 700 feet long, 350 feet wide and 115 feet high at the highest point of its roof. This building will be of ornamental wood with arched roof of steel cantilever trusses. Its general plan is based on a longitudinal nave 115 feet long and 114 feet high, crossed in the middle by a transept of the same height and width. The nave and transept have a pitched roof supported by steel arches with a range of skylights at the bottom of the pitch, and clearstory windows. The balance of the building is covered with a flat roof averaging 62 feet in height, and provided with skylights. At each of the four corners of the building there is a pavilion, above which rises a light open spire or tower 169 feet high. Subordinate pavilions occur midway between these towers on the longitudinal sides, crowned with low, square domes. Smaller towers will occur at intervals upon the four sides, presenting the different orders of architecture in their construction, and each to be mounted with banners by day and electric lights by night. Pilasters and columns of the Ionic order will form open screens before the windows of the main story. At the north pavilion this order will change to an arcade to form an open portico with a wide balcony above looking toward the lagoon. All the exterior ordonnance is carried out strictly according to the formulas of Italian renaissance. The pediments, friezes, panels and spandrils will receive a decoration of figures in relief, with architectural motifs, the tendency of which will be to illustrate the purposes of the building. The color of the exterior will be like marble, but the walls of the main or hemicycle entrance, the porticos and various loggias will be highly enriched in color. As special works of distinction, it is contemplated to have the frieze relief figures in photograph of more than forty of the most prominent electricians who are no longer living. Electricity, as it will be demonstrated at the Columbian Exposition, and as its exhibits will be contained in this building, will be divided into two branches—theoretical and practical.

Theoretical electricity is the scientific part, and will be demonstrated in object lessons including exhibits of historical apparatus, showing the progress made by those who have developed it to its present advanced state. The historical display will comprehend models of patents granted by this and other countries to inventors, the original apparatus, in various stages of development, of Franklin, Morse, Vail, Henry and others of our own country, and Gauss, Ohm, Ampere, Siemens, Varley, Thompson, the poet Goethe and others of Europe. This display will undoubtedly be one of the most interesting to students of history, as well as those interested in electricity, in the whole exposition. Much money will be required to bring this display to the high degree of excellence hoped for, and it is contemplated to ask the World's Fair commissioners of foreign governments to undertake the expense of freightage, installation and maintenance of the historical exhibits of the several countries to which the exhibits will be accredited.

Practical electricity is commercial electricity, and as the exhibits of this class will be installed and maintained by commercial companies interested in the advertisement of their several businesses, it is natural that this class of exhibits should be elaborate and artistic. People have come to expect something bordering on the marvelous from the electrical people in the way of exhibitions, and nearly all of the larger electrical companies have endeavored to meet this high degree of expectancy by maintaining experts in their employ solely for the purpose of providing spectacular and striking exhibits for the companies' advertisement.

At the Columbian Exposition practical electricity will be divided into four classes: First—Applied electricity for the transportation of passengers and freight. This class will include exhibits of the various systems of electric railways, mining tramways, elevators, electrically propelled carriages, bicycles, tricycles, boats and the like. Second—Applied electricity for the transmission of power over considerable distances. In this class will be exhibits of mining work with water-power as the primary force, and industrial operations with steam as the motive power, exercised from points that are convenient to water-power or to fuel for steam generation. In this exhibit will probably be a section of a mountain with water-fall and the necessary wheels, turbines, etc., at the base, and the mine in course of operation with electric drills, crushers, etc., at a distant point. Third—Applied electricity in the transmission of intelligence by sound, speech and mechanical vibration. In this class will be exhibits in telegraphy, telephony and their modifications. Fourth—Applied electricity in the transmission of heat. In this class will be ranged exhibits in electric lighting, arc and incandescent, and industrial processes, such as welding and tempering metals, heating and cooking furnaces, ranges, etc.

Innumerable exhibits naturally to be classified in one or other of these above classes will be shown, novelties of all kinds for domestic purposes, such as dish-washers, ironers, electric bells and others, *ad infinitum*.

THE ART PALACE, DEPARTMENT K.—Grecian-Ionic in style, the Fine Arts Building is a pure type of the most refined classic architecture. The building is oblong, and is 500 by 320 feet, intersected north, east, south and west by a great nave and transept 100 feet wide and 70 feet high, at the intersection of which is a dome 60 feet in diameter. The building is 125 feet to the top of the dome, which is surmounted by a colossal statue of the type of the famous figure of Winged Victory. The transept has a clear space through the center of 60 feet, being lighted entirely from above.

On either side are galleries 20 feet wide and 24 feet above the floor. The collections of sculpture are displayed on the main floor of the nave and transept, and on the walls both of the ground floor and of the galleries, are ample areas for displaying the paintings and sculptured panels in relief. The corners made by the crossing of the nave and transept are filled with small picture galleries.

Around the entire building are galleries 40 feet wide, forming a continuous promenade around the classic structure. Between the promenade and the naves are the smaller rooms devoted to private collections of paintings and the collections of the various art schools. On either side of the main building, and connected with it by handsome corridors, are very large annexes, which are also utilized by various art exhibits.

The main building is entered by four great portals, richly ornamented with architectural sculpture, and approached by broad flights of steps. The walls of the loggia of the colonnades are highly decorated with mural paintings, illustrating the history and progress of the arts. The frieze of the exterior walls and the pediments of the principal entrances are ornamented with sculptures and portraits in bas-relief of the masters of ancient art.

The general tone of color is light gray stone.

The general construction, although of a temporary character, is necessarily fire-proof. The main walls are of solid brick, covered with "staff," architecturally ornamented, while the roof, floors and galleries are of iron.

All light is supplied through glass sky-lights in iron frames, or by electricity.

The building is located beautifully in the northern portion of the Park, with the south front facing the lagoon. It is separated from the lagoon by beautiful terraces, ornamented with balustrades, with an immense flight of steps leading down from the main portal to the lagoon, where there is a landing for boats. The north front faces the wide lawn and the group of State buildings. The immediate neighborhood of the building is ornamented with groups of statues, replica ornaments of classic art, such as the Choriagic Monument, the "Cave of the Winds," and other beautiful examples of Grecian art. The ornamentation also includes statues of heoric and life-size proportions.

It is the aim of the Department of Fine Arts of the World's Columbian Exposition to make a showing of Fine Arts of the various nations, giving each country adequate space

in which fairly to represent its highest and most characteristic achievements in painting, sculpture, architecture and decoration. In sculpture and architecture it is designed to exhibit figures and monuments and monumental decorations, bas-reliefs in marble or bronze, figures or groups in bronze, bronzes from *cire-perdue*, gems, cameos and intaglios. Under the head of paintings are embraced paintings in oil, paintings in water color, paintings on ivory, on enamel, on metal, on porcelain and other wares, and fresco painting on walls. In addition there are included engravings and etchings, prints, chalk, charcoal, pastel and other drawings, and exhibits of private collections.

Thus it will be seen that every department of the Fine Arts is covered by this classification. With a full representation of characteristic work from each country, the student will here have an opportunity for study and comparison such as he has never before been offered to an equal extent in this country.

American art, in every department, was given a new impetus by the Centennial Exhibition of 1876, and it will be a special aim to show the extent of the advancement made in American art work during the past sixteen years. It will be endeavored, also, to make a retrospective exhibit of American paintings, representing each artist who has achieved prominence by characteristic work. This will show all the changes in the traditions and methods of our art and the development of the various "schools" of expression.

All the works to be admitted to the Department of Fine Arts must first pass an examination by a competent jury, duly constituted. In foreign countries, represented by a general commission, or by a national committee, the special commissioner for the Fine Arts may be the chairman of such jury, and work only will be received through this foreign commission. In America, due notice will be given artists and others of places where pictures are to be sent at a given time to be examined by American jurors.

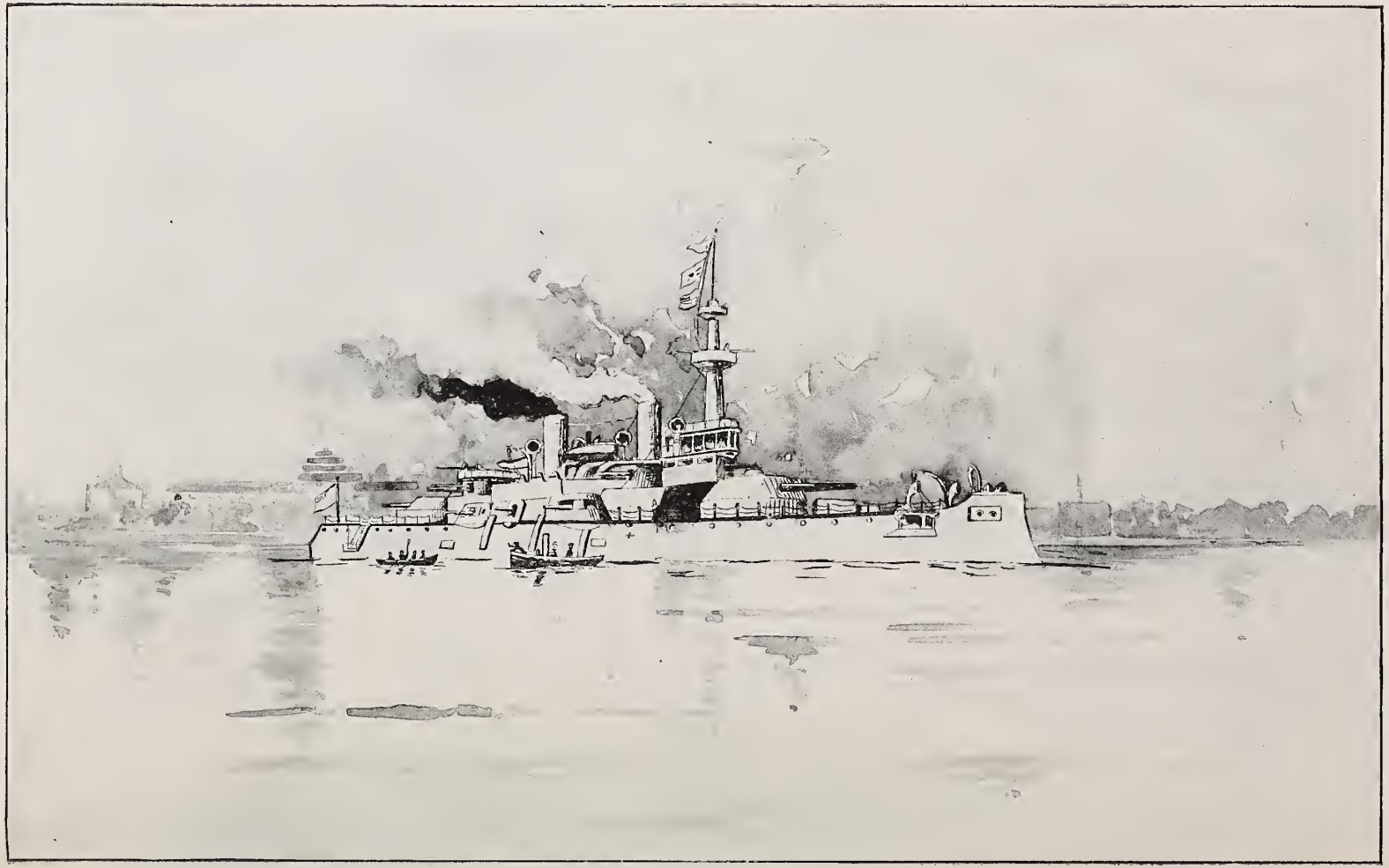
In the department of private collections it is hoped to include not only collections of paintings but of art objects of various kinds, representing the choicest productions of the art of various nations. In the Oriental arts especially many collections have been formed during recent years, and it is desired that there may be a fair showing of what is best in Oriental art as embraced in such collections.

It is proposed to give the best possible expression of architecture as a fine art. It is expected that adequate exhibits of recent architectural progress will be made by foreign countries, and gratifying interest has been shown in the same direction by American architects.

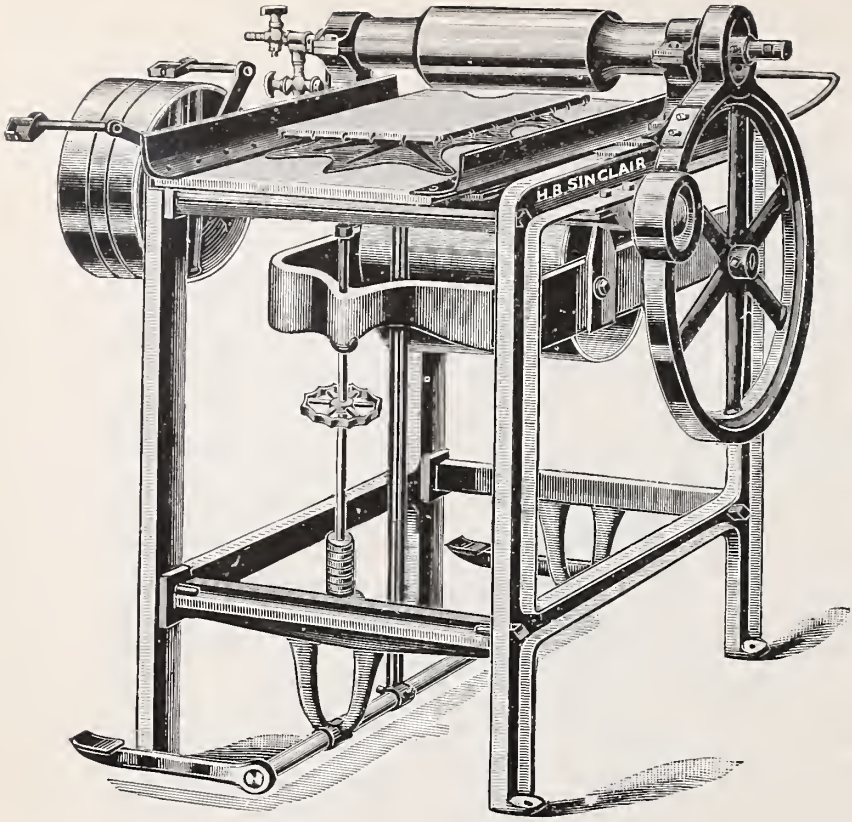
The main object of the Art Department is to form a collection of art works which shall be in the highest degree interesting and instructive to the visitor to the Exposition—such a collection as may give one a higher appreciation of art, and a desire for further knowledge, which may be satisfied by study of the collection—and a collection, also, as may enable one to become acquainted with the characteristics of the best art of all the nations and that will induce comparison and develop critical judgment.

THE BATTLE SHIP.—Unique among the other exhibits is that made by the United States Navy Department. It is a structure which, to all outward appearance, is a faithful, full-sized model of one of the new coast-line battleships. This imitation battleship of 1893 is erected on piling on the lake front in the northeast portion of Jackson Park. It is surrounded by water and has the appearance of being moored to a wharf. The structure has all the fittings that belong to the actual ship, such as guns, turrets, torpedo tubes, torpedo nets and booms, boats, anchors, chain cables, davits, awnings, deck fittings, etc., etc., together with all appliances for working the same. Officers, seamen, mechanics and marines are detailed by the Navy Department during the Exposition, and the discipline and mode of life on our naval vessels are completely shown. The detail of men is not, however, as great as the complement of the actual ship. The crew give certain drills, especially boat, torpedo and gun drills, as in a vessel of war.

The dimensions of the structure are those of the actual battleship, to wit: length, 348 feet; width amidships, 69 feet three inches; and from the water line to the top of the main deck, 12 feet. Centrally placed on this deck is a superstructure 8 feet high with a hammock berthing on the same 7 feet high, and above these are the bridge, chart-house and the boats.



BATTLE SHIP—Page 53,



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WOMAN'S BUILDING—Page 54.

At the forward end of the superstructure there is a cone-shaped tower, called the "military mast," near the top of which are placed two circular "tops" as receptacles for sharpshooters. Rapid firing guns are mounted in each of these tops. The height from the water line to the summit of this military mast is 76 feet, and above is placed a flagstaff for signaling.

The battery mounted comprises four 13-inch breech loading rifle cannon, eight 8-inch breech loading rifle cannon, four 6-inch breech loading rifle cannon, twenty 6-pound rapid firing guns, six 1-pound rapid firing guns, two Gatling guns and six torpedo tubes or torpedo guns. All of these are placed and mounted respectively as in the genuine battleship.

On the starboard side of the ship is shown the torpedo protection net, stretching the entire length of the vessel. Steam launches and cutters ride at the booms, and all the outward appearance of a real ship of war is imitated.

THE WOMAN'S BUILDING.—As might naturally have been expected, the World's Columbian Exposition will be characterized by features entirely new, and not only of daring audacity in their conception, but as well of splendid achievement in their execution. Of these achievements it is not unlikely that the one that will most forcibly arrest the attention of the visitors, especially those from other lands, will be that which finds its concrete expression in the exquisite structure known as the Woman's Building.

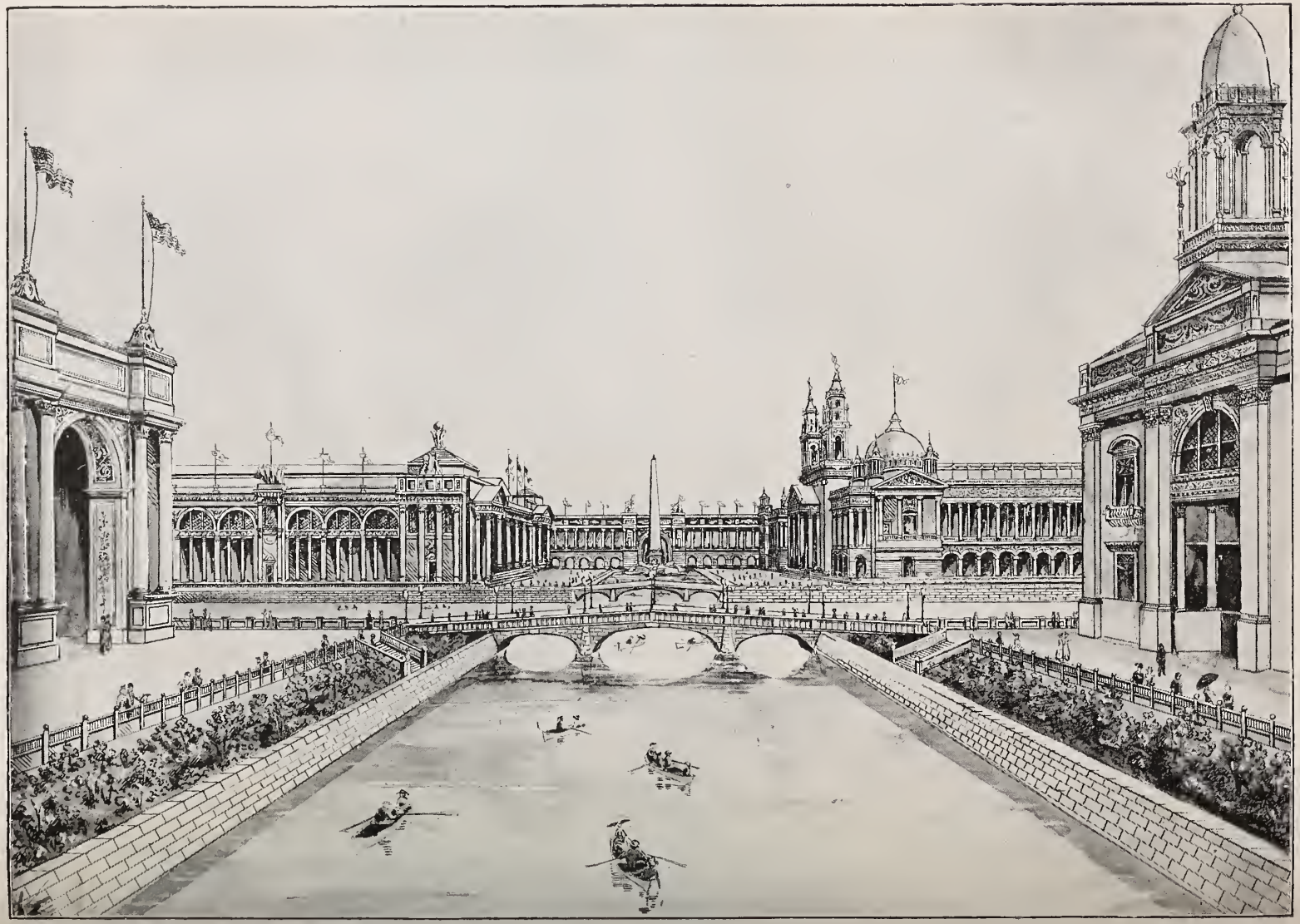
Were women to do nothing else in the great Exposition but present this splendid edifice, they would have done enough to challenge and command the wonder, admiration and respect of the whole civilized world. It is not a graceful structure planned in consonance with the softness and grace of those who are to occupy it, by men willing to thereby testify homage, but a noble thought conceived in a woman's brain, conceived on lines that have won from the most eminent architects the highest meed of praise and appreciation, and then carried to completion by women. From its firm foundations to the delicate sculptures that crown its lofty roof it is fully, absolutely and entirely woman's work. Nor is it the product of a single brain, of a single individual. In reply to the announcement that there would be an open competition among women architects for the plan of the building, there came plans from a dozen women—plans of such a high order of excellence that it was only after long and careful deliberation with the architects intrusted with the planning of the great structures of the Exposition, that the Chief of Construction awarded the prize to Miss Sophia G. Hayden.

