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SUMMARY:—

The Fate of the Output of the Architectural Schools.—The Lowest Bidder on the Contract for the New York Public Library demands his Rights.—The Tariff and Works of Art once more.—Effect the Sewage from Swiss Hotels may have on the Water-supply of Paris.—The Schools of the Pennsylvania Academy of the Fine Arts.	1
THE GARDEN AND ITS DEVELOPMENTS.—II.	3
THE TURIN EXPOSITION OF 1902.	4
CHANGES AND IMPROVEMENTS IN NEW YORK.	5

ILLUSTRATIONS:—

Exchange-place Entrance to "Exchange Court," New York, N. Y.—The Porticulis to the same Entrance.—House at Harrogate, Eng.—United States Post-office, Clinton, Ia.	
Concours de Façades: House on the Rue de Lotta, Paris, France.	
Additional: "Exchange Court," 52 Broadway and Exchange Place, New York, N. Y.—Broadway Entrance to the Same.—Fountain and Tombs of the Sultans, Eyub, Turkey.—The Entrance-gate to Sta. Sophia, Constantinople, Turkey.—The Aguilar Free Library, 110th St., New York, N. Y.—The Café Friedrichshof, Berlin, Prussia.	7

COMMUNICATION:—

Secretary Gage and the Tarsney Act.	7
NOTES AND CLIPPINGS.	8

AT this time, when scores, perhaps hundreds, of young men are preparing to take the course in architecture in our great professional schools, and these schools are making preparations to receive and instruct them, it is worth while to consider whether some improvement cannot be made in the courses of instruction, not only to correspond with the progress of the art, but, if possible, to promote the professional success of the pupils. There is no doubt that the number of practising architects is now, in this country, greatly out of proportion to the demand for their services. Years ago, when architectural schools were few, an architect who understood his work was pretty sure of employment; but, during the active building-times of the period following the resumption of specie payments, the idea took possession of the public mind that architecture was not only a pleasant and genteel profession, but a lucrative one, and multitudes of young men, without a spark of artistic ability, but with a decided inclination to any genteel business which would enable them to get rich rapidly, and without too much trouble, selected this one. It was not long before the great universities and technical schools responded to the new demand by establishing courses in architecture, and young architects, tolerably well trained, are now turned out into the world by the hundred every year. It is due to them, and to the schools, to say that the character of the annual additions to the ranks of the profession has, of late years, greatly improved. Not only is the system of teaching better understood, and better carried out, than it was in the early days of our architectural schools, but the short cut to the profession, which most of them maintained, in the shape of an easy two-year special course, has been generally abandoned, graduates in architecture being now, as a rule, men of rather exceptional intelligence, who have not only gone through a severe course of mental training, but have had artistic capacity enough to pursue without loss of interest a series of exercises in drawing, modelling and designing far more extensive than the same schools afforded ten years ago.

UNFORTUNATELY, while the system of instruction and the quality of the material have improved together in the architectural schools, the prospect of employment for their graduates has diminished. It is true that some of the schools, situated in large and busy cities, where their work is familiar to many of the professional architects, find their graduates quickly taken up; but it is not so with other schools, and the statistics show that a very large proportion of regular graduates in architecture, taking the country through, drift into other employments, in which they find the comfortable living which present conditions deny them in the pursuit for which they have been so carefully fitted. It can hardly be denied that this is a misfortune, not only for the young men, who are at a disadvantage through life by having devoted themselves, during the precious university years, to a professional training for

which they have no use, but to the art of architecture, which needs, for its development, the emulation of the best minds and the highest training that the country can offer, and loses, through the turning of the more energetic and ambitious men to pursuits in which they see an ampler field, just those most capable, in many instances, of becoming leaders in the artistic movements of the future.

FORTUNATELY, our architectural schools are themselves young and ambitious, and are not likely to remain satisfied with turning out men who have gone through a prescribed routine of studies, without concerning themselves about the use which these studies may be to them in their subsequent life; but it is not easy to say in what way the usual curriculum can be modified, so as to secure for graduates, not only a good foundation of professional knowledge, but assured professional employment. It is obvious that, on the well-known theory that "there is always room at the top" in every profession, the thing to be aimed at, by any given architectural school, is to equip its graduates with a training so far superior to that furnished by any other school that they will always be employed in preference to others; and here, as it seems to us, an occasional suggestion from practising architects may be of value. It is hardly necessary to repeat now the observation, which was received with such incredulity and disapproval by the managers of technical schools a score of years ago, that architecture, instead of being a cross between engineering and carpentry, is an art,—the greatest and most difficult of all the arts, in many respects; and those who are to practise it with success must have, in some degree, the artistic temperament. It is true that an architect may be successful without possessing a very high degree of artistic sensitiveness, but, as a rule, the architects who have the greatest name, and are most employed, are those who produce the most original and beautiful designs. This being so, the best way, in general, for equipping students of architecture for a successful career is, as practising architects will, we think, agree, to develop and refine their artistic capacity to the highest possible point. We know very well that the practical public is not yet ready for this view, and insists that construction should have the more important place in the curriculum of architectural schools; but this does not alter the fact that the very people who clamor most loudly for the "practical" branches in such schools, choose, when they have occasion to employ an architect, the one who has the reputation of designing the most beautiful buildings, in preference to those who unite great skill in construction with less conspicuous merit as designers. We do not, of course, pretend that artistic power is incompatible with practical skill in building, or with a high degree of scientific attainment; on the contrary, every architect knows that a man of great artistic talent is most likely also to possess the power of concentration, and the quickness of observation, which will make him a good constructor also; but the public has not yet come to believe that the two kinds of merit can be found together; and the fact that, in the selection of architects, artistic merit is now generally and frankly preferred, not only shows the great advance which the country has made of late years in artistic feeling, but indicates the direction that architectural education should take in order to follow the current.

THE objection is certain to be made to this suggestion that modern building is so complicated that a four-year course does not afford time enough to get an adequate knowledge of statics and materials at the same time with the practice in architectural design and the auxiliary artistic cultivation which are desirable. There is no doubt that this is true, and, if our architectural schools are to turn out men equipped as we would like to see them, it is essential that time should be saved in certain directions, to be spent in others. Whether it is possible to shorten the time devoted to the study of construction is doubtful. We are inclined to think that, in some schools, at least, architectural construction is taught too much like engineering, and that better results could be obtained, in a shorter time, by following a well-considered course of purely architectural science, leaving the young architect, if he should be called upon, in the course of his career, to design a colossal roof or dome, to work out the problem from general principles,

and in the light of the practice current among engineers at the time when the problem comes to him, rather than by making him devote long hours, during his school course, to studying examples of framings and trussings which will be obsolete and useless long before he is entrusted with the designing of anything similar. We do not go so far as some architects, in thinking that the study of the classical examples of construction of the text-books, such as the Euston Square Station, the Victoria Bridge, the cupola of St. Paul's, etc., is absolutely worse than useless to the student; but it can, at least, be omitted without harm, and the time thus saved may be devoted to a more thorough study of the simpler framings, of which the larger ones are only a more or less imperfect development, and of the elements on which all construction depends. Having thus cleared away everything in the courses in construction not contributing to the precise end desired, the artistic courses should, as it seems to us, be pruned even more severely. There is no reason why boys of eighteen, who have never drawn a line since they left the grammar school, and could not depict a rose so that it could be distinguished from a cabbage, should be turned over to the professors of an architectural school, in the expectation that they will be made into accomplished artists in four years; and the presence of these unformed novices in the classes makes it impossible to push the better-equipped ones forward.

IN most architectural schools, a large part of the time, in the first year, is devoted to teaching the students the uses of a pencil and square, and it is not until the second or third year that they have any of the freehand drawing from life which is the source of all artistic inspiration. It would, probably, be impossible to omit the course in mechanical drawing, but if candidates for admission to the school of architecture were required to pass a tolerably severe examination in drawing from the round, — such an examination, for example, as is required for admission to the schools of any of the great Academies of Fine-Art, — the course in mechanical drawing would be far more quickly completed, while the subsequent instruction in architectural design would be immensely facilitated and advanced. Every architect who interests himself in the work of students can distinguish at a glance the designs of those who have come to their school with some preliminary artistic training; and to require such preliminary training from all candidates for admission would not only place the poorest students of the future where the best are now, but, by giving the whole class a starting-point so far advanced, would enable the best ones to reach a degree of attainment which is now unheard of, at the same time that they would, to a great extent, carry those of inferior ability with them. We firmly believe that we have, in American boys of sixteen to twenty, the best material for making artists that the world now affords, and on our professional schools mainly depends the development of that great architecture for which the country is ready.

THE contract for the New York Public Library is the subject of a controversy in the courts, the lowest bidder having obtained a temporary injunction, restraining the Board of Estimate, and the Commissioners of Parks, from entering into a contract for the construction of the building with Norcross Brothers, whose bid was seventy-seven thousand dollars higher. It is hardly necessary to say that the affidavits submitted by counsel in support of the motion for an injunction show a condition of illegality, not to say depravity, surrounding the affair which makes it surprising that such a good and wise person as the plaintiff should ever have participated in it by putting in a bid. In brief, the affidavits claim that the advertisement for proposals was not properly made, and that the present Park Commissioners are not the proper persons to make the award. If this is so, the lowest bidder seems to have been fortunate to escape being further involved, and the effect of the disturbance will probably be to have the legality of all the proceedings in future more carefully guarded. A more practical matter is the assertion that Messrs. Norcross Brothers have agreed to furnish marble from a quarry which has not been worked for twenty-five years, and cannot produce the stone required for the building. As Messrs. Norcross Brothers are among the best judges in the country of marble and marble quarries, it is not likely that they have been deceived, and still less likely that they have tried to deceive any one else, in regard to the marble; but the profession will look with interest for further developments in this part of the matter.

A WELL-KNOWN architect of New York recently imported a marble statue, supposed to represent Venus, but without a head, which was found in the River Tiber. Most people know that antique statues are usually bereft of either heads or limbs, and frequently of both; but the Collector at the port of New York, on beholding the object in question, was unable to classify it, and finally assessed a duty of fifty per cent upon it, as a "manufacture of marble not otherwise provided for." Mr. White protested against this classification, holding that his Venus was not a "manufacture," but a work of art, and it is gratifying to learn that his protest has been sustained, the Board of General Appraisers having decided that the figure is "highly artistic in design and execution," and, in all probability, "the professional production of a sculptor." We are a little at a loss to know what a "professional production" is, but assume that the General Appraisers mean that the Venus is the production of a professional sculptor, and are happy to be able to agree with them.

THE troubles which St. Louis and Chicago seem about to endure in connection with the drainage of the latter city may, before many years, find a parallel in Europe. Travellers who have smelt the fragrance of the village street of Zermatt will not be surprised to learn that the proprietors of the hotels, of which there are at least twenty in the town, visited by perhaps sixty thousand people every season, have at last awakened to the fact that their guests do not like the suggestions of typhoid fever and diphtheria in the atmosphere, and have laid a sewer through the street, into which the drains from the hotels and houses are carried. So far as Zermatt and the hotels are concerned, this is, of course, an excellent arrangement; but to collect drainage into a sewer, and discharge it on your neighbor's premises, is not the highest attainment of sanitation. The new Zermatt sewer ends a little below the railway station, where it discharges into the river Visp. The river Visp is simply a mountain torrent, which flows, after a course of some twenty-five miles, into the Rhone. The Rhone receives the waters of the Visp, now flavored with the drainage of Zermatt, and carries them to the Lake of Geneva. They would, perhaps, be for the present innocuous here, but, as every one knows, the great city of Paris is trying, with a prospect of success, to make up its mind to obtain its water-supply from the Lake of Geneva, half the shore of which is French, and the idea of having to drink, in the lake water, even a small proportion of wastes from the hotel population of Zermatt, which consists almost exclusively of English people, of the class which French people find most objectionable, is well suited to upset Parisian nerves. If Zermatt were in France, a hint from the Government would soon induce its citizens to find some other method of disposing of its sewage; but, as it is within the limits of Switzerland, there is no way of reaching it except by special treaty, or, possibly, through the International Court of Arbitration, which might, in time, find itself with a good deal of business of this sort on its hands. It is true that the danger of contaminating so large a body of water as the Lake of Geneva by the sewage of a hotel town, almost uninhabited in winter, is not very serious; but it seems a pity to expose, even to a very slight danger of contamination, the water-supply of a city of three million inhabitants; and Paris has so long suffered from a complicated and rather inefficient water-system that the great effort which it would have to make to bring a pure supply from a source four hundred miles away ought to be rewarded by perfect success.

THE Pennsylvania Academy of the Fine-Arts always issues a tempting announcement of its Schools, and, for the next year, the announcement is perhaps the most tempting of any that its ninety-six years of artistic instruction have produced. Mr. William M. Chase is, as before, the instructor in figure-drawing and painting from life, and it is needless to say that a more accomplished and earnest teacher could not easily be found. Mr. Frank Miles Day, an architect, is instructor in perspective; and another architect, Mr. T. P. Chandler, is one of the Committee on Instruction. As in each of the past eleven years, a travelling-scholarship, of the value of eight hundred dollars, is offered by a member of the Board of Directors for the best regular work in the Schools; and two other members of the Board have offered annual prizes for the best studies from animals in the Zoölogical Garden. Besides these, the Academy offers the regular Edmund Stewardson prize, of one hundred dollars, for sculpture; and the two Toppan prizes, one of five hundred dollars, and the other of two hundred, for still-life painting.

THE GARDEN AND ITS DEVELOPMENT.¹—II.

