

THE AMERICAN ARCHITECT AND BUILDING NEWS

VOL. LXXII

SATURDAY, MAY 4, 1901

No. 1323

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THE Municipal Art Society of New York, which, during its brief life, has accomplished a great deal for the elevation of public taste and the promotion of American art, has, we understand, at the last moment reconsidered its intention to go out of existence, for lack of public support. The Society was founded in 1893, by artists and others interested in rescuing civic decoration from the hands of house-painters and iron-foundry proprietors, and soon reached a membership of about four hundred. The Society held competitions for designs for sculpture and painting for public places, and endeavored to have the successful designs carried into execution. In one instance, that of the mural decorations for the Criminal Court building, it was able, by raising the necessary money among its own members, to secure the carrying out of its scheme; and it also contributed to the erection of the Hunt Memorial. Finding it, however, rather a thankless task to hold competitions for works of art which no one was willing to pay for, and impracticable, with its limited membership, to decorate the public buildings at its own expense, its directors lately recommended the dissolution of the organization. Every one would regret the disappearance of an association so enlightened and public-spirited, but it has already shared its mantle with other similar societies, established in imitation of it in several of the larger American cities, and it might hope, through its honorable example, to continue, even after dissolution, to exercise a great and beneficent influence over local art.

MR. HENRY BURN, the President of the National Wall-paper Company, gave some interesting testimony the other day before the Industrial Commission, at Washington. Every one knows that the wall-paper trust was one of the first ones formed. At that time the business of making such goods was very profitable, and it seemed to be good policy to cut off competition by a combination of interests. The results, however, have not justified the anticipations of those interested. New factories were soon established, to share with the trust the advantages of high prices, and competition again made its appearance. More than this, however, it turned out that consolidation, as Mr. Burn said, "resulted in a vast increase in the price of labor," through the advantage which it gave the unions in enabling them "to concentrate their efforts on one concern, instead of dividing them among a larger number." All these circumstances operated to make the business of the combination unprofitable, and its managers were wise enough, instead of sacrificing the property in useless struggles against adversity, to dissolve the trust, all the factories concerned in it being returned to the original proprietors.

A VICTORIA MEMORIAL is to be erected in London, and preparations have gone so far that five architects have been selected to submit designs in competition. The architects chosen are Messrs. T. G. Jackson, Aston Webb and Ernest George, Dr. Rowand Anderson, and Sir Thomas Drew. The two latter, of course, represent, respectively, the Scotch and the Irish branches of the profession in Great Britain. No

one will question the talent of these artists, who stand, perhaps, at the head of their profession, but architects will be curious to see what they will produce in the way of purely monumental design. None of them, so far as we know, has done any conspicuous work of the kind, and nothing but very great talent can enable a man to succeed in such things without practice. Fortunately, all the five are too independent and original to be satisfied with such cold copying as Scott's Albert Memorial, and if anything could inspire an artist with the desire to express that sentiment of noble conscientiousness which is the crowning glory of the English character, it would be the life of the brave and good Queen Victoria, so that we shall, at least, have a competition of great interest. The President of the Architectural Association is said to have expressed the opinion that it would have been better to hold a preliminary competition for sketches, open to all architects in the United Kingdom, and select one of the sketches, the author of which should be employed to carry out his idea, with the assistance of half a dozen other architects. So far as the preliminary open competition is concerned, we agree with this view, believing that talent for purely aesthetic work is a different thing from success in general practice, and that a sketch-competition would bring out more originality, if not more talent, than one limited to men distinguished in other branches. In the preliminary competition, however, it would be better, as it seems to us, to select half a dozen men for a subsequent and final competition, than to select one man, from the inadequate indications of a sketch, and then hamper and torment him into discouragement and indifference by subjecting him to the interference of a party of brother architects, probably better known than himself, who would consider it their duty to amend or modify everything that he did.

THE English professional journals seem to be unanimous in their opinion that the selection of five architects for a limited competition for the proposed Victoria Memorial in London was a mistake, and that it would have been much better to hold in the first place an open competition for sketches, selecting from the authors of the sketches a small number of participants in the final competition. It seems, however, that, in regard to the sculptural portion of the memorial, a single artist, Mr. Brock, was selected at the beginning, and one or two of the English journals seem to think that the manner of selecting an architect to work with him, and the nomination of those to be invited to compete, was left to him. The *Builder* considers that the selection of Mr. Brock, without competition of any kind, was a worse mistake than the limited competition for architects; and, while competitions for sculpture have not, in this country, been extremely successful, the example of France, where everything of the kind is decided by competition, and where a great contest of the kind attracts public attention in a manner very beneficial to art, shows that it is at least possible to make a competition for sculpture successful.

THE great mistake of the committee having the matter in charge was, however, the selection of a sculptor as the chief person in designing the memorial. We have no doubt that Mr. Brock is a very good sculptor, and, in fact, we have already a favorable impression of his work; but to select a sculptor at the beginning, and allow him to control the appointment, and, presumably, the proceedings, of the architects who are not only to design the main part of the monument which his sculpture is to decorate, but to arrange what we are told is to be a "monumental approach" to the memorial, consisting, apparently of something in the style of an avenue of sphinxes, is a decided inversion of the proper order of things. We are ready to grant, if any one wishes us to do so, that the lowest sculptor is socially and morally the superior of the best architect, but this does not alter the fact that architects are trained from the outset of their professional life to consider distribution of masses, grandeur of effect in arrangement, and in outline and proportion, while a sculptor is not taught any of these things. It is quite possible that a sculptor may have an instinctive feeling for beauty of light and shade and silhouette, but so have many school-children, and no sculptor, unless he has had an architect's training, would approach the subject

with any better qualifications for treating it, or any more probability of being able to treat it with success, than an infant of artistic organization. On the contrary, the architect is accustomed to considering sculpture as a part of an architectural scheme, as a mass, or, perhaps, a means of throwing a shadow where it is wanted, or of relief against a shadow behind it, or as a portion of a silhouette. It is unquestionable that sculpture, to produce its proper effect, must be placed in proper relations to other objects, and architects alone, as a rule, understand these relations. Having determined the position, the size, and, to a certain extent, the most desirable pose for the sculpture, the architect turns the rest over to the sculptor, and the latter very rarely has reason to regret following the architect's advice. In the case of the Victoria Memorial the proceedings appear to have begun by reversing their proper order, and it remains to be seen whether this innovation will prove valuable.

M. PLANAT, in *La Construction Moderne*, makes some interesting observations, suggested by an article in *La Vie Parisienne*, in regard to the changes which have taken place in thirty years in architectural styles in Paris, and which, as our readers will see, have been closely followed in this country. Thirty years ago, or a little more, "the tyrant," as *La Vie Parisienne* calls him, was still reigning in France, and Paris, although a centre of speculations quite as wild as those of the present day, was still the residence of the court, which drew around it a class of people long accustomed to wealth, who would have considered themselves degraded by speculation, and lived in Paris because they enjoyed the society of other people like themselves. The traditions of the ancient aristocracy were, at that period, still strong, and, while the new-comers did not care to shut their houses out entirely from the view of the "canaille" in the street, by a court encircled with servants' quarters, they preferred, at least, not to share a tenement with strangers, and built for themselves, as a rule, detached houses, standing in gardens, and usually, with stables, very much in the style of the Delaware Avenue and Euclid Avenue houses of Buffalo and Cleveland at a later period. Multitudes of these charming "hôtels" of the Imperial time still stand, but no more are built, the taste of the present generation of Parisians having, apparently, turned from the aristocratic manners of the Empire to a gorgeous and extravagant form of the tenement-house life which was thought by their fathers to be fit only for "bourgeois"; and the modern architecture of Paris has, in consequence, expressed itself mainly in immense and richly-decorated apartment-houses, with an occasional exception, in the shape of a "hôtel" for some enormously rich man, intended for only one family, but standing in the midst of tenement-houses, and distinguishable from them only by an expert.