A further surprise awaited the architects in the revelation of Miss Hayden's ability to prepare and furnish all necessary working plans, drawings and estimates, and generally to assume precisely the position and responsibility resting on each of themselves in the erection of the buildings they had planned. Work was at once begun upon the building, and it will be the first to be completed.

It is situated at the northwestern end of the lagoon. To the south, and separated from it by broad gardens, is the stately crystal mass of the Horticultural Building; to the north rises the imposing dome of the Illinois State Building; while directly opposite its eastern facade, across the shining waters of the lagoon, the dainty tracery of the Fisheries Building forms an entrancing picture.

The extreme dimensions of the building are 400 x 200 feet, the longer axis running nearly north and south. The general scheme of construction is a center pavilion connected with two end pavilions by arcades which are open in the first story. Architecturally considered, it is of the school of the Italian Renaissance, very delicately treated, the detail being worked out in an essentially feminine manner.

The principal facade is that upon the lagoon, which at this point forms a bay about 400 feet in diameter. From this bay a grand landing and staircase lead up to the first terrace, elevated six feet above the water level. This terrace is laid out in great flower beds, and along the water front and also at the rise of the second terrace, it is defined by artistic balustrades. The second terrace—that upon which the building stands—is but four feet high and is reached from the first by numerous broad staircases. A space of 100 feet or more on this terrace surrounds the building. The first story is raised about ten feet above



Manufactures and Liberal Arts. Agricultural. LAGOON WIEW WORLD'S COLUMBIAN EXPOSITION. Machinery. Electricity.

M. W. DUNHAM'S "OAKLAWN FARM,"

AN ESTABLISHMENT OF NATIONAL REPUTATION.

It was selected by the United States Government as the model stock farm of the country to be visited by the Pan-American Congress, October 22, 1889.

Wayne is located on the Galena Division of the C. & N.-W. R. R., 35 miles from Chicago.

Our historical sketches of Universal Expositions would be incomplete if we failed to mention this great Horse Breeding establishment, which has played such an important part in nearly every Universal Exposition of Europe and America, and has become the home of nearly a hundred winners at the last five Universal Expositions.

At the Universal Exposition, Paris, 1889, fifteen hundred horses of all breeds were entered. Exhibits in the Coach and Carriage classes, in numbers of animals and variety of breeds, have never been equaled at any previous Exposition. Ninety-six competed in the two-year-old class, 190 in the three-year-old class, 64 in the four-year-old class, and 145 mares. Breeds of Carriage Horses were represented from England, Scotland, Russia, German Empire, Spain, Algiers, the Indies and France.

14 Gold Medals Awarded Dunham's Collection, Universal Exposition, Paris, 1889, viz.:

Vermouth 11517 [22503]	4 years old.	Gold medal.	First prize.	1,000 francs.
Bijou 11846 [23276]	4 years old.	Gold medal.	First prize.	1,000 francs.
Sarah Bernhart 11416 [18543]	2 years old.	Gold medal.	First prize.	1,000 francs.
Semele 11254 [20479]	3 years old.	Gold medal.	First prize.	1,000 francs.
Henri 355	4 years old.	Gold medal.	First prize.	1,000 francs.
Heritier 3586	4 years old.	Gold medal.	First prize.	1,000 francs.
Indre 385	3 years old.	Gold medal.	First prize.	1,000 francs.
Inn 404	3 years old	Gold medal.	First prize.	1,000 francs.
Ismael 394	3 years old.	Gold medal.	First prize.	1,000 francs.
Ismael 400	3 years old.	Gold medal.	First prize.	1,000 francs.
Jovial 395	2 years old.	Gold medal.	First prize.	1,000 francs.
Inada 407	3 years old.	Gold medal.	First prize.	1,000 francs.
Liberte 365	3 years old.	Gold medal.	First prize.	1,000 francs.
Mercedes 1004	2 years old.	Gold medal.	First prize.	1,000 francs.

We are informed that the "Oaklawn" entries for the Columbian Exposition, Chicago, 1893, have already been made, and are on a scale that assures a grander exhibit than has ever been made at any previous Universal Exposition.

The breeding of horses at "Oaklawn" began in 1868. The farm comprises 1,700 acres. Capacity of stables, 700 head. Annual sales, $500,000.

Average number of pure-bred Percheron and French Coach mares kept for breeding purposes, 200.

Average number of breeding stallions and mares imported annually during the past five years, 250; highest number, 390.

It is generally believed that "Oaklawn" has, for the last quarter of a century, exercised a greater influence upon improved horse breeding than any other private breeding establishment in the world.

Here the sturdy and vigorous Percherons have been bred in their highest perfection and distributed to all parts of the continent by thousands, adding untold value to our native breeds, giving increased size, a hardy constitution, a sanguine yet docile temperament, thus uniting all the qualities necessary to perform the rapid and heavy work demanded by agricultural progress.

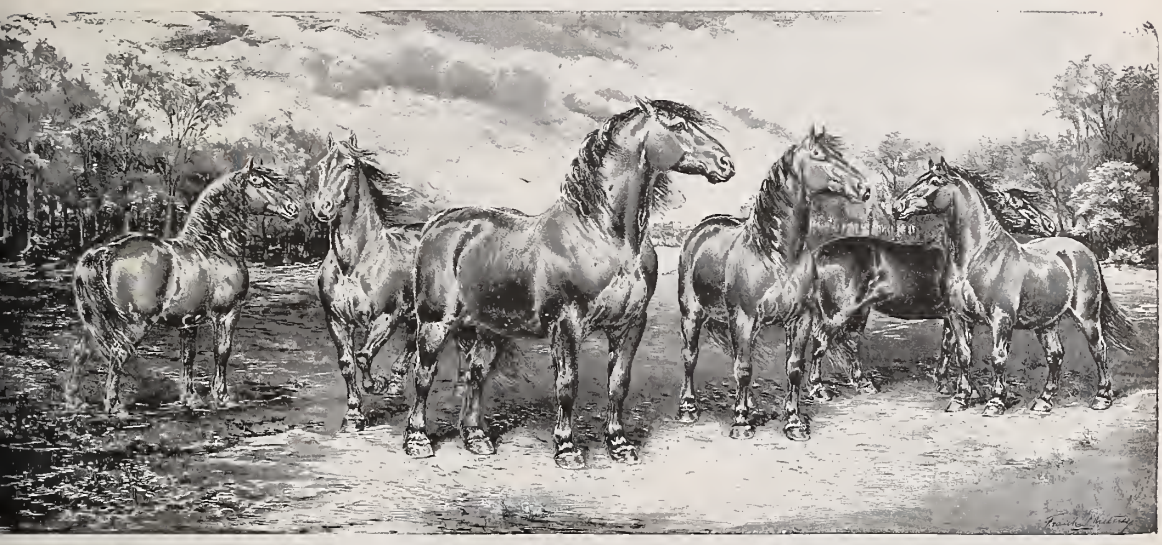
Here, also, was first imported and bred (and can now be found in large numbers) the French Coach Horse, the typical carriage horse of Europe, a horse combining size, symmetry, speed and endurance that has no equal; and in speed second only to the American trotter, possessing in a high degree all the qualities which are wanting in our great trotting families to make them fine carriage horses—that is size, beautiful conformation, with the high, trappy knee-action, instead of the long, mechanical stride. They are destined to become the sires of a great race of Carriage Horses, the female basis of which shall be the well-bred trotting mares of good form that are too slow to produce extreme speed, and are without the size or gait necessary for carriage use. In this age of scarcity and high price of high-class carriage horses, there are thousands of mares that are annually disappointing their owners, that would prove mines of wealth if bred to typical French Coach Stallions.

From Mr. Dunham's catalogue for 1891, comprising nearly 300 pages of reading matter

invaluable to the draft and coach horse breeder, which, in high class workmanship and artistic embellishment, surpasses any stock catalogue that has ever come to our notice, we extract the following from the introduction, believing it will give to our readers a more correct idea of this establishment than anything we might write:

"This catalogue marks the twenty-fifth year of Percheron horse breeding at 'Oaklawn.' It represents the progress of a quarter of a century of personal labor in the interest of improved horse breeding, which has not, I believe, been barren of beneficial results to our country. To me they have been years of pleasure, as I have seen my ambitions realized in the successful planting of a breeding establishment that should, in the typical perfection of its product, rival in quality the choicest specimens of the famed valleys of the Perche.

"The accomplishment of this purpose has necessitated a continouous selection of the finest specimens from the country of their nativity. That every first prize stallion, 3, 4 and 5 years old, with two exceptions, of the Great Show of the Societe Hippique Percheronne, has, since the beginning of my operations, come to 'Oaklawn,' and nearly all the



GROUP OF PERCHERON HORSES, OAKLAWN FARM, FROM PAINTING BY WHITNEY.
BRILLIANT 1271 [755], THE MOST FAMOUS OF ALL DRAFT STALLIONS, WITH FIVE OF HIS GET.

mares of these exhibitions, as well as of the Universal Expositions of Paris, 1878 and 1889, are facts in history, and have contributed to the remarkable development of draft horse interests in this country.

"To 'Oaklawn' belongs the honor of being the birthplace of the first pure-bred Percheron colt foaled in Illinois, and the first pure-bred French Coach colt foaled in America.

"In the selection as a basis for a stud of Percheron and French Coach horses, the greatest personal care has been given. A careful study of the origin and peculiarities of the ancestors of each individual has been an inflexible rule. That some French Coach horses are traceable, on both sire and dam side, from fifteen to seventeen generations, will give one an idea of the labor and research necessary to acquire a fairly discriminating knowledge of the pedigrees of each animal. To simply trace a pedigree is not difficult, but to learn the history of the individuals composing it, their color, quality, characteristics, etc., which is essential to the judgment of its value, is a task that but few accomplish, notwithstanding it is one of the most necessary attainments of the highly successful breeder.

"The information presented in this issue, giving the cumulative history and records of the individuals and their ancestors for so many generations, will furnish the reader some idea of the information at the command of a careful student of French Coach horse breeding; information that will be greatly appreciated, I doubt not, by the buyers of this class of stock, as from the history of the ancestors the hereditary and transmissible power of the individuals may be correctly judged and their relative value determined. As an illustration: Two animals may be exactly of the same conformation, one tracing by blood lines to animals of remarkable speed and endurance, the other to those that have never distinguished themselves. To the practical breeder one horse would have many times the value of the other. Without this knowledge both horses would be equal.

"Believing that the prosperity of any establishment depends upon the success of the stock that goes out from it, it has been the policy of 'Oaklawn,' in both Percheron and French Coach horses, to select only those that possess individual qualities in themselves and in their ancestry, which gives to them the highest value for their respective purposes, and a most generous patronage for more than twenty-five years has rewarded my efforts."

the ground-line and is reached through a triple arched entrance. These successive elevations bring the roof-line over 70 feet from the water-line, and the superb crowning groups of statuary yet to be described still further carry up the graceful lines of the structure. Passing through the entrance a broad lobby, 40 feet wide, conducts directly into the great central rotunda, 70 x 60 feet, which reaches through the height of the building and is surmounted by a richly ornamented skylight. This rotunda is surrounded by a two-story, open arcade, which admits light and air to the interior space and gives a thoroughly Italian court-yard effect. To right and left of the main entrance are situated a model kindergarten and a model hospital. The southern pavilion is devoted to a retrospective exhibit of woman's work in past time from all lands. The northern pavilion will be given up to the reform and charitable organization exhibits.

In the main rotunda will be displayed the most brilliant achievements of women in all lines of work. These exhibits will be admitted on invitation only, and the mere fact that an exhibit is found there will be tantamount to the very highest recognition of merit that can be bestowed.

The second story will contain parlors and reception-rooms, committee-rooms, dressing-rooms, etc.; the great Assembly Hall above the north pavilion; and the model kitchen, refreshment rooms, etc., above the south pavilion. Those rooms above the main entrance will give access to an open balcony extending across the front of the building and commanding a view of unrivaled beauty and splendor. The vast roof is supported by immense caryatides designed and modeled by Miss Enid Yandall, of Kentucky, and is laid out as a great roof garden, where again woman's brain and woman's hand will plan and execute.

A special feature of the beautiful building will be the sculpture with which it will be adorned. Twenty designs in plaster were submitted by as many women for the statuary for the roof line and for the relief work in the pediments. The well-known sculptor Augustus St. Gaudens found it an exceedingly difficult matter to select the best of these, so evenly excellent and so highly artistic and appropriate were all of the submitted designs. Miss Alice Rideout, of California, finally was awarded the coveted distinction. Three main groups are included in Miss Rideout's accepted design, representing respectively "Woman's Virtues," "Woman as the Spirit of Civilization" and "Woman's Place in History." The first and last groups will stand free above the attic cornice sixty feet from the ground. The third, "Woman as the Spirit of Civilization," will be in high relief, and will fill the pediment over the main entrance.

The exterior of the building is covered with "staff," which is to be tinted in soft tones of color in harmony with the delicate grace of the architectural lines.

In recognition of the paramount importance and value of the work, and the idea that this building represents, Congress created the Board of Lady Managers, the corporation known as the World's Columbian Exposition set apart $200,000 for the erection and maintenance of the building, and in a number of States the example of Illinois, which set aside $80,000—or ten per cent of its appropriation—for woman's work, has been followed.

The objects of the Board of Lady Managers have been concisely stated by the President of that organization as follows:

"To give an adequate idea of the extent and value of what is being done by women in the arts, sciences and industries.

"To show to the breadwinners, who are fighting unaided the battle of life, the new avenues of employment that are constantly being opened to women, and in which of these their work will be of the most distinct value by reason of their natural adaptability, sensitive and artistic temperaments, and individual tastes; what education will best enable them to enjoy the wider opportunities awaiting them and make their work of the greatest worth, not only to themselves, but to the world."

Lack of space alone prevents any mention of the exquisite work of decoration in the way of mural paintings, carvings in wood, metal and stone, tapestries, etc., all the handiwork of women, that will be found in this temple erected to the honor and worth of woman as a worker and active agent in the progress and civilization of the race.

Even to the careless and the mere amusement seeker at the great Exposition this building, by its noble proportions and radiant beauty, will be an object lesson that will

ILLINOIS BUILDING—Page 56.

produce an impression the influence of which will remain long after the memory of mere wonders has faded away.

THE ILLINOIS STATE BUILDING.—The Illinois Building at the World's Columbian Exposition is by far the most pretentious of those designed by the several States of the Union. Being in a sense the host at the Exposition, it was deemed not only proper but requisite that Illinois should make such appropriation and provide such a building as would enable her to perform creditably the duties of that office. The State appropriated $800,000.

Situated on a high terrace, in one of the most favored spots in Jackson Park, the Illinois Building commands, for nearly a mile to the southward, a view of the beautiful waterway which encircles the great island and extends to the buildings for Electricity and Mines, while to the northward, across a branch of the lagoon, is presented the imposing facade of the Palace of Fine Arts.

The building in the main is 160 feet wide by 450 feet long. On the north, Memorial Hall forms a wing 50 by 75 feet, and on the south another wing, 75 by 123 feet, and three stories high, accommodates the executive offices, and in the third story, two public halls. The side walls are 47 feet high, while the south wing is 72 feet and the ends 54 feet. Surmounting the building at the center, a fine dome, 72 feet in diameter, rises to a height of 235 feet. The building is constructed almost wholly of Illinois material—wood, stone, brick and steel—and is covered with "staff" artistically treated. The grand entrance faces the waterway to the south, while at the west and north ends are others scarcely less imposing. In front of the entrances are beautiful terraces with balustrades, statues, fountains, flowers and stone steps leading down to the roadways and lagoon landings.

The building is embellished with fine carving and statuary. It is thoroughly lighted, first from the side windows, which are placed about fourteen feet above the floor to permit cases to be placed against the walls; second, with skylights placed in the flat roof of the side aisles; and third, with continuous skylights on the ridge of a pitched roof or nave. Ventilation is provided for through windows placed a story above the flat aisle roof and the foot of the sloping roof over the nave. The interior of the structure is appropriately and beautifully ornamented.

Memorial Hall, which is fire-proof, has a gallery encircling it, and contains a large and interesting collection of relics and trophies of the war and other periods, all owned by the State.

One feature of the Illinois Building which is sure to attract much attention, consists of five model common school rooms, of high grade, fully equipped and furnished under the direction of the State Superintendent of Public Instruction. Here may be seen an illustration of the methods and results of educational work.

GENERAL.—Information concerning the State buildings is yet quite incomplete, as few of the plans have been approved. It is expected that nearly all will erect buildings as State headquarters and receptacles for collective exhibits illustrating their resources. Thus far data for the buildings of twenty-two States, as projected, have been received at headquarters. These structures, for the most part, will be two stories in height, will average about 75x75 feet in dimensions, and will cost all the way from $10,000 to $100,000 each.

The dimensions of the great Exposition buildings are indicated in the following table:

Buildings.	*Dimensions in feet.*	*Area in Acres.*
Manufactures and Liberal Arts	787x1687	30.5
Administration	262x 262	1.6
Mines	350x 700	5.6
Electricity	345x 690	5.5
Transportation	256x 960	5.6
Transportation Annex	425x 900	8.8
Woman's	199x 388	1.8
Art Galleries	320x 500	3.7
Art Gallery Annexes (2)	120x 200	1.1
Fisheries	165x 365	1.4
Fisheries Annexes (2)	135 diam	.8
Horticulture	250x 998	5.7

Buildings.	*Dimensions in feet.*	*Area in Acres.*
Horticulture Greenhouses (8)	24x 100	.5
Machinery	492x 846	9.6
Machinery Annex	490x 550	6.2
Machinery Power House	100x 461	
Machinery Pumping Works	77x 84	2.1
Machinery Machine Shop	106x 250	
Agriculture	500x 800	9.2
Agriculture Annex	300x 550	3.8
Agriculture Assembly Hall, etc	125x 450	1.3
Forestry	208x 528	2.5
Sawmill	125x 300	.8
Dairy	100x 200	.5
Live Stock (2)	65x 200	.9
Live Stock Pavilion	280x 440	2.8
Live Stock Sheds	.....	40.0
Casino	120x 250	.7
Music Hall	120x 250	.7
		153.7
United States Government	345x 415	3.3
United States Government Imitation Battleship	69.25x 348	.3
Illinois State	160x 450	1.7
Illinois State Wings (2)	.....	.3
		159.3

The last three are being erected, the first two by the United States Government and the third by the State of Illinois. The visitor, however, will naturally class them among the great Exposition structures.

The Exposition buildings, not including those of the Government and Illinois, have also a total gallery area of 45.9 acres, thus making their total floor space 199.7 acres. The Fine Arts Building has 7,885 lineal feet, or 145,852 square feet, of wall space.