THE first and perhaps the most remarkable importation of flowering plants into European gardens occurred from 1560 to 1620, through the efforts of the Austrian monarchy. From Asia Minor and the Balkan peninsula there now came for the first time—together with lilacs, horse-chestnuts and jasmines—carnations and Oriental bulbs, crown imperials, hyacinths, lilies, tulips and narcissus, which, through the Hapsburgs, were also carried to the Netherlands, where a regular tulip mania ensued, and this gave the first impulse to Dutch painting, especially to that of flowers. In France, under Henry IV and Louis XIII, the fashion for the new splendid flowers became potent, so that they were used for embroidery and fabrics of silk damask. The Jardin du Roi in Paris, now the Jardin des Plantes, founded in 1626, gave its samples of these to the provincial gardens founded especially for the artistic handicrafts.

At the same time there were imported into Europe through the Spaniards the first plants of the New World, especially from Peru. Together with tobacco, the potato and the sunflower were brought in the fig-cactus and the *Agave americana*, commonly called the aloe, both of which becoming completely wild in Spain spread from thence throughout all the Mediterranean countries, and have there finally become the characteristic plants of the landscape. Somewhat later the North American plants invaded Europe *en masse*. Those that came from Canada were brought over by the French, among them the wild grape (1636). England, on her side, imported the plants of Virginia, including the magnolias of older times. As possessors of lands at the Cape of Good Hope the Dutch brought into Europe, from 1680 to 1700, pelargoniums and succulent plants; later, also, heaths—all those forms which to-day are cultivated in special houses—cape-houses. The introduction of so many plants from lands having usually a much warmer climate compelled European gardens to create conditions of life suitable to the newcomers. The botanical garden at Leyden appears to have been the first to erect, in 1599, a glass-house for plants as a necessary protection against the winter's cold. This, however, did not sufficiently meet the want, and arrangements were made to warm these houses artificially. Of the Nuremberg University of Altorf it was, in 1656, especially mentioned that it possessed the first heated greenhouse in Germany, and this was also, as late as 1795, described as one of the most complete in that country.

While this introduction of foreign plants, in which all seafaring nations of that time took part, completely changed the appearance of the Italian garden in its Dutch form, there developed from it in France a new specifically French style of gardening which took no notice at all of this great increase in plant-material. This style, created by Lenôtre, and excellently characteristic of the whole age of Louis XIV, is an eminently architectural one, principally employing green tree masses and thus dispensing with the use of a diversity of materials. Its method was essentially the vast enlargement of the always small and decorative features of the Italian garden. The controlling motive in this change was the desire to create about the buildings that constituted an ideal centre for the entire plan, a large, free, open space. To this was added the wish to have the indispensable perspective views through the garden much more extensive. Being at a greater distance from the house, a 6-foot inclosing hedge was no longer sufficient. It was made higher and higher, and, as bushes were no longer large enough for it, trees were taken, which were usually allowed to grow to their natural height. As the tops of a single file of trees seen against the sky would look thread-like, it became necessary to plant also the surrounding space with trees. The garden thus became a wood through which narrow vistas were cut where desired. Its peculiar characteristic was smoothly shorn walls, formed by clipped trees, forming long corridors or spacious compartments. By this method of treatment single plants were naturally completely subordinated, they being entirely absorbed in the work as a whole. The precise geometric pattern of the garden also disappeared from view between these high, well-shorn pieces of forest. For this reason the rectangular regularity of plan began to be disregarded, and through the garden were cut oblique vistas, which, running between high tree walls, were completely unexpected and therefore agreeable. To all these vistas a significant termination was afforded by introducing the richest sculpture, architecture and water features, all being done, of course, with the violent extravagance of the age of the "*roi soleil*." The ornamental spring-like fountains of the Italian Renaissance were now transformed into walled-in, lake-like basins from which correspondingly increased water-jets were thrown aloft. In the basins and before the green walls of foliage there revelled an entire Olympus in marble, whose dimensions and impassioned bearing had to be increased to colossal proportions in order to produce effect from a distance. The green walls of foliage, at first shorn quite flat, were gradually treated like the walls of a house, shallow niches being cut in them, or pillars in relief being carved out. At last complete windows were cut in the green wall, many even with two frames, one over the other. Trellis-walls and arbors, made from artistically united laths and rods, and the rectangular ostentatious arrangement of an orangery, with the plants in exactly similar tubs and with similarly clipped crowns, complete the stiff magnificence of the French garden. As Louis XIV was imitated at all the courts of Europe, so everywhere were

gardens planted according to the style of his pattern-garden at Versailles: by the Spanish Bourbons, at Palermo; by the Hapsburgs, at Schönbrunn; by spiritual and secular princes in Germany, in Salzburg and Mainz; in Schleissheim and Herrenhausen; at the state castle at Potsdam; even up as far as Drottningholm, on the Malar Lake, everywhere arose greater or less imitations, many of which, left to themselves, have now from want of care resumed a form more in accordance with modern taste.

In spite of all the astonishment excited by the general magnificence of the French garden with its imposing perspectives, we are yet obliged to admit that it carried mannerism and artificiality to a degree never before equalled in horticultural art, so that even the very plant-material revolted against it. However, mankind became gradually tired of full-bottomed wigs and longed for the idyllic peace of a primitive human state. The splendor of Louis XIV paled before the influence of Jean Jacques Rousseau—the stilted court etiquette had to yield before the so-called naturalness of shepherd poetry. This revolution of views was again most accurately reflected by the garden—the century-long rule of the French style gave way to an equally long domination of the English method.

The principle of this style, created by the landscape-artist and architect, William Kent, who died in 1748, was to imitate nature—yes, indeed! the garden must be merely a bit of nature. Clipped walls of trees, straight paths and marble-inclosed basins, terraces and balustrades were unmercifully swept aside. Only motives from the English landscape could find place. Woods and fields, hills, ponds, and lakes constituted the entire materials of the first English garden. Vistas showing villages and castles were valued as constituents, and in order to complete the impression that the garden was a piece of wild nature it was sought to make the boundaries between it and the neighboring landscape as inconspicuous as possible. This was done by sinking ditches with steep walls and without railings, invisible a short distance away, allowing the unsuspecting glance to sweep the landscape without hindrance.

But merely to create in the garden something that was elsewhere possessed already should certainly not be the chief aim of the gardener's art, and Kent himself felt the monotony of this style, and endeavored to enliven it by placing here and there little buildings, such as small temples or hermitages.

A happy event occurred to assist these endeavors. About the middle of the last century there became known to the European world of culture the Chinese garden, which in the most bizarre manner endeavored to create as great a diversity as possible within a small space and purposely attempted to produce sharp contrasts. This Chinese fashion was suddenly adopted, and Chinese temples and pagodas (as they may be seen at Doberan upon the Camp) were introduced into the English garden, and even the entire principle of the Chinese style was accepted in order to afford to the stroller views of the utmost possible contrast. The windings of the paths and bushes, apparently growing by chance, prevented any comprehensive view, and there could thus be shown to the astonished Rambler, in motley succession, wild fields, dark woods, artificial murmuring brooks, hills and sheets of water, sometimes with melancholy shade, sometimes in full sunlight. In order to increase the effect of the landscape upon those already sentimentally inclined, structures were erected on every hand according to the fancy of the time. To the bark-houses and rustic bridges of the shepherd period followed, at the time of the taste for the antique, round Grecian temples dedicated to sorrow or friendship, and broken pillars or funeral urns, posted in suitable situations, never failed of their touching effect upon sensitive souls. Then followed the romantic period with Gothic ruins and fallen towers, between which were placed, according to the inclination of the owner, obelisks, pyramids and mosques. In this way the English-Chinese garden became loaded with the most contradictory decorative features until it could no longer be endured by the finer taste and historical sense of the modern age.

Since 1840 these strange structures have gradually disappeared, and yet there is no reason to dread the primitive uniformity of the English garden. The diversity which it lacked has been effectively supplied from the botanical side. As in the English garden, the specific character of trees is preserved, unnatural pruning not being used to check freedom of growth, it was thought possible to introduce into Europe the varied forms of American forest-trees. The climate being similar, the prospect of success seemed especially favorable. They naturally were first adopted in England, and from there the possessors of large estates on the Continent received them. When we to-day everywhere see in parks and gardens the abundance of North American conifers, oaks and maples, which by their foliage and autumn tints control the character of the landscape, we have to thank for this enrichment the park of Schwöbber, at Hameln, in which Otto von Münchhausen, in 1750, made large sowings of the fruits of North American forest-trees. Somewhat later there followed the Velheim Park, at Harbecke, near Brunswick, and the landgrave's park of Weissenstein Castle, now known as Wilhelmshöhe. The introduction of these American forest-trees was very important, as it essentially influenced the entire appearance of the garden, the introduction of so many characteristic tree-forms sufficing to free modern landscape-gardening from the reproach of monotony.

The modern garden, with which the name of Prince Pückler Muskau is chiefly connected, adopts many peculiarities from other styles, but rests chiefly upon an entirely new principle. The characteristic beauties and surprising combinations that nature sometimes attains with her plant-materials are sought to be turned to account and

¹ An address delivered at the Festival of February 28, 1899, by Dr. Paul Falkenberg, present Rector of the University of Rostock. Translated from *Der Garten und seine Entwicklung*. Rostock, 1899, and published in the *Annual Report of the Smithsonian Institution*. Continued from No. 1331, page 102.

artistically regulated. Forest and meadow are so distributed that they afford the most beautiful effects of light and shade. Trees are sometimes employed alone, sometimes in masses, or by skilful combinations of contrasted forms effects are produced such as nature herself presents in plant-growth. This idealized landscape is not carried immediately up to the house, as was done in the original English garden, but between the house and the landscape there intervenes, according to the Italian-French principle, a piece of garden more or less regularly laid out, a so-called pleasure-ground, whose size and form is regulated by the size of the dwelling. Upon this piece, according to the conditions of the case, there may be employed as a means of ornament even terraces, sculpture and water, and here especially can all lovers of modern floriculture be gratified; here is a suitable place for arabesques of tapestry-beds, and here may beautiful single plants be cultivated.

From the abundance of plant-materials at hand the modern gardener chooses only what is good and suitable for the place. Among the diversity of materials the stand-point of the collector of rarities, whose pride is to grow as many varieties as possible, is here completely disregarded. This task is assigned to the botanical-garden, wherein not the beauty of the specimen, but rather its scientific interest, is of first importance.

Originally the botanical-garden was intended for physicians, who could there find collected only those plants to which could rightly (or more often wrongly) be ascribed healing virtues. Therefore, the Italians, who already in the eleventh century possessed at Salerno the first medical-school, founded the first botanical-garden. It was also a Florentine, Angelo, a contemporary of Petrarch, who was called to Prague by the Emperor Charles IV to establish for the university, founded in the year 1348, a botanical-garden, the first of its kind in Germany. Since then the aim and style of the botanical-garden have changed very much, for it has become an institution in which are collected from all zones plants of scientific interest. It derives its characteristic form from the circumstance that in the course of time there has been assigned to it the culture of plants requiring protection, this including for Europe all tropical forms without exception. Such plants could not for a long time join the immigration that flooded the Continent. The first specimens, having to endure the hardships of a long sea-voyage, reached Europe only by chance. The Emperor of Austria was the first to systematically favor the introduction of tropical plants; and when in 1764 a first expedition, sent out for this purpose by the Emperor Francis I, brought home its treasures, it established at one stroke the world-wide fame of Schönbrunn. The number of tropical plants in European gardens gradually increased until in 1830 there were about 1,000 species. Then the establishment of steam-navigation and regular transmarine service created quite new and favorable commercial conditions, since when the number has been augmented about sixfold.

As a great part of the collection is withdrawn into greenhouses, there has arisen a considerable difficulty in suitably arranging the plants. Only exceptionally, when large areas of ground and great endowments are available, is it possible to make it at the same time an exhibition garden for the general public. It remains chiefly an institution for instruction, and for that reason cannot be arranged from a strictly æsthetic point-of-view. Two different principles for its arrangement have been suggested; it is a pity that neither of them can be consistently and logically carried out. According to the older plan, it was sought to instruct the spectator as to the different families of plants by arranging them according to a natural system. But herbs and trees that belong to the same family cannot be cultivated in the same bed; one plant will stand in moist shade while its nearest relative will have the sun and drought, not to mention the fact that one may endure the climate, while the other must be placed in the greenhouse. A systematic survey of the vegetable kingdom, which would be desirable in the garden, must, therefore, always be incomplete. The necessary gaps are painfully apparent to any observant, systematic student, and to complete these certain directors of gardens have had recourse to the most grotesque devices.

In the deepest shade of the hot and moist primitive forest of Sumatra there lives upon the roots of trees a parasitic plant entirely destitute of leaves, but which possesses instead the largest flower in the world, for its diameter reaches a whole metre. Since 1860 this giant child of the primitive tropical forest-shades has been seen all summer long in the botanical garden at Breslau, where it stands in the open air among its relatives, and in spite of the coolness of our sun gleams from afar. It blooms even all summer long, for it is made of tin. Out of regard for the public no attempt has been made to imitate the powerful odor of this plant, which is that of rotting flesh, perceptible for 20 metres around, but without that it is surely the strangest flower that scientific pedantry has ever reared.

