

Probably the finest view of the Agricultural building is that presented on our front page, which was taken from the colonnade story of the Administration building, looking toward the southeast. The water in the foreground and at the left is part of the Basin, while passing under the bridge and to the right of the picture is what is called the South Canal, a body of water which separates the Agricultural Palace from the Palace of Mechanic Arts.

The front of the Agricultural Palace faces the Basin and is directly opposite the south end of the Palace of Manufactures and Liberal Arts. The ground in front of each of these edifices is terraced and laid out with walks. Our view of the Palace of Agriculture building shows the large amount of statuary used in ornamenting this structure. This statuary and other ornamentations of the building were described in the SCIENTIFIC AMERICAN of April 29. The palace is approached from the main part of the grounds by means of the bridge shown in the foreground at the right or by passing over another bridge at the head of the Basin which is just beyond the northeastern corner of the building. There are several entrances, and the internal arrangement is such that from whatever direction the visitor enters, many most interesting objects are presented to the view.

The Palace of Agriculture, next to the Administration building, is probably more conspicuous than any other edifice at the World's Columbian Exposition in the amount of statuary and other ornamentation. The architecture of the building is that of the Classic Renaissance style. It fronts on the Basin and is directly opposite the south end of the Manufactures and Liberal Arts building. At the west of it is the South Canal, which separates it from the Palace of Mechanic Arts, while in the rear, or east of it, is what is called the South Pond. The Palace of Agriculture, like all the other Exposition buildings, is covered with staff, which, as our readers will remember, is composed of plaster of Paris, with which fibers of hemp are mixed, to impart increased strength. It is 800 feet long from east to west, and 500 feet wide from north to south. The cornice line, like all the other buildings surrounding the Basin, is 65 feet above grade. The main entrance is on the north face of the building, and on either side of it are mammoth Corinthian pillars, 50 feet high and 5 feet in diameter. Pavilions are reared at each corner and from the center of the building, the center one being 144 feet square. Curtains connect the corner pavilions, forming a continuous arcade around the top of the building. Each corner pavilion is surmounted by a dome 96 feet high, and on each of these domes is a group of maidens of heroic size, called the Horoscope Group. These figures are represented as holding aloft a globe, about which is a zone with signs of the zodiac. The figures are made of staff, while the globes are of sheet copper. Each group represents a distinct race, one the Caucasian, another the Mongolian, another the Ethiopian, and the fourth the American Indian.

The main entrance leads through an opening sixty-four feet wide into a vestibule, and from this vestibule into the rotunda, which is one hundred feet in diameter. This rotunda is surmounted by a mammoth glass dome 130 feet high.

Thirty-seven States in this country and thirty-five foreign nations and states have exhibits in this building. The interior arrangement is such as to provide over fourteen acres of desirable space for purposes of exhibiting.

Our plate of the Palace of Agriculture was prepared from a photograph specially taken for the SCIENTIFIC AMERICAN.

Immediately back of the annex there is what is called the South Pond, and on the western shore thereof is the exhibit of wind mills shown in our front page illustration. This picture was taken from the railway platform back of the annex looking across the South Pond. There are fourteen different makes of mills in this collection besides a reproduction of an ancient Dutch wind mill. The latter is a model of a mill built in Amsterdam in 1806, being the original mill built to furnish power for Blooker's cocoa manufactory. The mill at the left is raised above a structure resembling the Dutch structure. Most of the mills have in connection with them a full complement of the various machines used in connection with them, showing the many uses to which these wind mills can be applied. Inclosed among these devices are pumps in variety, churns, feed cutters and grinding machines,