WHETHER this change in Parisian architecture indicates a change in the minds of the French people is by no means certain. The true French aristocrat is probably as reserved, and as disinclined to mingle with the common herd, as ever; but Paris, like all other great capitals, is filling up with a thick-skinned, pushing class of very rich people, who see no charm in a little house all to themselves, and long for opportunities to dazzle strangers with their wealth. Such opportunities are more readily available for the dwellers in a great apartment-house than for the inhabitants of a detached house, shut out from the street by a garden or court, and builders and architects have simply to satisfy what they find to be the demand. In this country the same influences are at work to the same end. Even the members of families whose wealth dates from several generations back, instead of secluding themselves from the herd by surrounding their houses with gardens, prefer to build to the street-lines, in many cases making their houses conspicuous by the artistic mistake of adopting a style suited only to structures surrounded by rich vegetation. At the same time that exclusiveness and aristocratic feeling are disappearing from architecture, there is no doubt that the feelings themselves are increasing in the community. The worship of mere wealth has unmistakably diminished, and, while the exaltation of birth which is now fashionable is too exaggerated to be lasting, the increase of the foreign element in this country has tended to bring more closely together the descendants of the original settlers, and to form the beginning of an aristocratic class, the members of which, united by natural sympathy, and by inheritance of family names and traditions, are likely to intermarry more and more,

and to perpetuate, as a characteristic of the class, the refinement of feeling which originally, perhaps, belonged only to a portion of it. With the growth of aristocratic sentiment is likely to be developed a renewed inclination toward aristocratic reserve, and the taste of the next generation will very probably demand, for city dwellings, if not the enclosed court of the Faubourg Saint-Germain, at least a little shrubbery, or fenced grass-plot, to keep the proletariat from flattening its nose against the windows of the family living-rooms when festivities are going on. Whether any such change as this is to be expected in Paris it would be difficult to say. The French aristocracy is not rich, and not very influential in Paris, and, although it is faithful enough to its traditions, those traditions are too well known to have the charm of novelty; while the American aristocracy, when it begins to be conscious of its existence, is likely to assert itself, and to draw fashion after it, in a way of which we have, as yet, little idea.

A FORMER Commissioner of Charities of New York recently delivered an address, in which he spoke of bribery as the besetting sin of this country, and, after citing some rather indefinite examples, asserted that, during his service as Commissioner, a "young architect" came into his office, and offered him a bribe of two-and-one-half per cent if he would have "the contract" for some buildings which the Department of Charities proposed to erect awarded to his firm. As everybody that has anything to do with buildings, from the plumber's apprentice up, or down, is called by orators an architect, we will not undertake to criticise Mr. Faure's assertion, except to express a wish that clearer distinctions could be drawn in such cases between the real professional architect, who invites and receives confidence from his employer, and the irresponsible and ignorant persons who spend their time in campaigns against other people's property, occasionally assuming the name of architects to promote their schemes. That bribery is a great and crying evil in this country we willingly acknowledge, but that architects, recognized as such by their brethren and by the public, have any hand in encouraging the evil we do not believe.

MR. F. C. PENROSE, the distinguished investigator of the Athenian temples, and the discoverer of their extraordinary system of intentional irregularity, visited Greece and Sicily last year, and made some curious observations. Mr. Penrose found, long ago, that the rule of orientation for the early Greek temples is to have the entrance-door in such a position that the first rays of the rising sun, on the morning of the twentieth of June, the longest day in the year, will fall through it upon the statue of the deity, at the opposite end of the room. This rule is evidently a relic of the ancient sun-worship, which seems to have prevailed over Europe, as well as Asia, in prehistoric times. A curious confirmation of this theory was found in a temple recently excavated at Selinus, in Sicily. The axis of this temple was laid out at an angle of thirty and one-half degrees with the equator, which would be the correct orientation for receiving the first rays of the sun at the summer solstice on level ground, at the period of the building of the temple. It happened, however, that the temple was built in a valley, with a hill to the eastward of it, so that the sun could not shine over the hill upon it until it had reached an altitude of about two and one-half degrees above the horizon. By this time it would, of course, have moved also to the southward, so that the first rays actually striking upon the temple would be directed at an angle of about twenty-eight and one-third degrees with the equator. The builders of the temple seem to have forgotten to take this into account in setting out their foundations, which, in default of a magnetic compass, were probably ranged by the stars; and, when it was too late to make a change in the lines, they discovered, apparently, by the actual shadows on the morning of the June solstice, that the first visible rays of the sun were not parallel with the axis of the sanctuary, but made a small angle with it. In consequence of this, as it would appear, the sanctuary of the temple, including a niche for the statue of the god, is built out of centre, close against the north enclosing-wall or colonnade, and in such a direction as to receive through its axis the rays of the sun in its corrected position; and, as if this change was not sufficient to effect the precise accuracy of orientation desired, the pedestal of the statue, the remains of which are still in place, was set a little north of the centre of the niche, bringing it to the exact position which Mr. Penrose supposes to have been required.

BRICK AND CONCRETE-METAL CONSTRUCTION.¹—III.TESTS OF ROEBLING FIREPROOF-FLOORS.²

IN the many tests that have been made by the Roebling Construction Company on concrete-floors as installed by them in modern, first-class buildings, the question that has always received the most careful consideration is the fire-resisting quality of the construction.

Incidental to these fire-tests, however, there have been made a large number of load-tests, which have demonstrated beyond a peradventure the fact that Roebling Standard Floor Construction will meet the requirements of the most exacting building-laws.

2 feet on centres. Underneath this light framework is placed either a permanent centre of stiffened wire cloth or a temporary wood centre, on which is laid the cinder concrete. Such floors are built with spans up to 16 feet, but the long spans are intended for only light live-loads.

With this brief description of forms and methods of construction, the reports of tests which follow will be more readily understood.

TESTS OF FLAT CONSTRUCTION.