Besides the systematic arrangement it has been recently attempted to arrange the plants of the botanic-garden according to their geographic distribution, so that the various kinds that make up the flora of a particular region may be presented as a complete whole. If it were possible to carry out this principle, there could certainly be nothing more instructive than to thus bring together in a small space views of the vegetation of the most diverse regions as a living object-lesson; but, alas! this cannot be done. Differences in vegetation depend essentially upon differences in climate; that is to say, upon temperature, exposure, the movement of the air, and the special way in which these factors are distributed throughout the year. As, however, any garden is associated with only one climate, it is a hopeless undertaking to attempt to reproduce together the flora of very

diverse regions. This succeeds well with single species, but if we include more, we can in Germany, for example, succeed only tolerably even with flora of climates quite similar to ours, such as those of North America and Eastern Asia. But we fail when we try to grow in botanical-gardens the flora of the Mediterranean countries. German gardens have, indeed, tried to do this, but since the official director of one of them practically admits that the Italian flora is represented only by specimens of the olive-tree, the fig-tree, the myrtle, and the fig-cactus (that naturally can only be kept out during the summer), and by a few species of tulips and narcissuses, which at this time of the year have disappeared from view and are represented only by labels, it may indeed be said that he is self-deceived who supposes such an inadequate representation can be of any value for purposes of instruction or æsthetics. Even when under the most favorable circumstances — that is to say, in a heated greenhouse — the public thinks that it sees a representation of tropical vegetation, the effect is very incomplete and one-sided, as the necessities of space compel the crowding of the plants into a confined, narrow, and proportionally small building, as is expressed, indeed, in the name "palm house." Now, in the Tropics the dicotyledonous trees constitute a much greater portion of the total vegetation than in more temperate climes, and all these characteristic forms must be rejected because they would take up too much room and keep too much light from the other plants. The European botanists, therefore, look with envy, and for many reasons not without justice, upon the botanical-gardens of tropical countries, of which, indeed, only those at Calcutta and Buitenzorg, in Java, are scientific institutions.

As regards, however, an absolutely complete representation of the plant-world, they are still worse off than we are in Europe. We can at least, in warm houses, create for a few specimens of the tropical flora the necessary conditions of existence. In a tropical climate, however, artificially cooled houses, and, consequently, all plants of a cool climate, must naturally be completely out of the question, and one can rely only upon annexes placed for this purpose in the mountains. As some of those in Java have to be placed at a height of 7,000 feet in order to suffice for the needs of European plants, and can only be reached from the main garden at Buitenzorg by a journey of several days, this is a disadvantage that essentially injures their utility, so that our gardens appear, in a certain sense, to be more complete.

Since with us the botanical-garden has to contain a great quantity of plant-material that must be treated by quite diverse methods, it has hitherto been found impossible to give to its arrangement any form that would meet the demands of an artistic style. A view of any such institution will show that it is the result of a compromise between what is desirable and what is possible — a compromise between the requirements of science and the aspirations of æsthetics. The visitor must not be surprised, therefore, if many of the most beautiful ornamental plants are omitted in the botanical garden as unimportant, while inconspicuous ones are cultivated because, perhaps, some important scientific question depends upon them. Though such a collection cannot rival the satisfactory and harmonious impression produced by æsthetic styles, yet we must remember that the botanical-garden is in a high sense intended for use — it has to serve science in that it concerns itself with the investigation of living material, in that it gives for education the necessary materials for demonstration, and brings before students not indeed all plants, but, at least, selected specimens of the most important types of the vegetable kingdom. Not only for elementary instruction, but for the high-school as well, it has been found that education by observation is the best education.

THE TURIN EXPOSITION OF 1902.



THE city of Turin, the least artistic amongst the great cities of Italy, has recently decided upon holding an international exhibition of decorative art, the first of its kind in Italy, for the scheme is altogether modern.

The Turin exhibition has been decided in honor of the "modern" style, in which our artists have not yet distinguished themselves, so that this next exhibition, which will take place between April and November, 1902, ought not only to receive an international affirmation in the field of the new art, but afford a very interesting proof of the capacity of Italian artists who are influenced by the new manifestation of art.

The universal exposition at Paris sought to get together the efforts of artists of original genius, but the products exhibited excited neither curiosity nor the interest which should accompany the exposition which I now announce, whose aim — and a very precise and unique one it is — is that which the Turinese committee has very fully stated in an article of its programme; that is to say, that of adding honor to the independent artists. These are the words of the programme: "In order to avoid having our Exposition resemble one of the exhibitions which every one is familiar with, we have decided to accept for the Turin exhibition only original products which demonstrate an effort towards æsthetic rejuvenation of form, excluding from it all those objects which are the simple reproductions of ancient styles or the products of industrial manufacturers. While leaving to the exhibitors the liberty which they deserve, we desire to remind them that their efforts should not be kept aloof from the æsthetic field indicated by our programme."

Is this clear? Evidently it might be more so, and if these words should not make a profound impression in the United States, that is

not the case in Europe, especially in Italy, where the laws of tradition are the only laws respected. It might be worth while to give you here an idea of our aesthetic condition in what concerns the problem of this new art, but, not desiring to wander from my subject, I will confine myself to mentioning two facts. Ten years ago or so, an architect delivered a discourse at Turin against dogmatic education in architecture and the arts which depend on it, and this architect was, as a consequence, metaphorically consigned by the high Italian authorities on matters aesthetic to an asylum for incurables; for with us the *gros bonnets* of artistic instruction are in general hostile to the new movement which interests us, and in the efforts towards originality they see only the passing sporadic movement of a bizarre and transitory fashion which, having no serious reason for existence, is destined to pass rapidly, like the color of a dress fabric or the shape of a hat. You will say that in every country something of the same sort is common; but in Italy the contrariety of the doctrinaire who has received the consecration of the Ruskins, the Morris and the Cranes, has grown to such a degree as could hardly be surpassed. The other fact that I would like to mention concerns the first attempt towards an exhibition of modern decorative art in Italy, the failure of which could be neither more complete nor more desolating. You know that the Peninsula, with a view to taking a notable place in the movement of art, for some time has been holding at Venice international exhibitions of painting and sculpture every three years. At the time of the third exhibition, in 1899, at the side of the statues and the paintings, the committee decided to admit samples of decorative art, but only those which evidenced originality; so that every work that lacked character was banished from the exhibition. But, would you believe it? The international section of decorative art at Venice did not seem to be held in an Italian country. Not a single one of our artists found representation there, and the committee of the Venetian exhibition, which had directed its appeal towards the "new art" for the sake of measuring the force of our industrial artists against those of other countries, received one of those lessons which artistic Italy will never forget. In short, "modern" decorative art was represented at Venice particularly by the Scotch, and the work of the MacDonalds, MacNairs, MacIntoshes was savored by the independent spirits of the Peninsula.

Since 1899 very few years have passed, but the lapse of time has been fecund, and the lesson at Venice has produced good results; besides, between the exhibition of Scotch art and that to be held in 1902, the Paris exhibition has spread broadcast germs which are going to produce in the warm soil of our country effects which from day to day grow in quantity and beauty. So the international exhibition at Turin, judged at first to be an audacious enterprise, from the point-of-view of national dignity, as time goes by will bring calm upon even the most agitated minds. Moreover, Italy, which has been the last country to accept the new aesthetic movement, does not hope to triumph over England, Belgium and France, which in this especial field are playing the leading rôle. Italy wishes mainly to show to Italian artists, who amongst the artists of Europe are those who travel least, just what is this modern aesthetic rejuvenation which results in this "modern style," and also the point to which our own artists have reached. So Italy, with a modest and most cordial feeling, invites all the countries of the world to send exhibits to Turin.

I have shown you with what intelligence the exhibition has been devised. I will next show you the leading lines of the scheme of the exposition in order that North American artists, whose work is especially desired, may know, from now on, how to conduct themselves in preparing their exhibits for the exhibition of 1902.

Everything in the halls of our exposition must be new, commencing with the architecture of the buildings and extending through the list. But, exhibited in this way, there will not be offered at Turin the spectacle of a collection of things of different destination and style, but rather a series of complete decorations, halls and small apartments, answering to the real needs of our existence; and we desire that this organized series of exhibits may have not only an artistic aim and character for beauty and exclusive elegance, but have, above all, a practical and industrial appearance. We would like, in a word, that the artists and manufacturers should not so much devote themselves to objects of luxury as to the study of complete types of decoration, created with a view to answering to the needs of purses of all sizes, especially to those least well filled.

The aim is new and meritorious, especially in Italy; for with us, where we particularly preserve objects of luxury, museum specimens, the product of modern decorative art has two important expressions: first, that of objects which are the fac-similes of very well-known anterior works, or reminiscences of works, types — to adopt one of the phrases of the *gros bonnets*, of artistic construction, and, secondly, ready-made things. The first are works of luxury, for they are the copies, or imitations, of ancient objects; the second class includes the productions which have really nothing to say to art. So, very justly, they demand at Turin products which, answering to the requirements of modest fortunes, can spread their effect amongst the people and elevate their taste. The new art seeks to remain within the realm of practicality and to persuade people that articles of uncommon aspect and original in design are realizable at small cost. The new art, as it will be shown at Turin, if the suggestion of the committee shall receive the generous welcome which is its due, will show that grace and elegance can form an indissoluble union with economy, and that art, far from being the expression of wealth, is the real expression of fancy and beauty. "It is time,"

say the promoters of our exhibition, "it is time to show by example that beauty does not owe its attractive features to the costliness of material and the abundance of ornament, but to the harmony of design and colors, and the perfection of workmanship."

This said, it is natural that the exhibition of 1902 should have sought in the house the chief one of its loves, and our exhibition is to be divided into three classes, of which the leading one is devoted to "the modern house in its decorative elements." Next, it is the turn of the street, and so at Turin two large problems are to be attacked — the problem of the house and the problem of the street.

The problem of the house is an every-day problem, and there are attached to it all the questions which concern modern furnishing and comfort. So a large series of somewhat artistic productions, from mural decoration to the binding of books, will be included in the first class of our exhibition. The house is the mirror of the habits and the taste and the intelligence of him who inhabits it, and we wish at Turin to show houses inhabited by well-educated people, who, beside their furniture, ceramics, bronzes, tissues, like to have paintings, engravings and books about them. It is here, indeed, that the novelty of the Turin exhibition lies: "modern style," from every point-of-view. It is living, animated art which we need; and the public in the midst of the ante-chambers, halls, bed-chambers, boudoirs, where the flower of taste shall spread its perfume, will recognize at Turin at once the social and the distinguished action of this art, the art of decoration, which for some little time has been exciting the sympathies of those who cherish the aesthetics.

The artists of North America are therefore informed that every kind of decoration will be accepted at Turin; cabinet-makers, bronze-workers, weavers, ceramic-workers, jewellers, engravers, book-binders, embroiderers, all will be welcome, for here we do not consider the kind of objects, but their beauty. In that which concerns pictorial and plastic decoration, there will also be accepted sketches and models, friezes, panels, ceilings, whether painted or in relief, in stone, metal, terra-cotta, natural or enamelled, wood-pulp or compressed-wood, or however else; and, since Turin does not desire to close its doors against any product of intelligence, the promoters will also accept book-plates, postage-stamps, bank-notes, playing-cards, for all these small objects of aesthetic decoration have a place — and alas, the bank-bills have a serious place — in the modern house. Amongst these small objects, the house cannot be shown in its entirety, but only in its details, which seems to be a contradiction of the principal aim of the exhibition; but it will be shown complete as to its chambers and apartments in the Second Class, which is exclusively assigned to the modern chamber in its decorative whole, and to this class they hope to give the largest development. Remaining in the realm of practicality they could not exclude the small objects, but it is much to be hoped that the artists who, each, produce a portion only of the furnishing will find it possible to combine, in order to create a decorative whole.

I have already said that beside the problem of the house they will also attack the problem of the street, so they seek for the Exhibition of 1902, for this class, the third, schemes of buildings and parts of buildings, plans for streets, places, gardens, porticos and passageways, and, since this class also is related to the house, they ask for balconies in wrought-iron, grilles, fountains, drinking-troughs, candelabra, lanterns, lamp-posts, kiosks, signs, awnings, bill-boards, shop-fronts, street-clocks, letter-boxes, and so on.

I am sure that the North American artists, like many foreign artists, will enjoy sending their works to Turin, for the exhibition, such as it has been conceived, answers admirably to the true taste for modernity in its original and healthy development. A jury of artists will be named, not at all for the sake of closing the doors to those who would exhibit things which might be despised by narrow spirits, but for the sake of closing them against those who would trouble the aesthetic calm of our exposition; that is, to the people who have learned a great deal, but have never created anything — and alas, there are very many people who do not understand that it is only the creators who count. These are the people who do not believe in the success of our exhibition of 1902.

ALFREDO MELANI.

CHANGES AND IMPROVEMENTS IN NEW YORK.

THE New York *Sun* makes the following interesting statement concerning sundry public and semi-public undertakings that are to affect the outward appearance of New York and the physical comfort and intellectual well-being of its citizens. It seems worth while to have this record in one more publication where it may be consulted at need: —

"No other city in the world is improving itself at the rate at which New York is doing. We have under way tunnels, bridges, reservoirs, public buildings, new driveways and new parks, the total cost of which is literally stupendous. Many of the greatest projects are being rapidly pushed to completion. The cost of them all extends into very many millions of dollars.

"These are some of the public enterprises which are being carried out either by the city or by public corporations, for which the city will be the better:

"The \$35,000,000 Rapid-transit Subway from the post-office to Kingsbridge and Bronx Park has now been in process of construction for eleven months, and one-fifth of the work on it has been done. The probabilities are that the entire subway will be finished by the

autumn of 1903 and that trains will be running in it by the following Christmas, nearly a year ahead of the contract time. The tunnel is divided into fifteen sections, and the work is in full swing on all but the two farthest uptown. At one point in Harlem the arch is finished and covered-in. Nearly forty millions the tunnel will cost really, for a million or two must be spent on land for terminals and nearly as much more on changes in streets and sewers.