etc. The manufacturers represented in this wind mill exhibit are the following: The Aer-Motor Company, Batavia, Ill.; the Althouse-Wheeler Company, Wau-pum, Wis.; Flint & Walling Manufacturing Company, Kendallville, Ind.; Stover Manufacturing Company, Freeport, Ill.; Mast, Foss & Co., Springfield, Ohio; Challenger Wind Mill and Feed Mill Company, Batavia, Ill.; United States Wind Engine and Pump Company, Batavia, Ill.; Decorah Wind Mill Company, Decorah, Iowa; the American Well Works, Aurora, Ill.; Sandwich Enterprise Company, Sandwich, Ill.; Baker Manufacturing Company, Evansville, Wis.; Globe Wind Mill Company, West Pullman, Ill.; Eclipse Wind Engine Company, Beloit, Wis.; E. B. Winger, Chicago, Ill. Our plate of the wind mill exhibit was prepared from a photograph specially taken for the SCIENTIFIC AMERICAN.

Two interesting dedications took place at the World's Columbian Exposition grounds during the week ending May 20. The first one on May 17 was that of the Norwegian building. This building is an attractive structure about the average size of the State and national buildings, situated in the northern part of the grounds just east of the Gallery of Fine Arts. The exercises were attended by several thousand Norwegians living in the city of Chicago and vicinity, and the principal speakers included Norwegians who had attained eminence politically and otherwise. The fact that the 17th of May was a national day with the Norwegians brought out a larger attendance than there otherwise might have been. This was the first dedication at which there were formal exercises and which were attended by a large procession since the opening of the Exposition grounds on May 1. The procession included a dozen or more Norwegian organizations, and in the procession as well as in the decoration of the building the Norwegian and American flags were conspicuous. The principal address was by Professor Julius E. Olsen of the University of Wisconsin. Other speakers were Governor Knute Nelson, of Minnesota, and Congressman Haugen, of Wisconsin. In the evening a banquet was held at one of the leading hotels at which eminent Norwegians were guests.

On the following day the Illinois State building was dedicated. This structure is the largest State building on the grounds and is also one of the most conspicuous buildings, the dome being visible from almost any point in the grounds because of its height. The building is situated on the shore of the north pond and not far from the Fifty-ninth Street entrance to the Exposition grounds. Whatever may be said regarding the architecture of this building, certain it is that the interior arrangements fill all the requirements. This structure, like all the Exposition buildings, is covered with staff and is quite elaborately ornamented. The dedicatory exercises were held in front of the main entrance on the south side of the building overlooking the lagoon. Near by is the Woman's building. The day on which the exercises were held was pleasant and comfortable, and although seating arrangements were provided for about two thousand people, there were nearly twice as many as that number in attendance. Addresses were made by Mr. Lafayette Funk, president of the Illinois Board of World's Fair Commissioners, Mrs. Marcia Gould, president of the State Woman's Board, Governor Altgeld, Mayor Harrison and others. The orator of the day was Mr. Frank H. Jones, of Springfield. After the exercises the building was formally inspected by the people present and by many visitors who were in the grounds. The exhibits in this building are all installed and include a great variety of subjects. The display of the products of the soil is very complete and elaborate as well as beautifully arranged, and is one that should not be overlooked by intended visitors. Products of the field are fully shown, as also those of the forest, and there are exhibits by schools and colleges, a large number of pictures, some of them of considerable merit, and also a grotto with fish ponds. The fishes include most of those found in the waterways of the State. There are also a number of German carp of considerable size. On the north side of the building is a fireproof annex in which are shown battle flags and other trophies by the Grand Army of the Republic and other military organizations.

The first congress in the series of congresses in connection with the World's Fair Auxiliary was held in the Memorial Art Palace on the Lake Front in Chicago for the week of May 15 to 21 inclusive. This was the Congress of Representative Women, some sixty or more organizations and a much larger number of societies and associations devoted exclusively to the interest of women being represented. There were three general organizations of the work of the congress—the general congresses, which were held in the large hall and which were opened to the public; the report congresses, which reported from associations and societies in all lines of work and from different parts of the world; and the congresses of the larger organizations, which were fully represented, and at the meetings of which papers were read and discussions held. The entire congress was divided into eight departments—education, industry, literature and art, philanthropy