ANNEXES—All of the annexes will be scarcely less imposing and architecturally beautiful than the main buildings themselves. The live-stock sheds, which will cover an immense area as indicated, are to be constructed as inexpensively as possible without marring the general architectural effect. The power houses, pumping works, etc., are to be exhibits in themselves, and so constructed as to be readily inspected by visitors. There will be several Exposition buildings in addition to those named, but data concerning them are not yet fully determined. Among them will be a Press Building, in which every possible convenience and accommodation for the press representatives of the world will be provided; and a reproduction of the Spanish convent, La Rabida, in which a wonderfully complete collection of Columbus relics and allied exhibits will be gathered. The total cost of the Exposition structures alone is estimated at $8,000,000.

The amount ($8,000,000) which the Exposition company expects to expend upon buildings represents less than one-half of its total estimated expenditure for the great enterprise. Following are estimates of various other expenses:

Grading, filling, etc	$ 450,400	Water supply, sewerage, etc	$ 600,000
Landscape gardening	323,400	Improvement of Lake Front	200,000
Viaducts and bridges	125,000	World's Congress Auxiliary	200,000
Piers	70,000	Construction department expenses, fuel, etc	520,000
Waterway improvements	225,000		
Railways	500,000	Organization and administration	3,308,553
Steam plant	800,000		
Electricity	1,500,000	Operating expenses during Exposition	1,550,000
Statuary on buildings	100,000		
Vases, lamps and posts	50,000		
Seating	8,000	Total	$10,530,453

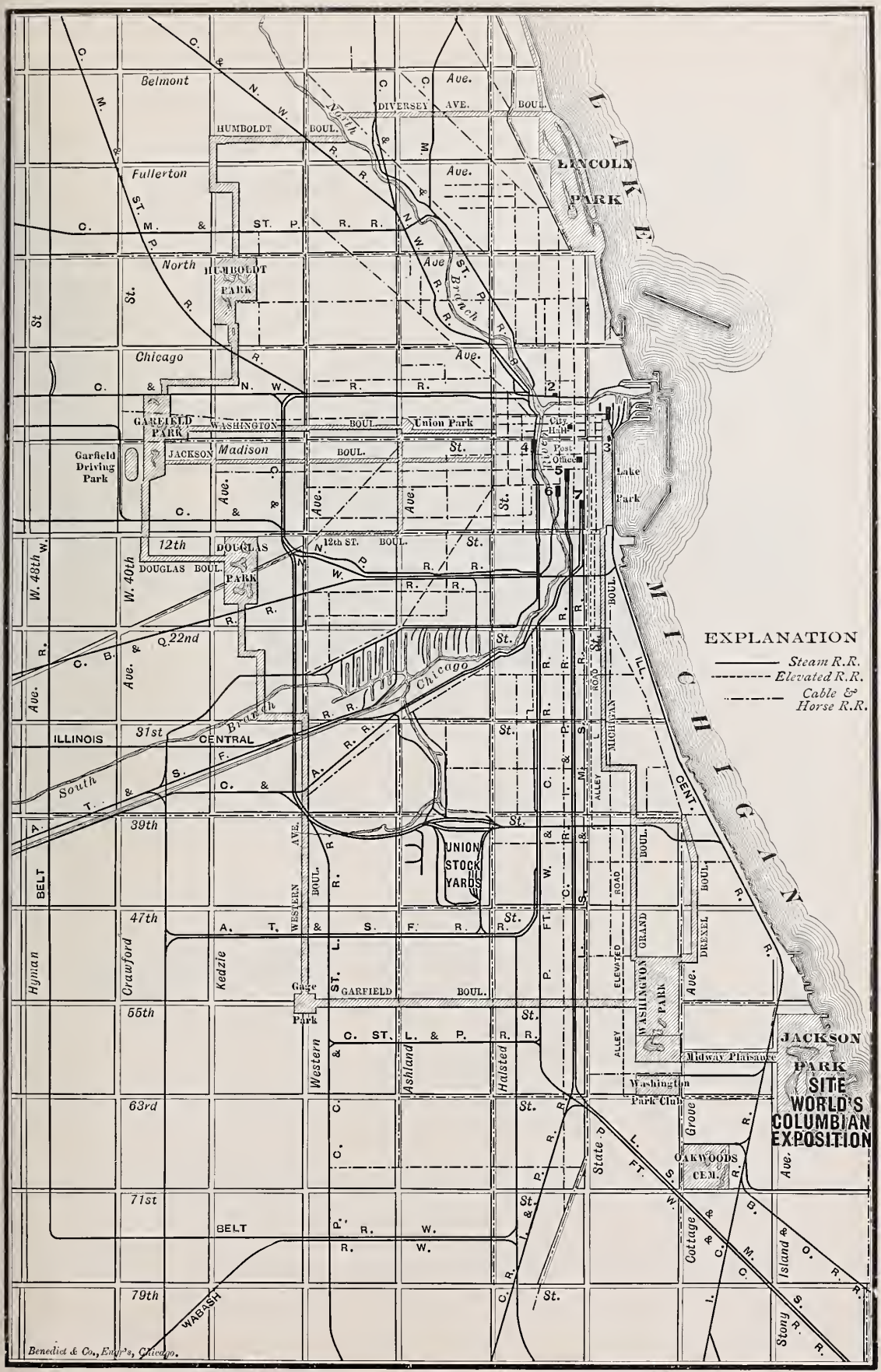
Add to this the amount estimated to be necessary for buildings ($8,000,000) and the grand total sum to be expended by the Exposition company stands at $18,530,453. This does not include, of course, the expenditure by the United States Government, the States of the Union, or foreign countries. Of this $18,530,453, about $17,000,000 must be paid out

before the gates of the Exposition are thrown open to the public May 1, 1893. Owing to the present enormous demands of construction, the expenditure is now running at nearly $1,000,000 a month.

To supply the Exposition buildings and grounds with water two plants are being put in, one with a capacity of 24,000,000 gallons per day and the other of 40,000,000 gallons. Thus 64,000,000 gallons per day will be available. The pumping works and all the great machinery furnishing power to the Exposition will be open to the inspection of visitors.

PUBLICITY AND PROMOTION.--DEPARTMENT O.—The work of this department is of the greatest importance in that it has full charge of the dissemination of general information and of such advertising matter as appeals directly to the interested people in all parts of the world. Its work is necessarily very large by reason of the great demand for information, and the accumulation of facts in connection with the Exposition. This department is sending out an average of nearly 15,000 pieces of printed matter daily, and the mail list embraces the names of about 17,000 newspapers, to which an average of five printed articles are mailed each week for publication. The regular letters containing news and descriptive matter in relation to the Exposition are sent to papers in all parts of the world for publication. Those sent to foreign countries are written in the language of the country to which they are forwarded. Information is also furnished daily to the Chicago papers, both as to departmental work and the progress of construction at Jackson Park; also to the Associated Press, United Press and the Press News Association. It is estimated that over 100,000 words daily are being published by this department, which will be equal to an ordinary 300 page book per day.

FOREIGN AFFAIRS.—DEPARTMENT P.—This department has charge of all matters pertaining to the foreign interests of the Exposition. The accredited representatives of all foreign countries correspond with the Exposition through this department, and all Foreign Commissioners of the Exposition come under its supervision and report direct to it. It will be seen that the work of this department is large, and necessarily very important. The correspondence is so extensive and important in its nature as to require great tact and diplomatic ability in order to meet the peculiar ideas and customs of the many different peoples throughout the world. On its work depends, in a great measure, a proper and intelligent understanding of the plan and scope of the Exposition in its international relations.



MAP OF CHICAGO

William O. Green, Pres't — Geo. C. Hempstead, Treas.

THE

Peshtigo Company

MANUFACTURERS OF

LUMBER, LATH, SHINGLES, PICKETS, ETC.

Office and Yard, East End of Illinois Street

CHICAGO, ILL.

HOLBROOK CO.

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LUMBER AND TIMBER

37TH & STEWART AVE.

CHICAGO.

Geo. B. Carpenter & Co.

SHIP CHANDLERS AND SAIL MAKERS

DEALERS IN

TWINES AND CORDAGE

COTTON DUCK
STEEL AND IRON WIRE ROPE
CHAINS, BLOCKS, ETC

202 TO 208 SOUTH WATER STREET

CHICAGO

CHAPTER VI.

CHICAGO, 1892.

LOCATION.—The City of Chicago is situated on the west shore of the great inland sea known as Lake Michigan, 850 miles from the City of Baltimore, the nearest point on the Atlantic, and 2,417 miles from San Francisco on the Pacific. It mean elevation is twenty-five feet above Lake Michigan, or 591 feet above mean sea level.

SIZE.—The area of the City of Chicago is 174 square miles, divided by the Chicago River and its branches into three sections, known as the North, South and West Divisions. These are connected by sixty-one swing bridges and two tunnels. The Park and Boulevard system of Chicago, occupying 3,290 acres, is the most extensive of any city in the world and is alone worthy of a visit; when completed it will surround the city on three sides, forming a series of drives almost unrivalled.

WORLD'S FAIR.—The selection of Chicago as the location for the World's Fair 1893, by a majority of both Houses of Congress, is indicative of the strong impression made upon representatives from all sections of the United States as to its perfect fitness for this vast undertaking. There is no other city in the Union which for position alone could compare with Chicago; centrally located, with thousands of miles of direct railroad connections, it is equi-distant to Spain and Japan, London and Canton, Buenos Ayres and St. Petersburgh. Mexico and Montreal are brought to its gates. Still farther, Chicago is entitled to the World's Fair from its rank as a cosmopolitan city, being the second city on this continent in population and the seventh in the world, and such a population!

Outside of London it is doubtful if any city in the world can show a larger and as varied a foreign population as the City of Chicago.

NATIONALITIES COMPRISING THE POPULATION OF THE CITY OF CHICAGO, ACCORDING TO THE CENSUS OF 1890.

American	292,463	English	33,785	Hollanders	4,912	Spanish	297
German	384,958	French	12,963	Hungarians	4,827	Portugese	34
Irish	215,534	Scotch	11,927	Swiss	2,735	East Indians	28
Bohemian	54,209	Welsh	2,966	Roumanians	4,350	West Indians	37
Polish	52,756	Russian	9,977	Canadians	6,989	Sandwich Islands	31
Swedish	45,877	Danes	9,891	Belgians	682	Mongolians	1,217
Norwegian	44,615	Italians	9,921	Greeks	698		
							1,208,669

THEATRES.—There are twenty-four theatres in Chicago, with an estimated average gross attendance daily of from 20,000 to 25,000 persons.

CHURCHES.—There are 465 places of public worship, of all denominations, in Chicago, with an estimated gross attendance on each and every Sunday of not less than 120,000 persons.

ACCOMMODATIONS.—It is a cause of great satisfaction to all interested in the success of the World's Fair 1893, that Chicago stands unrivalled in the world for its accommodations for visitors; from the most carefully selected statistics there is unquestioned evidence that it will absorb, without inconvenience, double the number of transient visitors of any other city on this continent. There are at the present writing over fourteen hundred hotels, large and small, with a united capacity sufficient to care comfortably for at least one hundred and fifty thousand extra guests; this is entirely outside of the enormous number of boarding and private houses, which, in an emergency, would probably double this estimate. It is quite within reason to look forward to an increase of at least one-fourth more in these accommodations within the next year. In addition to the above large number of hotels, there are in Chicago at the present time over six hundred restaurants and cafes, with a feeding capacity of at least one hundred thousand persons daily.

CHICAGO AS A RAILWAY CENTER.—For the clearance of the great volume of traffic, in addition to the water facilities, there are thirty-five railway lines terminating in Chi-

cago. They reach from Chicago to the Atlantic and Pacific Oceans, Lake Superior and the Gulf of Mexico, and all the great cities of the United States and Canada, as well as the borders of Manitoba and Mexico. These lines vary in length from 50 to 7,000 miles.

There are six Union depots in the city, handsome and commodious structures, besides two depots used exclusively by the lines which own them.

A passenger may enter at Chicago a luxuriously furnished sleeping car, and without leaving it, reach any of the principal sea-board cities of the United States, as well as railway lines leading into Canada on the North, and Mexico on the South. Nine hundred and two exclusively passenger trains arrive and depart at Chicago each day, of which 248 are through or express trains, the remainder, suburban and accommodation trains. It is estimated that fully 175,000 people arrive and depart each day at Chicago.

In the way of warehouses and trackage the railroad facilities are so great that even the tremendous pressure brought about by a World's Fair will hardly be looked upon as a strain. Several belt lines encircle the city, affording connection and transportation facilities with every entering railroad, thus giving direct connection between depots located at a distance from each other.

Add to this modern convenience, the fact that the actual yard facilities for the storage of freight, pending its delivery, are already in excess of local requirements, large as they are, and the fact that in nearly every case they can be increased if necessary, the result is a combination of freight facilities practically perfect.

Railroad Depots.—The following is a complete list of the various railways entering Chicago, with their branch lines. The number set opposite each name indicates the Depot terminals of each, as shown on the Map of Chicago opposite page 58.

7 Atchison, Topeka and Santa Fe.
3 Baltimore and Ohio.
4 Chicago and Alton.
7 Chicago and Erie.
4 Chicago, Burlington and Quincy.
7 Chicago and Eastern Illinois.
4 Chicago, Evanston and Lake Shore.
7 Chicago and Grand Trunk.
4 Chicago, Milwaukee and St. Paul.
2 Chicago and Northwestern.
5 Chicago, Rock Island and Pacific.
7 Chicago, St. Paul and Kansas City.
6 Chicago and Northern Pacific.
6 Chicago and Southwestern.
1 Chicago and West Michigan.
7 Chicago and Western Indiana.
1 Cincinnati, Indianapolis, St. Louis and Chicago (Big Four, or Kankakee Route).
1 Illinois Central.
5 Lake Shore and Michigan Southern.
1 Michigan Central.
2 Milwaukee, Lake Shore and Western.
4 Milwaukee and Northern.
7 Missouri Pacific.
7 Monon Route (L., N. A. and C.)
5 N. Y., C. and St. L. (Nickel Plate).
4 Pittsburg, Cincinnati, Chicago & St. Louis.
4 Pittsburg, Ft. Wayne and Chicago.
7 Wabash.
6 Wisconsin Central.

Street Railways.—There are 396 miles of Street Railways in the City of Chicago, running to all parts of the city and furnishing accommodations to nearly 600,000 people per day. This capacity will be greatly increased during the present year in anticipation of the large influx of visitors during 1893.

The Press of Chicago.—There are 531 newspapers published in Chicago, and the extent of their circulation may be gauged from the statement that 20,000,000 pounds of serial matter finds its way through the Chicago post office annually.

The high character of these publications will compare favorably with those of any metropolis in the world; in fact, the leading newspapers of Chicago have an established reputation for enterprise and energy in securing the news of the day and for editorial ability second to none.

Extract from Chicago's Recorded History for the Fiscal Year of 1890.

Financial.—The bonded debt of the city amounts to $13,545,400, bearing interest from 3½ to 7 per cent. The total annual interest paid on present bonded debt for past year, $825,350.40. The bonded debt will be increased during the next two years by the issuance of 4 per cent. bonds—$5,000,000 as authorized by the State Legislature for increased expenses for the World's Fair, which will make the city debt little more than $18,500,000. This is a much smaller debt than any other city of a similar size.

Public Works.—This branch of the city's industries had an unusually active season in all its departments; 108 miles of new pavement have been laid, 116 miles the year

before, making, with all other paved streets, a total of 662 miles of paved streets in Chicago. Nearly one quarter of a million square yards of the old pavements have been relaid during the year. Over 433 miles of sidewalk were laid during the year, against 191 miles laid the previous year.

THE HEALTH DEPARTMENT of a city like Chicago finds ample scope for the exercise of ability, diligence and official faithfulness in the discharge of important duties of that branch of municipal service. The year closed with a death rate of 18.22 (which is below that of any other large city in the United States).

EDUCATIONAL.—In 1887 there was appropriated for educational purposes $2,250,000; in 1888 nearly $2,500,000; in 1889 about the same; in 1890 nearly $4,750,000; for the past year, 1891, over $5,500,000. Total in five years, $17,500,000. There are 218 school buildings with a seating capacity of 125,000 scholars; 186 school rooms added the past year. Total enrollment of pupils 139,000.

PUBLIC LIBRARY.—The interest in the public library increases every year. The year ending March, 1891, the circulation was 1,125,000 books. Nearly 18,000 volumes were added during the year, making, in the twenty-four branch stations throughout the city, 161,000. A glance at the reading room to see the regular attendance and the number of books being read is the best evidence showing how the Public Library is appreciated by the people of Chicago.

BUILDING DEPARTMENT.—In 1889, 7,590 buildings were erected, covering over thirty-four miles of street frontage, costing $31,516,000; during 1890, 11,640 buildings, covering a street frontage of fifty-one miles, costing $48,000,000.

MISCELLANEOUS.—The following tabulation of data, with approximate estimate of cost and valuations, is submitted for reference:

	Actual Cost.	*Cash Value.*
Water Works	$17,000,000	$50,000,000
Sewers	11,000,000	11,000,000
School Property	10,000,000	11,000,000
Police Property	550,000	844,000
Fire Property	2,000,000	2,500,000
Public Library	300,000	232,000
Street Lamps	750,000	750,000
Electric Light Property	500,000	2,000,000
Real Estate	1,000,000	1,000,000
Buildings	2,000,000	2,000,000
House of Correction	800,000	1,000,000
	$45,900,000	$82,326,000

Liabilities, bonded debt	13,545,400
Making a total (net) value of city property of	68,780,600
Assessed valuation of real and personal property	219,354,368
Total amount of levy for city purposes	4,397,087
Revenue for Licenses	3,000,000

Number of steam railway lines entering the city	35
Miles of street railway track laid	396
Miles electric wire	1,200
Acres in public parks	3,290
Miles in boulevards	74
Miles of streets in city	2,300
Number of river bridges	61
Number of viaducts	29
Number of street lamps	37,000
Miles of river frontage	41
Miles of frontage on Lake Michigan	21

CHAPTER VII.

THE WORLD'S FAIR LONDON 1851.

While in past years, previous to 1851, there have been gatherings of merchants from different nations for trade and commerce, yet the first well-defined World's Fair was the one held in London in 1851, and in a building known as the Crystal Palace. So far as concerns National Exhibitions, we must bear in mind that the initial movement is due to the French who first undertook to offer prizes at public exhibitions for distinctive excellence. Later on, England followed in the same line, and the local exhibition at Birmingham was so complete and exhaustive, that it doubtless secured public attention when the International Exhibition of 1851 was suggested.

ARCHITECTURE.—To secure a proper design for building, an invitation was addressed through the public prints to architects of all nations, to furnish designs for an edifice the roof of which was to cover 700,000 square feet, and the area of which, including the open spaces, was not to exceed 900,000 square feet. Other conditions were enumerated which indicated that the whole of the details had been carefully and judiciously considered. Although the time allowed for the preparation of the drawings was only a month, there were no fewer than 233 competitors, many of whom sent in designs of a highly elaborate character. Of these 38, or one-sixth of the whole, were from foreigners, 128 from London and its immediate vicinity, and 51 from the provincial towns of England. After long and serious consideration, the well-known plan of Mr. Paxton was adopted, and the building was properly entitled the Crystal Palace.