"Next comes the \$8,000,000 Brooklyn tunnel, which is to run from the post-office terminus in the subway here to the Battery and under the East River to Flatbush Avenue. The bill has been approved by all the necessary city officers. Plans are now being drawn and soundings are being made. The contract will be let before Christmas probably, and in less than three years the tunnel may be completed.

"Under the North River there is already a tunnel, more than half complete, on which millions have been spent. It runs from the foot of Morton Street here to Fifteenth Street, Jersey City, and less than a quarter of a mile of it remains to be excavated. But several companies have gone into bankruptcy over the project, and it waits, its workings full of mud and water for these last ten years, for new hands to finish it. In the many schemes for extending transit facilities it is pretty sure to be considered sooner or later, and then a few months' work will complete it.

"There is one other tunnel-project, newer than all the rest, but which the next five years is likely to see carried out. Long Island Railroad interests have just incorporated a million-dollar company to construct an underground-railway four miles long, to pass under the East River and connect the Long Island terminus in Long Island City with a point in Manhattan south of Fiftieth Street and west of Broadway. The company has no franchise yet, but it will have small difficulty in getting one. Then it will complete the city's future system of underground travel.

"Present transit-extensions run to bridges after tunnels. The new East River Bridge from Delancey Street to Brooklyn may be finished within a year or so. The towers on both sides are complete now, the preliminary cables are up and the contractor is making the wire for the big cables. After that the approaches have to be built. It will be two years perhaps before these are in shape, and the city will have another great enterprise complete. Fifteen million dollars, perhaps more, it is costing.

"Less than two miles above, soundings are being taken for the \$8,000,000 cantilever-bridge from Sixty-second Street to Blackwell's Island, and thence to Astoria, the initiation of which Mayor Van Wyck regards as one of the best features of his administration. The plans have been drawn and are now awaiting the approval of the War Department. The bridge may be completed within five years. Bids for the six piers were opened a few days ago.

"A third East River bridge, known as yet only as East River Bridge No. 3, is in contemplation. It is to run from Pike slip to Washington Street, Brooklyn, and contracts have already been let for the foundations for the piers. Like the present Brooklyn Bridge, it is to be of the suspension variety. The minimum cost will be \$10,000,000.

"There are two bridges in contemplation across the North River, though both projects are somewhat in the air at present. It is quite probable that the enormously expensive structure which the interests allied with the Pennsylvania Railroad are planning to build, to connect its terminus in Jersey City with some point near Twenty-third Street, may be completed first. As yet, however, even the detailed plans have not been drawn.

"Plans for the North River Bridge from Fifty-ninth Street to Weehawken have been drawn and the War Department has approved them. The project is dormant because Governor Odell vetoed the bill which gave over West Street as far south as the Battery to the bridge-company for an approach. Whether the company will revive the plan in another form or will offer new terms, it has given no sign. Sixty millions has been estimated as the cost of this enterprise.

"Nearest to completion of all the city's building projects is its new prison on the site of the old Tombs on which work has been going on for nearly four years. The prison is being built in two wings, each wing as large as the old jail. The first is almost finished. A few cells in it are already occupied in fact. It will be fully occupied in a few months and then the old jail can be torn down and the second wing built on its site. Half a million has been spent on the first part of the work.

"The walls of the new \$4,000,000 Hall of Records, which the city is building on the ground bounded by Centre, Chambers and Duane Streets, are built up to the second story. It will be the most expensive, most thoroughly fireproof and best-equipped building of its kind in the world, and in the matter of new buildings this is the most costly improvement New York now has on its hands. It is to cost more than \$4,225,000.

"The foundations for the Public Library in Bryant Park, the city's other costly new building, are ready and a few days ago the contract for the superstructure was awarded. Three and a half million dollars the entire structure will cost and half a million has already been expended. The building will occupy the greater part of a city-block and will be built of marble throughout. Few public-buildings in the city will equal it.

"Up on Morningside Heights another new structure of a semi-public character is being constructed, which at no very distant date will be one of the city's show-places. This is the Protestant Episco-

pal Cathedral of St. John the Divine. It is being built in sections, the chancel first, and the crypt and the great chancel-arch only have been completed so far. No real estimate of the cost of it all has been made. Nearly a million dollars have already been expended and millions more will be required.

"Up in that region many millions are being spent on handsome buildings. The new Columbia University, just off the heights, is only the first link in a remarkable chain of institutions of learning. The new College of the City of New York will come next. Manhattan College is a little west of that. Across the river and the valley is the New York University, carrying the line along to Fordham, where the picturesque St. John's College ends it.

"In the Bronx the city is spending its millions lavishly. On the site of old Jerome Park 5,000 workmen have been toiling for the last three years on the new Jerome Park Reservoir now more than half complete, which is to supply the entire upper half of the city with water. Nearly \$15,000,000 are being spent there in the construction of a vast retaining-basin for the needs of the upper part of the town, and from ten to fifteen thousand persons are earning their livelihood at this work.

"Thirty miles above and forming part of the same water-system, more millions are being spent on the huge Cornell Dam. Years have been spent on this immense mass of masonry, which at the base is 100 feet wide, and it is now nearing completion. When it is built it will take five years more to fill the basin it encloses. Then, where now are farms and villages, there will be an immense inland sea of 4,000,000,000 gallons of water for the city's reserve-supply. Trees and green fields will be buried 50 feet below the surface.

"That is outside the city line. Inside, a bridge costing more than half a million is under way and nearly built, spanning the Harlem River from 145th Street, Manhattan, to 149th Street, The Bronx. Another, equally costly, is being erected from Willis to First Avenue. Both will be finished by winter. The draw of the latter bridge is now being put in place and it will be open to traffic in a month or two. Then the river will be spanned by a bridge every few blocks.

"In Bronx Park the city is helping to construct the most complete zoological garden in America. A space of more than 260 acres has been turned over to the New York Zoological Society, which has already a great collection there housed in the best buildings that can be devised for the purpose. A great court of honor, surrounded by fine buildings, is planned. The whole scheme is the most ambitious of its kind ever conceived.

"The small-park system begun in Tweed's time is being carried into effect throughout the city at an enormous cost. Seward Park, one new breathing-place of this kind, is just open, adjoining Rutgers Street, on the East Side, and another \$5,000,000 park in Little Italy, now the most crowded tenement quarter, is nearly ready. The park-scheme contemplates a score more such gardens for the poor. Only last week more than a million was voted to pay for a North River park in the crowded West Side.

"The great viaduct extending Riverside Drive northward to the Boulevard Lafayette will be completed next month. It spans the Manhattan Valley with great steel arches as high as Brooklyn Bridge. From it there is the finest view the city has to show. A dozen blocks below a smaller viaduct, nearly complete, levels the beautiful drive and carries it over Ninety-sixth Street, that heavy trucks going to the dock at the river-front may not interfere with the pleasure of those who ride or drive by.

"Soon the Soldiers' and Sailors' Memorial, a monument which has cost \$250,000, will beautify Riverside Drive at Eighty-ninth Street. Years have been spent in the attempt to find the best site for it. It is a beautiful structure in the form of a temple. The inscriptions on it are about to be cut, and in the coming autumn it will, likely, be opened.

"Another great driveway, a \$12,000,000 concourse, is planned for The Bronx. Surveys have been made for it, and its turn for construction will probably come next in the line of the northern improvements. So far it has been too expensive a luxury for the city to acquire.

"The Museum of Natural History is still another great enterprise which time will develop. It is a handsome building now, though only that part of it forming the Seventy-seventh-street front has been completed. The plan in its entirety is for a great collection of buildings covering five city blocks. The cost will be \$13,000,000 at least, but no city in the world will have a structure of the kind so great and so imposing.

"The city has so far spent only a few million dollars on its great dock improvement and it has constructed six piers only, those between Bloomfield Street and West Eleventh Street on the North River. These new piers will be extended up to Twenty-third Street as soon as the city can afford it and the work can be done. The cost will be enormous, but the growing commerce of the port will pay for it.

"Down town, at Bowling Green a site has been cleared for the new Custom-house, and the foundation is being dug. The building will not compare with any of the new municipal structures, but it will be imposing and will improve lower Broadway and adjacent Battery Park. The cost will be nearly \$2,000,000, and it will be finished in little more than a year.

"The Chamber of Commerce is spending \$1,500,000 on its new home in Liberty Street. That, too, will be a handsome addition to the financial district of the city. The site is now almost ready, and the building will be open a year hence.

"The improvements in the shape of asphalted streets, in street-car transportation, in small parks and in private buildings that are being made annually are enormous. There are still 100 miles of horse-car line within the city limits, but these will not remain long. It is all improving the metropolis on a scale and at a rapid pace not equalled anywhere else in the world. Ten years hence New York will be transformed. Ours is a wonderful city to advance."



[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

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[The editors cannot pay attention to demands of correspondents who forget to give their names and addresses as guaranty of good faith; nor do they hold themselves responsible for opinions expressed by their correspondents.]

SECRETARY GAGE AND THE TARSNEY ACT.

June 1, 1901.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—The correspondence enclosed herewith has been referred to from time to time in the papers, but has not been published. As it indicates that the Secretary of the Treasury is very favorable to suggestions and evidently desires to carry out the provisions in the Tarsney Act in the best manner, you may like to publish the letters.

I enclose herewith a copy of the two letters for you to use in this way, if you so desire. Yours truly, ROBERT S. PEABODY.

BOSTON, MASS., May 1, 1901.

TO THE HONORABLE LYMAN J. GAGE,
Secretary of the Treasury:—

Dear Sir,—As a result of your wise enforcement of the provisions of the Tarsney Bill, the buildings of the United States Government promise soon to set the standard for buildings of their class in this

country. The buildings themselves and the methods by which they are produced become, therefore, a constant subject of discussion in our profession, and suggestions in regard to them not unfrequently come to me in my official capacity. It has seemed to me that perhaps I should offer for your consideration some of these suggestions about which all seem agreed, and the kindness with which you have received various communications from our officers and committees in the past encourages me to think that you will not object to my laying these before you as possible changes in the administration of the Tarsney Bill, which would, perhaps, render it more effective.

It seems to be largely agreed that an early appointment of the Jury in each case, and giving to them more influence in framing the programme and in approving the competitors, would do more at this time to help the cause than any other step. If the appointment of the Jury is made the first step in organizing a competition, the Jury would early become acquainted with the problem, instead of having to master it in a few hours or days at the time of the judgment. A Jury, thus early appointed, might review the programme arranged by the Department. As they are less likely to be hampered or influenced by old-established methods, a programme subject to their supervision might be productive of more original results.

It would be also possible for a Jury, thus early appointed, to pass on a list of competitors proposed by the Department, approving of them as fitted by experience and general reputation for such Government employment as is demanded by the competition. It is difficult to say how this could apply to the nominations made on political suggestion, if that system must continue, though it might offer a solution of the difficulties presented by such nominations, but it could certainly be applied to the other candidates and would relieve the Department of an undesirable duty.

The impression prevails that for an architect to be invited to a Government competition he must make a direct request for an invitation. If any such process is necessary, it obviously bars out many desirable people whose self-respect forbids this action. It may safely be taken for granted that almost any architect in the country who is fitted for it would like to join in a Government competition. The interest would be greatly increased if the invitation to do so carried with it a certain distinction, and this in some measure would be obtained if the Jury passed on the Department nominations. It would seem best, however, for the nominations to come, as now, from the Department, as they are informed in regard to the desirable men who have had opportunities to gain Government employment and as to who will shortly be given such opportunities, and it is desirable that the circle of competitors be as large as is consistent with obtaining work of the highest class for the Government.

At present the Jury meet and examine the competitive drawings in Washington. It easily may happen that no juror has seen the site under consideration. He may know little or nothing of the surrounding city. Might it not be better for the Jury's decision to be made where the building is to be built, so that judgment will be made on a specific problem and not on an abstract one?

There seems to be at present a definite obstacle in the way of giving a fee to the competing architects, but probably there is none to prevent compensation for the Jury. Each competition now involves the gratuitous service of several high-class men for several days. The total of this is considerable. As a fact, the jurors are always cordially ready to serve because they want to help the cause, but there seems to be no reason why the United States Government should accept this indefinitely, even though it is willingly accorded.

The present contract made between the Government and an architect does not cover the payment of travelling expenses. So long as competitors are nominated from the locality where a building is to be placed, this is not a matter of moment. In some cases it has happened, and in many cases it may necessarily occur, that the architect lives far from the work entrusted to him. It is not in general wise to place obstacles in the way of frequent visits by an architect to his building. Whenever an architect is selected whose visits involve serious travel, it would be well to change the contract so that travelling expenses would be included.

It would seem as if a good training for Government work might be obtained by a wider circle of architects than is invited to the great competitions, perhaps including younger and less experienced men if some of the many smaller Government buildings were offered in competition, as has been done with those of great importance. If the provisions of the Tarsney Act could be extended to some of these buildings, I believe the Government would gain good results, and possibly greater variety and more local character in the buildings than if all this work were done in the Government office.

What I have said in this letter is entirely approved of by Mr. George B. Post, the Chairman of our Committee on Government Architecture. I trust you will forgive my taking so much of your time and will appreciate that I have written only from the strongest wish that the good work in which you have engaged may be brought to the very best issue. I remain, with great respect,

Yours very truly,

ROBERT S. PEABODY.

TREASURY DEPARTMENT, OFFICE OF THE SECRETARY,
WASHINGTON, D. C., May 10, 1901.