and charity, moral and social reform, religion, civil law and government, and science and philosophy. The more important papers read in the general congress referred entirely to woman's work and influence, several papers being read by eminent women in each of the eight departments. Among the more important meetings of well-known organizations were the following: National Congress of Women of the United States, Order of the Eastern Star, International Committee of Young Women's Christian Association, National Christian League for the Promotion of Social Purity, Woman's Christian Temperance Union, International Kindergarten Union, Woman's National Indian Association, National Association of Loyal Women of American Liberty, National American Woman's Suffrage Association, Woman's Baptist Home Mission Society, General Federation of Woman's Clubs, American Protective Society of Authors, Woman's Centenary Association, Catholic Woman's Congress, National Alliance of Unitarian and Other Liberal Christian Women, Non-Partisan National Woman's Christian Temperance Union, National Woman's Relief Society, Young Ladies' National Mutual Improvement Association, National Society of the Daughters of the American Revolution, International Council of Women, Woman's Trade Union, National Columbian Household Economic Association and many other societies and organizations. On Sunday, May 21, a series of religious meetings were held, conducted by women who have been admitted to the ministry in the several denominations. In addition to these and other meetings of more or less importance a series of society gatherings and receptions were held, continuing throughout the week.

In addition to these congresses, a series of meetings was arranged continuing during the remainder of the month of May, to be held in the Woman's building in the Exposition grounds, at which addresses are to be made by well known women of this country and of Europe.

The whaleback steamer Christopher Columbus, which was illustrated in these columns in the issue of May 13th, steamed into the harbor of Chicago on Friday, May 19. The vessel is not particularly fine in her lines and looks somewhat top-heavy, as noticed from the illustration; but in her accommodations she is finely fitted up, and is believed to be ample to carry 5,000 people, and as already tested has made a speed of about twenty miles an hour. The vessel had not been in harbor an hour before she was put into commission and took a large party of visiting editors out into the lake on an excursion.

A point not generally appreciated by people from the several States that have buildings in the Exposition grounds is the fact that there is a post office in each one of these buildings and also a registry. All visitors who do not care to have their mail sent to the World's Fair post office in the Government building can have it sent to their State building. An important feature in connection with these State buildings is that they are designed to serve as club houses, and many reunions of friends occur in this way every day, and friends can be found by consulting the registry, as the city address of each person registering is given.

#### Answer of the Bell Company.

The American Bell Telephone Company and E. Berliner have filed their answer to the bill lodged by the government to annul the Berliner patent in the United States Circuit Court for the District of Massachusetts.

The answer is a general denial of all the charges made in the government complaint, and avers that due diligence was observed in the prosecution of the case in the Patent Office; that as a matter of fact the patent was ready for issue as early as 1882, and that the patent would then have been issued but for the action of Examiner Brown, who rejected all its claims and raised other objections—all of which could have been done before that date. This action was appealed from to the Board of Examiners-in-Chief, who, in February, 1889, reversed the decision of the examiner. It is also averred in response to the complaint that no new matter was introduced into the amended specification filed in 1880, after the acquisition of the patent by the Bell Company.

The Bell Company also aver that in the applications for the Berliner patent, all due forms of law were observed, and that the government cannot repudiate the acts of its own agents established by the laws creating the Patent Office.

#### Scientific American and the Columbian Exposition.

To insure regular receipt of the SCIENTIFIC AMERICAN, containing letters of our correspondent in Chicago, it is advisable to send subscription direct to this office, as the paper cannot always be procured at the news stands. The SCIENTIFIC AMERICAN is now and will, during the summer, be constantly represented at the Fair by special artists and correspondents. Subscription, \$3 per year; \$1.50 six months. Address MUNN & Co., publishers, 361 Broadway, N. Y.