The actual location of the Crystal Palace was not settled until late in 1849, when permission was secured for the use of Hyde Park, and the design, presented by Sir Joseph Paxton, was adopted. Sir Joseph being a landscape gardener, his ideas were quite in the line of his profession, for the form and shape of the Crystal Palace is based upon that of the gigantic leaf of the Victoria Regia, or African water lily. The contract for this building was made with Fox & Henderson, who bound themselves to complete the building —1,851 feet long, to correspond with the year, and 450 feet broad—in four months, using 900,000 square feet of glass, weighing more than 400 tons; 3,300 iron columns, varying from 15 to 20 feet in length, with 34 miles of guttering pipe joining all the columns together underground; 2,225 girders; 205 miles of sash bar; flooring for an area of 33,000,000 cubic feet, besides enormous quantities of wooden walling, louvre work and partition. To indicate the rapidity of construction, it may be stated that 18,392 pieces of glass were fixed in the roof in one week by 80 men, and 108 pieces, or 367 feet, 6 inches, of glazing being accomplished by one of the glaziers in a single day, the total cost being estimated in round figures at $965,000. Prince Albert, the father of this enterprise, at a grand banquet given by the Lord Mayor of London, delivered an address, from which we extract the following remarks, fully as applicable to the present time, as when these noble sentiments were uttered:

"I conceive it to be the duty of every educated person closely to watch and study the time in which he lives, and, as far as in him lies, to add his humble mite of individual exertion to further the accomplishment of what he believes Providence to have ordained. Nobody, however, who has paid any attention to the particular features of our present era, will doubt for a moment that we are living at a period of most wonderful transition, which tends rapidly to accomplish that great end—to which, indeed, all history points—the realization of the unity of mankind; not a unity which breaks down the limits and levels the peculiar characteristics of the different nations of the earth, but rather a unity, the results and products of these very national varieties and antagonistic qualities. The distances which separated the different nations and parts of the globe are gradually vanishing before the achievements of modern invention and we can traverse them with incredible speed; the languages of all nations are known, and their acquirement placed within the reach of everybody; thought is communicated with the rapidity and even by the power of lightning. On the other hand, the great principle of the division of labor, which may be called the moving power of civilization, is being extended to all branches of science, industry and art. Whilst formerly the greatest mental energies strove at universal knowledge,

WORLD'S FAIR LONDON, 1851—MAIN BUILDING.

and that knowledge was confined to few, now they are directed to specialties, and in these again even to the minutest points. Moreover, the knowledge now acquired becomes the property of the community at large. Whilst formerly discovery was wrapt in secrecy, it results from the publicity of the present day, that no sooner is a discovery or invention made, than it is already improved upon and surpassed by competing efforts. The products of all quarters of the globe are placed at our disposal, and we have to devise which is the best and cheapest for our purposes, and the powers of production are contrasted to the stimulus of competition and capital. Thus man is approaching a more complete fulfillment of that great and sacred mission which he has to perform in this world. His reason being created after the image of God, he has to use it to discover the laws by which the Almighty governs his creation, and by making these laws his standard of action, to conquer nature to his use—himself a divine instrument. Science discovers these laws of power, motion and transformation; industry applies them to the raw matter which the earth yields us in abundance, but which becomes valuable only by knowledge; art teaches us the immutable laws of beauty and symmetry, and gives to our productions forms in accordance with them. The exhibition of 1851 is to give us a true text and a living picture of the point of development at which the whole of mankind has arrived in this great task, and a new starting point, from which all nations will be able to direct their future exertions. I confidently hope the first impression which the view of this vast collection will produce on the spectator will be that of deep thankfulness to the Almighty for the blessings which he has bestowed upon us already here below; and the second, the conviction that they can only be realized in proportion to the help which we are prepared to render each other; therefore, only by peace, love and ready assistance, not only between individuals, but between the nations of the earth. This being my conviction, I must be highly gratified to see here assembled the magistrates of all important towns of this realm, sinking all their local, and possibly political, differences—the representatives of the different political opinions of this country, and the representatives of the different foreign nations—to-day representing only one interest."

When we bear in mind that to Prince Albert is due that influence which secured the inaction of Great Britain in our national conflict, we can more fully appreciate the wise and carefully thought out views of this far-seeing mind.

The work connected with the construction of the Crystal Palace proceeded rapidly, and it is estimated that not fewer that *ten thousand* persons were engaged in one way or other in the service of the exhibition.

The Crystal Palace Exhibition was opened on the 1st of May by the Queen in person, Prince Albert in an address explaining the objects and purposes of the undertaking. The Duke of Wellington, Lord Palmerston, and the Marquis of Anglesea were present. The ceremonial was one it may be said without precedent or rival "The homage paid by the sovereign of the widest empire in the world to the industry and genius of both hemispheres, will not fill a page in history as a mean and unsubstantial pageant. While the race of man exists, this solemn and magnificent occasion will not readily fade away from his memory like the baseless fabrics of a dream; it commences an era in which the sons of toil shall receive honor and reward; and, in accordance with the spirit of the day, it stimulates the energies of men to conquer 'fresh domains' and discover new faculties of nature and her products, for the well-being and use of his fellow-creatures. Of itself as a passing display of state pomp and power, we cannot speak too highly; for even oriental gorgeousness fades in comparison with the glories of the unequaled temple which enshrines the exhibition of all nations at Hyde Park."

It must be borne in mind that with the Crystal Palace Exhibition everything had to be learned, and yet so admirable was its management that there is little change now to be made after nearly a half century of experience.

There was really very little interest taken by this country in the Great Exhibition, the total number of visitors to England from the United States being only 5,048, and yet considering the small number of exhibits (499), we secured a larger proportion of awards than any other nation. The number of jurors was 318, of whom the British claimed 161 and the foreign nations 157; of this last class the United States had 24. Special attention was attracted to our coaches, wagons, buggies and trotting sulkies, which at that time were almost unknown in Europe. Chickering's and Meyer's pianos were noticed, and due credit given to the cotton and woolen goods from Massachusetts and Rhode Island. McCormick's reaper carried off the gold medal at this great exhibition. The sight of Powers' Greek Slave in marble was a surprise to the English critics. Joiners' tools, axes and shovels were mentioned by the jury as deserving medals. India rubber goods were

PRINCE ALBERT, 1851.

for the first time on exhibition, and the yacht America and Francis' life boat were objects of special interest.

THE UNITED STATES AS EXHIBITORS IN 1851.—The total number of exhibitors was 13,937, of whom Great Britain contributed 6,861, the British Colonies 520, and the rest of the world 6,556. Persia furnished 12, China 30, Greece 36, and Denmark 39, a small show in comparison with their exhibits at all subsequent exhibitions. The estimated value of the contents was equal to $9,000,000, exclusive of the priceless value of the Koh-i-noor diamond. The United States was represented by a commissioner, Edward Riddle, Esq., of Boston; secretaries, Messrs. Dodge and Morey; clerks, Messrs. Brewster and Walker, and three assistants.

AWARDS.—After giving the subject careful consideration, the committee decided to award a council medal ranking with a diploma of honor, the prize medal and a certificate of honorable mention distributed as follows: Council medals, 171; prize medals, 2,954; and honorable mentions, 2,123. In the United States there was given the highest award, council medal to Gail Borden, Jr., for meat biscuit; D. Dick, engineers' tools and presses; C. H. McCormick, reaping machines; Wm. Bond & Son, invention of a new mode of observing astronomical phenomena; C. Goodyear, rubber goods. The total number of awards to the United States, 5 council medals, 102 prize medals, and 53 honorable mentions.

It was while attending this exhibition that several citizens of the United States decided to present the subject of an international exhibition in New York for public consideration.

A most interesting feature connected with the exhibition of 1851 was the arrangements made for the admission of schools and the inmates of charitable institutions, 493 schools with 35,540 scholars availing themselves of this opportunity. Through the influence of the Duke of Wellington, leave of absence was secured for a large number of regiments, so that both officers and privates could spend at least a day in the Crystal Palace.

The police arrangements were very satisfactory, there being only twenty-three cases of arrest, twelve for picking pockets and eleven for theft. A few policemen were secured from other countries, and also a band of interpreters, at the expense of the commission. There were 1,454 omnibuses and 3,429 cabs available in London during the World's Fair 1851.

A series of lectures and essays by eminent scientific men were published during the World's Fair, and they had a large circulation, doing much to improve the mind and taste of the public.

The classification was based upon the most simple plan possible, all exhibits being divided into four great sections, raw material and produce, machinery, manufactures and fine arts.

Upon its first inception the Queen took a warm personal interest in the success of the Crystal Palace. She not only opened it in person, but she made several visits with her family. Her portrait presented herewith is a faithful likeness, as well as that of Prince Albert, representing them both as they appeared in 1851. The World's Fair in London proved to be a financial success, there being in hand, after paying all expenses, not less than $750,000. It was at this exhibition that the wonderful diamond known as the Koh-i-noor was for the first time shown to the public.

There can be no question but that the success of this great World's Fair is largely due to the support of Prince Albert, whose character is shown in these words, delivered at the award of prizes:

"In now taking leave of all those who have so materially aided us in their respective characters of jurors and associates, foreign and local commissioners, members and secretaries of local and sectional committees, members of the Society of Arts, and exhibitors, I cannot refrain from remarking, with heartfelt pleasure, the singular harmony which has prevailed amongst the eminent men representing so many national interests—a harmony which cannot end with the event that produced it. Let us receive it as an auspicious omen of the future; and while we return our humble and hearty thanks to Almighty God for the blessings he has vouchsafed to our labors, let us all earnestly pray that Divine Providence, which has so benignantly watched over and shielded this illustration of Nature's productions conceived by human intellect, and fashioned by human skill, may still protect us, and may grant that the interchange of knowledge, resulting from the meeting of enlightened people in friendly rivalry, may be dispersed far and wide over distant lands; and thus by throwing our mutual dependence upon each other, be a happy means of promoting unity among nations, and peace and good will among the various races of mankind."

QUEEN VICTORIA, 1851.

CHAPTER VIII.

DUBLIN WORLD'S FAIR, 1853—NEW YORK, 1853—PARIS, 1855.

The next attempt at an international exhibition was made in Dublin, but it was in no sense of the word a success. It was undertaken at the cost of a private citizen, who advanced $400,000 for expenses. The building was 425 feet long, 100 feet wide, 105 feet high, and with its annexes cost $240,000. We give herewith a view of this building, which had little to distinguish it in an architectural point.

It was opened by the lord-lieutenant of Ireland, as the representative of Her Majesty, on May 12th, 1853, and remained open until October 29th. Advantage was taken of the fact that there were no paintings on exhibition at the Crystal Palace in 1851, to secure a most remarkable collection for Dublin in 1853, valued at $1,000,000, and it was without question the finest collection ever brought together for public exhibition up to that time. While the World's Fair at Dublin was very largely attended, it was not a financial success. The number of visitors was estimated at 1,150,000, but there was not sufficient income to meet the expenses.

NEW YORK WORLD'S FAIR, 1853.

The New York World's Fair, like the one at Philadelphia in 1876, was the outcome of local and individual enterprise. The treasury department made the building a bonded warehouse, and goods for exhibition were duty free. The lease of the ground corner Forty-second street and Sixth avenue was secured on January 1st, 1852, and the following March a state charter was granted, in spite of much local opposition on the ground that it was "hostile to American industry." The charter of incorporation was entitled the "Association for the Exhibition of the Industries of all Nations," with a capital of $200,000.

The city government required that the building erected should be composed of iron, glass and wood, and that the entrance fee should not exceed fifty cents. The board of directors was composed of some of the best citizens of New York, as follows: Mortimer Livingston, Alfred Bell, August Belmont, Alexander Hamilton, Jr., George Schuyler, Albert J. Anderson, Henry R. Dunham, W. C. Wardell, Jacob A. Westervelt, James A. Hamilton, Samuel Nicholson, Philip Burrows, Johnston Livingstone, Charles W. Porter, Theodore Sedgwick, William W. Stone, William Whetten, John Dunham, William Kent, Watts Sherman, J. W. Edmunds, Jef Roosvelt; Theodore Sedgwick being elected president and William Whetten secretary.

For the purpose of raising a fund for the necessary expenses, subscriptions to stock were solicited through the agency of the well-known banking house of Duncan, Sherman & Co. Proposals for architectural plans were published, and Sir Joseph Paxton, the architect of the London Crystal Palace, was one of the competing architects. The design selected, of which we give a plate herewith, was prepared by Messrs. Carstensen and Gildermeister. Work was only commenced the latter part of August, 1852, and on the 30th of October the governor of New York, with other dignitaries, witnessed the erection of the first column in the building, which was placed with appropriate ceremonies. This building was two stories high, the first being in the form of an octagon and the second that of a Greek cross. In the center was a dome 148 feet high. The four corners were octagon shaped and each front had two towers seventy feet high, supporting tall flagstaffs. The construction of iron girders, columns, etc., was on the same plan as that of the Crystal Palace in London, but the plan of the dome was original with the American architects.

The main building covered 170,000 square feet, and the annex 93,000 square feet. This latter building was composed of two stories, and was 21 feet broad and 450 feet long, lighted from above, the sides being closed. It was arranged for a gallery of paintings, and was connected with the main building by two one-story wings used as refreshment rooms. The

WORLD'S FAIR, NEW YORK, 1853—MAIN BUILDING.

general style of architecture was Moorish, the decoration being Byzantine and the ceilings painted in red, white, blue and cream color, producing a very pleasing effect.

The New York World's Fair was formally opened on July 14th, 1853, but it was far from being ready. President Pierce, Jefferson Davis, then secretary of war; Salmon P. Chase, Gen. Winfield Scott, Caleb Cushing, attorney general; Commodores Stewart and Boorman, Horatio Seymour, governor of New York; George E. Post, governor of New Jersey; Howell Cobb, governor of Georgia; Archbishop Hughes, Bishop Wainwright, Judges Betts, Edmunds, Oakley, Roosevelt and others; Lord and Lady Ellesmere and daughters, Col. Almonte, Mexican minister; M. de Sartiges, French minister; Senor de Osma, Peruvian minister, and Mayor Westervelt were among the distinguished persons present on this occasion. The classification of articles adopted here was the same as at the London World's Fair in 1851, viz.: raw materials, machinery, manufactures and fine arts, a simple method of grouping very satisfactory to the public.

There were 4,100 exhibitors, more than one-half of whom were foreigners. The financial results were: Cost of building and other expenses, $640,000; total receipts, including admissions, concessions, sale of catalogues, etc., $340,000, leaving a loss of $300,000, which fell upon the stockholders.

It may possibly be remembered that Horace Greeley, a director in the New York World's Fair, was arrested while in Paris, at the suit of a French exhibitor whose property had been damaged. One of the best letters ever written by Mr. Greeley was from his cell in Clichy prison.

WORLD'S FAIR PARIS 1855.

This exhibition possessed one feature of great interest, which has been made quite prominent ever since in connection with world's fairs. That was the department of fine arts. Louis Napoleon, emperor of the French, assisted by Prince Napoleon, president of the exhibition, did all in their power by awards of decorations and medals to place France in the front rank.

The Palace of Industry, which formed the main building for the World's Fair, still remains on the main avenue of the Champs Elysees, where it is made use of for many purposes connected with exhibitions. It is rectangular in shape, solidly constructed, and intended to be permanent. In it were exhibited the twenty industrial classes principally.

Another building, called an Annex, some 4,000 feet long, was devoted specially to machinery. The third building, or Palace of Fine Arts, was located at quite a distance from the others. Between the Palace of Industry and the Annex was a circular building known as the Rotunda, in which were displayed the crown jewels of France, valuable carpets, tapestries, etc. Outside and surrounding this Rotunda was a considerable space, partly covered and partly uncovered, in which carriages and vehicles of all kinds, as well as agricultural implements, were on exhibition.

Although the preparation and erection of these buildings were set on foot and mainly carried out with the capital of a commercial company organized in Paris, yet it was the French government that really had the sole management of the exhibition, taking all risk in the enterprise, and guaranteeing to the company a certain percentage of profit on their outlay. The emperor accordingly appointed imperial commissioners, with Prince Napoleon at their head, for the management of the exhibition.

The total space occupied in these buildings by exhibitors, including passages, offices and all else used by the public, was about 1,866,000 square feet. A view of the principal entrance to this world's fair is given herewith.

EXHIBITORS.—The total number of exhibitors was 23,954, divided as follows: French empire, 11,986; foreign states, 11,968. This closeness of the two numbers must be recognized as very curious. The United States was only represented by 144 exhibitors, thirteen of these being in the department of fine arts. Fifty-three foreign states and twenty-two foreign colonies were represented in this exhibition, without including France, the three provinces of Algeria, and eight French colonies.

The classification of exhibits was arranged in eight groups and thirty-one classes. The total number of jurors was 398—208 being assigned to France and 190 to foreign countries.

WORLD'S FAIR, DUBLIN, 1853—MAIN BUILDING.

AWARDS.—The system of awards was as follows:

1. Gold medal—Grand medal of honor.
2. Gold medal—Medal of honor.
3. Silver medal—First class.
4. Bronze medal—Second class.
5. Honorable mention.

There were 112 grand medals of honor, 252 medals of honor, 2,300 first class medals, 3,900 second class medals, 4,000 honorable mention. Of the above a grand medal of honor was awarded to C. H. McCormick, of Chicago, United States. In fine arts there were forty artists personally decorated by the emperor, and in addition there were awarded 16 medals of honor, 67 first class medals, 87 second class medals, 77 third class medals, 222 honorable mentions. Messrs. Healy, Rossiter and May, American artists, were noticed favorably, Mr. Healy receiving a second class medal and Messrs. May and Rossiter honorable mention.

The World's Fair Paris 1855 was kept open 200 days, Sundays included. Season tickets for the entire exhibition cost $20. The general admission on most days was one franc, or twenty cents, but on Friday, a reserved day, $1, and on Sundays eight cents only, it being the only day when the working classes, laborers, etc., could take advantage of the wonderful opportunity for recreation and study. All soldiers, military pensioners and pupils from military schools were admitted free upon certain hours and days in each week.

The total number of visitors was 5,162,330. Those holding season tickets entered 97,800 times; those who paid $1 or five francs, were in number 33,926; the total number at twenty cents was 2,103,535; and those at eight cents, 2,196,795.

On the day of the opening ceremony and when the queen of England visited the exhibition, only season tickets were allowed. The largest number on any one day was on Sunday, Sept. 9, 1855, when there were 123,017 persons. It is estimated that during the World's Fair Paris was visited by 160,000 foreigners and 350,000 French people.

The total cost of this exhibition may be put down in round numbers at $2,257,000—or, adding the cost of the Palace of Industry, paid for by the French government, nearly $5,000,000. The total receipts reached the sum of 3,202,405 francs, or $644,100. While the financial results of this World's Fair indicate a very serious loss, yet it is believed that in this instance, as in all other international exhibitions, that there was a very large financial advantage to the city of Paris. Allowing that the half million of visitors only averaged $20 each, certainly not an unreasonable estimate, we have at once the gross sum of $10,000,000 as probably left in Paris in 1855.

There was very considerable interest shown by Great Britain in the Paris World's Fair 1855. The British government appropriated $250,000 for the expenses of the national exhibit, and local committees were formed in all the principal cities and towns for the purpose of selecting the very best specimens of each class of manufactures. It was by this careful system of organization that the superiority of British manufactures was so often brought to the front. The result was, that the British section of the Paris World's Fair of 1855 was a more complete representation of the products and manufactures of the United Kingdom than the London World's Fair of 1851.

Mr. Cole, the able manager of the British section, makes these remarks in his report at the close of the World's Fair Paris 1855:

"The utility of the London and Paris universal exhibitions in teaching nations the comparative strength and weakness of their respective industries, and showing their mutual means for supplying each other's wants; in dissipating the prejudices of ignorance, and awakening desires for improvement, has been so manifest and generally admitted, that, notwithstanding the cost and trouble of them, and the great interruption they cause to ordinary trade, it is probable these exhibitions will extend and become periodical at least in some of the principal cities of Europe. The ultimate purpose of all industrial exhibitions is commercial. It is true that various motives, besides those of direct trade, induce some few exhibitors to display their productions, but the bulk of exhibitors will be always attracted by the hopes of extending commerce. It may be laid down as an axiom, that the chief and direct advantages of an exhibition are derived by the country which holds it. It cannot be doubted that England with its exhibition of 1851 and France with its exhibition of 1855, respectively, derived a much greater proportionate benefit than any of their foreign contributors. London reaped a rich harvest from visitors to the metropolis, of whom at least 70,000 were foreigners."

From the World's Fair Paris 1855 to the World's Fair London 1862 there were several local exhibitions of considerable importance, all being the result of the impetus given in the start by Prince Albert.

WORLD'S FAIR, MUNICH, 1854—MAIN BUILDING.