MR. ROBERT S. PEABODY,
President, American Institute of Architects:—

Dear Sir,—The Department has given careful attention to your letter of the 1st instant, receipt of which was duly acknowledged, in

which you make certain suggestions in regard to methods of conducting competitions under the Act, approved February 20, 1893 (Tarsney Act), and reply is now made as follows, taking up the several points in the order in which they are discussed in your letter:—

The Department does not object to the early appointment of the Commission in each case; and will supply the members with copies of the programme, that they may have opportunity to submit their suggestions thereon before they are finally completed and sent to the competitors.

The members of the Commission will also be requested to submit to the Department names of architects to whom it will be, in their opinion, advantageous to extend an invitation to enter the competition.

The Department will also make trial of the suggestion that the Commission shall assemble and canvass the competitive drawings in the city where the building is to be erected.

The proposition that the members of the Commission should receive compensation for their services is also favorably considered, but a definite decision on this point, and as to the amount of the fee, must be reserved for a further study of the Statutes and Regulations.

As to the suggestion that travel expenses for visits to the building should be allowed the successful architect, in addition to the fee of 5 per cent, that proposition does not receive the approval of the Department.

The Department has never decided to withhold the smaller buildings wholly from competition, but must continue, as in the past, to consider and decide each case according to its conditions, as relate to remoteness of locality, limit of appropriation, and other attending difficulties, affecting the probability of securing satisfactory results by the competitive method.

Respectfully, L. J. GAGE, Secretary.

NOTES AND CLIPPINGS

THE HOPE OF ABATING THE SMOKE NUISANCE.—Some reckless statements have been circulating in the press about smoke-abatement in Cleveland. So says Prof. C. H. Benjamin, the city's supervising-engineer. It is not true that 90 per cent of the smoke has been eliminated, and that probably never will be the case, Mr. Benjamin says. "As long as soft coal is burned as a fuel there will be a considerable amount of smoke, and all any one can hope to do is to reduce this to as small an amount as possible." This is what he is trying to do in Cleveland, but he names five years as none too long a time in which to make an impression on the evil. Of 750 establishments in the city, having 1,000 furnaces, between five and six hundred are equipped with smoke-preventing, not smoke-eliminating, devices. This much was done in eleven months, largely by persuasion and by proving that smoke-abatement is economy in fuel. — *N. Y. Evening Post*.

FIRE-DEPARTMENT SEARCH-LIGHTS.—Since the first search-lights were introduced into the New York fire-department the apparatus has been added to by pieces with an improved equipment. Two of these are at the Marion Street station, each of which carries two lights, one, with a Mangin mirror, and the other, with a silvered-copper reflector—the diameter in both cases being 16 inches. Automatic-lamps, with horizontal feed-carbons and nickel-plated cases and stands are fitted to both. The Mangin mirror-light is fitted with a thirty-degree divergent lens, and arranged in such a way that the rays may be spread vertically or horizontally as occasion requires. It is used for long distances; at a short range the reflector-light throws a spreading beam. To bring the light to bear on any point where light is particularly wanted, an extra standard, carried on each engine, can be placed on the street, and on it either of the lights can be placed, unshipped from the engine and ready for immediate use. The current, about seventy amperes, is generated by a very compact plant which each engine carries, and, in addition, there is a very handy form of portable incandescent-reflector. These new engines were built by the La France Company, and on being given a practical trial at a fire in the beginning of April were found to be a great improvement on their predecessors, as they give a much more powerful and a steadier light, and one easier to handle. — *Fire and Water*.

THE MONUMENT TO ROSA BONHEUR.—Rosa Bonheur was for a long time the only woman-artist who had the honor of belonging to the Legion of Honor. Her brother Isidore Jules has presented to the town of Fontainebleau a monument to the memory of Rosa, which has been unveiled with fitting ceremonies by the Inspector of Fine-Arts. It rises between the Place Solferino and Grande Rue. The pedestal, 12 feet high, is of granite and stands on a broad base of stone. On the sides of the pedestal are bronze-reliefs representing "The Horse Fair," Rosa Bonheur's masterpiece in the Metropolitan Museum, and her painting, "Labourage Nivernais." In front is a profile of the artist in bronze surrounded by a laurel-wreath. To indicate her eminence as a painter of animals, and especially of cattle, there is a bronze bull on the pedestal. Speeches by M. Doniol, of the Institute, and M. Dayot, of the Department of Fine-Arts, were followed by the performance of an ode to Rosa Bonheur, words by Duffière, music by Girard, sung by the choral society L'Alliance. Paintings by Rosa Bonheur are to be seen in the National Gallery, London, a rare concession on the part of the managers of that fine collection; for beside hers there are few specimens of

foreign work—an Ary Scheffer, a Bonvin, and a Costa. Rosa Bonheur may be said to have started the new fashion for women to use a man's saddle on horseback and wear hunting-dress in the country. She used to scour Fontainebleau forest in mannish garb. — *N. Y. Times*.

FOREST PARK FOR THE ST. LOUIS EXPOSITION.—Forest Park, chosen as the site of the St. Louis Exposition, is the city's greatest and most centrally-situated park. It is readily accessible, being the western terminus of practically all the crosstown street-railway lines. In addition, five steam railroads run in close proximity. Much of the park is in a natural condition, covered with large trees, and watered by the Des Peres River with its six small tributaries. It is not the intention to sacrifice this natural part of the park, known to its visitors as "the wilderness." Additional land must be acquired, in addition to the 668 acres of park-area loaned by the city; and the 1,500 acres of available ground on three sides of the park was a factor in determining the site. The presence of water in the park was also a consideration, as lakes and lagoons play an important part in exposition landscaping. — *N. Y. Evening Post*.

THE FIRE-LOSS FOR 1900.—According to "The Chronicle Fire Tables" just issued, the loss by fire in 1900 amounted to \$160,929,805 (more than half as much as England has spent upon the South African war). Of this sum \$95,403,605 was borne by the insurance-companies. The number of risks burned last year amounted to 109,092. The greatest losses were in June, in which month they amounted to \$19,065,240, the insurance-loss being \$11,916,545. In July the largest number of fires burned the greatest number of risks—the property-loss being \$14,305,660, and the insurance-loss, \$8,113,995. The average number of fires for each month was 6,604; the average number of risks burned, 9,901; the average loss, \$13,410,817,080. The heaviest loss was sustained by the State of New York, with a property-loss of \$21,737,785, an insurance-loss of \$15,678,035, and 16,623 risks burned. Pennsylvania comes next, with a property-loss of \$16,497,025; insurance, \$11,192,245. To it succeed New Jersey and Illinois. In the former State the property-loss was \$11,671,355, insurance, \$7,516,345; in the latter, the property-loss was \$10,126,615; insurance, \$6,374,810. — *Fire and Water*.

THE VALUE OF FINE TIMBER.—Railroad Commissioner Rogers, talking about the value of North Carolina timber, said that he had only one story to relate, and that was a big one. A man in western North Carolina was selling standing timber walnut-trees. The man who was buying came to one very handsome tree. He told the owner he would pay as much as \$50 for that tree. This excited the owner. He did not sell, but sent for experts. The owner got \$1,500 for the tree (curled walnut) as it stood. The man who cut it down realized \$3,000 for it on the cars. It was shipped to New York, and veneered one-sixth to half an inch. The sales were watched and estimated as the best that could be done, and when all was disposed of it turned out that the tree brought nearly \$60,000. The point is this: We have no idea as to the value of our timber, much of which is being sent North for a mere song. We can become rich in North Carolina if we work our raw material as others work it for us. — *Raleigh (N. C.) News*.

FIRE FROM WASTE-PAPER.—The deterioration in the quality of paper increases the liability of fire wherever waste-paper is accumulated in any quantity. Most modern paper is made from wood and other vegetable fibres which, chemically, are not very different from the component material of a hayrick. If the waste-paper is stacked in large quantities, and especially if it happens to be a little damp, heating takes place just as with a prematurely stacked hayrick, and spontaneous combustion may at any time break out in flame, as it has often been known to do in the farmyard, and of late years the greatest care and vigilance has been necessary to guard against it. — *Scientific American*.

MONUMENT TO A LUNEBURG PIG.—No stranger monument ever existed than that which was erected by the inhabitants of Luneburg, in Hanover, in honor of a pig. This, which took the form of a kind of mausoleum, contained a large glass case in which was hermetically inclosed a fine ham cut from the animal, whose memory was to be handed down to posterity. Above was a handsome slab of black marble, on which, engraved in letters of gold, was the following inscription in Latin: "Passers-by, contemplate here the mortal remains of the pig which acquired for itself imperishable glory by the discovery of the salt-springs of Luneburg." — *Boston Transcript*.

DEPARTMENT OF AGRICULTURE BUILDING COMPETITION.—The following named architects have been invited by the Supervising Architect of the Treasury to submit plans for the new building for the Department of Agriculture: Babb, Cook & Willard, Howells & Stokes, Carrère & Hastings, Brite & Bacon, and John R. Pope, of New York; Gope & Stewardson of Philadelphia, Peabody & Stearns, and Wheelwright & Haven, of Boston, and P. J. Weber, of Chicago. — *Exchange*.

BRITISH AND AMERICAN BOILER-EXPLOSIONS.—There is a great difference in the number of boiler-explosions in the United States and Britain. In the year ended July 1, 1900, the Board of Trade reported 24 killed and 65 injured; in the same period the numbers in the United States were 208 killed and 520 injured, and the Hartford Steam-boiler Inspection and Insurance Company, in recording the fact, does not think that the lower factor-of-safety in the United States is sufficient explanation. Perhaps boiler-owners on the "other side" still put a nigger on the safety-valve when a little more steam is wanted, and in this connection it would be interesting to know how many of the 268 killed were "whites." — *The Shipping World*.

THE AMERICAN ARCHITECT AND BUILDING NEWS

ADVERTISERS' TRADE SUPPLEMENT

No. 230

SATURDAY, JULY 6, 1901

VOLUME LXXIII
No. 1332

THE INTERNATIONAL SPRINKLER COMPANY TO PURCHASERS AND USERS OF AUTOMATIC FIRE-EXTINGUISHING APPARATUS.

THE General Fire Extinguisher Company, of Providence, R. I., has, for more than a year past, threatened the International Sprinkler Company, of Philadelphia, Pa., and its customers, with suit for alleged infringement of Letters Patent No. 372,220, dated October 25, 1887, to F. Grinnell, and Letters Patent No. 415,166, dated November 12, 1889, to J. R. Freeman, R. W. Newton, No. 514,163, dated February 6, 1894.

The International Sprinkler Company begs to advise purchasers and users of its automatic fire-extinguishing apparatus that it has caused to be made a complete and exhaustive examination as to the validity of the patents named, and as to their alleged infringement by the International Sprinkler Company's apparatus, and has been led to the undoubted conclusion that the claims of said Letters Patent alleged to be infringed by the International Sprinkler Company's apparatus are *invalid and void*, because they do not cover anything that was patentably novel at the dates at which said respective patents were issued, and to the further conclusion that *no valid rights* under said Letters Patent have been infringed by apparatus made and sold by the International Sprinkler Co.

The International Sprinkler Company advised the General Fire Extinguisher Company of this conclusion more than a year ago, and the said last-named Company failed until within a few days past to bring any suit against the International Sprinkler Company for said alleged infringement. Said suits have just been begun and they will be defended by the International Sprinkler Company.

The International Sprinkler Company desires to inform purchasers and users of its fire-extinguishers that should any suit or suits be begun against them for alleged infringement of said apparatus upon the patents above named it will, at its own expense, defend said suit or suits and hold the purchasers and users of its apparatus harmless from any recovery of profits, royalties, damages, or costs, incident thereto.

INTERNATIONAL SPRINKLER COMPANY,
CLARKE MERCHANT, President,
PHILADELPHIA, PA.

THE American Bridge Company will furnish to the Illinois Central R. R. Company all of the bridge-work required on this railway during 1901. About 3,000 tons of steel will be used.

TESTED STEAM-FITTINGS.

THERE is many an expensive installation of steam or water piping, just as there are delicately adjusted systems of machine-shafting, thrown out of gear and rendered temporarily, if not permanently, useless by the gradual, or sometimes sudden, settling of the fabric of the building to which at some points of the system it is necessary to attach them.

By supporting vertical systems of piping from the bottom, by the use of slip-joints, friction-rollers, sleeves and sundry other devices the skilful engineer is able to discount in advance the almost inevitable settlement of masonry and the shrinking of timber that would strain and distort his piping if precaution were not taken. But at the best there must be strains, both internal and external, and the first necessity, therefore, is to use only thoroughly reliable material.

It is, therefore, useful to know that the Crane Co., of Chicago, take the utmost care to test before delivery all their many forms of fittings and valves for steam, water and gas pipes.

They have at various times broken an assortment of sizes under hydraulic pressure and found that the minimum bursting-point on any size was 700 pounds per square inch.

It will seem that this factor-of-safety is very high, but they not only have to stand the strain due to the working-pressure, but are also liable to unusual strains such as water-hammer, weight of piping, settling, etc., and for this reason the Crane Co. keep the limit of the working-pressure for which they recommend them down to a perfectly safe point.

The dimensions of flanges of their Standard and Low Pressure Flanged Fittings are the same as those recommended by the American Society of Mechanical Engineers.

Flanged fittings with special diameter of flanges and drilled to special templates, also special companion-flanges, will be furnished to order and at an extra price.

The question of the merits of Cast Iron Thread Joints is constantly arising in comparison with Shrink Flanged Joints.