Test I. An isolated section 4 feet wide, 8 feet between beams and $3\frac{1}{2}$ inches thick, with framing consisting of $2 \times \frac{8}{16}$ inch bars, 16

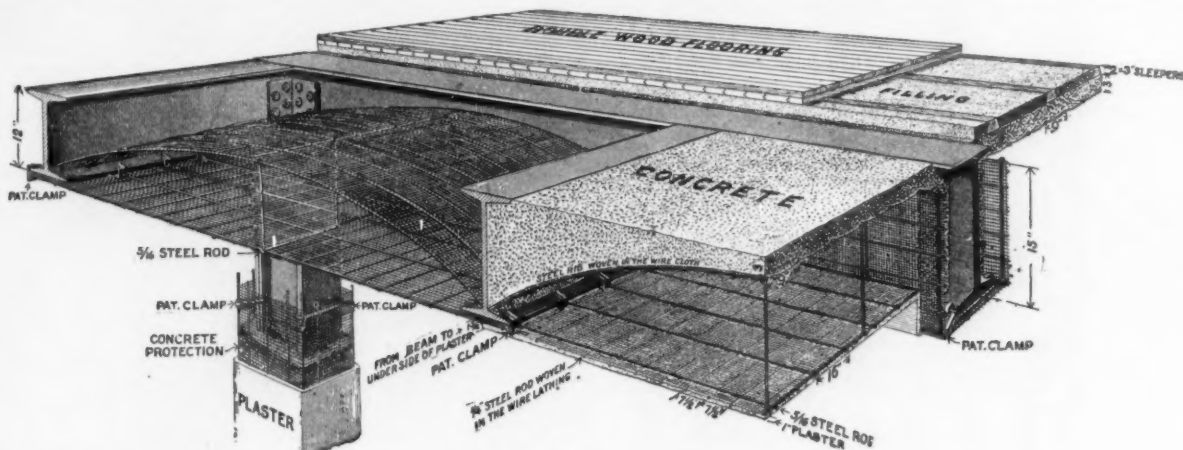


Fig. 1.

As the subject of fireproofing is not the one under consideration, the records that will be here given relate only to the action of the arches tested under load.

The "Roebling Arch" consists of cinder-concrete, composed of one part high-grade Portland-cement, two and one half parts coarse, sharp sand and six parts clean steam cinders, laid on a permanent stiffened-wire centre which is sprung between steel beams.

This wire centre is made of a wire-netting having round steel rods woven in at frequent intervals, the size of rod depending upon the span and rise of the arch. The wire is woven with 4 meshes to the inch in one direction and $2\frac{1}{2}$ to the inch in the cross-direction. The stiffening-rods are curved to the form of the arch, and are made of such length that at each end they project about 2 inches beyond the edge of the netting, so that when the concrete is laid there will be a good bearing of concrete on the lower flanges of the beams. After the centre is sprung between the beams it is held in position by means of rods laid parallel to the axis of the arch and securely laced to the stiffening-rods.

Figure 1 shows such an arch with the cinder-concrete filling in position and with a suspended wire-lath ceiling attached to the lower flanges of the beams. This form of construction is well adapted for use in warehouses where provision must be made for heavy loads. In such cases a modified form of the arch, omitting the level ceiling and completely incasing the lower flange of the beam, is very extensively used. A section of this form of construction is represented by Figure 2, and a photograph showing its appearance when finished is reproduced in Figure 3.

The arch form of construction is somewhat more expensive than many of the lighter forms of fireproof-floors, and, to meet the competition of these cheaper floors, the Roeblings have developed a form of flat construction such as that represented by Figure 4. This consists of a light steel framework imbedded in cinder-concrete. The

inches on centres, was loaded at the centre, the load being placed on a 12-inch plank across the slab. Under a load of 4,000 pounds, which was equivalent to 250 pounds per square foot, the deflection was $\frac{1}{8}$ inch. Under 5,200 pounds, which was equivalent to 325 pounds per square foot, the deflection was $\frac{1}{4}$ inch.

In this test the beams were not held rigidly in place, and the test was not carried to the destruction of the slab.

Test II. On a continuous floor where the span between beams was 9 feet $8\frac{1}{2}$ inches, a room 7 feet 8 inches from wall to plaster partition was loaded up to 106 pounds per square foot. The framing consisted of $2 \times \frac{8}{16}$ inch bars, 16 inches on centres, so placed that the bottoms of the bars were about $3\frac{1}{2}$ inches below the top of the concrete. A brick wall had been built on the beam at outside of building, so that it was impossible to clamp the bars over this beam, as is customary. There was a hole in the floor about 1 foot square, 1 foot from the plaster partition and close to the inside beam. Eight layers of furring-tile, amounting to 106 pounds per square foot, were placed free of walls, partitions and girders, covering a space 7 x 8 feet.

Under this load the deflection was $\frac{3}{8}$ inch. In the original design of this particular building 5-inch beams were specified, which, on 9 feet $8\frac{1}{2}$ -inch span and under a 50-pound live-load, would deflect about $\frac{5}{16}$ inch, which is close to the limit on this span for the safety of the plastering.

Test III. At a building in Montreal where the spans were 15 feet $7\frac{1}{2}$ inches, a section 4 feet 5 inches wide was isolated by cutting with cold chisels. The slab was $8\frac{1}{2}$ inches thick and was framed with $2 \times \frac{8}{16}$ inch bars placed 12 inches on centres. This was loaded with sand in wooden boxes, covering an area 15 feet 2 inches by 4 feet 2 inches. Loads and deflections were as follows:—

With a load of 90 pounds per square foot the deflection was $\frac{1}{2}$ inch.

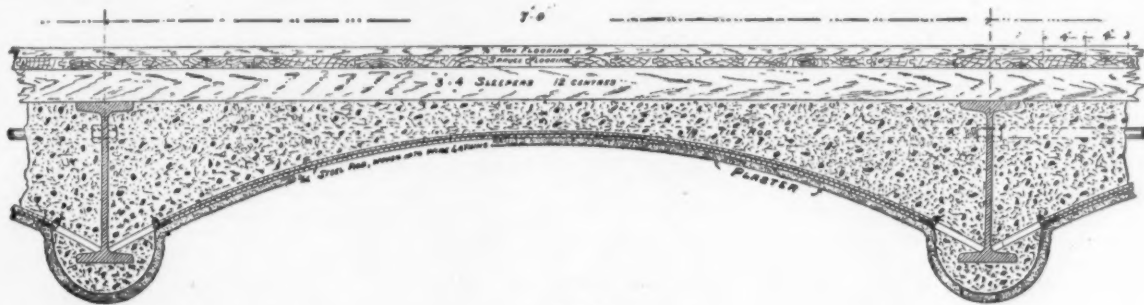


Fig. 2.

framework is built of steel bars placed on edge, twisted at the ends and clamped tightly over the flanges of the supporting I-beams, and braced or bridged throughout by means of steel spacers placed about

With a load of 120 pounds per square foot the deflection was $\frac{3}{8}$ inch.

With a load of 180 pounds per square foot the deflection was $\frac{1}{2}$ inch.

It is interesting to note that under this load a 12-inch beam, designed in accordance with the Boston building-laws, would deflect about $\frac{1}{32}$ inch. The load was left standing one hour, then increased to 275 pounds and left standing over night. The total deflection

¹ Continued from No. 1322, page 30.

² A paper by Andrew W. Woodman, Member Boston Society of Civil Engineers, presented at the meeting of the Society, held October 17, 1900, and published in the *Journal of the Association of Engineering Societies*.

was $\frac{7}{8}$ inch. On removal of the load the floor immediately returned $\frac{3}{16}$ inch, leaving thus a permanent deflection of $\frac{1}{4}$ inch.

Test IV.—This same slab was subsequently tested with a sand load in a 4' x 5' box on the centre of the span.

pounds per square foot. Deflections under this load were not recorded.

Test VI.—The form of construction as described in Test V, with 4-foot spans, was submitted to a five-hour test where the temperature



Fig. 3.