In 1854, Australia held its first exhibition at Melbourne, in a palace of glass, erected on the site of the present mint. There were also interesting local industrial celebrations at Brussels in 1856; Lausanne in 1857, with 2,050 exhibitors; Turin in 1858, and Hanover in 1859; but we should pay special attention to the unequaled Fine Arts Exhibition at Manchester in 1857.

This may well be entitled a World's Fair of Art, for never before had such a mass of artistic wealth, both of old masters and the modern school, been congregated together; art, indeed, was everywhere prominent, even in the arrangement of the great hall with its statues and groups of armour separated and arranged in little islands of greenery. Heirlooms were contributed from all parts of the kingdom; the Royal Academy sent its diploma pictures, and there was arranged for the first time on public view the plan of a British portrait gallery, comprising the noted personages of Great Britain, commencing with Henry IV. and coming down to the present time, comprising the works of Holbein, Van Dyke, Zucchero, Sir Peter Lely, Sir Joshua Reynolds and Sir Thomas Lawrence. Not only artistically, but financially, it was a success, and Manchester may well be proud of the record of no less than 1,336,715 visitors, and receipts nearly $420,000.

In 1859 Greece had her first exhibition at Athens, with 974 exhibitors. In 1861 there were national art exhibitions in Dublin, Edinburgh and Florence.

WORLD'S FAIR MUNICH 1854.

This exhibition was only open three months, owing to the approach of cholera. The building, of which we give an illustration, was built of iron and glass, 800 feet long, 260 feet wide, and 87 feet high, and cost $450,000. It recalls in many respects the Crystal Palace of 1851, the main difference being the substitution of a square towered transept for the well-known circular roof. This building was designed by Herr Witt, and still remains as a permanent building.

The number of exhibitors was estimated at over 7,000, and the value of exhibits $7,500,000.

CHAPTER IX.

WORLD'S FAIR LONDON 1862.

It was fully intended and arranged to have a decennial exhibition in London 1861, ten years after the first world's fair, but the great national loss in the death of Prince Albert occasioned its postponement to 1862. The main buildings of the World's Fair 1862 covered about seventeen acres of ground, exclusive of the two annexes on the east and west of the Horticultural Gardens, which may be estimated at seven acres, making the total area twenty-four acres. In shape, the ground was nearly rectangular, measuring about 1,200 feet from east to west and 560 feet from north to south. There were three grand entrances, on three principal streets. The buildings were designed by Captain Fowke, royal engineer, assistant and engineer to the government department of science and art.

The total area of covered space amounted to 1,291,800 square feet, of which 147,700 square feet were taken up by refreshment rooms, offices, entrances and staircases, leaving 1,144,100 square feet available for exhibition purposes. The total area roofed in was 988,000 square feet. In dividing this space the royal commissioners adopted the rule of giving one-half the total space to foreign nations and retaining one-half for Great Britain.

The total number of exhibitors at the World's Fair of London 1862 was 28,653, including 2,305 artists, whose works were exhibited in the four classes of the fine arts department. As can easily be understood, the position of our country at that time was not such as could admit of much thought for exhibits, nevertheless with the small number sent in for competition, the United States received fifty-six medals and twenty-nine diplomas for articles on exhibition.

The total cost of the buildings may be stated at $1,605,000, and the total cost of the World's Fair 1862, including all expenses, $2,300,000. This exhibition was opened on May 1, 1862, and closed November 15, there being 121 days during which the public were

WORLD'S FAIR, PARIS, 1855—MAIN BUILDING.

admitted. The exhibition was opened by the Duke of Cambridge, 30,000 people being present, with a choir of 2,000 voices and an orchestra of 400 musicians. A notable feature of the occasion was the Japanese embassy in full court costume.

The arrangements for admittance were confined to season tickets and payments at the doors. On the day of opening, only ticket holders were admitted. On the next two days the charge for admission was £1 or $5; from May 5th to 17th inclusive, 5 shillings or $1.25; after that date the prices varied on certain days in the week 1 shilling or 25 cents, to 5 shillings or $1.25; but the result shows very clearly that a uniform moderate price of admission produces the largest returns. The ordinary season tickets were fixed at 3 guineas or $15.

The total receipts, including tickets, payment at doors, concessions for catalogue, refreshments, photographs, retiring rooms, umbrella stands, etc., amounted in round numbers to $1,298,150, the average returns on the shilling days being double that of the high-priced days.

VISITORS.—The total number of visitors amounted to nearly six millions and a quarter. The daily average attendance was 36,328, and the largest number on any one day was 67,891. The average daily attendance was as follows: On Mondays, 44,307; Tuesdays, 45,936; Wednesdays, 43,988; Thursdays, 44,806; Fridays, 22,138; Saturdays, 19,594.

The total number of jurors and associate jurors appointed by the exhibiting countries was 620, of whom there were 331 British and Colonial, and 289 foreign. The United States had five of this number. There were no gradations of medals at the World's Fair 1862, one medal only being awarded by the jurors. Certificates of honorable mention were also awarded. There were in all 8,141 medals and 5,282 certificates. The total number of jury awards was 13,423, or nearly one award for every two exhibitors. The United States was represented by 128 exhibitors, and received fifty-eight medals and thirty-one honorable mentions.

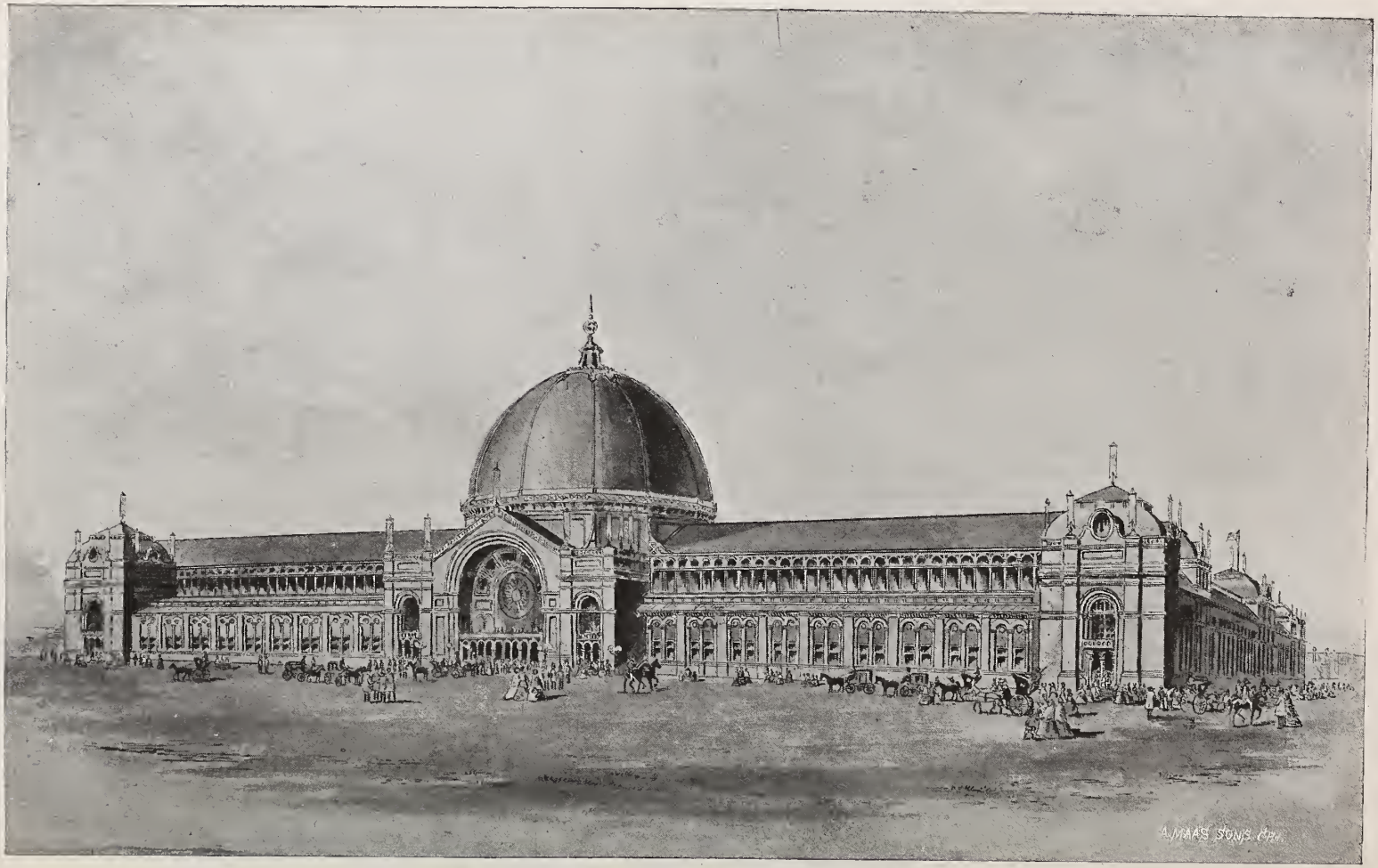
CHAPTER X.

WORLD'S FAIR PARIS 1867.

At no period in the history of France shall we find any greater record of splendor and display than was exhibited in Paris in 1867. Those Americans who were so fortunate as to have seen the court of France at that time have something to remember. The idea of a world's fair was worthy of an emperor who could bring to Paris as his guests the Czar of Russia, with his two sons, the Sultan of Turkey, the Prince of Wales, the Khedive of Egypt, the King of Prussia with Bismarck, the kings of Denmark, Portugal and Sweden —a gorgeous scene of entertainment from start to finish.

As is well known, the location selected for the World's Fair Paris 1867 was in the Champs de Mars, convenient to all parts of the city. The form of building was selected by Prince Napoleon, with the view of producing a new system of classification, the results of which have given cause for debate and argument up to the present time. As will be seen from view of building given herewith, it is of an oval shape, thus facilitating the arrangement of exhibits, both by classes and countries, so that one desiring only to study one product could follow that class steadily through every producing nation until he arrived back at his starting point. On the other hand, should he desire information in reference to a single nation, he would simply confine himself to that section of the elliptic.

This oval building was 1,550 feet long and 1,250 feet wide, covering in all eleven acres, while smaller buildings connected with this main building increased the area to thirty-five acres. In addition was annexed the island of Billancourt, comprising fifty-two acres, for agricultural purposes. In the construction of this building, upwards of 370,000 cubic meters of soil had to be removed to make room for foundations, drains, air passages and water pipes. The outer circle was excavated so as to give a succession of vaulted cellars built of stone and concrete and lined with cement. The two interior galleries of the exhibition were built of stone, and the seven others of iron. The roof was formed of corrugated iron and supported by 176 iron pillars, each weighing 24,000 pounds, upon which the arches or ribs were placed. The supply of water for this enormous structure and for the park, its



WORLD'S FAIR, LONDON, 1862—MAIN BUILDING.

various buildings and fountains, was obtained from the river Seine, and was raised by powerful pumps to a reservoir with a capacity of 4,000 cubic yards of water.

The balance of the territory comprising the Champs de Mars, in all some seventy acres, was laid out in gardens and fountains, and covered with buildings erected by different nations, such as Turkish mosques, Russian slobodas, Swiss chalets, Tunisian kiosks, Swedish cottages, English light house, Egyptian temples, caravansaries, etc.

This exhibition opened on April 1st and closed on November 3d, being open 216 days, Sundays included. There were 50,226 exhibitors and 10,200,000 entrances of visitors, and the receipts were about equal to $2,103,675. These exhibitors represented thirty different nations, Great Britain occupying 374,656 superficial feet, or about one-ninth of the entire space allotted to exhibitors. The United States was represented by 536 exhibitors, occupying 98,137 square feet. As in 1851 and 1862, it is satisfactory to state that the exhibitors from the United States secured the largest percentages of awards, excepting the awards to France itself.

A new order of recompense was established "for persons, establishments or localities, which, by organization or special institutions, have developed harmony among co-operators, and produced in an eminent degree the material, moral and intellectual well-being of the workmen." Of this order, two came to this country.

1. For the United States Agricultural Society of Vineland, N. J., and in addition an honorable mention.

2. William C. Chapin, Lawrence, Mass., and in addition a grand prize, a gold medal of the value of 1,000 francs and 900 francs in gold.

Grand prizes were awarded to Cyrus W. Field, transatlantic cable; David E. Hughes, New York, printing telegraph; C. H. McCormick, Chicago, reaping machines. By a decree of the emperor, Mr. McCormick was created a Chevalier of the Imperial Order of the Legion of Honor.

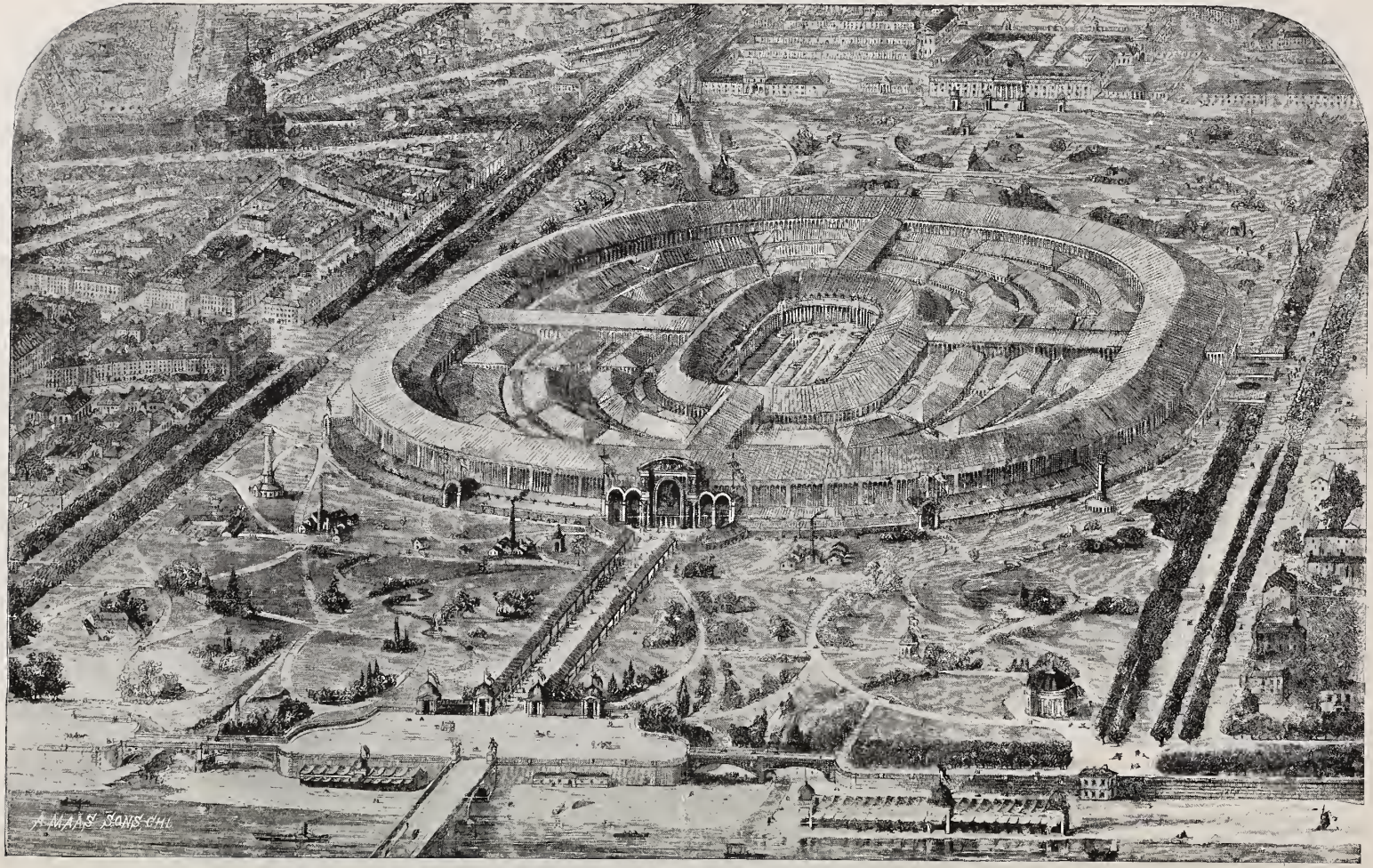
Hon. N. M. Beckwith, United States Commissioner General to the World's Fair Paris 1867, in his preface to a general survey of the exposition, remarks as follows:

"The high position conceded by the verdict of the jurors to American industrial products is not due in general to graceful designs, fertile combinations of pleasing colors, elegant forms, elaborate finish, or any of the artistic qualities which cultivate the taste and refine the feelings by awakening in the mind a higher sense of beauty, but it is owing to their skillful, direct and remarkable adaptation to the great wants they are intended to supply, and to the originality and fertility of invention which converts the elements and natural forces to the commonest uses, multiplying results and diminishing toil. The peculiar and valuable qualities of our products will be adapted and reproduced in all parts of Europe, improving the mechanical and industrial arts, and it is reasonable to expect and gratifying to believe that the benefits will be reciprocal, that our products will in time acquire those tasteful and pleasing qualities which command more admiration and find a quicker and better market than the purely useful."

These remarks were uttered twenty years ago, and that *is* our position to-day.

The British government, fully impressed with the value of this exposition as a school of instruction, made arrangements for the transportation and accommodation of a large number of workingmen, who were specially selected, and who at a later date made very full and interesting reports on all branches of industry. The estimated expenses for trip to Paris and return, with one week's living in Paris, was £3, or $15.

In 1865 an international exhibition was held in Dublin, and, like the former one in 1853, owed its existence to the liberality of a private citizen, Sir Benjamin Lee Guinness. The building, of iron and glass, was opened on May 9th by the Prince of Wales, in the presence of some 10,000 spectators, and was closed six months from that date, having been kept open 159 days and fifty-one evenings, the total number of admissions being nearly 1,000,000. As in 1853, this exhibition was specially noted for its collection of magnificent works of art, of which many were secured by the British government.



WORLD'S FAIR, PARIS, 1867—GENERAL VIEW.

CHAPTER XI.

WORLD'S FAIR VIENNA 1873.

The first proposition to hold an international exhibition in Vienna, 1873, is said to have originated with the Board of Trade of that city, a very wealthy and influential organization, of which Baron Weitheimer was the president. A guarantee fund of 3,000,000 florins ($1,500,000) being raised principally through the Board of Trade, the government was induced to take an active part in the matter, and to announce May 24, 1870, that an international exhibition would be held in Vienna in 1873, having for its object to represent the present state of modern civilization and the entire sphere of national economy, and to promote its further development and progress. An imperial commission was named, consisting of 170 members, selected from the chief officers of the departments of the government, and from the leading men of science, art and industry in the empire, especially those who had taken part in former international exhibitions, and who had gained honor and distinction in their respective spheres of duty. The government advanced the sum of 6,000,000 florins ($3,000,000) as a loan without interest, to be returned out of the income.

The importance attached to this, the first international exhibition in Austria and fifth in the world by the principal nations, is well shown by the character of the commissioners appointed. In each of the European nations the most gifted and eminent men were selected to do honor to the occasion. At no previous exhibition had there been such an array of names of men distinguished as statesmen, philosophers or leaders in the industrial world. The Prince of Wales was at the head of the British commission, which comprised among its members Sir Andrew Buchanan, the Duke of Teck, the Marquis of Ripon, Baron Rothschild and others.

The place selected for the Vienna World's Fair was the Prater, a park, and the most popular place of resort in the city. Advantage was taken of this opportunity to dredge the River Danube and use the gravel thus obtained for the exhibition site. The total area of the ground enclosed by the fence was nearly 290 acres.

The main building consisted of a central nave 2,953 feet long, 83 feet 8 inches wide, and 73 feet 10 inches high, with sixteen intercepting transepts each 573 feet 6 inches long, 57 feet wide and 41 feet high, and a rotunda or dome in the center, 354 feet in diameter, being the largest in the world at that time. The nave where it met the rotunda, divided and formed a circular aisle about it; the great central transept intersecting the middle of this aisle was of the same height and width as the nave. The two transepts upon each end of the main building were connected by facades, thus forming inclosed courts or gardens. The plan adopted for the main building was entitled the "grid-iron form," as will be seen in the plate submitted herewith. This arrangement was adopted partly on account of light and partly to facilitate the examination of exhibits, as visitors could easily find their way from one country to another, these countries being placed as nearly as possible to correspond with the positions occupied upon a mercatorial projection of the world.