The Crane Co. have made tests to determine the holding value of Cast Iron Threads. These tests show that with a thread of half the standard depth of thread the Flange will break before the thread will strip.

On a ten-inch flange with five pipe-threads engaged instead of ten, the usual number, the flange broke at 650 pounds, but the threads were intact. Other tests made with pipe-threads of half the usual length give similar results, so that the ordinary cast-iron screw-joint is sufficiently strong for any steam-pres-

sure carried to-day, in view of the fact that the more threads there are the more bearing there is to overcome by friction and the more grit there likely will be to obstruct the making of a good joint, so that for ordinary purposes it is a question whether the manufacturers have not been providing considerable more bearing and threads than is desirable.

THE American Bridge Company will furnish the Atchison, Topeka & Santa Fé R. R. with a Red-rock Cantilever Bridge over the Colorado River.

CARVED MOULDINGS.

THE Dwight Lumber Company, of Detroit, sole manufacturers of Marles' Carved Mouldings, are sending out their new catalogue of Marles' Carved Mouldings, which they are now prepared to put on the market.

The Marles Carved Moulding Machine is a recent invention of remarkable ingenuity, by which a great variety of designs can be carved on most any form of moulding. The cutting is sharp and deep and gives all the boldness and relief shown by hand-carving, and may be used where that is required, thus appealing to the favor of architects and designers.

The beauty of the designs shown in this catalogue should give the Marles' Carved Mouldings a large sale. The Dentils, Egg-and-dart and Fluted Designs are desirable for verandas, cornices, mantels and general architectural work. Band, wall and panel moulding may be richly ornamented. This moulding is also especially adapted for use in furniture, picture-frames, passenger-cars, steamboat-cabins, and any place where ornamentation is desired.

If you cannot procure these mouldings in your city, write to

DWIGHT LUMBER CO.,
DETROIT, MICH.

FRANCIS W. HEISLER, Purchasing Agent of the American Bridge Company, has tendered his resignation, to take effect July 1st.

USEFUL PAINTING NOTES.

In their very useful pamphlet "*Specifications for the Painter*" Messrs. Harrison Bros. & Co., of Philadelphia, give the following useful notes:—

THE durability of paint will be impaired by hurried work. Sufficient time should be allowed between coats to permit each one to

(Continued on page 3.)

"The Georgian Period"

THIS publication, which now consists of eight Parts, contains more than a hundred pages of text, illustrated by over three hundred text-cuts, and two hundred and ninety-seven full-page plates, of which one-third are gelatine or half-tone prints. It is in truth a work of superior excellence and great usefulness.

The matter already illustrated may in small part be classified thus:

PUBLIC BUILDINGS

City Hall, New York, N. Y.		Date 1803-12
Old State House, Boston, Mass.		" 1748
Pennsylvania Hospital, Philadelphia, Pa.		" 1755
Carpenters' Hall, Philadelphia, Pa.		" 1770
Independence Hall, Philadelphia, Pa.		" 1729
Faneuil Hall, Boston, Mass.		" 1741
and others.		

CHURCHES

King's Chapel, Boston, Mass.		Date 1749
Seventh-day Baptist Church, Newport, R. I.		" 1729
Christ Church, Alexandria, Va.		" 1767
Christ Church, Philadelphia, Pa.		" 1727
St. Paul's Chapel, New York, N. Y.		" 1764
Old South Church, Boston, Mass.		" 1729
First Church, Hingham, Mass.		" 1681
St. John's Chapel, New York, N. Y.		" 1803
First Congregational Church, Canandaigua, N. Y.		" 1812
St. Peter's P. E. Church, Philadelphia, Pa.		" 1758
Gloria Dei Church, Philadelphia, Pa.		" 1700
and others.		

IMPORTANT HOUSES

Fairbanks House, Dedham, Mass.		Date 1636
Royall Mansion, Dedham, Mass.		" 1737
Philipse Manor House, Yonkers, N. Y.		" 1745
Tudor Place, Georgetown, D. C.		" 179-
Mappa House, Trenton, N. Y.		" 1809
Woodlawn, Va.		" 1799
Mount Vernon, Va.		" 1743
and others.		

Incidentally there are shown special measured drawings or large views of the following features and details:

Porches and Doorways		67 Subjects
Staircases		21 "
Mantelpieces		81 "
Pulpits		6 "
Fanlights		60 "

In addition to the subjects enumerated above there is a large quantity of measured and detailed drawings of Cornices, Ironwork, Gateposts, Windows, Interior Finish, Ceiling Decoration, Capitals, etc., together with elevational and sectional views of entire buildings.

Atlas PORTLAND CEMENT

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Diamonds must be properly set to bring out their full power and brilliancy.
Ceiling Plates must be properly combined to bring out their true character and beauty.
The Ceiling which looks best is the one in which handsome, harmonious designs are combined in an artistic manner.
Even good designs are spoiled by combining them with those belonging to other artistic styles.
The sure way to avoid conglomerations and unartistic mixtures is to use BERGER'S CLASSIC METAL CEILINGS.

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are made in a series of complete and artistic classified designs. Each classified design is made up of pieces which are in harmony with each other.
Our Catalogue classifies each piece of material under the style to which it belongs.
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SPECIALTIES: — Ceiling, Roofing, Siding, Eave Trough, Conductor Pipe, Hangers, etc.

become bone-dry before applying the next. The addition of "driers" necessary for rapid drying hastens the ultimate decay of the paint.

Thin coats, well brushed out, will wear longer than an equal number of heavy coats of paint.

Painting should never be done in foggy weather or after a rain, while the surface to be painted is damp, since this will invariably cause premature decay.

On green or unseasoned lumber the priming coat should be allowed several weeks in which to dry before applying second coat. This applies also to yellow-pine.

On an old, dry surface that has been previously painted, some painters recommend a first coat of oil, prepared as follows: 4½ gallons raw linseed-oil, ½ gallon turpentine and 1 pint of liquid drier.

An experienced painter recommends that a new building should not be primed until after the scaffolding is down. One or two storms allowed to beat against the unprimed wood

will season it, and increase the durability of the paint.

Under certain weather conditions paint will sometimes blacken or "mildew." This is due to a microscopic water-plant, which covers the surface. Paints containing iron seem peculiarly subject to "mildew." There is no known method for preventing it, and no blame can be attached to the painter. Soap and water will remove it.

Old painted surfaces, hard and scaly, are most difficult to put in condition for repainting. Burning off the old paint is the most effective way. If the surface is hard and unyielding, and expense be an object, only the smallest quantity of new paint possible should be used. If one thin coat is not sufficient, then give two very thin coats and plenty of time between them to dry. When two coats are given on such a surface, the first should be thinned out with all the turpentine it will carry.

Paint of the right consistency for warm weather will be entirely too stout in

cold weather. That which is right for a firm, non-absorbent surface, must be thinned very much for a soft, absorbent surface. For this reason, the architect cannot specify an invariable formula for thinning paint, but must be guided by the judgment of the experienced, practical painter.

When a package of white-lead, or any other pigment ground thick in pure linseed-oil, is allowed to stand for a few days, a film of oil rises to the top, which becomes oxidized to a rubber-like and insoluble paint-skin. When the package of paint is rolled out of the factory or dealer's store for shipment, this skin becomes more or less incorporated with the pigment, and this is repeated every time the package stands for a few days and then is moved. When it is finally opened and the paint thinned down for use by adding oil and turpentine, these skins, which have been torn into small pieces by the mixer's paddle, will be all through the paint. To get rid of them, straining through cheese-cloth or a fine wire-sieve is necessary.

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NOTABLE INSTANCES WHERE ALSEN'S CEMENT HAS BEEN USED BECAUSE OF ITS SUPERIOR QUALITY.

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WASHINGTON LIFE INSURANCE CO.'S BUILDING, N.Y.
MANHATTAN LIFE INSURANCE CO.'S BUILDING, N.Y.
AMERICAN SURETY CO.'S BUILDING, N.Y.
THE U. S. NAVAL OBSERVATORY, WASHINGTON, D. C.

ELECTRIC R.R. SUBWAY, BOSTON.
METROPOLITAN SEWERAGE WORKS, BOSTON.
SEA WALL, LAKE FRONT, CHICAGO.
BRIDGES OVER HARLEM RIVER, N.Y.

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AGENTS AT BOSTON: WALDO BROS., 102 Milk Street.

The Soderlund Twin Faucet



And in all places where hot and cold water is used
PATENT APPLIED FOR

UNION BRASS WORKS

11 Hawkins Street, Boston, Mass.

EXPOSITION INFORMATION - BUREAU.

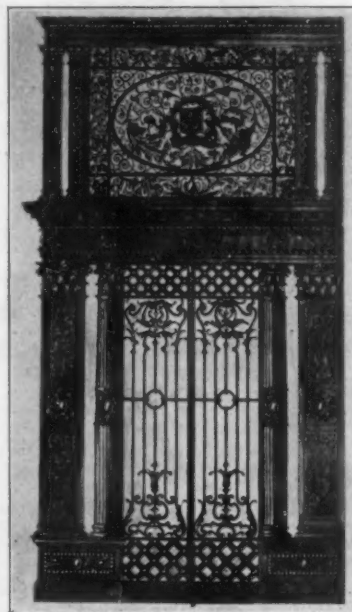
In view of the large number of students who will visit the Pan-American Exposition, the International Correspondence Schools, Scranton, Pa., have established an information-bureau at their Buffalo office. Arrangements have been made to secure accommodations both in hotels and private families during the Exposition. The Schools state that no rooms can be secured at less than \$1 per night for each person, and that persons wishing rooms held for them must forward remittance to pay for the time the rooms are wanted. Needless to say, the information-bureau is conducted free of charge. All correspondence intended for the information-bureau should be addressed to the International Correspondence Schools, Ellicott Square Building, Buffalo, N. Y. Students and others visiting the Exposition are invited to call at the Buffalo office.

NOTES.

As architects and the heating-trade become conversant with the system and apparatus of the Vapor Steam Heating Company, of York, Pa., its popularity increases, as is substantially shown in the order-books of the concern. Some recent orders received are for large operations in different sections of the country. One from James W. Tufts, of Boston, is for heating winter-hotels located at Pinehurst, N. C. — viz, the Holly Inn, Radcliffe, Cedars, Majestic and Berkshire. Besides these hotels the order includes the heating by the vapor-system of the Casino and store-building and seven cottages, making a total of 14 buildings in all. These buildings are located about 2,500 feet from power-house and will be supplied with steam by an underground steam-main. All of the buildings will be heated by Broomell's vapor-system, each radiator being equipped with a patent quintuple radiator-valve and other specialties. Broomell, Schmidt

The W. S. Tyler Company

CLEVELAND, OHIO



ORNAMENTAL IRON AND BRONZE

& Steacy Company, of York, are the contractors.

THE Gurney Heater Mfg. Company, of Boston, Mass., are issuing a pocket edition of their regular trade-catalogue for 1901. The first pages give the terms of the company and special information in reference to the ratings of their boilers. Cuts show their 400 series, Doric and Bright Idea Steam and Hot Water Boilers, and the Defiance, Pony and Jacket Tank Heaters. The next gives brief explanation, and the tables give the dimensions and ratings. Another section of the catalogue is devoted to their varied line of Steam and Hot Water Radiators and Steam Specialties. The catalogue also contains price-lists of Wrought Iron Pipe and Fittings and many specialties used by the heating contractor, together with several pages of useful information. For convenience, several pages are left blank for memorandums.

WE beg to announce that our new building, 549 to 555 West 26th St., is completed, and we hereby offer the four upper lofts for rent. These are very desirable lofts for manufacturing purposes, with light on four sides. The floor-space is 85' x 100', steam heat, elevator and power.

JNO. WILLIAMS,
NEW YORK, N. Y.

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ARCHITECT

AND

Contract Reporter

Published Every Friday by P. A. Gilbert Wood

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LUDGATE CIRCUS. LONDON, E. C.

PRICE, FOURPENCE

The "ARCHITECT AND CONTRACT REPORTER" has been established nearly 40 years; has a large and influential circulation; has been proved to be the best medium for advertising to Architects, Builders and Contractors; has the finest illustrations, and has been specially noted for its Art reproductions.

Send us six English 1d. stamps and we will mail you sample copy.