Amount of Sand in Box.	Deflection.
1' 0" high.	Not appreciable.
2' 0" "	$\frac{1}{8}$ "
3' 0" "	$\frac{1}{4}$ "
4' 0" "	$\frac{3}{8}$ "
5' 2" "	$\frac{1}{2}$ "
5' 8" "	$\frac{3}{4}$ "

This amounted to 10,170 pounds, or the equivalent of about 300 pounds per square foot. The load was left standing twenty-four hours, after which time, as there was no further deflection, it was removed.

TESTS OF ARCH-CONSTRUCTION.

Test V.—A floor forming the top of a brick fire-test structure 11' x 15' inside was first fired, then drenched with water from a fire-hose and then loaded. The arches were 10 inches deep, 3 inches

reached 2,300° Fahr. as a maximum. The centre arch was loaded with 150 pounds per square foot before the structure was fired. A fire-stream from a $1\frac{1}{2}$ -inch nozzle, under 60 pounds pressure, was applied after five hours, at which time the temperature was 1,950° Fahr. Ceilings and walls were wet for fifteen minutes, then the top of the floor was flooded for seven minutes, after which time the fire on the grates was quenched. After the fire-test the centre bay was loaded with 600 pounds per square foot, with a resulting deflection of $\frac{1}{2}$ inch.

Test VII.—A section of arch that was in the five-hour fire-test previously recorded was subsequently loaded with a view to determining its ultimate strength. A portion of the arch 4 feet long was isolated by cutting through the concrete and the centre space 2 $\frac{1}{2}$ ' x 4' was loaded. The beams supporting the arch were shored up to prevent deflection. The deflection of the arch was measured under various loads.

Under 10,500 pounds it was .06 inch.

Under 19,900 pounds it was .2 inch.

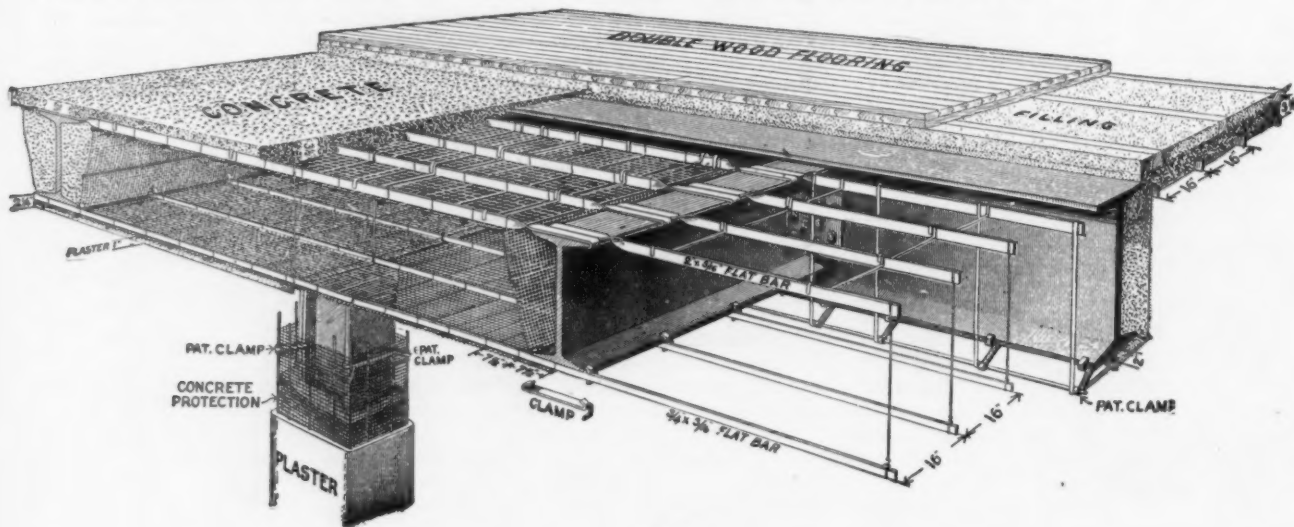


Fig. 4.

thick at crown, on 10-inch I's, 3 feet 10 $\frac{1}{2}$ inches on centres. The centre one of three bays was loaded with 150 pounds per square foot and the structure was then fired. Temperatures ranging from 2,000° Fahr. to 2,550° Fahr. were recorded after the fire was well under way. After two hours the fire was quenched with a stream of water, and on a subsequent day the centre arch was loaded to 186

Under 24,420 pounds it was .245 inch.

Loading was continued until the pile was about 12 feet high, weighed 40,550 pounds, and was becoming unstable, owing to the small area on which the load was supported. Three men then went on top of the pile to commence unloading. At this time, under a load of about 41,000 pounds, or 4,100 pounds per square foot of

loaded area, the deflection of the arch was $\frac{3}{4}$ inch. After the load had been removed it was found that the permanent deflection was $\frac{1}{8}$ inch.

Test VIII.—A 5-foot Roebling arch on 10-inch beams, 12 feet long between brick walls, was loaded in the centre with 10,000 pounds of pig-iron placed on an area of 7 square feet and subjected to a fire-test. Alongside this arch was a similarly loaded tile arch of 10-inch hard-burned terra-cotta, made from material that had been delivered at a building in course of erection. At the expiration of four hours and five minutes the 10,000 pounds of pig-iron fell through the tile arch and stopped the test.

Test IX.—A 5-foot Roebling arch 14 feet long was built alongside a 5-foot arch of 8-inch semi-porous tile, and each arch was loaded with 150 pounds per square foot. The fire-test lasted three hours and sixteen minutes, after which time the tile arch collapsed.

The deflections previous to failure of tile arch were 3.65 inch on the tile floor and 1.4 inch on the concrete floor.

Test X.—Sections of arch 12 inches long were cut from the floor, tested as described by Test IX, and loaded by means of a hydraulic cylinder on the centre of arch. One section failed at 3,000 pounds, and a second failed at 3,200 pounds. A section of the same floor 46 inches long, and similarly loaded, broke under a centre load of 11,900 pounds.

Records of other tests describing the action of Roebling arches under various conditions of loading might be given, but the limits of this paper will not permit. Such as are herein given relate only to strength, and omit much that from the stand-point of fireproofing would be of great interest; but it is hoped that these will suffice to demonstrate the suitability of Roebling floor-construction for modern building-work, so far as the question of strength is concerned.

The use of the Roebling arch in bridge-floors has never received much attention, but from the report on the strength and cost of the brick and concrete arches described in the paper on "Tests of Brick and Concrete Arches," it would appear that the field might be entered with advantage.

[To be concluded.]

ROMAN REMAINS AT BATH, ENGLAND.

ANCIENT Bath was variously called *Aquæ Solis*, *Fontes calidi*, *Therma*, *Badonia*, *Bathonia*, *Balnea*, *Badonessa*. A few fragments of a supposed Temple of Minerva remain; a tympanum, three portions of a frieze, fragments of columns and capitals—mostly rough in workmanship. Horns and skulls were found where these remains were dug up, and a large number of slabs, votive altars, etc. Vandalism was recorded by the chroniclers of the 1755 discoveries, Lucas, Sutherland, Warner, Scarth and Pownall; and now, since 1877, the City Architect and his supporters not only take great pride in their "discoveries," but they have trundled numerous interesting fragments into a space behind the Great Bath, which they are pleased to call a museum, and have erected a "Roman Promenade" round the old bath, the shabby pillars which support it being started from the bases of the Roman ones. Surmounting these pillars may be seen some statues of the Cæsars, by some stone-mason, of the character of the statuary in the Euston Road, London. More space was required for the modern luxurious bathing-establishment, and so the Roman bath had to be sacrificed, though we see no logic in the argument, as the great vandalism is not the superstructure of the new baths and concert-room (a very fine building, by the way), but the aforesaid terrace-promenade and sham Roman statuary. And in spite of appeals from such men as the late E. Freeman, the Society of Antiquaries did not stir until too late. Surely such power as this ought not to be in the hands of municipalities and local architects. In 1755 great discoveries were made which are now only a memory (they were described by Lucas, and in 1822 by Spry); and now, since 1877 the newer discoveries have been shorn of almost all their interest by municipal meddling for the sake of an effort to make Bath a rival of Aix-les-Bains and other foreign bathing-establishments. *En parenthèse*, one might suggest that the first step towards this desirable end would be a change of climate.