The Machinery Hall was 2,625 feet long and 164 feet wide. Within this great building, which had a floor space of 40,000 square meters, or nearly ten acres, were collected many thousands of exhibits, embracing every known variety of machinery; the Vienna World's Fair 1873 having brought together the most completely satisfactory exhibition of industrial processes, apparatus and products that had been attempted up to that date. The Machinery Hall was traversed from end to end by two aisles, dividing the machinery in motion, which was distributed along the middle line of the building from that which did not require motive power, and which was arranged on each side. The visitor walking through this, found on either side for a distance of half a mile, an unbroken mass of machinery of every class, of all degrees of magnitude, and of every conceivable variety of style, material, workmanship and finish. It was estimated that to thoroughly examine the Department of Machinery alone would require more than forty days' work of ten hours each.

WORLD'S FAIR, VIENNA, 1873—GENERAL VIEW.

The Art Building was east of the main building, 100 feet wide by 600 feet long, with a large corridor at the center of sides and ends for the exhibition of statuary. The building was of brick with stucco finish outside. The inside was divided into suitable galleries and studios, and was well lighted from the roof. In addition to the Art Building proper, there were open wooden pavilions connecting either end of Art Hall, extending 400 feet, with circular return of 700 feet in length to the Triumphal Arch, which completed the eastern end of the series of principal buildings.

The Department of Agriculture was confined to three large frame buildings, covering about six acres. Total area of Vienna World's Fair, 286 acres.

The total cost of all the official buildings of the Vienna World's Fair 1873 was estimated by Prof. Blake at $7,850,000.

One of the most attractive features of this exhibition were the various buildings erected by other nations in their different styles of architecture, comprising Persian, Turkish, Egyptian, Japanese, Roumanian, Syrian, Swiss, Russian, Kirgish, Sclav, Moorish, French, German, American, Bohemian, Italian, Polish and English, all scattered among woodland scenery and of a wonderful variety in character.

The exhibits were classified into twenty-six groups, following nearly the plan of the divisions in the great exhibitions of London and Paris. The industries of nearly all the world were represented. The total number of exhibitors was estimated at 70,000. Of this number the United States was represented by only 604, according to the official catalogue.

The awards were as follows :

I. Diplomas of Honor.
II. Medals for Progress.
III. Honorable Mention.
IV. Medals of Merit.
V. Medals for Good Taste.
VI. Fine Arts Medal.
VII. Medals Awarded to Workmen.

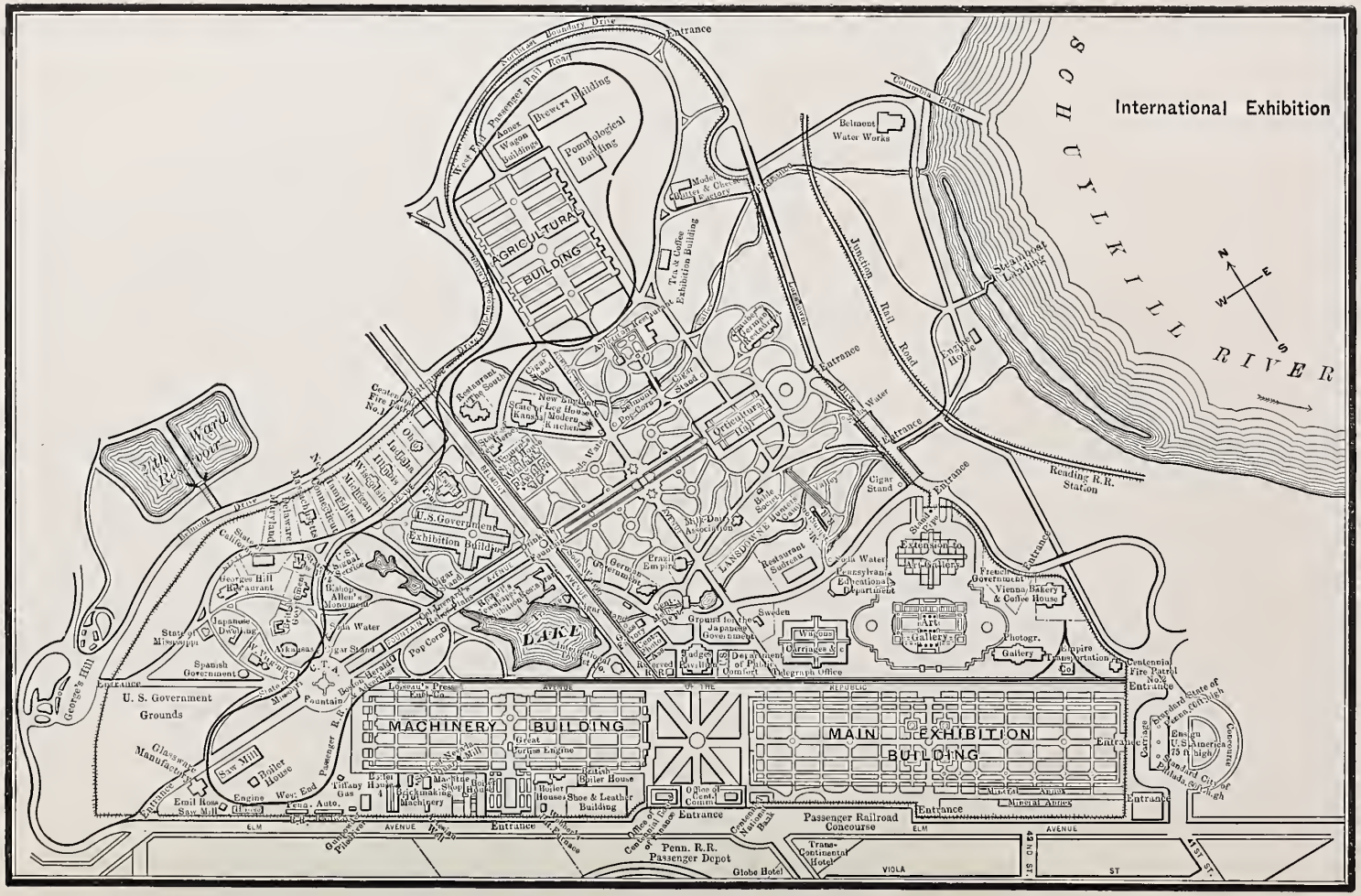
The 654 exhibitors from the United States secured of these awards *four hundred and forty-two*, showing the average of former exhibits well kept up.

Prof. R. H. Thurston, the able and efficient editor of the United States Reports on the Vienna Exhibition, in his preface remarks as follows :

"It is a subject of congratulation, and will be a source of real pleasure to every citizen of the United States, that foreign criticisms are so generally favorable. They are even, in fact, more favorable than they at first glance might appear. In reading them it is to be remembered that the foreign writers, born and bred in distant countries, under influences with which the citizen of the United States is unfamiliar, and from which he is fortunately free, accustomed to habits of thought, and familiar with methods which are equally strange to those whose works he criticises, viewing the subject of his criticism from an entirely different standpoint, and through a medium of very different hue, must necessarily be placed at some disadvantage. He cannot be expected to see the real value of American methods or of American productions taken apart from the peculiar circumstances which brought them into existence. * * * It is to be remarked that the views of European reporters are generally favorable in tone. It seems evident that there exists among the influential classes of Europe, as well as among those less favored, a feeling of decidedly friendly prejudice which even the radical differences of circumstances and training alluded to above has not seriously repressed."

VISITORS.—In reference to visitors, note should be taken of the report of Mr. Charles Hagen, Inspector Metropolitan Police, London, who remained in charge of the British Department of the World's Fair Vienna 1873. Mr. Hagen states :

"The number of visitors who paid at the doors, exclusive of season-ticket holders, amounted, according to official returns, to 3,492,622, from which the sum of 1,983,439 florins was received in payment. The above numbers, averaging only 18,779 visitors for each of the 186 days of the exhibition, are certainly below what might have reasonably been expected. This was due, no doubt, to causes some of which are beyond the zone of my observation, but the fact is patent to everyone that many causes were at work to seriously affect the number of visitors. I would point out chiefly the *reckless rapacity* with which, from the 1st of May, lodging houses and hotel keepers advanced their prices at least 100 per cent., a proceeding which, when exposed by the foreign press, not only deterred intending visitors from far-off countries, but, what was far more serious, prevented great numbers from the middle classes in Germany and Austria from undertaking the journey to which thousands had looked forward with pleasure. This is ever to be regretted, as the social success as well as the financial interests of the exhibition were thereby seriously damaged. The above cause for a diminished attendance lies at the door of Vienna and its inhabitants; but there was another cause attributable to the same motives. This was the system of



WORLD'S FAIR, PHILADELPHIA, 1876—GROUND PLAN.

handing over the lavatories, chairs and other conveniences for visitors to contractors, who, having to pay enormous sums for these concessions, naturally enough left no means untried to obtain as large a return as possible for their outlay: hence, in the course of a visit of a family to the exhibition, the charges on this account during the day would sometimes amount to a total which would have to be taken into serious consideration before a second visit."

Edward Everett Hale, one of the best practical thinkers of this country, thus gives his views in reference to the Vienna World's Fair:

"It is, however, clear, that the great interest of such an exhibition is in the opportunity to compare the work of one country against that of another. Every effort should be made, therefore, on the one hand to facilitate the arrival of foreign contributions, and on the other hand to restrict fairly mere multiplications of specimens by home exhibitors. To facilitate and encourage foreign exhibitors, the exhibiting nation can do much, and the foreign nations also. Our own government sent articles for the exhibition freight free to Trieste. So far all was made easy to contributors. The very freedom and ease of sending to Vienna tempted countless quacks to send their humbugs to the show, and in the same proportions the judicious have refrained. It becomes to a considerable extent an advertising display. The American exhibition at Vienna is full of quackeries, advertising themselves at the cost of the nation, and this cannot be avoided unless the collection of exhibits is made up on a system, as was so thoroughly done by the Japanese government. It is for such reasons that the Vienna exhibition is certainly too large. If it is a specimen of the world, one wants a smaller museum made which may be a specimen of the exhibition. The study of those who arrange any future international exhibition must be, not to make it large, for that will probably care for itself, but to keep it properly small. It must be so indexed and catalogued and so arranged that the visitor can know what there is in it and how to turn to every object in the shortest time. This is not possible at Vienna, because the exhibition is too large. * * *"

Dr. Hale continues with the following suggestions bearing upon the Centennial Exhibition. He is writing in 1873:

"It seems to be required that at the very outset it shall be determined how much space in the exposition shall be given to the products of America. The experience of other countries seems to show that if one-half of the building is devoted to our own products, the other half can be well filled with foreign products, and that the comparison then to be made of their work and ours will be as instructive as interesting. If some such rule is made at the beginning and held to, it will be possible to exclude work which after all will come under the category of patch-work bed quilts at a cattle show. It will be evident that there is an absolute limit, which cannot be passed over under any stress of fear or favor. More than this, it ought to be in the power of the directors to say how much of this space could be well devoted to the principal lines of product of the country. How much, for instance, to machinery, how much to other manufactures of iron, how much to leather manufactures, how much to textile fabrics, and so on. The first determination of this subject need not be so unyielding as the other, but still there must be a plan regarding it, and the public must from the beginning encourage the directors in holding sternly to their one plan in regard to it."

The actual experiments in agriculture took place at a long distance from the exhibition buildings. Three hundred and five acres were appropriated for the trials of the reapers and mowers, 200 were reserved for steam plowing, and 110 acres for the trials of the ordinary plows. For testing mowing machines, there were available 80 acres of rye, 40 acres of wheat, 50 acres of barley, 12 acres of grass, and 90 acres of clover. For threshing and winnowing machines there were provided 64,000 sheaves of rye, 32,000 sheaves of wheat, and the same quantity of barley.

CHAPTER XII.

WORLD'S FAIR PHILADELPHIA 1876.

The approach of the Centennial Anniversary of our independence as a nation, naturally suggested to many minds some proper method of celebration. Historians, authors, statesmen each had their ideas upon this important subject. It was suggested that orations and poems should be delivered in every city, town, village and hamlet in the United States; others proposed that there should be a great display of our military power, including the United States troops and the State Militia all over the country; again it was suggested

WORLD'S FAIR, PHILADELPHIA, 1876 —MAIN BUILDING.

that the day should be devoted to athletic games, regattas, ball games, horse racing, etc., etc., closing with a grand display of pyrotechnics. Some counsellors advised that each State should have, at some central point, an exhibition of its own products and manufactures. It is a satisfaction to the compiler of this work that eleven years prior to the World's Fair in Philadelphia, he proposed the organization of an International Exhibition, with a view of comparing our own national progress in arts, manufactures and products, with the advance of other nations in these same lines. This suggestion appeared in print in 1866, and was at once combatted by some of the leading minds of our country; such men as Charles Sumner, John Jay and John Bigelow, strange as it may seem, agreed unanimously in the belief that the monarchical governments of Europe would not consent to take any part in an exhibition which was to be the celebration of our own rebellion from the authority of Great Britain. In an interview with the writer, Charles Sumner made the statement that there was no more likelihood of Great Britain sending an exhibit at that time than there would be of the writer flying out of the window. Unfortunately, Mr. Sumner's death prevented his witnessing the action on the part of Great Britain, which insured the largest and most attractive section of the foreign department of the Centennial. Notwithstanding the influence and power of many of these prominent men, and the steady objection on the part of a large section of the press of the country, it was at last decided that the best method of celebrating the One Hundredth Anniversary of our Independence should be the following out of the suggestion of the writer, to have an International exhibition of products, arts and manufactures of this country.

Naturally there was a claim on the part of many cities for the location of this great enterprise. Boston relied upon its Puritan ancestry and the battles of Lexington and Bunker Hill, and felt that she was entitled to the honor of the celebration. New York with its great power, its central position and its able statesmen, claimed for itself this privilege, but Philadelphia, the birth-place of Independence, where those men who in the days of trial and trouble prepared that grand document which is to-day our charter and the keystone of our prosperity, had but to set forth her claims, when public acclamation from all sections of the United States agreed that the Quaker city was the only place that justly could be selected for the proper commemoration of the great work which originated within its lines.

In 1871 Congress passed

AN ACT to provide for celebrating the One Hundredth Anniversary of American Independence, by holding an International Exhibition of Arts, Manufactures, and Products of the Soil and Mine, in the City of Philadelphia, and State of Pennsylvania, in the year eighteen hundred and seventy-six.

For the preliminary working expenses, the City of Philadelphia donated the sum of $50,000. Officers were selected and experienced aid secured, one of the first steps being to facilitate the distribution of proper information to the press of the United States. On the 3d of July, 1873, the President issued the following proclamation:

PROCLAMATION BY THE PRESIDENT OF THE UNITED STATES.

Whereas by the Act of Congress approved March third, eighteen hundred and seventy-one, providing for a National Celebration of the one hundredth anniversary of the Independence of the United States, by the holding of an International Exhibition of Arts, Manufactures, and Products of the Soil and Mine, in the City of Philadelphia, in the year eighteen hundred and seventy-six, it is provided as follows:

"That whenever the President shall be informed by the Governor of the State of Pennsylvania, that provision has been made for the erection of suitable buildings for the purpose, and for the exclusive control by the Commission herein provided for of the proposed Exhibition, the President shall, through the Department of State, make proclamation of the same, setting forth the time at which the Exhibition will open, and the place at which it will be held; and he shall communicate to the diplomatic representatives of all nations copies of the same, together with such regulations as may be adopted by the commissioners, for publication in their respective countries."

And whereas, His Excellency the Governor of said State of Pennsylvania did, on the twenty-fourth day of June, eighteen hundred and seventy-three, inform me that provision has been made for the erection of said buildings and for the exclusive control by the Commission provided for in the said act of the proposed Exhibition;

And whereas, the President of the United States Centennial Commission has officially

WORLD'S FAIR, PHILADELPHIA, 1876—ART BUILDING.

informed me of the dates fixed for the opening and closing of the said Exhibition, and the place at which it is to be held;

Now, therefore, be it known that I, ULYSSES S. GRANT, President of the United States, in conformity with the provisions of the act of Congress aforesaid, do hereby declare and proclaim that there will be held, in the City of Philadelphia, in the State of Pennsylvania, an International Exhibition of Arts, Manufactures, and Products of the Soil and Mine, to be opened on the nineteenth day of April, Anno Domini, eighteen hundred and seventy-six, and to be closed on the nineteenth day of October, in the same year.

And in the interest of peace, civilization and domestic and international friendship and intercourse, I commend the celebration and Exhibition to the people of the United States; and in behalf of this Government and people, I cordially commend them to all nations who may be pleased to take part therein.

In testimony whereof I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the City of Washington, this third day of July, one thousand eight hundred and seventy-three, and the Independence of the United States the
[SEAL] ninety-seventh.

U. S. GRANT.

By the President:

HAMILTON FISH, *Secretary of State.*

By instructions from the President, the Secretary of State issued the following notice to foreign governments:

NOTE TO FOREIGN MINISTERS IN THE UNITED STATES.

Sir: I have the honor to inclose, for the information of the Government of ———, a copy of the President's Proclamation, announcing the time and place of holding an International Exhibition of Arts, Manufactures and Products of the Soil and Mine, proposed to be held in the year eighteen hundred and seventy-six.

The Exhibition is designed to commemorate the Declaration of the Independence of the United States, on the one hundredth anniversary of that interesting and historic national event, and at the same time to present a fitting opportunity for such display of the results of Art and Industry of all nations as will serve to illustrate the great advances attained, and the successes achieved, in the interest of Progress and Civilization during the century which will have then closed.

In the law providing for the holding of the Exhibition, Congress directed that copies of the Proclamation of the President, setting forth the time of its opening and the place at which it was to be held, together with such regulations as might be adopted by the Commissioners of the Exhibition, should be communicated to the Diplomatic Representatives of all nations. Copies of these regulations are herewith transmitted.

The President indulges the hope that the Government of ——— *will be pleased to notice the subject and may deem it proper to bring the Exhibition and its objects to the attention of the people of that country, and thus encourage their co-operation in the proposed celebration. And he further hopes that the opportunity afforded by the Exhibition for the interchange of national sentiment and friendly intercourse between the people of both nations may result in new and still greater advantages to Science and Industry*, and at the same time serve to strengthen the bonds of peace and friendship which already happily subsist between the Government and people of ——— and those of the United States.

I have the honor to be, sir, with the highest consideration.

Your obedient servant,

HAMILTON FISH,

Secretary of State.

To the surprise of those writers who had contended that there would be no exhibits from abroad, there was shown a universal desire on the part of all nations to co-operate liberally in the World's Fair of 1876. These different governments appropriated large sums of money, selected as commissioners men of the highest standing, loaned to the exhibition their most valuable works of art, and in every sense indicated a desire on the part of the Old World to forget the past and to unite itself closely with the future of the New. The money had to be raised by private subscription, from all parts of the United States, and it was by a determined and persistent effort with Congress that a government loan was secured of $1,500,000, which loan has been called up by the government and repaid since that time. The City of Philadelphia appropriated $1,000,000, and the State of Pennsylvania $1,500,000, and all other States, notably New Jersey, Delaware, Connecticut, New Hampshire, etc., subscribed to the stock issued by the Centennial Board of Finance.

SITE AND BUILDINGS.—In 1873, the location so well known as Fairmount Park was selected for the exposition, and immediate possession given by the City of Philadelphia,

WORLD'S FAIR, PARIS, 1878—U. S. SECTION.

free from all expense or charge, and who also liberally contributed to the success of the World's Fair 1876 by the erection of two magnificent bridges over the Schuylkill at a cost of over $2,500,000, in addition to the various improvements made in Fairmount Park. This location, about three miles from the city, comprised 450 acres, of which 285 acres were surrounded by a fence, and included the various buildings designed for exhibition purposes. These buildings were as follows: Main building, covering an area of 870,464 square feet; Machinery Hall, covering an area of 504,720 square feet; Art Building, covering 76,650 square feet floor space and 88,869 square feet wall space; Horticultural Hall, 350 feet long, 160 feet broad and 65 feet in height; Agricultural Building, covering 117,760 square feet; Women's Department Building, 208 feet long and 208 feet broad.