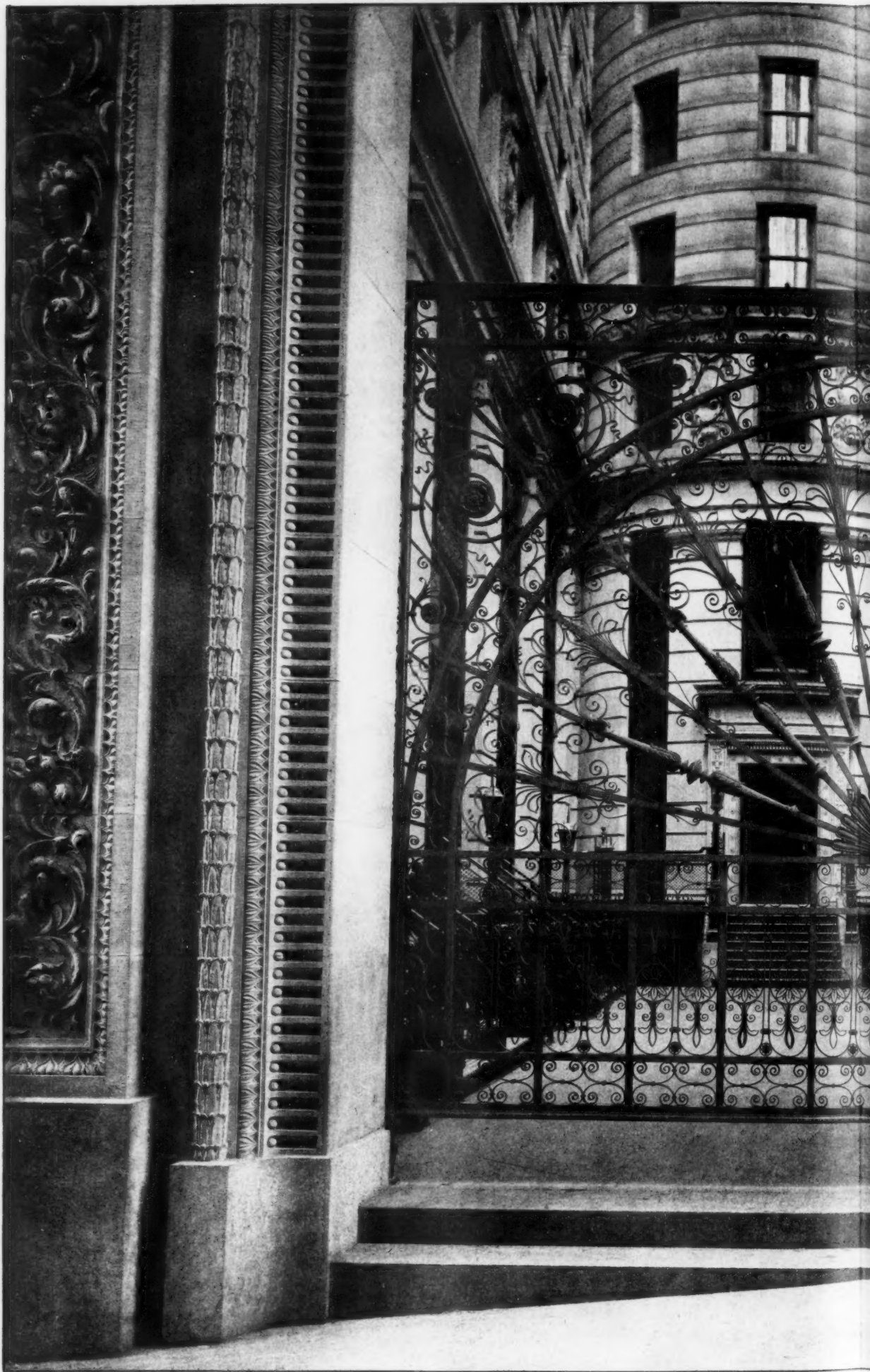
Send us post-office money order for 50 cents and we will send you the last six weeks' issues.

On receipt of \$6.25 we will forward for 12 months.

American Exposition a unique and beautiful exhibit immediately facing the main entrance of the Manufactures and Liberal Arts Building, and hope that every architect visiting Buffalo will give them the pleasure of a personal greeting.

WE desire to call attention to the fact that there has been filed with the Recorder of St. Louis an application for the increase of the capital stock of the Ludlow-Saylor Wire Co., of St. Louis, from \$100,000, its present authorized capital, to \$300,000. The assets of the company are \$425,004.80 and the liabilities are \$95,671.99.

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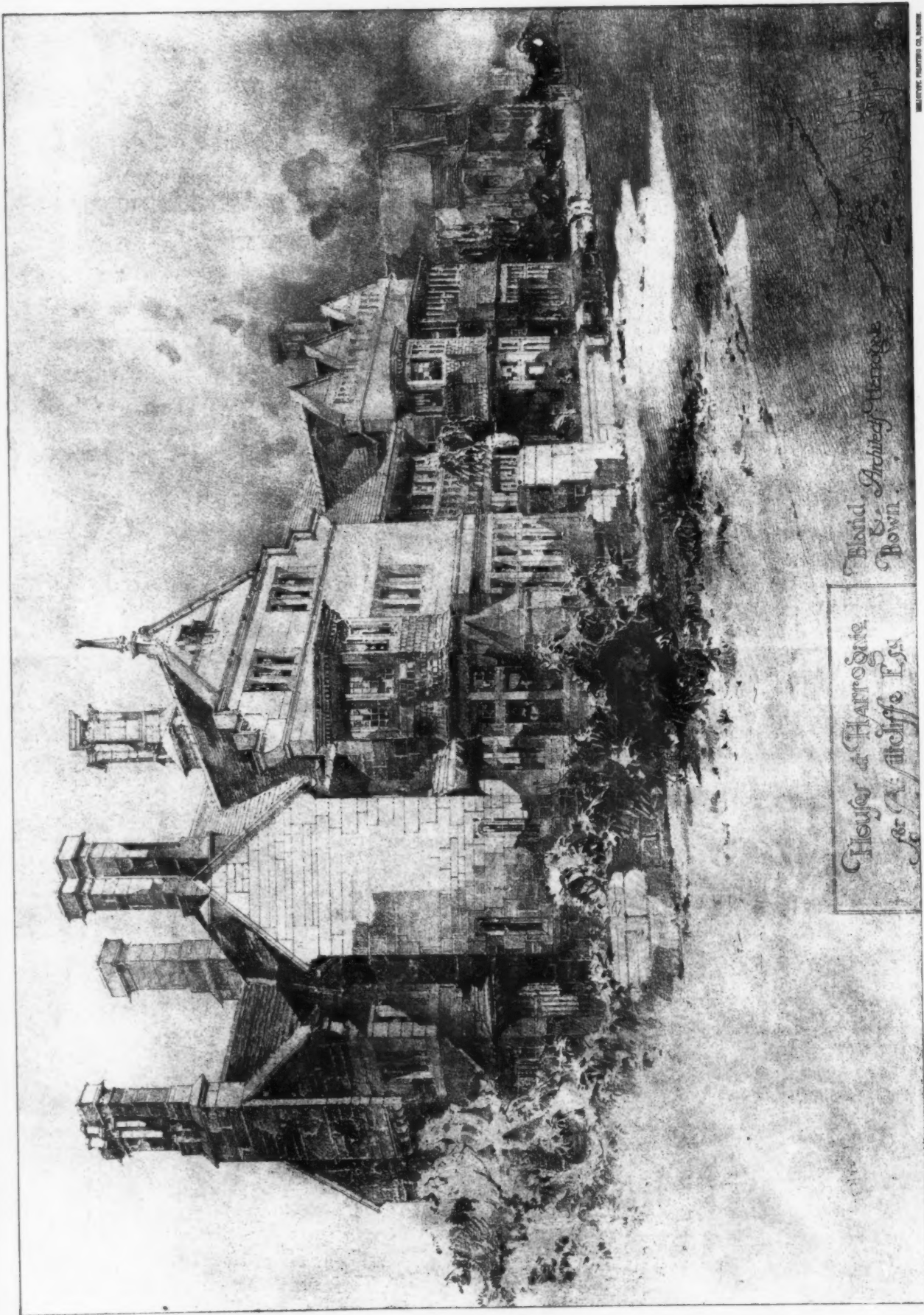