During the restoration of the Abbey Church, a Roman culvert was discovered, and further excavations proved that it had been used for carrying off the water from what is now the King's bath spring. On removing the floor of the latter, the demolishers came upon a wall 3 feet in diameter built upon solid stone. Further excavation proved this to be the Roman reservoir, about 10 feet deep and 40 feet in diameter. The inner part was lined with lead varying from $\frac{3}{4}$ to 1 inch in thickness. This lead (20 to 30 tons) was "removed" says the City Architect, "and sold to defray in part the cost of the excavation." A concrete floor was then erected to support the King's bath. Many interesting fragments were discovered in this bath, as well as hazel-nuts, quantities of bones, nails, timber and blocks of stone.

The enclosure forming the Great Bath is 111 feet 4 inches long by 68 feet 6 inches wide. There are three recesses on the north side (*exedrae*) having had seats for the bathers. In one plaster is a mortise-hole, and in another a slot, supposed to have been used for a rail upon which to hang the bather's clothes. The platform round the bath is 14 feet wide. Six steps lead down to the water. The bottom of the bath was lined with lead 5 feet by 10 feet square, and of some 30 pounds weight to the square foot, laid on a layer of brick-concrete placed upon solid masonry 1 foot in thickness. As to the amount of roofing the bath had, there is no evidence. The side-aisles

of the bath were arched, and probably covered with tiles, many of which remain in the water. A metal mask was found in some of the débris, at first supposed to have been Saxon (!) very similar in character to the Mycenæ gold mask, lately seen in Paris. Some tablets were also discovered and given over to Prof. Sayce and Prof. Zauggmeister, of Heidelberg, to unravel. The Englishman read it as a formula for the water cure, which was certified by three Roman medicine men; the German pronounced it to be a curse upon a man who had stolen a table-cloth, a guest at the banquet! Even archaeologists differ. Metal vases and cups, bronze ornaments, animals' tusks, an ivory comb, rings, coins, etc., were also found. In the deposit of mud at the bottom of the bath tiny little shells were also found, fresh-water shells such are now found in the deposits of the River Avon.

If the photographic illustrations are compared it will be seen that the new work has in a great measure hidden away the ancient remains. Formerly the public had the opportunity of looking over the fence into the bath; now the right to see the Roman bath is exclusively held by the bath authorities, who charge a small fee every time one wishes to enter the precincts.

In the centre of the water may be seen some flat tiles which were a part of the roof in Roman times. In the lower left-hand view the Roman culvert of lead is on the left of the ground. The fragment of an animal represents a lion.

From time to time portions of a temple to Minerva, the forum and other Roman buildings have been discovered; these are mostly behind the bath, but a few remain in the Literary Institute. These latter are Roman altars, a Corinthian capital (placed upside down!) together with some stone coffins of Norman and Saxon origin, portions of clustered columns, fragments of capitals and ornaments of various periods, all huddled together under the flooring of the Institute in a sort of cloister, and in the garden thereof—dirty, grass-grown, uncared for. A large monumental slab which must once have been a fine specimen torn from some tomb, having an incised cross and legend round the edge, is smashed into several pieces, moss-grown and exposed to the weather in the garden. The whole collection is in a disgraceful condition of neglect, and the only frequenters of this part of the museum are a few marauding cats.

At the Roman Bath Museum there is a large, rather rudely sculptured head, called by some a *Medusa* by reason of the wings and snakes in the hair, and an owl at one side. But the face is moustached, evidently that of a man, probably a river-god; and as the Bath river (the Avon) is full of eels, may not these be emblems of the local river divinity?

S. BEALE.



DELAYS.

LIQUIDATED damage Clause a Question for the Jury.—Where, in an action to recover damages retained for delay in completing a building under a clause of the contract providing for liquidated damages, the evidence puts in issue the intention of the parties in using such clause, the question of the intention of the parties is to be determined by the jury, and not by the court.

[Kelley vs. Feejervary, 83 N. W. 701.]

Per Diem Damages do not Apply to Abandonment.—Provision, in a contract to furnish stone for a building, that, if the contractor fails to fully perform it by the time stipulated, he shall pay, as liquidated damages, \$50 for every day he shall be in default, does not apply to a case of utter abandonment of the contract by him.

[Gallagher vs. Baird (N. Y.), 66 N. Y. Supp. Rep. 759.]

Contractor must explain Unreasonable Delay.—A contractor's delay of fifty-one days in completing alterations in a building, after the expiration of the three weeks within which he agreed to make them, is *prima facie* unreasonable, and places on him the burden of proving that the conditions justified such delay.

[McLaren vs. Fischer, 61 N. Y. Supp. Rep. 808.]

When Contractors cannot recover for Delay.—Building-contractors cannot recover damages for being delayed in the execution of their work by the owner of the property, if they have acquiesced in the manner of doing the work and consequent delay, without clear and satisfactory proof of the damages they have sustained.

[Atl. & D. Ry. Co. Del. Const. Co., 57 S. E. 13.]

Liability for Damages when Building is not Ready for Contractor.—Where a party agreed to plaster a building within four weeks from the time of receiving written notice that the building was ready for plastering, a complaint which alleged that on notice that the building was ready the complainant incurred a large expense in transporting a number of men to begin the work, when the building was, in fact, not ready, stated facts sufficient to constitute a cause of action for breach of contract.

[Brown vs. Langner (Ind.), 57 N. E. Rep. 743.]

Owner Liable for Delay of Superintending Architect.—If the architect employed by the owner to superintend the erection of a building, who is to direct the work, and is by the contract made the arbitrator as to its proper performance, delays the contractor unreasonably in

his work for the benefit of the owner or other contractors, and by allowing other contractors to obstruct the work renders it necessary for the contractor to do it in an unusual manner, which adds largely to its cost, the owner is liable to the contractor for the loss resulting.

[*Del Genovese vs. Third Ave. R. Co. (N. Y.), 57 N. E. Rep. 1108.*]

Owner Liable for Damages of Delay after Payment of Contract Price.—Where a contractor has sustained damages by delay in the prosecution of his work caused by the owner, his receipt of the stipulated contract-price for the performance of his contract is not a waiver of his right to proceed against the owner for the damages sustained by the violation of the agreement.

[*Weeks vs. Rector, etc., 67 N. Y. Supp. Rep. 670.*]

When Architect acts in Bad Faith.—Under a building-contract providing that the contractors shall pay \$15 a day for delay in completing the building, except that where delay was occasioned by certain causes additional time should be allowed, but no such allowance should be made unless an application in writing was presented to the architects, who should award the amount of the additional time, the contractors are not liable where the architects' refusal of additional time was in bad faith.