The United States government added to the interest of this exhibition by the appointment of a special commission and the appropriation of a sum of money, $728,500, to represent the condition of the different departments of the government at that period.

The total number of exhibitors at the World's Fair 1876 was estimated at 30,864, the United States heading the list with 8,175; Spain and her colonies, 3,822; Great Britain and colonies, 3,584; and Portugal, 2,462. It is a curious fact to notice that Spain and Portugal, the two nations so closely connected with the early history of our country, should have been such prominent exhibitors.

The following countries were represented in the World's Fair 1876:

Argentine Rep'c.	Denmark.	Italy.	Peru.	Sweden.
Austria.	Egypt.	Japan.	Portugal.	Switzerland.
Belgium.	France.	Mexico.	Russia.	Tunis.
Brazil.	Germany.	Morocco.	Siam.	Turkey.
Canada.	Great Britain and	Netherlands.	Siberia.	United States.
China.	Colonies.	Norway.	Spain.	Venezuela.
Chili.	Hawaii.	Orange Free State.		

AWARDS.—The method of awards adopted in 1876 differed from that of all previous systems. It dispensed with the international jury and substituted a body of judges one-half foreign, selected individually for their knowledge and experience. It also dispensed with the system of graduated awards, and required of the judges written reports on the inherent and comparative merits of each product thought worthy of an award, setting forth the properties and qualities, presenting the consideration forming the ground of the award, and awarding such report by the signature of their authors. The medals awarded by the commission were of bronze in shape, four inches in diameter, very chaste in appearance, and the largest of the kind ever struck in the United States. These awards of medals were simply as evidence merely of merit and not superiority, the written reports indicating whose exhibit in each group was preferred by the judges. The total number of awards issued at the World's Fair Philadelphia 1876 was 13,104, of which 5,364 were to American exhibitors, and 7,740 to foreign exhibitors. Gen. Walker in his final remarks states that "in spite of objections the American system of awards is, I think, fully acknowledged to be a success by all who have seen enough of its workings to be able to judge of the results, and I think it will be approved of both at home and abroad. The central idea is to give information to the would-be purchasers and to the general public through a series of discriminating and descriptive reports, instead of making use of tokens like graded medals which convey practically no information."

As is well known to those who were present, the arrangements for admission to the Centennial were perhaps better than those of any previous World's Fair. There were within the fence line 285 acres of space, surrounded by a fence 16,000 feet in length. In this fence line there were 106 entrance gates for persons, 17 for wagons and 41 exit gates, so placed as to serve the convenience of those using them. The 106 gates for admitting persons were divided into classes to correspond with the classes of tickets used, as follows:

Class A—for those persons paying 50 cents.

Class B—for those holding complimentary tickets.

Class C—for exhibitors, workmen and attendants.

Thus there were only two classes of tickets used, the complimentary, a large engraved card; and the exhibitors, containing photograph of the holder.

The exhibition opened on the 10th of May, 1876, and from that time until Nov. 10, 1876,

WORLD'S FAIR, MELBOURNE, 1880—MAIN BUILDING.

there were admitted a grand total of 9,910,966 persons, of whom 8,004,274 paid admission fees. There were 1,815,617 entrances of persons connected with the World's Fair, and 91,075 complimentary admissions, making a daily average of paid and free of 62,333. The largest number admitted on any one day was 274,919, on Pennsylvania day, September 28th. The smallest number on May 12th, 1876, 12,720. The largest number passing through a single gate, in a single hour, was 1870, or about thirty persons per minute. Experienced showed the necessity of opening at an early hour and it was fixed at 8:30 a. m., and kept open until 7:30 p. m. There was an average population residing in the grounds of 571 persons, exclusive of the guards and firemen.

It is estimated that nearly one hundred separate and distinct associations, including Religious, Temperance, Military, Masonic, etc., met in Philadelphia in the summer of 1876, with a membership of nearly one million. The selection of a special day for each state was a great success, and largely increased the number of visitors.

TRANSPORTATION.—The railroad facilities in Philadelphia were confined to the Pennsylvania Central and the Reading roads, and had a capacity for receiving 25,000 or dispatching 10,000 per day. The heaviest one day's service of both roads was 244,147. Total number of arrivals and departures by railroad during the World's Fair, 5,907,333.

CHAPTER XIII.

WORLD'S FAIRS—PARIS 1878, SYDNEY 1879, MELBOURNE 1880.

The "Exhibition of the Works of Art and Industry of all Nations," held at Paris, was opened on the 1st of May, 1878, and it is important as being the first World's Fair in the Old World, under the auspices of a Republican form of government. While there was not the same show and glitter as in 1867, under the Empire, the practical results of this exhibition may be considered thoroughly successful.

After careful consideration of the many locations suggested for the site of the World's Fair Paris 1878, the Champ de Mars was selected, as it was in 1867, although much more space could have been secured at Courbvoie, Vincennes or the Bois de Boulogne, the main point was to have the site near the public, and it was considered, after the united testimony of the foreign commissioners in 1867, that any increase in size was to be avoided. With the view of securing the best talent for the plans of buildings, a competition was opened among architects and ninety-four plans were submitted. While none of these plans were adopted, yet the general use of such of them as seemed best, resulted in the erection of buildings on the Champ de Mars. The total area of ground covered on both sides of the Seine was less than one hundred acres, the main building alone covering fifty-four acres. The French exhibits filled one-half of the entire space, the remaining portion of the main building being occupied by other nations of the world.

The United States was well represented in its official commission. Hon. Richard C. McCormick, Commissioner-General, had gained his experience as an active member of the United States Centennial Commission, and Messrs. Pettit, Smith and Pickering were able and experienced assistants. Prof. Wm. P. Blake was secretary of the scientific commission.

Much doubt was expressed as to the interest taken in this work of a republic by Great Britain, but as usual the good sense of the Anglo-Saxon race came to the front, with the natural result of largely increased channels of trade. The Prince of Wales was appointed President of the British Commission, and Mr. Philip Cunliffe Owen, Secretary.

VISITORS.—The World's Fair Paris was opened on the 1st of May, 1878, and closed on the 10th of October. The total number of admissions was 16,032,725; the exhibition having been open for one-hundred and ninety-four days; this gives an average of nearly 82,650 per day. On the 10th of June (Whit Monday), the number of entries was 200,613, of which 182,240 were on payment; this was the largest number on any one day, and some 30,000 more than on the largest day in 1867, thus showing a steady advance in interest.

WORLD'S FAIR, PARIS, 1889—GENERAL VIEW.

The total receipts from visitors in 1878 were 12,653,746 francs, equal in round numbers to $2,531,650, showing quite an increase over 1867.

The total appropriation made by congress for the United States department of the World's Fair Paris 1878 was but $190,000, while Great Britain with half the probable expenses, appropriated the equivalent in pounds sterling to $335,000. However, under the conservative management of Governor McCormick, commissioner-general, the appropriation sufficed, and for the first time in any foreign World's Fair the United States had a home of its own, a building which in no way compared to the homes of other nationalities, but answered its purpose, and an illustration is presented herewith. Commissioner-General McCormick in his very able and interesting report, addressed to the Secretary of State, closes as follows:

"You will hope, with me, I am sure, that hereafter, with due regard to international courtesy, and to our own prestige, when all the powers of the world are to take part in our exposition, our government may act neither reluctantly nor parsimoniously, but with ready cordiality, and in a manner to give a just idea of our actual progress in science, art, education and industry."

The display of fine arts and machinery was upon a very large and comprehensive scale, and the avenue of nations, a street 2,400 feet in length, was occupied by specimens of the domestic architecture of every country in Europe and several in Asia, Africa and America. The palace of the Trocadero, on the northern bank of the Seine, was a magnificent structure, with towers 250 feet in height, flanked by two galleries. The rules suggested by the writer and adopted at Philadelphia requiring two copies of a photograph of every person entitled to a free admission, was enforced in Paris and found to work successfully. The total number of persons who *visited Paris* during the six months this World's Fair remained open was 571,792, being *308,000 more* than came to Paris the preceding year, and the profit to the City of Paris was estimated at $15,000,000, so that the indirect advantages more than covered the whole cost of the exhibition.

WORLD'S FAIR, SYDNEY, NEW SOUTH WALES, 1879.

The Sydney International Exhibition of 1879 was opened on the 17th day of September of that year. It was kept open until April 20, 1880, and during that period it was visited by 1,117,536 persons as per official report, of whom 267,056 entered free, and 850,480 paid for admission, the amount realized being £40,432, or in round numbers $202,180. The total amount of space covered by the exhibition buildings including the restaurants was 650,000 square feet, or rather more than fifteen acres. There were 9,345 exhibitors. The number of awards was 6,756, in addition to 798 prizes given to exhibitors at the special shows. The net cost of the Exhibition, after deducting all returns, entrances, concessions, etc., was in round numbers $1,321,000, but as usual this was more than repaid in the large sums of money expended in Sydney.

The United States received seventeen complimentary awards and medals, also six special medals to exhibitors, and in all 292 awards. As the exhibits from the United States were only 310, it is evident that all but eighteen of our exhibitors received awards due equally to the merits of the exhibits and the courtesy of the judges. Very special attention was given at Sydney to the agricultural live stock display, the exhibitors in these classes being 2,046, or nearly one-fourth of the whole exhibit.

WORLD'S FAIR, MELBOURNE, VICTORIA, 1880.

The site for this exhibition was the Alton Gardens, a public park comprising an area of about 63 acres, over the whole of which the Commissioners were to have exclusive control. The plans and specifications for the exhibition buildings were prepared and duly submitted to Parliament on the 12th of November, 1878, together with an estimate of the cost. According to the architects' estimate the cost of erecting the main building with one machinery annex was to be in round numbers $337,000, a further sum of $25,000 being added for cellarage deemed necessary by the Commissioners, and the whole contract was given out for $357,000. The buildings as finally completed consisted of the permanent nave 500 feet long and 160 feet wide, with galleries and large cellars: two permanent annexes 460 feet long and 138 feet wide; one main temporary hall 820 feet long

and 490 feet wide, a temporary annex for British machinery containing about 21,000 square feet; German and Austrian annexes containing about 20,000 feet of space. The total cost of all the buildings was £246,365 3s. 6d., or in our money roughly $1,201,025. Energetic measures were taken by the experienced Secretary, Mr. George C. Levey, C. M. G., to secure publicity throughout the whole of the civilized world and before the notice of all nations, through the medium of her Majesty's Ministers and Consuls, and the Secretary himself spent one year in traveling all over North America and Europe, to the great advantage of the Exhibition.

VISITORS.—Although the exhibition was closed at night and no extraneous attractions offered, the total attendance was 1,330,279.

Of above in round numbers 1,000,000 paid for admission, which is considerably more than the whole population of the Colony. These numbers will compare very favorably with the result of any previous World's Fair held either in Europe or America, at none of which was there an attendance so large in proportion to the population. Patent machines were used for registering the admissions, which worked very well. The public school children were admitted free on certain selected days. It will be borne in mind the United States had 366 exhibitors; their exhibits were awarded 773 prizes.

The medals were awarded to those in each class who seemed specially deserving.

The total number of awards was 9,671, and of medals 3,068. The large increase in our trade with Australia, due first to the World's Fair Philadelphia, has been still further added to by the results of the Melbourne Exhibition, so that to-day our exports of manufactured goods to Australia are larger than ever before.

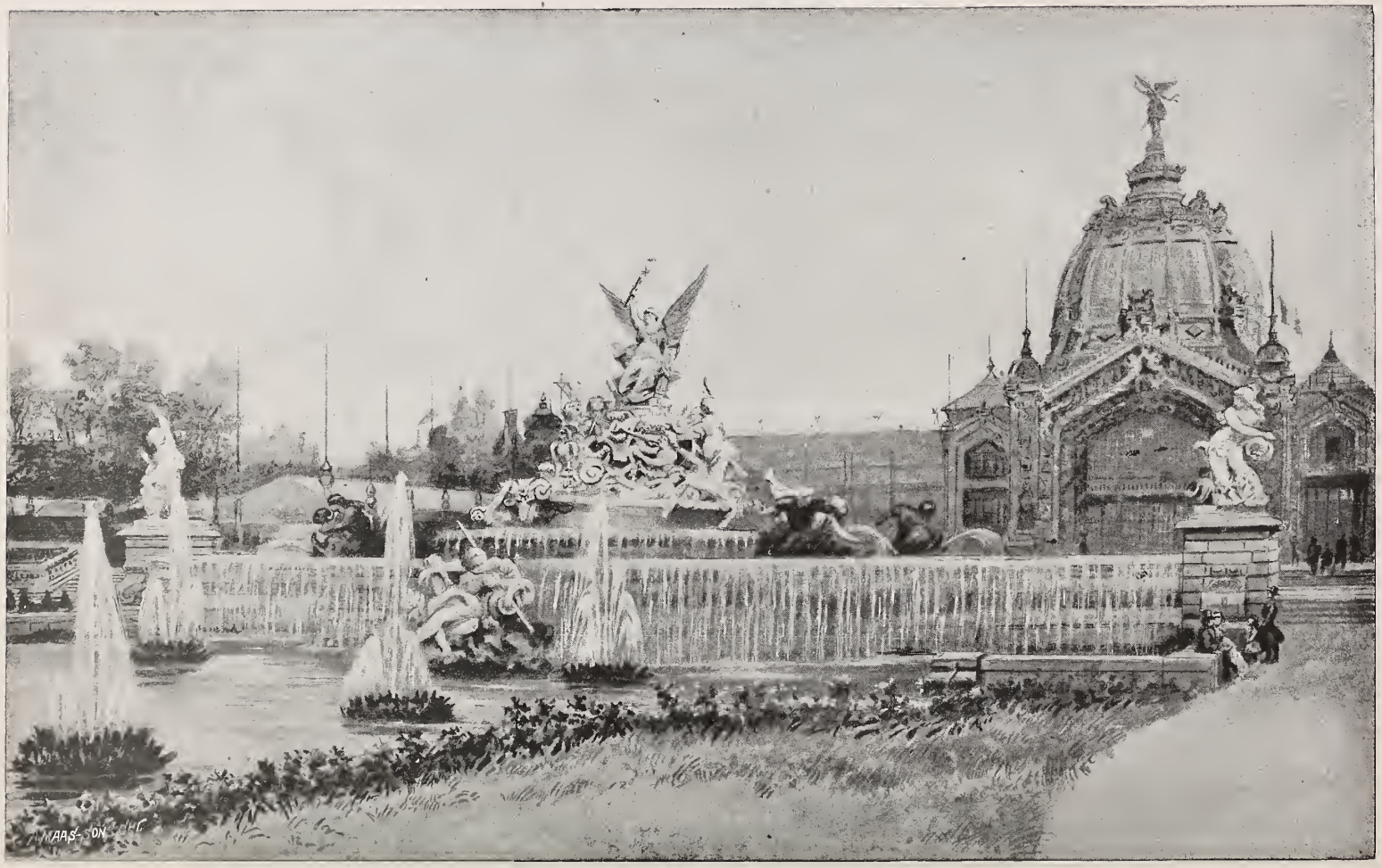
CHAPTER XIV.

WORLD'S FAIR PARIS 1889.

With the usual sagacity of the French Nation, ample time was secured in which to carry through the most successful International Exhibition that has as yet taken place. In June, 1883, the matter was first taken into consideration by some members of the Corps Legislatif. Public discussion in the press and elsewhere followed, with the result that it was considered best to hold a universal exhibition in Paris in 1889, the centenary of the French Revolution, 1779. On November 8, 1887, M. Jules Grevy, President of the Republic, signed, upon the recommendation of M. Rouvier, Minister of Commerce, a decree that a universal exhibition should be opened in Paris on May 5, 1889, and should be closed on October 31, the same year. For the purpose of successfully carrying through this great enterprise, the government pronounced in favor of a system of organization by the state in alliance with a guarantee society, which had been found to work well in 1867. This society guaranteed the state 18,000,000 francs, or $3,600,000, and gave certain pledges in the event of the expenses exceeding the amount calculated. This society or syndicate acted by means of a Board of Control, composed of eight municipal Councillors, seventeen Senators, Deputies and State Representatives and eighteen subscribers to the guarantee fund, each commissioner representing 1,000,000 francs. Thus the state had control of the exhibition, the City of Paris had a voice in the control, and the guarantee society did not lose sight of its capital. The state was reimbursed to a certain extent by the greater circulation of money and greater surplus from indirect taxes; the City of Paris was secured through its increased receipts in active duties, and the guarantee syndicate by its control of the receipts of the exhibition. A law dated July 6, 1886, sanctioned this combination, and on the 28th of July a decree regulated the organization of the service as follows:

ORGANIZATION.

M. Edward Lockroy, Minister of Commerce, Commissioner General.
M. Alphand, Director General of the Works.
M. Georges Berger, Director General of Exploitation.
M. Grison, Director General of Finance.
M. Bartet, Engineer in Chief.



WORLD'S FAIR, PARIS, 1889—GRAND FOUNTAIN.

A ministerial order was issued, dated August 26, 1886, appointing a Consultative Committee of 300 persons, under the title of the Grand Council of the Universal Exhibition of 1889, and this was subdivided into twenty-two consulting committees to watch over various departments of the Exposition. The government issued 30,000,000 tickets to the guarantee company, which, sold at one franc each, would realize $6,000,000. It also authorized a lottery with 200,000 bonds of twenty-five francs, good for twenty-five tickets, the bonds bearing interest. They soon sold at thirty francs and over, thus paying the syndicate well on its investment.

The original estimate for buildings and grounds for the World's Fair Paris 1889, was 32,664,518 francs; in our money about $6,500,000. This included every item chargeable to buildings and grounds, and the result, it will be admitted by every visitor, indicated a good return on the investment, especially when, in closing up the account, the actual cost was found to be $646,490 less than the above estimate. The total estimate made for the entire cost of the World's Fair Paris 1889, was 43,000,000 francs, but the result shows an outlay of only 41,500,000, the gross total being as follows:

Receipts	49,500,000 francs
Expenses	41,500,000 francs
Showing an excess in receipts of	8,000,000 francs

Or $1,600,000, This wonderful result, exceeding that of any previous exhibition, was due almost entirely to the admirable organization of the whole affair from its smallest detail, and the fact that nearly all the officials connected with it were men of experience.

There were in all 55,000 exhibitors, more than at any previous World's Fair. Of this number about 1,750 were from the United States.

POLICE SERVICE.—For the proper charge of this important service during the day, the following were required from May 5 to November 5, six months: 4 chiefs, 4 brigadiers, 52 sous brigadiers, 800 policemen. For the night service: 2 lieutenants, 4 non-commissioned officers, 8 brigadiers, and 125 men of the Republican Guard, equivalent to our state troops. In addition, 62 secret service agents were employed, under the command of a chief and two assistants. The total number of arrests during the entire period of the World's Fair was only 198, which were divided as follows: 139 French, 9 Italians, 5 English, 7 Belgians, 5 Austrians, 9 Swiss, 6 Germans, 3 Spanish, 4 Russians, 1 Hollander, 2 Irish, 1 Egyptian, 1 Brazilian, 1 American, 1 Turk, 1 Algerian, 2 Luxembourgians. These were mostly arrested for theft and pocket picking.

MEDICAL SERVICE.—A central post or hospital was established, controlled by a medical director and nine assistants. There were also five sub-medical stations in different parts of the ground, with telephone connection with the city ambulance stations. The largest number of medical calls were due to accidents to the workmen prior to the opening of the exposition.

It is a most remarkable fact that during the World's Fair 1889, Paris was exceptionally healthy, statistics indicating a *diminution* in the rate of mortality as compared with former years. Philosophers have said for centuries past that "one does not think of dying when happy," and perhaps this may explain the incongruity. One thing is certain, that neither the Parisians themselves nor their visitors had time to think of getting ill.

