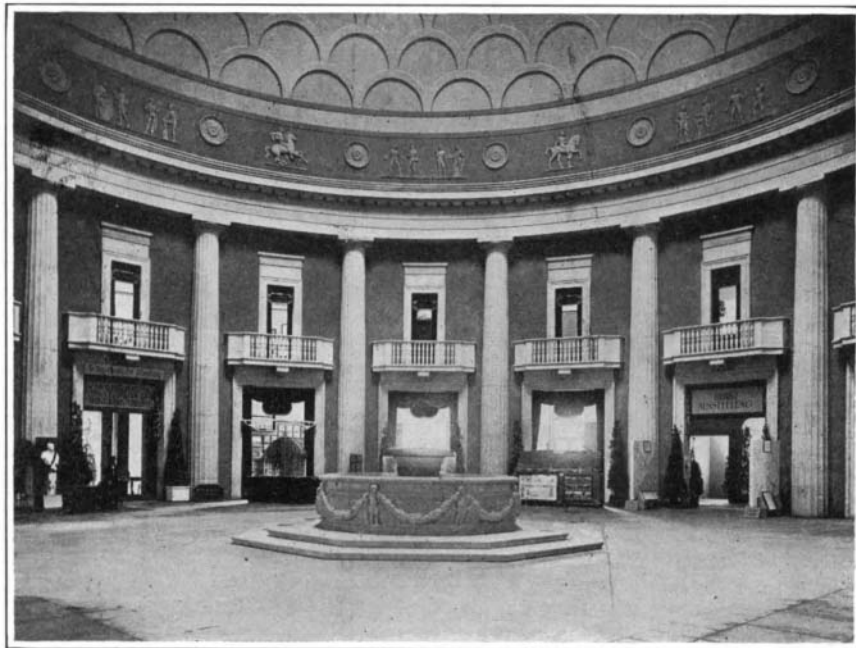




View of the administration building and court.



Interior, showing the vault of the concrete hall.

ENGINEERING EXHIBITS.

The engineer's share in the general work of civilization comes in for representation—how he reclaims moors and marshes, makes or drains lakes, compels the mountain stream to light the city's streets, drive factories and mills, and transport the city's population; how he puts fardistant springs on tap in the kitchen and leads away and utilizes, where needed, the waste of the human system and human households and industries; and how he battles with the sea for the possession of coasts and islands.

Great interest is excited by the contrast between the use of the older materials, wood and stone, and the more modern steel and reinforced concrete; and the interdependence of the various materials, a branch which alone would justify the existence, popularity and success of the exposition.

There is an establishment for testing building materials on a large scale, in regular operation under Prof. Scheit of Dresden. It will probably solve a good many important problems, particularly in connection with the rivalry of iron and reinforced concrete.

Protection of workmen finds in various departments full expression of interest, especially in the model scaffolding erected by the General Committee of the German Workmen's Associations, and intended to protect the lives of workmen on buildings, as well as of passers-by.

THE CITY OF LEIPZIG EXHIBIT.

The city of Leipzig is taking a very active part as exhibitor in the Building Trades Exposition. There is shown by the municipality a project for the regulation of high water in the western portion of the city; the municipal systems of sewers, gas and water pipes and underground cables; graphical representations of the methods of laying out, paving, maintaining and cleaning the streets, the standard systems of design and construction of buildings; and very full graphical representations of the statistical, sanitary and other departments of the municipal government.

GOVERNMENT BUILDINGS.

The Prussian Government has a large collection of models and drawings of engineering construction—much more complete than at previous exhibitions. The Saxon State has its own pavilion, and besides this, an installation of safety appliances for railway purposes. Then the Governments of Bavaria, Württemberg, Hessen and Elsass-Lothringen (Alsace-Lorraine) have special groups. Rumania has its own building.

THE SAXON BUILDING.

The Saxon Government building fronting on the Linden Avenue where it crosses the street of the 18th of October, which covers about 10,000 square feet, is, with its windows framed in columns, one of the ornaments of the exhibition. It is characterized by sharply cut lines and in general reminds one of the antique style of the times of August the Strong, which, of course, endears it to Dresdeners.

The State railways and the electric railway commission show a full and varied collection of material in their respective lines. Among other exhibits are models, drawings and photographs of new and old bridge constructions, the oldest tunnel in Germany (at Oberau), many railway stations, above all, the new one in Leipzig, and many novelties in signalling devices.

The department of roads and waterways shows statistics, models and illustrations relating to transit in the kingdom, the regulation of the Elbe (a most difficult and expensive task) various storage dams, bridges and cross sections of streets.

The Royal Technical High School (usually called by foreigners the Polytechnicum) has a small but well chosen collection, especially illustrating its mechanical

department, the experimental and testing department and the building school.

The Royal Meissen porcelain factory exhibits a wall fountain, several decorative vases and wall reliefs, and various other plastic articles.

AMERICAN EXHIBITS IN LEIPZIG.

The city of New York is exhibiting models of the East River bridges, and of skyscrapers, models of dwellings of the rich, middle and poorer classes. There is a plan showing the building operations and a large photograph of the city as seen from the harbor. A further exhibit is the water supply and the public baths. Mr. Cass Gilbert, the architect, is displaying a model of his 53-story Woolworth building, the model itself being "Made in Germany." Mr. Hornbostel, one of the Carnegie engineers, has also sent a number of interesting models of buildings designed by him and erected in New York city.