[*McDonald vs. Patterson, 57 N. E. 1027.*]



THERE is no questioning the amount of good that is done by the wandering amateur photographer, ever on the go, and making errant records of his wanderings that bring into touch with the scenes he has witnessed on the ground-glass and the people he has encountered whoever has the good fortune to look over his collection of prints. Generally speaking, these records, while entertaining and delightful, are, as a rule, merely an undigested and unorganized collection of momentary artistic impressions, and nine-tenths of the views have no other value. Now and then, however, an amateur takes up his wanderings with a purpose, and specializes his subjects, so that his collection of negatives, by sheer force of classification, really adds a distinct something to the sum of human knowledge. In no other walk, perhaps, can the amateur photographer do so much good, and so easily make a welcome and valued contribution, as in the domain of architecture, and, considering how easily it can be done, how fascinating an occupation it is, and how greatly a definite purpose adds to the zest of seemingly random pleasure-travel, it is strange that architects who are also amateurs of photography have done so little in the way of using their cameras in developing a single line of investigation or observation while "doing the Continent." At any rate, if many have done such a thing, few have taken the public into their confidence through the publication of their "shots."

Amongst the few architectural amateurs who do use their cameras with purpose and understanding is Mr. W. Galsworthy Davie—who, by the by, has recently made for us some very interesting views of Georgian work in England which have just appeared in the Eighth Part of "*The Georgian Period*"—who recently made a trip through the English counties of Kent and Sussex,¹ for the purpose of making an inquiry into the character of the cottages and farm-houses in these counties, occupied, we suppose, by men of what we understand to be the yeoman, rather than the more lowly agricultural, class. Even in this case, his classification seems not to be a very close one, for we find he includes besides the isolated farm homestead many cottages that are evidently to be found along the village street, and just as evidently are the homes of shopkeepers or mechanics rather than of agriculturists. However, this does not materially matter; the structures he presents in his hundred plates are all interesting, most of them picturesque, many have real architectural value, and hardly one which could not be boldly "conveyed" by some American architect and made to do honor to his prowess as a designer of homely picturesqueness, and also add to the attractiveness of the neighborhood where it was set down.

As might be expected, these rather lowly houses, like all dwellings in England antedating the present generation, are distinctly homely in aspect, and, curiously, their homeliness has for the American eye so curiously familiar, even domestic, an air, that it is hard to believe that some of these views have not been taken in some fishing-town on the eastern coast of Massachusetts; there is a very Cape Ann-y flavor to the plate that shows the King's Head Inn, at Sissinghurst, in Kent, and one could almost safely swear that the shingles on the walls and steep-pitched roofs had grown gray in the salt east winds blowing over Massachusetts Bay, while another view taken in the same village shows, or seems to show, one part of the cottage-wall clap-boarded while another part is shingled—quite in the American manner, while the roof cants off behind with the long-legged pitch which is so common a feature of New England farm-houses. We say these views "seem to show" shingled walls and roofs, and a photograph could not show shingles that look more like shingles, but the fact is, that the walls are hung with tiles, and what we took in the view of

the Seven Stars Inn, at Robertsbridge, Sussex, to be round-butted shingles are merely flat clay tiles. There can be no question, though, about the clapboards, or weatherboarding, and it is interesting to find wood used on the outside of an English house in other form than for the upright cross-piece and braces of the black-and-white half-timber work.

When one sees how heavily these little roofs are weighted, one cannot wonder that the lines of the building, sooner or later, acquire picturesque curves and inclinations: for example, here is a little house—Stonehill Farm, at Chiddingfold, Sussex—originally covered with tiles or slate of great size, so large in fact that when, at different times, the roof has been patched, the smaller modern materials used are laid four courses to each single course of the original covering.

While a quarter of the plates shown might be essentially duplicated by American structures a hundred years old, there are others which are unmistakably non-American. Although thatch was once used in New England, we doubt if a thatched roof—save a garden summer-house, perhaps—can be found in the whole country, while the English cotter in the twentieth century finds no anachronism in having his thatched roof not so very far away from the ubiquitous railway and its imperilling sparks. The thatched-roof structure is clearly non-American, and so, too, are the half-timber structures with pargeted panels that show their antiquity on their face, so different from the thin and machine-made-looking structures that in this country pass for half-timber work—the most apparent and miserable shams that the half-bred American designer has ever dared to inflict on a patient public. Besides these, the stone-built houses shown are distinctly non-American in air and seeming; but, in spite of this, there is a general lack of foreignness about all these little buildings which to us is one of the most charming features about this very attractive little publication. While the book is essentially a picture-book, though an architectural one, the two or three dozen pages of notes which Mr. E. Guy Dawber prefixes to Mr. Davie's hundred plates contain a good deal of matter of professional interest.

ALTHOUGH we do not have thatched cottages in this country, such thatched structures as are shown in Mr. Davie's plates might be set down on almost any countryside in the United States without seeming to the observer to be strikingly out of place and foreign to the habits of the people. This cannot be said, however, about the thatched structures shown in the plates of another publication² that has just reached us. It would take a bold American to house his family and his property under such a mountainous heap of inflammable material as covers the houses of the peasants and small farmers in the Schwarzwald and many other parts of Germany, and the fact that there is a danger, even in a country where proper forestry-laws keep the forest-floor free from brushwood, and so prevent forest fires, is shown by some views where on the same roof the original thatch has in sections been replaced with a covering of tile. Curiously, these new tile-covered sections seem to be found most needful where the chimney pierces the roof, as if in that country the incendiary chimney-spark always dropped within three or four feet of the chimney rather than a dozen feet away from it. It is not every one of these houses, however, that has a chimney. In many the fire is laid on the open hearth, sunk in the middle of the kitchen floor, and the smoke from the fire—not very great in quantity in a country where charcoal is largely used—is allowed to filter through the thatched roof overhead into the open air as best it may.

Very picturesque and comfortable, too, and homelike are these German farmsteads, but, as the single structure stands amid its cultivated surroundings, one cannot help wondering whether the farmer cares only for his own family, and leaves his stock exposed to the weather at all seasons. But the German is neither unkind to his beasts nor forgetful that his prosperity depends upon their well-being, and the plans of many of these structures show that, if anything, he favors his beasts to the prejudice of his own family, for, sheltered beneath the one enormous roof, we find men, women and children, horses, cattle and goats—even pigs, share the shelter, for, though the sty itself is outside the house-walls, the roof is run down so as to cover the sow and her piglets. It is a patriarchal arrangement, but, as it is generally large and airy and, besides, neatly kept, the house of the German peasant-farmer is a very different place from that of the Irish cotter, who shares his roof-tree with his donkey, pigs and hens. Doubtless, this arrangement of plan is economical of space and saving of the time of the head of the family and his men, and, as the animals are constantly under the eye of their proprietors, they should be better cared for and greater income-producers than farm animals cared for as in this country; but we question whether Yankee farmers would care to adopt the plan, greatly as their help would prefer to be able to roll out of bed and merely go to another part of the same warm building to do their morning chores rather than to plow waist deep through a furlong's length or so of snow to a cold and draughty barn.

