THE EXHIBITION OF 1892-93.

The site of the next World's Fair, as it now appears, with the water surfaces, grounds and buildings laid out, and the work thereon in various stages of progress, forms the subject of our first page illustration. The view is taken looking south from the Fine Arts Building, the ground to the north, not shown, and which has heretofore been the most improved portion of Jackson Park, having been allotted to the different States. It is expected that this portion of the grounds will be covered with scores of buildings, presenting an exceedingly picturesque array, in which will be embraced every variety of architectural taste or fancy.

At the beginning of the work on the grounds, all the land south of the "branch," where the lagoon and wooded island have been formed, was a stretch of sand dunes, with stunted oak trees and sweeps of marsh grass. This is where the main buildings of the Fair are now being erected, and for the foundations of which the high ground has been made higher, while the lower levels have been scooped out to form the lagoon, canal, and basin, the landscape gardener's art having been employed contemporaneously with that of the engineer, so that the previous barrenness will be superseded by lawns, terraces, flower beds, etc. When the sites of the various buildings were settled and their limits staked out, then the grade had to be raised to the regulation height previously determined upon before the foundations could be commenced, the dredger being largely employed to furnish the necessary filling.

The main building of the Palace of Fine Arts, the design for which has been but recently accepted, is to be a most imposing structure, occupying a space 320 by 500 feet, and to the rear, on each side, will be an annex, reached by a covered passage, each of these additional buildings covering a ground space of 120 by 200 feet. Fifty brickmasons and a large force of carpenters are at work on the building; the lake bordering on the building site has been pumped out, and on the spot where the boathouse stood last summer the masons have put in the brick and concrete foundations.

The Woman's Building is in the most advanced state of all the structures thus far commenced, and is about ready for its roof. The design for this building was made by Miss Sophia G. Hayden, of Boston, who won a $1,000 prize offered for the best plan. The structure measures 200 by 400 feet, and is to cost $200,000. The architecture is classic, with end and center pavilions, connected by an arcade. The center pavilion contains the main entrance to the building, from which the visitor enters the main gallery, 60 by 240 feet, to the left of which is a room 80 by 200 feet, in which there will be a retrospective exhibit, while a similar space at the other end of the building will be devoted to reforms and charities. Portions of the building are also allotted for a model kindergarten, a model hospital, a library and record room, a bureau of information, club rooms, committee rooms, parlors, etc. The main portion of the building is three stories high.

Beyond the Woman's Building, facing the lagoon on the land side, is the Horticultural Building, 1,000 feet long and with an extreme width of 286 feet. It was designed by W. L. B. Jenney, of Chicago, and in front will be a flower terrace for outside exhibits, including tanks for nympheas and the Victoria regia, while the front of the terrace will have a low parapet between large vases bordering the water, with a boat landing at the center. The building will have a central pavilion and two connected end pavilions, forming two interior courts each 88 by 270 feet, the courts being beautifully decorated in color and planted with ornamental shrubs and flowers. The center pavilion will be roofed by a crystal dome, 187 feet in diameter and 113 feet high, under which will be exhibited tall palms, bamboos, and tree ferns. The exhibits will include all the varieties of flowers, plants, vines, seeds, horticultural implements, etc., those requiring sunshine and light being placed where the roof is entirely of glass, while provision will be made for furnishing heat where required. The exterior of the building, and that of nearly all the buildings on the grounds, will be in staff or stucco, the process of making which in the various forms required is shown in the views at the top of the page. The appropriation for this building is $400,000.

Opposite the southwestern corner of the lagoon, beyond the Horticultural Building, is now rising the Transportation Building, on which considerable work has been done, the irregular columns and framing indicating its great extent. The main structure will be 960 by 256 feet, with a triangular annex of one story buildings covering about nine acres. There will be a railway track every sixteen feet, and provision will be made to exhibit entire freight and passenger trains. It is expected there will be an immense display of locomotives, all placed end on to the central avenue or nave of the main building, and the exhibit will include everything devoted to transportation, from the crudest carriages to a mogul engine. It is intended to make this building very refined and simple architecturally, but rich and elaborate in detail. The main entrance will consist of a great single arch, enriched with carvings, bass reliefs, and mural paintings, treated entirely in leaf, so that it is styled the "golden door."