Other American municipal exhibits are those of San Francisco, Chicago, Philadelphia and Washington. The American Bridge Company have exhibits and the Canadian Railway Company also.

ART IN THE LEIPZIG EXHIBITION.

The exhibition would be incomplete without a department for pictorial and plastic art; and in order that this may be both full, yet select and representative and worthy, the association of Leipzig artists, which under the name of the "Leipzig Yearly Exposition" has had exhibits under the management of Max Klinger, has a display in two special rooms next to the reinforced concrete building, with suitable overhead light. They exhibit a selection of the pictorial and plastic art of the last thirty years. The importance and character of the exhibition may be judged from the names of some of those whose works are shown: Feuerback, Böcklin, Menzel, Hodler, Leibl, Stuck, Liebermann and Klinger.

PUBLISHERS AND BOOKSELLERS AT THE EXHIBITION.

It is not to be expected that the head and center of the publishing and book-selling interests of Germany, if not of Continental Europe, would be ignored in this, its typical industry. The technical literature of the building arts and those connected therewith is strongly represented, but in an entirely different and more extended manner from that adopted at previous international and local exhibitions. The exhibits cover not merely building as such, but all that concerns protection of the buildings and of their inhabitants against the elements, as for example fire, water and earthquakes; then the economical side of building and dwelling, the artistic tendencies as regards fitting out and furnishing; wall decorations and gardening, model libraries for special classes, and especially for those occupying model colonies or settlements such as Port Sunlight, Hellerau, etc. There are full facilities not only for exhibiting but also for selling the permanent and periodical literature represented, where the works are arranged according to subject, not as usual according to language, publisher or author.

SPECIAL AGRICULTURAL EXHIBITION.

Eastward from the Amusement Park comes the special Agricultural Exhibition, which is of great industrial interest and importance, especially as it shows the various types of structures used for all sorts of agricultural purposes in various countries and districts. In one particular, especially, is it worthy of notice—that of stables; for it has been proved that stable architecture and construction have great influence on the general health of the animals, and especially on their powers of resistance to infectious diseases. This is not to be wondered at, as the same thing has long ago been shown in connection with dwellings for human beings.

HORTICULTURE.

The ideal house has a garden. Ideas differ as to the plan and execution, but a garden there must be; and

this fact is recognized by the management of the exhibition, so that gardens as background, gardens as secondary consideration, and gardens which are prime factors of the home, all are represented. Long avenues of sizeable trees form a pleasant and harmonic background for the varied architectural picture. The entire neighborhood of the street of October 18th—the heart and soul of the exhibition—is planted. At the southeastern entrance one finds an original evergreen wood of arbor vitæ with white inclosure, framing the giant monument of the Battle of the Nations.

THE GYMNASIUM.

To the left of the main portal we find the halls for gymnastic exercises (in Germany a "gymnasium" is a higher grade of school), games and sports; both designed by I. and R. Koppe in simple modern style. An accentuation of this style is found in the freer and more monumental working middle structure, forming a vestibule. The hall proper is 82 feet in span, in uncovered wood, which suits well with the general purpose of the building.

THE GARDEN CITY OR GARDEN SUBURB "MARIENBRUNN." One special feature of the Leipzig Exhibition is the Garden City or Garden Suburb; the development of which idea is taking place with more or less satisfaction and financial success in various countries and districts.

The present subject is a new and made-to-order "city-let" about a quarter of a mile from the main building of the Exposition. It is designed and built according to proper sanitary, social, economical, technical and aesthetic principles. There are seventy-two houses, some for one family, some for more than one. For practical and economical reasons they are built in rows, but proper regard is had to suitable proportion between houses on the one hand and furnishing and decoration on the other. All the houses and gardens are designed by well-known architects. They rent for from M. 250. to M. 1,250. (\$59.50 to \$297.50) per year.

We may consider the Leipzig Exhibition as the answer to a part of the questions, or the response to some of the suggestions, of the Dresden Hygiene Exhibition of 1911, which showed the intimate connection between architecture and the building arts on the one hand, and the health and welfare of mankind on the other. The one showed the interdependence of the inhabitants of a town or city; the other points out how the greatest good to the greatest number is attained by collective action and municipal and State institutions such as workmen's colonies or settlements, etc.

The Luminosity of Animals

MANY animals possess the power of becoming luminous at will. Glow-worms are the most striking example of this curious phenomenon. Many fish that live in the deep seas possess this same power of becoming luminous.

Scientific men have vainly tried to explain the mechanism of this luminosity. Prof. Armand Gautier has just communicated to the Academy of Sciences a notice of MM. Ville and Denien, of Montpellier, who explain this production of light by the oxidation of a substance secreted by luminous animals, called lophine. This organic azoted substance, under the influence of oxygen, emits a visible luminosity. Potash, in the presence of catalytic elements, such as the ferruginous matters of the blood, likewise provokes the oxidation of the lophine, and consequently forms light. Oxygenated water has also the same property.

In the organisms it is unstable oxygen of the tissues catalyzed by the ferruginous elements of the blood that produces the oxidation of the lophine, and renders animals luminous.—*Chemical News.*