FIGHTING WATER WITH FIRE.—Fighting fire with water is common enough, but fighting water with fire, which has been resorted to in Maine, will strike most people as novel, not to say startling. At Ellsworth a building behind which the floating ice was accumulating in such a way as to threaten an important bridge with destruction, was burned down by the order of the mayor, to break the jam. The experiment was successful and the bridge was saved.—*Boston Transcript.*

¹"*Das Bauerhaus*" in Deutschen Reiche und in seinen Grenzgebieten. Herausgegeben vom Verbands Deutscher Architekten- und Ingenieur-Vereine. Dresden: Gerhard Kuhnmann. 1901.

¹"*Old Cottages and Farm-houses in Kent and Sussex*," illustrated in one hundred plates printed in colotype from a special series of photographs taken by W. Galsworthy Davie, with some descriptive notes and sketches by E. Guy Dawber, Architect. London: B. T. Batsford. New York: Longmans, Green & Co. 1900. Price, \$7.50.

RODIN IN 1900.

POSSIBLY, a vast number of folks who tramped over the Paris Exhibition omitted to invest an extra franc upon M. Rodin's Pavilion at the Place de l'Alma. It was a pity, for there were displayed numerous works by the great sculptor, finished and unfinished, as well as sketches in crayon and plaster.

M. Rodin's studio is not a princely place—it is a workshop; no stuffs and bibelots, no elegant furniture; he himself looks like an ordinary workingman. Nor is he ashamed of his blouse, bespattered with clay. And so he arranged his pavilion in the same ascetic style.

The central object in the hall was the far-famed "Porte de l'Enfer." His earliest scheme for this was action, violent action—a rock upon which many a painter has been wrecked; and if so, how much more likely would it be for a sculptor to come to grief, violent action being unsuited to bronze and marble. And yet one may cite an exception to this rule in M. Boulanger's "Runners" ("Au but" I think it was called), which we had the pleasure of seeing again in last year's Exposition Centennale.

M. Rodin's theory used to be that "eloquence in sculpture consisted in movement"—now he says, "in modelling." But the "Porte de l'Enfer" grew out of this desire for movement, such violent movement as we find described by Dante—the rushing wind which wafts the miserable Paolo and Francesca through the clouds.

M. Rodin's first idea was to keep rigidly to the poet's text, which gives such a motive as Minos grinding his teeth while judging the iniquity of the damned, and condemning them by a twist of his tail. In the clay sketches you see every species of lost soul and every variety of horror as imagined by the poet—heretics plunged into fire; thieves stung by serpents, suicides tortured on trees—as if the mental anguish which leads to self-murder do not expiate the deed! Ugolino, Judas and Lucifer, all sorts of types inspired Rodin to interpret Dante's catalogue of terrors. But though such ideas are possible in poetry, they cannot be thoroughly realized in sculpture, however much of a poet the artist may be. And so M. Rodin found out. Some of the earlier figures and groups remain in the present composition, such as that of Paolo and Francesca in the act of falling into hell; and Ugolino, as in Canto 32, 33, with all Dante's wealth of horrors—the son who feasts upon his brother; the gradual starving of the boys, and then of the father—hunger he depicts more powerfully than pain. How could this be expressed in bronze?

As we see it now, the upper part of the gate has three shades with outstretched arms: "All ye who enter here, abandon hope." Dante is sitting below assisting at the unrolling of his dream. On each side the shades arrive and are judged and condemned to the different circles. There is wonderful power in the attitudes and expressions of these figures—Dante guiding the idea rather than being illustrated by the artist. There is every imaginable attitude that the human form can (or cannot) assume, every imaginable expression that it is possible for a human face to don. The movements are unconventional in the extreme.

It was the "Man with the Broken Nose," refused at the Salon of 1864, which made Rodin's reputation. He may be called a realistic exponent of the ideal. With him Nature is everything, beauty is everywhere, if only the artist knows how to see it and make use of it.

"Genius and Poetry, with the Muses breathing Inspiration"; "Les Châtiments"; "Voix intérieures"; "Feuilles d'Automne"; "Chants du Crépuscule"; such are some of M. Rodin's most poetic groups. Better known, however, than any of these is the grand and dignified "Burgesses of Calais," the most characteristic of all the artist's works, one of the most unconventional groups of sculpture that the world of art has ever produced. To sum up in the words of a fellow-artist, Eugène Carrière: "He is a being who is in intimate communion with all the forces of Nature"; and we may add, a being whose work is essentially monumental.

PENGUIN.



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

"WHITEHALL": HOUSE OF H. M. FLAGLER, ESQ., PALM BEACH, FLA.: TWO PLATES. MESSRS. CARRÈRE & HASTINGS, ARCHITECTS, NEW YORK, N. Y.

THE OLD ROMAN BATH, BATH, ENG.

For description see article elsewhere in this issue.

[The following named illustration may be found by reference to our advertising pages.]

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[Additional illustrations in the International Edition.]

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DETAILS OF "WHITEHALL," PALM BEACH, FLA.: TWO PLATES.



[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.]

ELEVATOR DOORS.

BUFFALO, N. Y., April 30, 1901.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Your editorial in April 27th issue on "Elevator-doors, etc.," has several misstatements of fact as you claim a certain "strong spring, etc., is the only way"—that problem is not likely to be solved how to prevent persons getting half in or out while car is starting, etc.

As a matter-of-fact, an extremely simple device unpatented, invented by a prominent Boston inventor, which makes it impossible to start a car until the door is closed, and impossible to open a door until the car has stopped at the door. This has been in use some eight to ten years, is cheap, and of several hundred opinions on it I have heard none that could criticize it any way.

A door in the moving-car itself will, of course, prevent a passenger getting against the side of the shaft while the car is in motion. Such doors are in common use, and, meeting the first part of the proposed Massachusetts Law, completely render the other parts of the law as to shafts being flush with car, etc., unnecessary, or say, inoperative.

Yours, E. A. KENT.



MASPERO'S WORK IN EGYPT.—The *Revue Bleue* gives an exhaustive account of the work accomplished at Karnak, Thebes, under the auspices of the French Government and the direction of the well-known Egyptologist, Maspero. The task undertaken was nothing less than the restoration, so far as possible, of the great hall and of the courts that surround it. Many of the massive columns, some of them composed of stone blocks weighing as much as ten tons, have been raised and put in place, the avenue of sphinxes has been put in some sort of order, debris that covered the courts to a depth of 20 feet has been cleared away, and a mountain of fragments of columns, obelisks, and statues has been placed in safety for future restoration. A railroad has been constructed for the purpose of the work, which employs several hundred men and will require years to complete. As fast as fragments are unearthed from the sand they are photographed and numbered. A careful study of these photographs enables the experts to identify the fragments that belong together. By some process not yet understood immense blocks of stone that once constituted complete monuments were scattered over so wide an area that the labor of assembling and testing them would be enormous. All such experimental work is saved by photography. The director in charge, M. Legrain, thinks that nothing but an earthquake or an extraordinary flood can account for such complete destruction of monuments compared to which the most massive constructions of modern times are but flimsy affairs. — N. Y. *Evening Post*.