The structure devoted to mines and mining, immediately south of the lagoon, is pretty well advanced in construction. Its lofty roof will be supported by iron columns, which are now in position, while all around are heaped great piles of sawed material, and groups of men are busy on every part of the structure. The style of architecture is classic, and the dimensions are 350 by 700 feet, the height to the main cornice being 65 feet. There is an entrance on each side of the building, but the grand entrances are at the north and south ends, and are 110 feet high by 32 feet wide each, opening into a vestibule 88 feet high and elaborately decorated. At each corner is a pavilion 68 feet square and 90 feet high, surmounted by a dome. The roof will be of glass. The cost of this building is placed at $350,000.

By the side of this building, and covering the same space, is the site of the building for the electrical exhibit, which is not nearly so far advanced in construction. The structure now presents only a broad stretch of smooth flooring, littered with bits of wood, kegs of nails, trestles, work benches, etc., with a fringe of studding around the margin, and a derrick lifting posts into place. It is intended that this building shall be one of the handsomest in the group south of the lagoon, its cost being placed at $650,000. Its exterior will be finished to represent granite, and a statue of Franklin will be conspicuous before the south entrance.

But the greatest building of all, the Hall of Manufactures and the Liberal Arts, between the lagoon and the lake, has only its floor laid, there being near by a large temporary eating house for the men, while strung along the borders are piles of sawed stuff, with which numerous workmen are engaged, while numberless others with spades and wheelbarrows are busy on the grounds around. This building will be 788 feet wide by 1,688 feet long, having two interior courts. It was designed by George S. Post, of New York, in the French Renaissance style, and will be surrounded on all sides by a porch two stories in height, affording a promenade and view of the other buildings and of the lagoon covered with craft of all descriptions. This building covers more than thirty-one acres and is said to be three times as large as the largest building at the Paris exposition.

To the south of the Mines and Mining and Electricity Buildings may be seen the foundations, in the form of a Greek cross, of the Administration Building, the outer sills at present awaiting the sleepers and connecting beams. This building, one of the most imposing and expensive of all the structures upon the grounds, will be adorned with scores of statuary figures, and will have a gilded dome rising 250 feet above the ground. Richard M. Hunt, of New York, President of the American Institute of Architects, is its designer, and the building will be the headquarters of all the numerous officials connected with the management and administration of the exhibition.

Fronting this building, and on its side farthest from the lake, will be the terminal station of the railway lines, on which no work has yet been done, and still farther to the south comes Machinery Hall, covering a space of 500 by 850 feet, with an annex of 450 by 550 feet, besides a power house. The uprights are mostly in place along the sides of the main building, and the floor is mostly laid, the floor laying in most of the structures appearing to follow first the fixing of the foundation posts. The interior of this building will present the appearance of three railroad train houses side by side, surrounded on all four sides by fifty-foot galleries. In each of the three long naves will be an elevated traveling crane to facilitate placing machinery, etc., and after the exhibition opens platforms will be placed on them from which visitors may view the exhibits without the trouble of walking around. Shafting for power will be carried on the same posts by which the traveling crane bridges are supported, all steam power being supplied from the power annex. The exterior of Machinery Hall toward the stock exhibit and the railroad will be very plain, but on the two other sides it will be rich and imposing.

To the left of Machinery Hall, across a narrow arm of the basin, is the Agricultural Building, occupying a space 500 by 800 feet, and having an annex, 300 by 500 feet. The floor of the building is completed, and a vast quantity of lumber for the superstructure is on the ground. It will be almost entirely surrounded by water, and will be one of the handsomest structures on the exposition grounds. It will have five pavilions, one at each corner and one in the center, and the grand entrance on the north will be sixty feet wide. At the entrance are Corinthian columns 5 feet in diameter and 40 feet high, beyond which is a rotunda 100 feet in diameter, surmounted by a glass dome 130 feet high. The roof will be principally of glass.