NARROW GAUGE RAILWAY.—The trains on this great accommodation to visitors started from the monumental gate at the Quay d'Orsay, and, making several turns and three stops, arrived at the Machinery Hall. The fifteen engines used were run by steam, compressed air and electricity, carrying 100 carriages of different plans. A uniform price of twenty-five centimes, or five cents, was made for the entire trip or any portion thereof. These trains commenced running at 9 a. m. till midnight, at intervals of ten minutes. There were carried on this railroad 6,342,670 visitors, being an average per day of 35,238 persons in 3,708 trains, and during the six months of active work only one accident had been noted. Rolling chairs were largely used by invalids and others during the exposition.

VISITORS.—The regular entrance fee was one franc, but, owing to the lottery system, a very large number entered at half that price. The total number of admissions by ticket between May 6 and November 6, was 28,149,353, or more than three times the number of

WORLD'S FAIR, PARIS, 1889—CENTRAL DOME.

entrances to the Centennial, thus carrying out the steady rule of progression in increased numbers which all exhibitions indicate, the daily average being 137,289. It is estimated that 400,000 people visited the Fair on the last day, which makes it the largest single day in World's Fairs. Paris has one advantage so far as statistics are concerned. The police of that city can form some data fairly reliable as to the number of arrivals into the city of Paris, as every hotel and apartment house is obliged by law to keep a register. These show that about 1,500,000 came into the city, and upon that basis that there were not less than 5,000,000 separate visitors to the World's Fair, which would allow a trifle over five entries to each person. It is the judgment of the writer, from pretty careful examination, that the average entrances into the Paris Exposition would be more nearly ten to each person, the admission being only one franc, in which case (if correct) there were less than 3,000,000 visitors. However that may be, there was an increase of 12,000,000 entries over Paris, 1878, and 18,000,000 over Philadelphia, 1876.

For the evening or for Sunday, an extra ticket was required; and the wonderful fountains, electric colored lights and splendid bands of music brought together a very much increased attendance. It has been estimated by a regular visitor that to see the entire exhibition one would walk at least fifteen miles. Foreign committees, established at the request of the French government, were each invited to be represented by a delegate charged to deal with questions interesting to the nation he represented.

Site and Buildings.—As is well known, the Champ de Mars was again selected as the site for the World's Fair Paris 1889. The total space occupied was 173 acres. The largest building on the ground was the Machinery Palace, 1,378 feet long, 406 feet wide and 166 feet high. The building cost $1,500,000 and covered eleven acres. The Palace of Arts cost $1,350,000, and the Palace of the French Section cost $1,150,000, while $500,000 was expended on the parks and gardens. Among these parks were interspersed that marvelous collections of dwellings representing an Indian dwelling, a street in Algiers, houses of New Caledonia, Tunisian minaret, Turkish village, English dairies, Dutch bakeries, etc. There is no question but that the Eiffel Tower was the prineipal attraction in Paris, 1889, as it is now. This structure, 984 feet high, is named after its inventor, a French engineer, who, however, has given credit to this country as having furnished the idea; possibly the Sawyer Observatory at the Centennial may have suggested it. Its base forms a gigantic arehway over a main path leading from the bridge into the central grounds of the Exposition. The tower is of very simple construction, built entirely of iron girders and pillars, with four great shafts consisting of four columns each, starting from the four corners of the base and merging into the single shaft, which forms the main part of the tower. This shaft ends in a great cupola or Alpine reception room, which in turn is surmounted by a still higher lantern or observatory, the platform of which is over 800 feet above the ground. The total weight has been estimated at 15,000,000 pounds, or 7,500 tons, and the cost at about $1,000,000, the French government assuming one-third the expense. On the first platform of tne Eiffel Tower restaurants have been established, where visitors can rest and refresh themselves and enjoy a magnificent view of Paris and its suburbs.

The results of the World's Fair Paris 1889 were most satisfaetory. The gold reserve or balance in the Bank of France was enormously increased. It was estimated that Americans brought over and spent 350,000,000 franes in gold. The various railroad companies admit an increase in numbers over the six months of the preeeding year of 1,878,747, and in receipts of over 66,000,000 franes, and the City of Paris Omnibus Company of 4,000,000. The Cab Company transported 26,097,112 persons from January 1 to November 1, 1889; the same period in the previous year, only 12,000,000, with an increase in revenue of 1,558,000 francs. The Louvre, a large dry goods store, ran four *free* stages to the exhibition, carrying 1,320,000 passengers gratis. There were some 300 open wagons or spring wagons in use, run by private parties, making as high at $50 per day. The tramways, from May 6 to October 31, carried 6,342,670 people, giving over 1,500,000 francs receipts, sometimes carrying 10,000 per hour. The Belt Line carried an average of 30,000 per day during the fair, and a total of not less than 16,215,825 individuals, and the small steamboats on the Seine, 13,527,125. The theaters all showed large gains, the total excess of receipts over previous years being $19,867,555 francs. The restaurants were great gainers, the increased

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receipts being at the Champ de Mars alone 1,640,000 francs more than the previous year. The World's Fair Paris 1889 showed a *profit* of 8,000,000 francs, the *loss* in 1878 at the Paris Exposition being 31,704,890 francs. Adding together the increase of the bank balances, of the receipts of railroads and of the revenue, a total gain of not far short of 500,000,000 will appear; to this must be added the strictly private receipts. Allowing 1,500,000 to foreign visitors, spending an average of 500 francs or $100 each while in Paris, and 6,000,000 from the provinces of France, spending say 100 francs or $20 each, are 1,250,000,000 more, giving a tota direct of 1,750,000,000 francs, or about $350,000,000. Thus the heavy outlays made by the French government and the City of Paris were returned tenfold.

THE GREINER PATENT ECONOMICAL CUPOLA.

John S. Unger, M. E. and T. A. Wigham, forming the firm of Unger & Wigham, 301 Phenix Building, say that in placing the Greiner patent economical cupola before the foundrymen and steel manufacturers in this country, they have the advantage of the splendid results already obtained with this cupola in Europe, where upwards of 400 are in daily use. The adoption of the Greiner system of melting iron there has met with the most satisfactory results. In no case has the saving of fuel been less than 15 per cent., and in some instances it has reached 40 and even 50 per cent.

The novelty of the invention consists in a judicious admission of blast into the upper zones of a cupola, whereby the combustible gases are consumed within the cupola, and the heat utilized to preheat the descending charges, thereby effecting a saving in the fuel necessary to melt the iron when it reaches the melting zones. In order to fully explain the principle of its workings, we illustrate in Fig. 1 a cupola of ordinary design, with a single row of tuyeres or air inlets, *a a*. The incoming air burns the coke in front of the tuyeres to carbonic acid gas, a combination indicating perfect combustion. As this gas ascends through the incandescent coke above, most of it is converted into carbonic oxide by the absorption of an equivalent of carbon. The result of the combustion is, therefore, a gas mostly composed of carbonic oxide (CO), indicating an imperfect utilization of fuel, as one pound of carbon burned to carbonic acid, (CO_2) will develop 14,500 heat units, whereas, the same amount of carbon burned to carbonic oxide (CO) will only develop 4,480 heat units, or less than one-third of the heat developed by perfect combustion. To avoid this loss of heat additional tuyeres have been placed at a short distance (Fig. 2 *b b*) above the lower tuyeres to introduce air to consume the carbonic oxide (CO), but such arrangement does not have the desired effect, because the material at that place in the cupola has a very high temperature, consequently the entering air also ignites the coke, so that the action of the lower tuyeres is simply repeated,

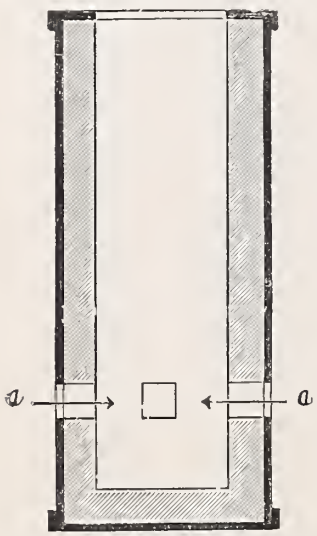


FIG. I.

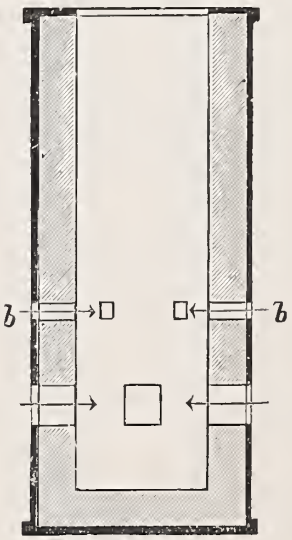


FIG. II.

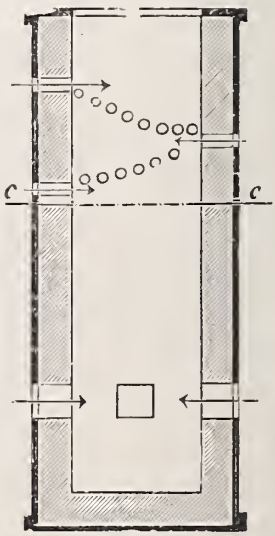
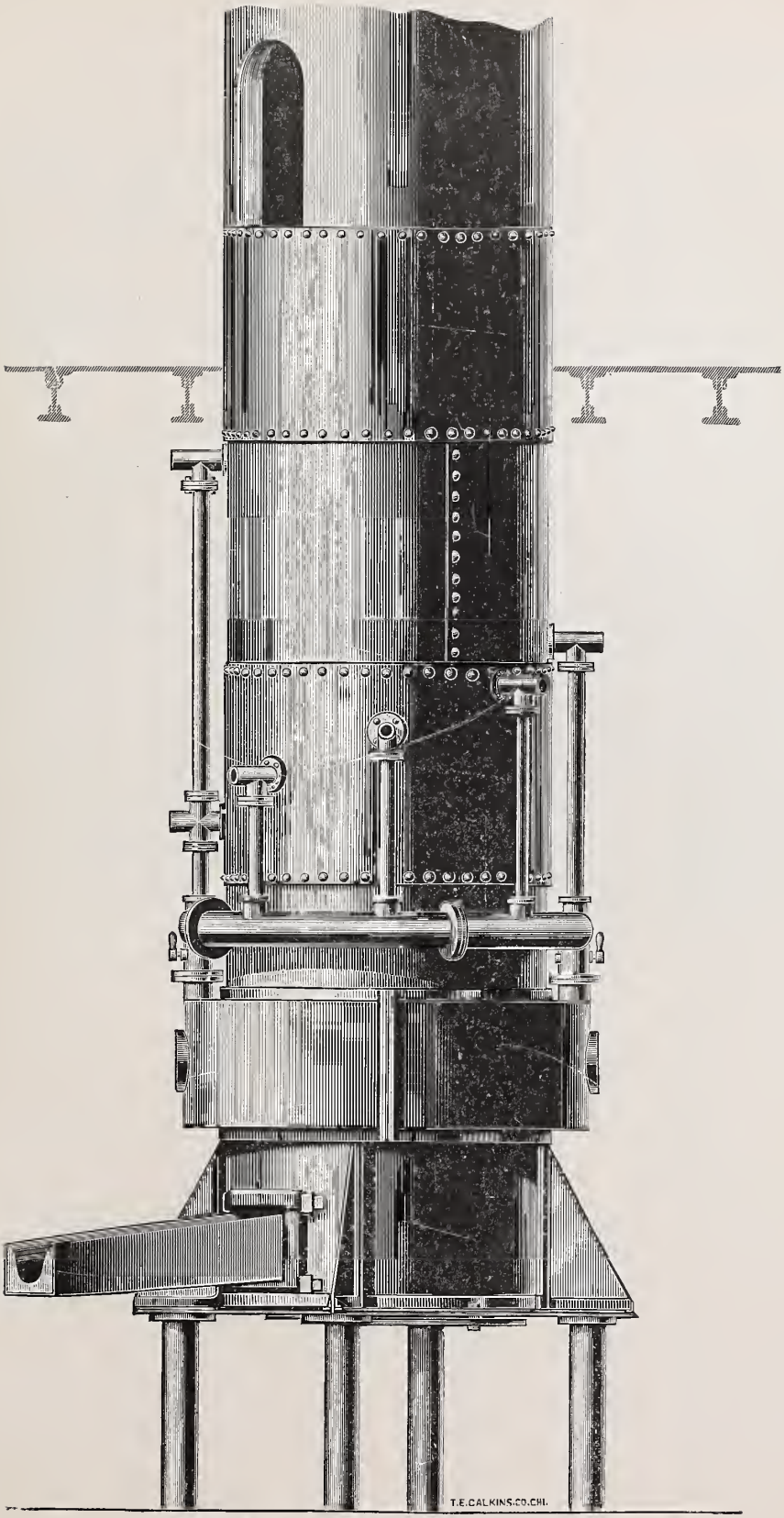


FIG. III.

and carbonic oxide (CO) again formed at a short distance above *b b*. This lead Mr. Greiner to the following conclusions: In every cupola there must be a point (*c c* Fig. 3) above which the descending materials have not yet reached the temperature necessary for the ignition of the solid fuel, while the ascending combustible gas is still warm enough to ignite when brought into contact with air. It is clear that air, if properly admitted above that point, will cause the combustion of the carbonic oxide (CO) without igniting the coke.

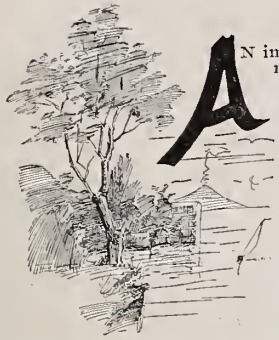
But if all the air necessary for the combustion of the carbonic oxide (CO) be admitted at one place, or in one horizontal row of tuyeres, the heat developed will very soon raise the temperature so as to set fire to the coke, producing loss of carbon as before. Hence the upper blast must not be introduced on a horizontal plane, but through a number of small tuyeres, arranged (either in the form of a spiral or otherwise) so as to embrace the higher zones of the cupola, and must be regulated, both as to pressure and to arrangement and dimensions of pipes, according to the capacity of each particular cupola. The combustible gases are thus burned without heating the coke to incandescenee, and the heat thus developed utilized to preheat the iron and the coke, so that they reach the melting zone at a higher temperature, and require less heat to effect the melting.

Another point in favor of the Greiner economical cupola, and which is very important in most foundries and steel works, is that the application of the Greiner system will increase the melting capacity of the cupola, owing to the more rapid melting in the fusion zone, and to the additional room in the cupola that previously was occupied by the extra amount of coke not now required. Owing to the more rapid melting, a purer and better iron is obtained. As will be understood, the number, size, position and arrangement of the upper tuyeres vary considerably, according to the capacity of the cupola to which the system is to be applied. It can be readily adapted to any fittings existing cupolas; without material alteration being effected, while the only additional fitting necessary, generally consists of a circular pipe connected by branches with the main blast box of the cupola, valves to regulate the blast and connecting pipes for the small tuyeres. Given the size of the cupola, and the conditions under which it is worked, Messrs Unger & Wigham are prepared under the patentee's instructions to advise on the proper arrangements, the firm guaranteeing in each instance a saving of 15 per cent. in the consumption of fuel. (See next page.)



GREINER PATENT ECONOMICAL CUPOLA.

TAKAMINE FERMENT COMPANY



AN immense concern, possessing the right to a process that has revolutionized the manufacture of alcohol, alcholic liquors and wines, beers, yeast, vinegar, glucose, sugar, etc., is the Takamine Ferment Company, incorporated in 1890, under the laws of the state of Illinois, with a capital of $10,000,000. The process controlled by this company is known as the Takamine Ferment Process, and is the invention of Mr. Jokichi Takamine, the president of the company, a Japanese gentleman who has received the most distinguished honors under the government of Japan, and who is renowned in Europe, where he was educated, and in the United States as a savant of the greatest erudition. The value of the process may be inferred from the fact that it has been adopted by all the distilleries operated by the Distilling and Cattle Feeding Company, and that immediately upon its adoption the wholesale price of whisky will be reduced from three to four cents per gallon, the cost of production having been materially decreased. This process makes it possible to extract the spirits from corn without the use of malt or small grain. It is an entirely new process, totally unlike any ever before used. The saving in cost is about fifteen cents in the treatment of each bushel of mash, and in addition to this the yield is increased to the value of about ten cents, making a total profit of twenty-five cents per bushel over and above that obtained by the best methods previously in use in America or Europe. This company has a perfect ferment and a diastase which costs practically nothing, and which enters into the manufacture of beers, compressed yeast, vinegar, glucose and California wines, even more largely in some instances than it does into the manufacture of whisky or alcohol. The office of the company is at No. 907 Chamber of Commerce. Mr. Jokichi Takamine, the president of the company and inventor of the process, is a native of Japan and was educated at the university of Glasgow, in Scotland, and pursued his post-graduate course under Professor Mills, F. R. S., one of the most distinguished chemists of the world. He left his native land at the age of fourteen to commence his studies in Europe, and he has been an indefatigable student ever since, never abating his investigations and researches. For some years he traveled over Europe, spending considerable time in England and Scotland, and on returning to Japan took rank at once among the foremost and progressive men of that progressive country. He was made

Councillor of the Societies of Chemistry and Engineering of Tokio, and Director of the Technical College of the Department of Agriculture. At the time of the New Orleans Exposition he was appointed commissioner from Japan, where his courteous bearing, diplomatic ability, personal worth and scientific attainments fully justified the wisdom of his election to represent his nation in this great enterprise. While in New Orleans he met Miss Carrie Hitch, who was a favorite in the most select circle of society, and a young lady of great personal attractions and the most estimable qualities. Their acquaintance ripened into love and their marriage was one of the social events of the season. Before returning to Japan, Mr. Takamine visited the phosphate mines of South Carolina and arranged for the first shipment of phosphate rock ever made from the United States to Japan, where it is now extensively used in the manufacture of fertilizers in a large factory built by Mr. Takamine, and operated entirely by native labor. The company owning the plant has a capital of $1,000,000, and is doing a successful business. In addition to this fertilizer, which has renewed the lands exhausted by centuries of cultivation, Mr. Takamine has made and introduced many other improvements in the arts and sciences of Japan, and in recognition of his eminent services he was appointed Director General of the Patent Office, which department he remodeled after that of the United States of America. It was while pursuing his studies in London with Prof. Mills that his attention was first called to the alcoholic liquor industry, and an investigation of the subject convinced him that there was a wide field for improvement in the means and methods employed. For several years he devoted himself to a patient study of the fundamental scientific principles underlying this great industry, and his labors and research were finally rewarded by the discovery of a new process for the production of alcoholic liquors, which, while in principle an entirely new departure, was adaptable to the system and appliances of the modern distillery and brewery, securing thereby an enormous saving in cost of production, and a large increase in yield at a comparatively trifling expense in the alteration of a manufacturing plant.

Since November 1st they have received some very handsome propositions for the yeast business, and are now negotiating with one of the largest bread interests in the country that will be quite as remunerative as the alcohol business. Mr. Takamine has in his laboratory samples of Takakoji made from wheat brand, corn brand, and distiller's slop, 2 or 3 per cent. better than malt, and excellent Takakoji from corn cobs, and it is only now a matter with the distillers to find what machinery is most necessary for the successful operation of their different plants.

Selecting Chicago as the most inviting location for the introduction of his new process into the United States, the company which now controls it was organized and the success with which it has met has already been told. The other officers of the company are D. E. Sibley, vice-president; Edward Moore, secretary; George D. Hart, assistant secretary; E. V. Hitch, treasurer, and George T. Burrough, general manager. These gentlemen are all so well known and their ability in business matters and standing in financial and social circles so generally recognized in Chicago, that extended notice would be superfluous. Mr. Sibley is the president of the Sibley Elevator Company; Mr. Hitch, the secretary of the Standard Fireless Engine Company, and Mr. Burrough, the manager of the Calumet Distillery. Chicago is to be congratulated on the fact that the company has identified itself with this city, and it is with the greatest pleasure that this extended notice is accorded it in this work.

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