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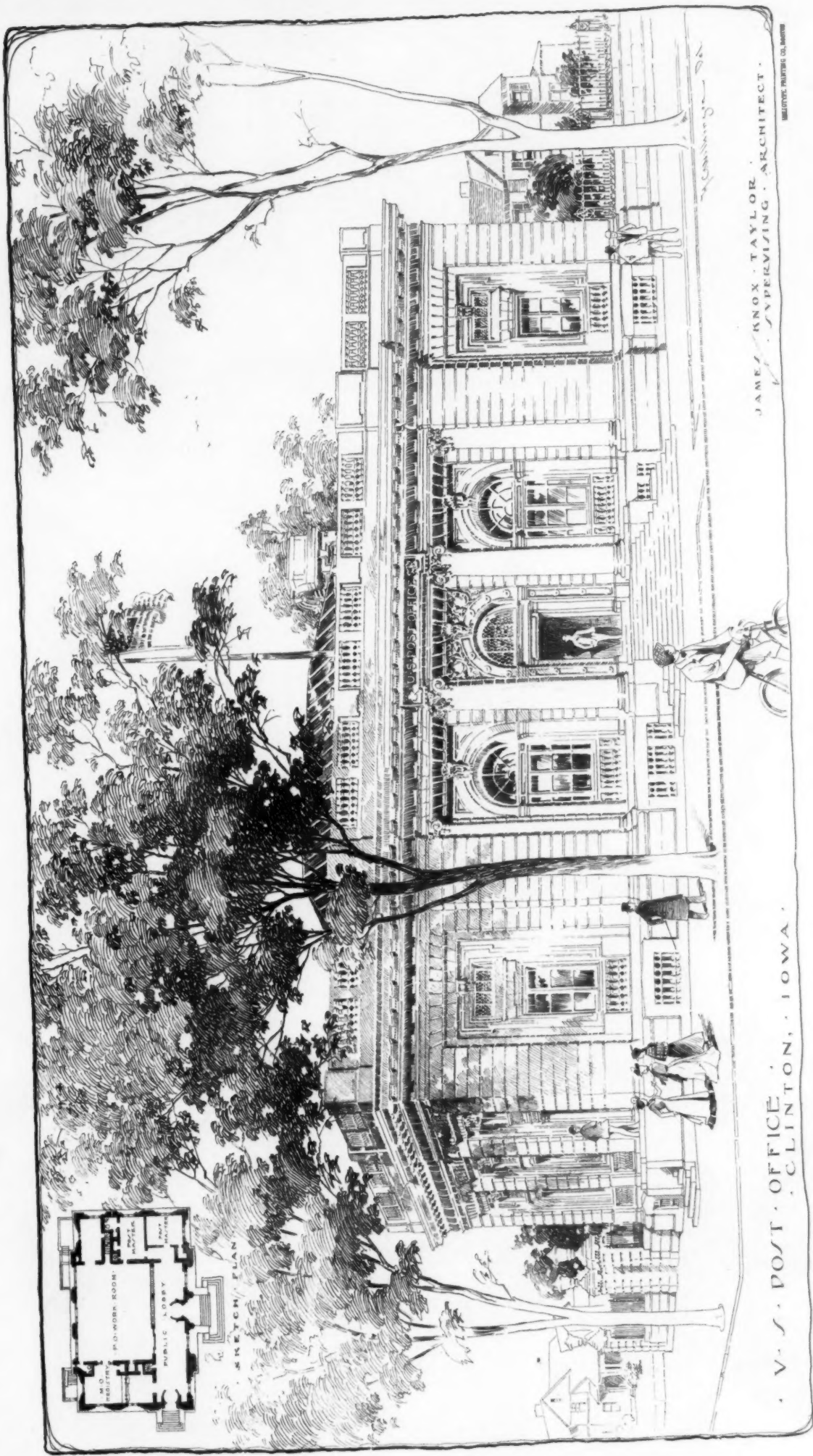
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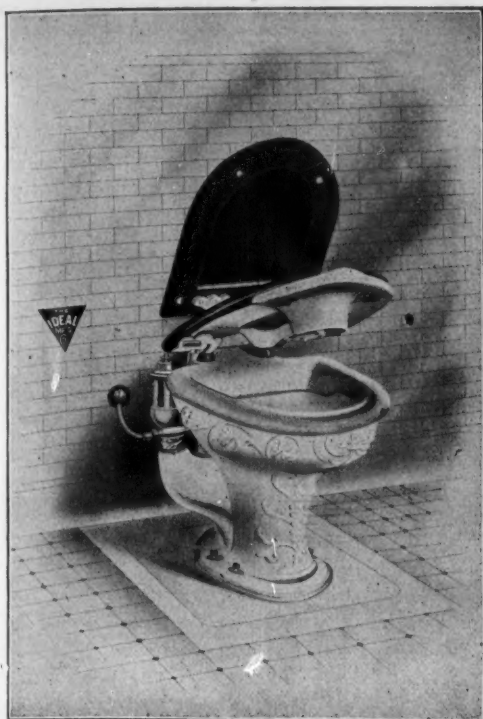
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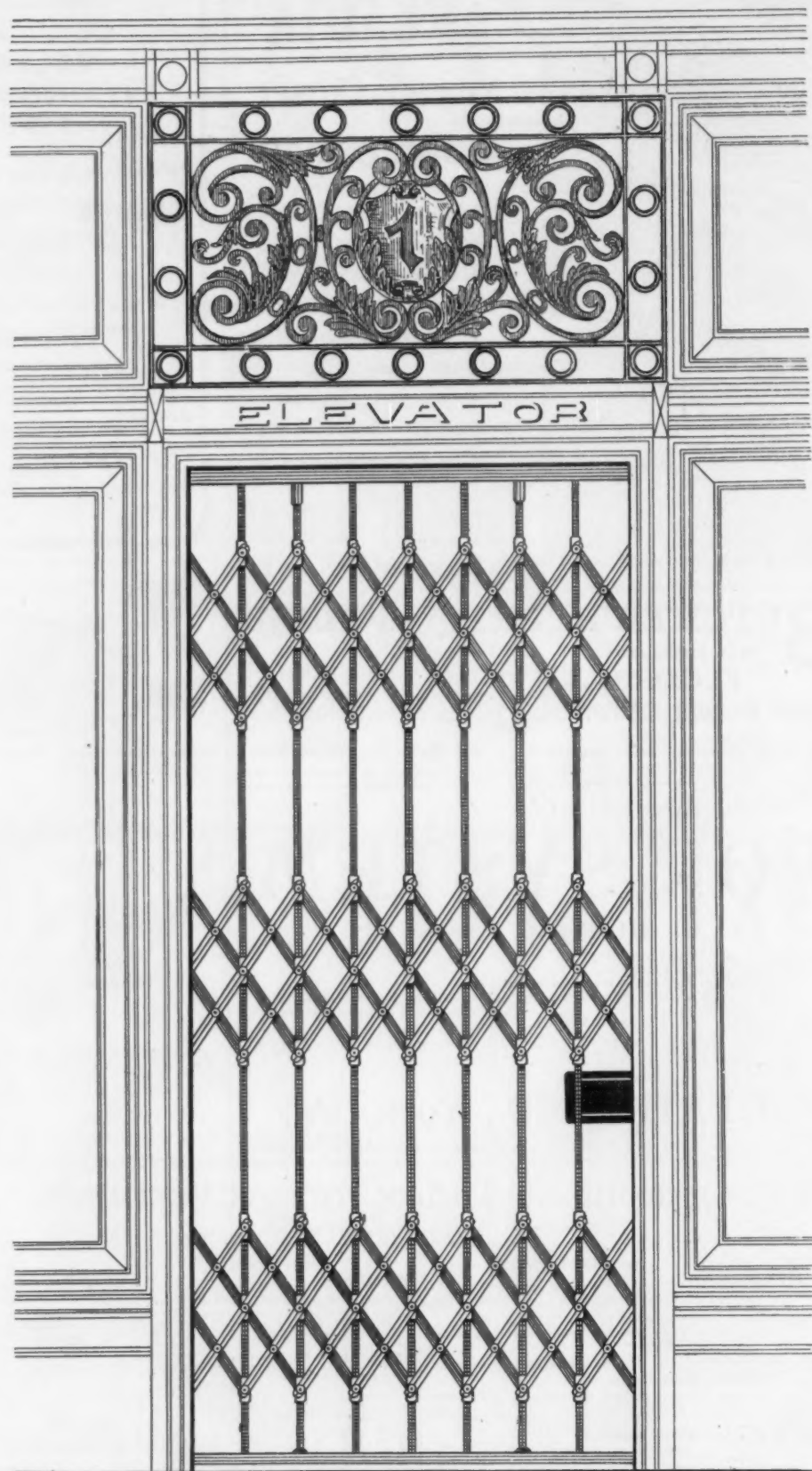
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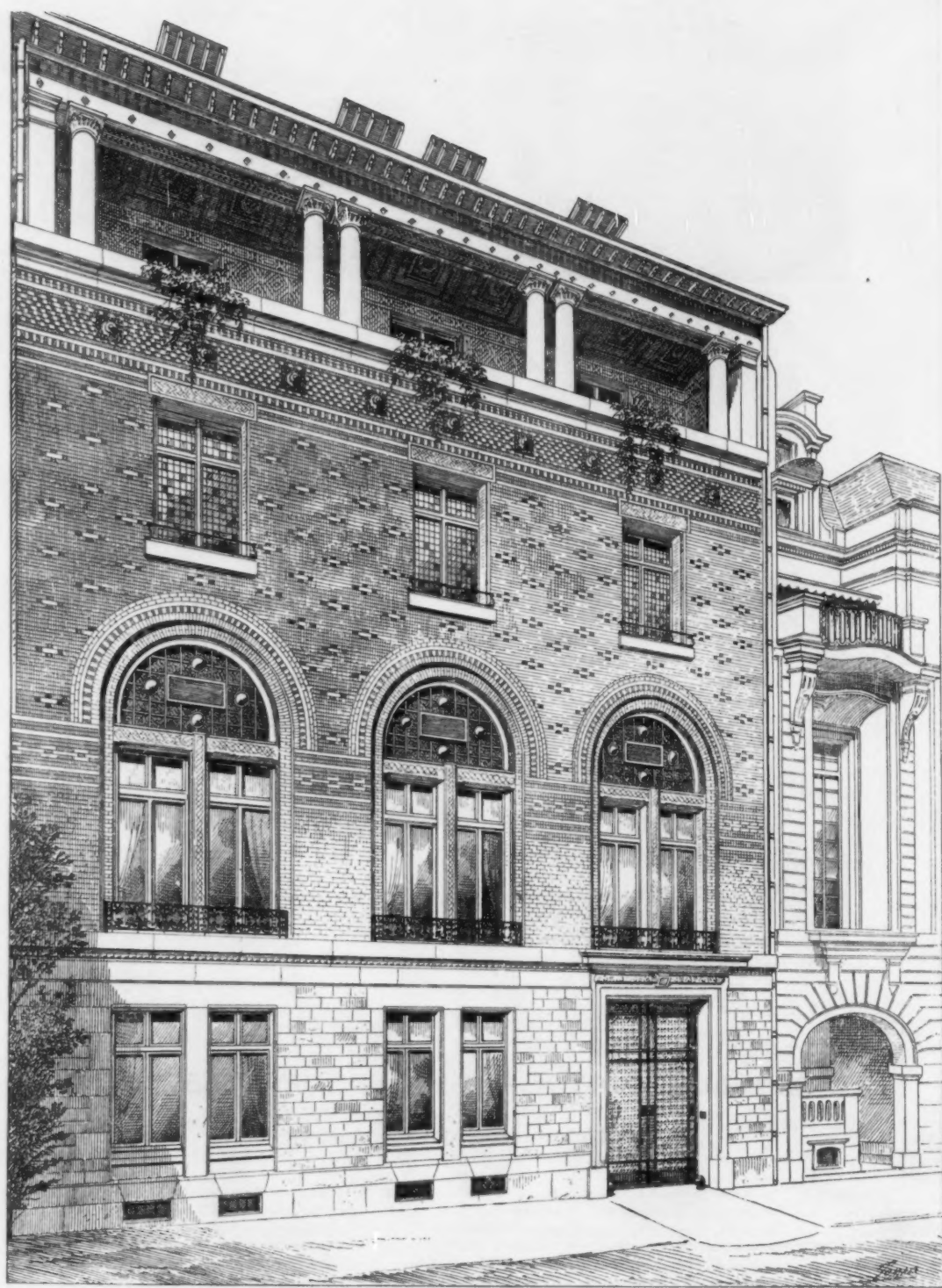
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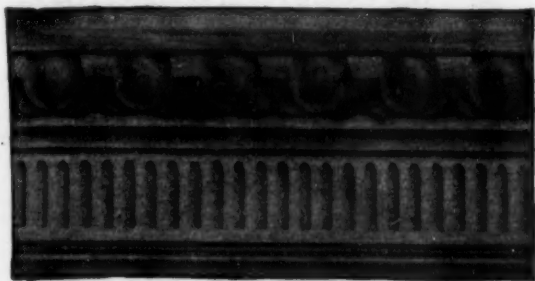
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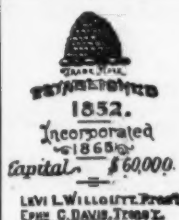
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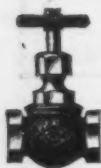
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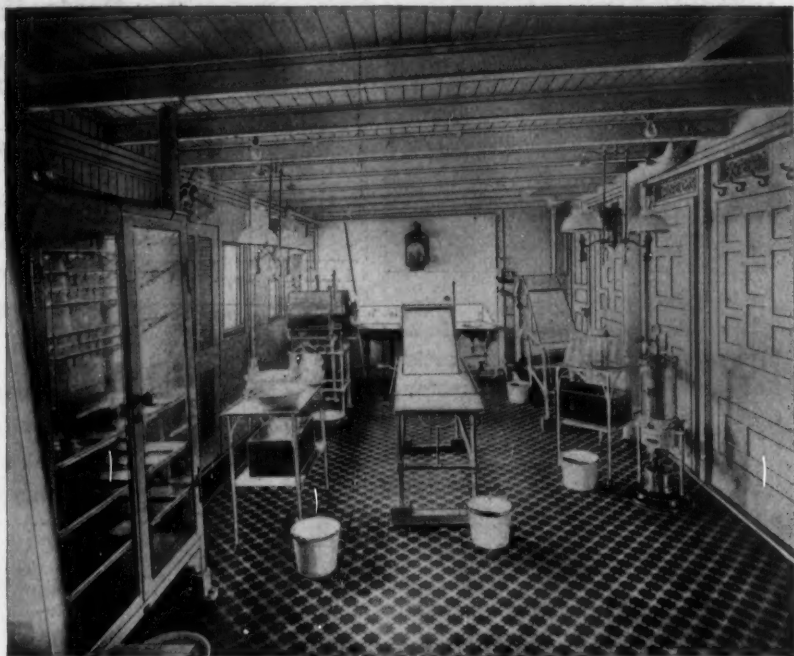
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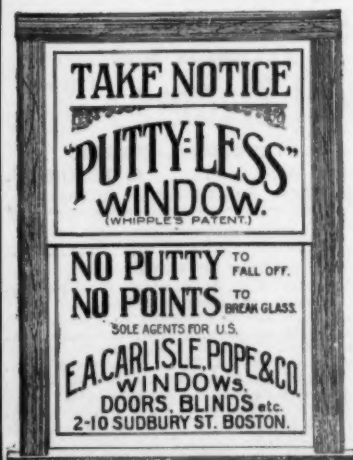
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Pine Bluff, Ark.—Plans are being drawn for a new building for the Sisters of Charity, to replace the Annunciation Academy. It will cost \$15,000.

Richmond, Va.—Hodges & Leach, of Baltimore, Md., are preparing plans for the \$150,000 Hotel St. Clair, to be built at 9th and Grace Sts.

St. Paul, Minn.—The Norwegian Theological Seminary will erect a new school at Anthony Park.

A three-story brick and stone armory to cost \$50,000 is to be built by the Armory Association on 6th St.

Topeka, Kan.—The First Baptist Church has decided to build a new edifice at a cost of \$40,000 on the corner of 9th and Jackson Sts.

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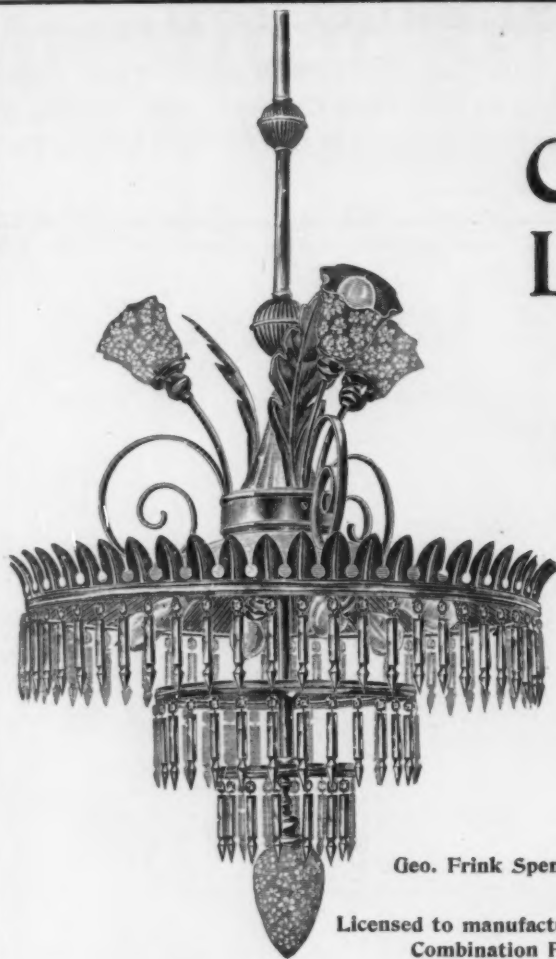
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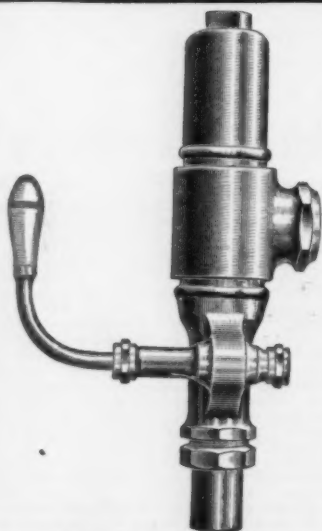
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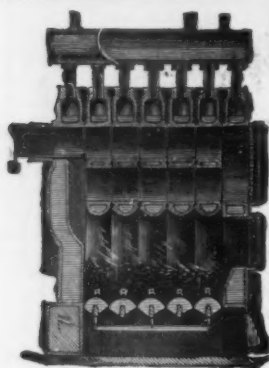
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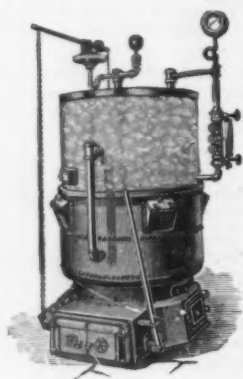
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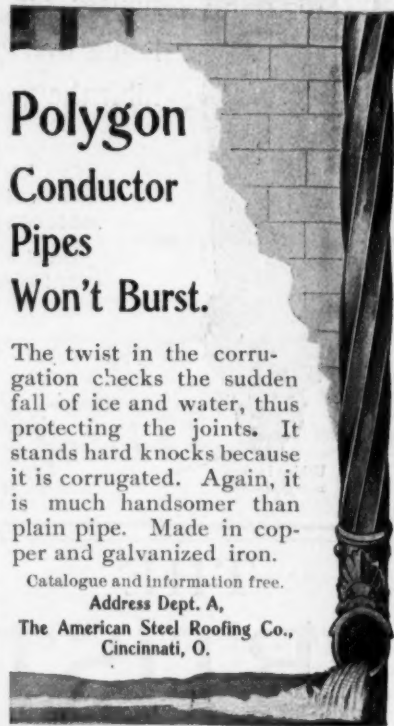
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