Beyond the annex of the Agricultural Building is to be a sawmill, 125 by 300 feet in size, and across another arm of water, toward the lake, is the site of the Forestry Building, the foundations of which are complete and the laying of the floor is in progress. This building will be 200 by 500 feet in extent, and beyond it, farthest south of all the buildings, will be a dairy building, occupying a space of 95 by 200 feet.

On the Government and Fisheries Buildings, near the north end of the lagoon, but little has been done; but the salt water reservoir for the Fisheries Building is under way.

The Government Building will be 350 by 420 feet in size, with a dome of 120 feet in diameter and 150 feet high. It will be constructed of stone, iron, and glass, and cost $400,000. The exhibits shown here will be from the war, treasury, agricultural, interior, post office, and navy departments, the Smithsonian Institution, the national museum, etc.

The Fisheries Building, 700 feet in length, will be flanked at each end by a curved arcade, connecting it with two octagonal pavilions in which will be aquaria and exhibits of fishing tackle. The building will be Spanish in style, and color will be liberally used in its decoration. It was designed by Henry Ives Cobb, of Chicago.

On the lake shore, east of the Government Building, there will be a gun battery, a life-saving station and apparatus, a lighthouse, and an exhibit of war balloons, while the full-sized model of a battle ship will be built on piling near the adjacent pier, the structure being of brick coated with cement, and being made to appear in every way like a real ship, fully manned and equipped.

Comparisons are constantly and almost necessarily made of the prospects for the attainment, by the managers of the Chicago World's Fair, of a success equal to that achieved by the French exposition of 1889. It is already certain that the buildings will cover twice the area and cost twice as much as did those at Paris in 1889, and the grand total of all the appropriations for the Fair promises to be from three to four times the amount expended on the French fair. The actual cost of the latter has been variously stated, but the following figures, only recently published by the London *Economist*, showing the appropriations and receipts (counting five francs to a dollar), may be considered as authoritative: "The receipts were estimated at $8,600,000, including subventions of $1,600,000 from the city and $3,400,000 from the state. But they realized $10,000,000. Only $2,900,000 had been counted upon as receipts from admissions, but these were $4,300,000. The credits opened $9,300,000, with the real outlay under $9,000,000. The surplus was about $2,000,000. The exhibition of 1867 cost $4,688,000, and realized, with subventions, $5,250,000. The exhibition of 1878 cost $11,080,000, including $2,800,000 for the Trocadero Palace, still preserved, and there was a deficit of $6,340,000."

It is estimated that about thirty thousand tons of staff will be used in the finishing of the buildings, this material being employed on nearly all the structures. The upper picture on the first page represents one of the rooms of the Staff Decorative Co., who are now employing about two hundred men making this material, which is fireproof and is furnished in shapes and forms suitable to be nailed to the frames of the buildings, inside and out. Fig. 1 represents the raising of the gelatine mould from the cast, and Fig. 2 shows the fluting of the large columns for the Electrical Building. Gelatine is now more largely used than any other material for the moulds, although when there is no undercut, plaster, wax or sulphur moulds may be employed, or wood or metal forms. The staff itself is a composition of plaster of Paris and fiber, with some other materials, as alumina, glycerine, dextrine, etc., according to the special casting which is to be made or the kind of mould employed. To prevent brittleness, the material is cast around coarse cloth bagging or oakum. This material was first used in the Paris Exposition buildings of 1878. Its natural color is a murky white, but other colors may be produced by external washes, while the castings may be made to accurately represent cut stone, rock-faced stone, mouldings, and the most delicate designs of every kind. For the lower portion of the walls the material is mixed with cement to make it hard.

For courtesies extended our thanks are due Messrs. A. L. R. Van den Berghen, of the Staff Decorative Co., and Dion Geraldine, Chief Superintendent Construction Department of the Exposition.

Soapstone.