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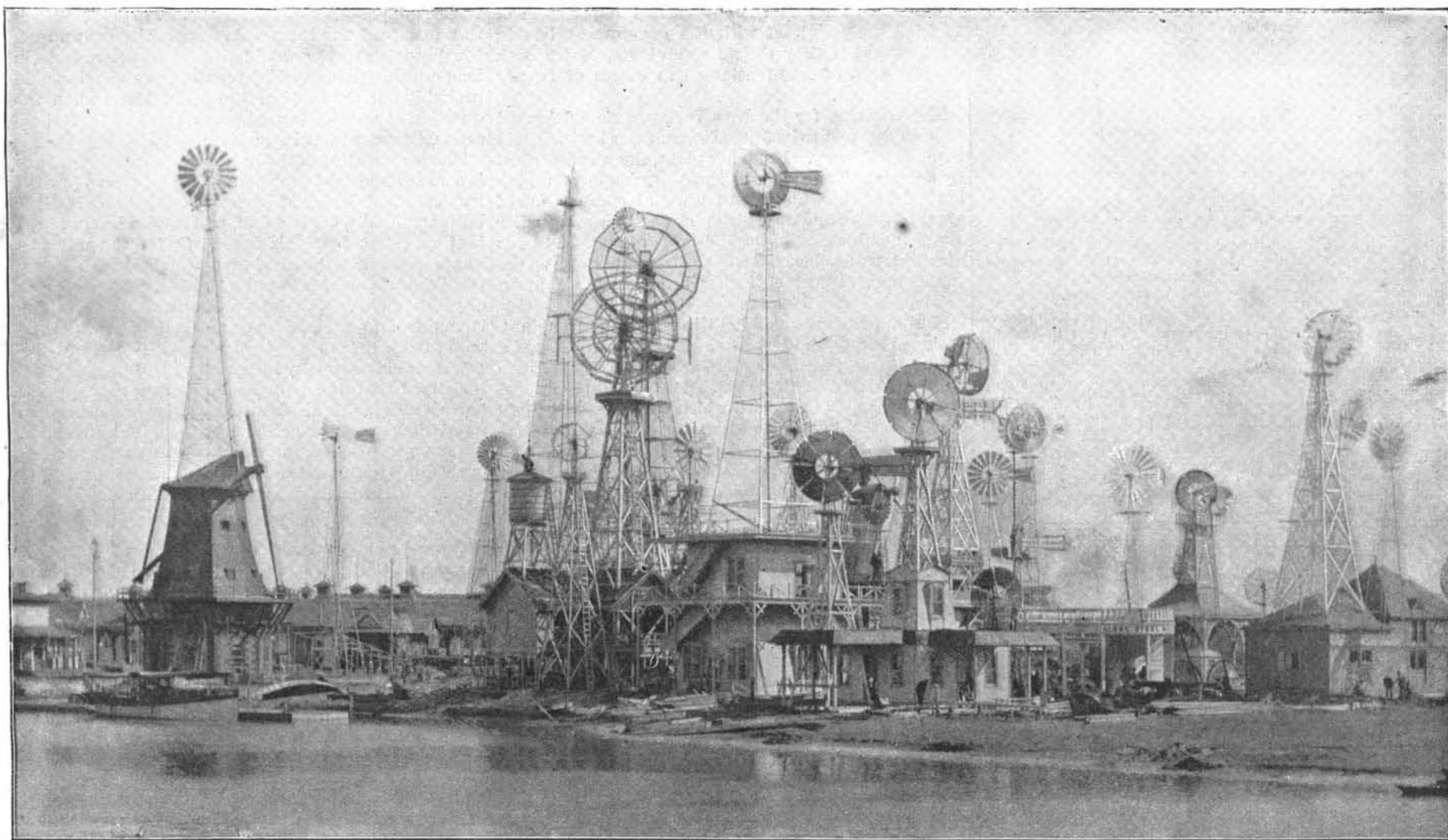
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THE WORLD'S COLUMBIAN EXPOSITION—THE EXHIBIT OF WINDMILLS.—[See page 339.]



THE WORLD'S COLUMBIAN EXPOSITION—THE PALACE OF AGRICULTURE.—[See page 339.]