Soapstone, or steatite, can be made into anything. Very beautiful stoves are made of it, and stationary washtubs and sinks are important products. Not an ounce need be wasted, for the dust is used to adulterate rubber goods, giving so-called gum rubbers their dull finish, and in paper, too, it is used to give weight, while all waste can be ground up into a flour which can be made into a fireproof paint for the interior of mills or the roofs of buildings.

A GERMAN chemist has succeeded in producing artificial silk, which has all the qualities of the natural article except strength, wherein it is deficient, being only two-thirds as strong.

SCIENTIFIC AMERICAN

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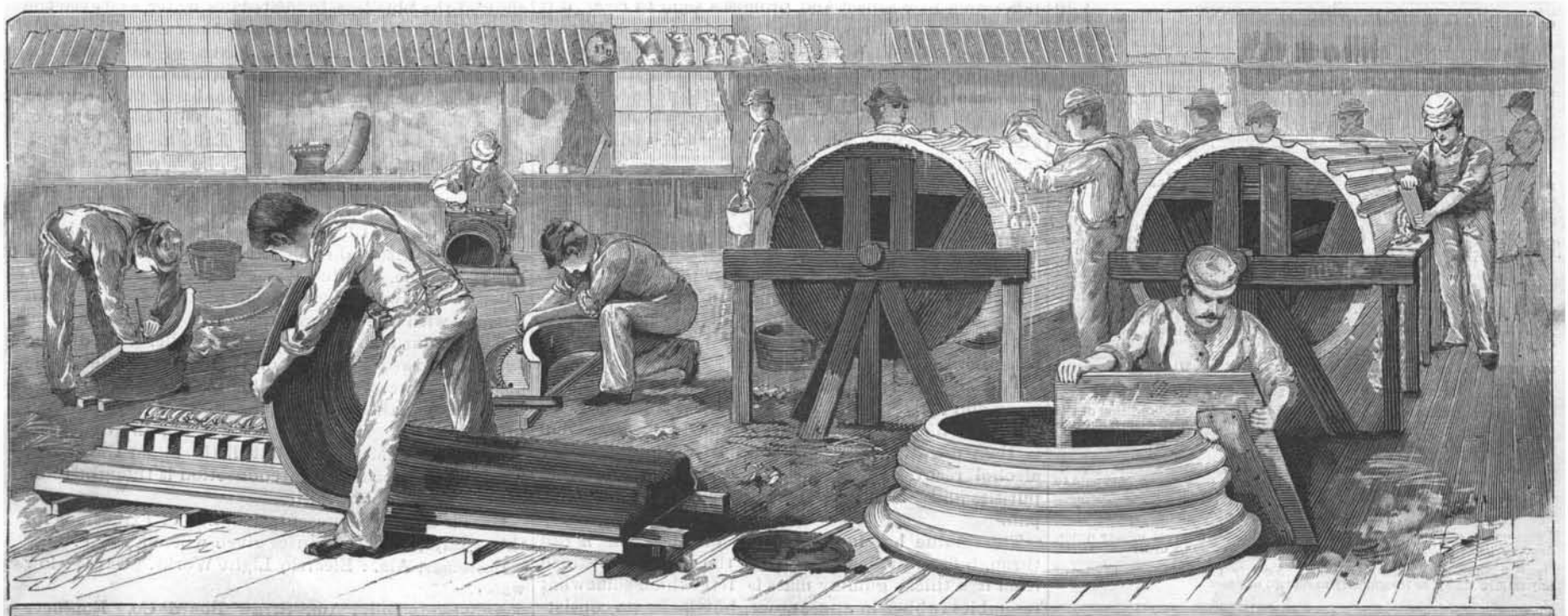
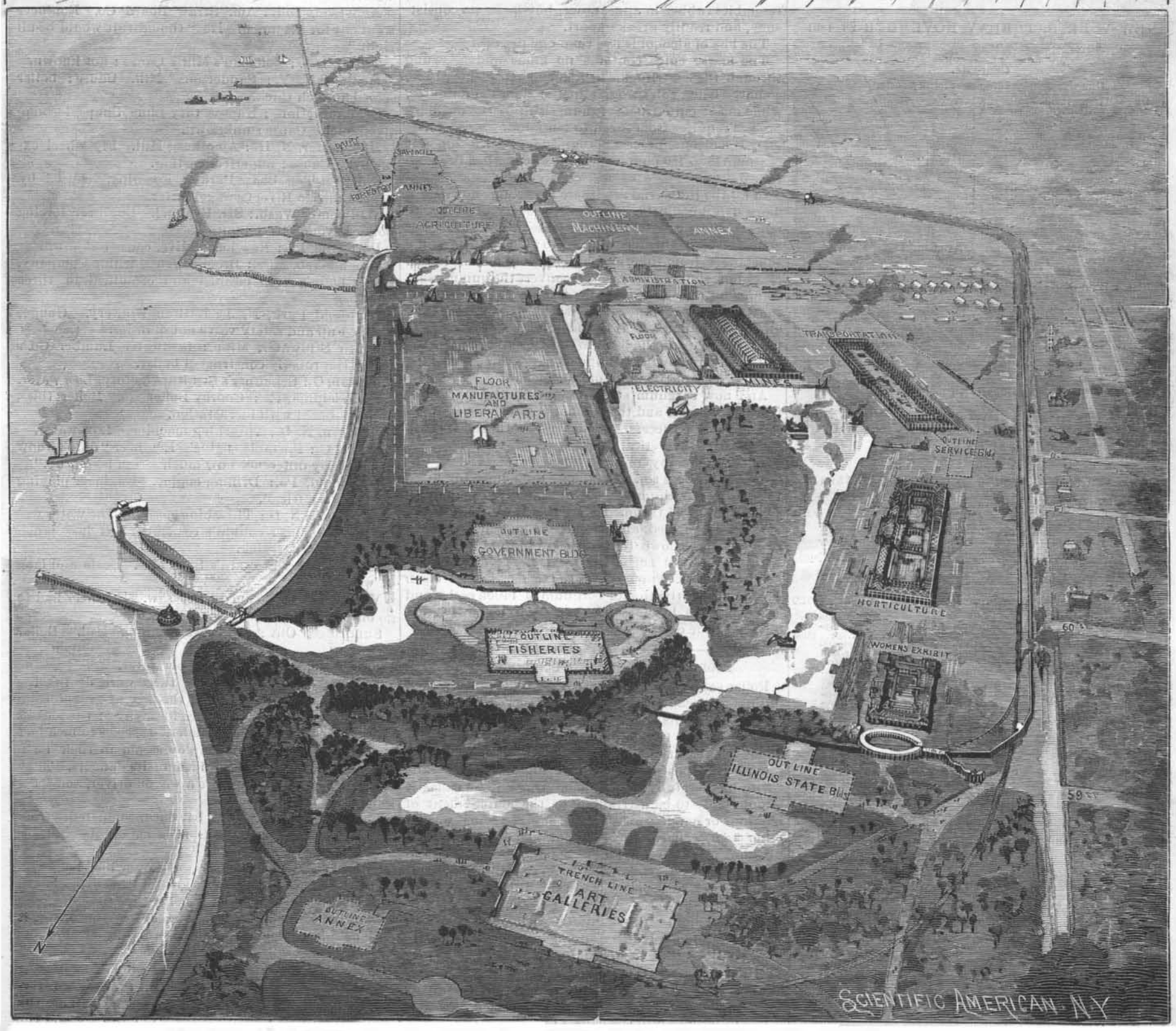
A WEEKLY JOURNAL OF PRACTICAL INFORMATION, ART, SCIENCE, MECHANICS, CHEMISTRY, AND MANUFACTURES.

Vol. LXV.—No. 22. ESTABLISHED 1845 | NEW YORK, NOVEMBER 28, 1891. | $3.00 A YEAR. WEEKLY.





PROGRESS OF WORK ON THE CHICAGO WORLD'S FAIR BUILDINGS AND GROUNDS.—[See page 340.]