SEPTIC TANKS FOR VARIABLE REST-PERIODS.—The septic tank has quickly taken the popular fancy, and there appears to be a general impression now that any tank—closed or open, shallow or deep—can be turned into a septic tank for the purification of any kind of sewage. The dread of the microbe has been succeeded by a staunch confidence that it will always perform its self-imposed life-task of destroying the sewage and also all obnoxious members of its own family into the bargain. In describing a new kind of septic tank, which has been just introduced at Holland, Mich., the *Engineering Record* of March 16 quotes an amusing example of this wonderful trust in septic tanks. Some village proposes to place its septic tanks in a public park, overlooking a beautiful lake, and to floor them over and provide seats for the thus-created public playground. The enthusiasm has arisen because experimenters have been pleased to chronicle their success, but reluctant to publish accounts of their failures. There have certainly been many failures, and of two practically identical plants, one may prove a success, the other a failure, without our being able so far to point out the actual reason. Messrs. Alvord and Shields, sanitary engineers, of Chicago, constructors of the new tanks mentioned, give a brief account of their experience of convincing fairness. The first season, they say, the tanks were thought a simple affair; the second season it was concluded that nothing was known about their operation; the third season it was realized, in humbleness of spirit, that something was being learned. Every sewage has its proper effective rest-period, and that period depends upon the strength and condition of the sewage, its quantity, and temperature. When the rest-period is unduly prolonged, the sewage may become offensive, owing to the preserving of some anaerobic bacteria by their own toxins; if it is too short, the

effluent will still resemble the original sewage, and will become offensive, too, on re-exposure to the air. A high temperature accelerates the purification, a low temperature retards it: it will hence be advisable to roof the tanks in order to keep the temperature fairly constant. Tanks of adjustable capacity and rest-period will be an important improvement, and that is the chief novelty of the tanks in question. The originators call them "elastic tanks." The term hardly suggests what it is to imply, tanks provided with partitions, troughs, and gates so arranged that the rest-period may be varied through wide limits. The new tank in Holland, Mich., completed in December last, is built of wood, its dimensions are 14' x 100', with a depth of 6½ feet below the flow-line; the tank is located on marshy ground; the effluent passes into the Black River. There was some difficulty about the foundation. Sand was spread on the marsh in a layer of 2½ feet, and upon this sand a double planking of hemlock was placed; the stringers of the tank proper rest upon this foundation. The tank is lined with pine-planks and roofed-in with galvanized-iron. The sewage first enters into a grit chamber, holding 6,800 gallons, occupying 10 feet of the tank length, which beyond the chamber is subdivided into three longitudinal compartments, each of 18,500 gallons' capacity. The sewage may pass through any or all these compartments in either direction, an arrangement which should facilitate the cleaning. From the central compartments, the sewage falls over an aerating weir into a chamber of coke. The article is illustrated, and the gates, etc., are shown. The total capacity of the tank is 63,375 gallons; it may be varied by this arrangement, and for further variations the width of the central compartments might be made different. It will be interesting to watch whether the constructors will be able to report success. — *Engineering*.

THE RIGHT OF A CITY TO DECORATE ITS PUBLIC GROUNDS.—The power of municipal authorities to erect large and expensive monuments and memorials in public parks, and the way in which such memorials "serve a public purpose," though they are not necessary to the citizens, was discussed recently by the New York Appellate Division of the New York Supreme Court in the case of *Parsons vs. Van Wyck* (56 App. Div. Reports, 329). This was action by a taxpayer to restrain the mayor and other officials from erecting, at a cost of \$250,000, a soldiers' and sailors' memorial monument about 120 feet high on one of the most sightly portions of Riverside Park which overlooks the Hudson. The taxpayer asserted that inasmuch as the park was acquired by the city under terms that it was to be "kept open for a public place forever," such a structure taking up considerable ground-space and rising so high in the air, materially deprived the public of free and complete enjoyment of ground, light and air in the park territory; and, further, that the officials had no right so to expend money raised by taxation for the reason that the money would not be spent for a "city purpose." The Court decided that the monument would not materially interfere with the proper use of the park, and also that the money spent in building it would be expended for a proper city purpose. The Court, after noting that cities should spend money not only for public necessities, but also in providing parks with "necessary adornments, and resorts of health and recreation and museums, botanical and zoological gardens intended for educational purposes," was of opinion that funds might also be spent for other objects which "tend to beautify the city and to contribute to the comfort, health and convenience of the entire people." Commenting on the growing tendency of municipalities to engage in enterprises calculated for the well-being of the citizens—as, for instance, the assistance being rendered by New York in the construction of the underground road—the Court said: "In the same liberal spirit, we think the erection of a beautiful monument or memorial is serving a public purpose. It is not only an expression of patriotism; it contributes to the education, the pleasure and the cultivation of the artistic sense of the citizens." Accordingly, the Court stated that it believed the monument would result "not only in an incidental but an actual benefit to the community, and that the expenditure for such an object is for a city purpose." This decision is in harmony with the Massachusetts decision in *Kingman vs. Brockton* (153 Mass., 255) that the erection of a hall in Brockton as a memorial for sailors and soldiers was a public purpose for which money could be raised by taxation. — *Boston Transcript*.

ORIENTATION OF GREEK TEMPLES.—A recent paper, read in abstract before the Royal Society, gives an account of six Grecian temples, of which the orientation has been examined or re-examined during the year 1900. The grotto sacred to Apollo in the Isle of Delos in orientation appears to have been connected with a zodiacal star, and the date of its formation derived from this points to the year 1530 B. C. It is believed on other grounds to be the very earliest existing structure of a religious character on Greek soil, and the ancient date derived in this manner interestingly verifies the belief. At Delphi, where the clearance of the site by the French archaeologists gave a better opportunity of examining the temple of Apollo, there is evidence that the orientation of the temple has been changed. The first orientation leads to the date 950 B. C., and the latter to 580 B. C. The stones of a previous temple or temples are found in the existing foundations. The most interesting example, however, in the whole series is found in a Sicilian temple, lately unearthed at Selinus. There is distinct evidence to show that the temple had been erected with a mistaken orientation, and that, subsequently, to conform to the religious requirements, the statue of the deity and its pedestal were placed in a position different from that first intended, and where they were illuminated by the first beam of the rising sun. Its date is about 600 B. C. — *Robert K. Duncan in the N. Y. Evening Post*.

FREE GOVERNMENTAL DISTRIBUTION OF TREES.—Next spring the Secretary of Agriculture will distribute throughout the country young trees, as well as garden seeds. Authority for this new departure was secured at the recent session of Congress and an appropriation was made in the regular budget for the coming year. The garden-seed distribution has been the subject of no end of ridicule and there is no doubt

that a great deal of money is wasted in that way, but it is, nevertheless, one of the most popular features of our paternal Government, and members of Congress recognize its political importance to such an extent that no arguments can induce them to abolish or abridge it. The distribution of trees, however, is Secretary Wilson's own idea. The people of this country have been cutting down the natural forests with so much recklessness that it has become necessary to start artificial ones. The Division of Forestry of the Agricultural Department has made a survey of the country, and has ascertained the particular trees which thrive best and are most useful in each locality. According to the programme for the distribution of trees, next year a given number of seedlings will be allotted to each member of the House of Representatives, who will be asked to furnish a list of constituents to which he would like to have them sent. The Agricultural Department will do the rest. The seedlings will be grown in the propagating houses and forwarded to their destination with specific instructions as to how they should be planted and cared for. In this way, Secretary Wilson expects to start several millions of trees growing throughout this country every year. — *The Chicago Record-Herald*.

THE WAR DEPARTMENT AND THE CHICAGO DRAINAGE-CANAL.—The order from the Federal authorities that the flow of the Chicago River be reduced from 300,000 cubic feet to 200,000 cubic feet a minute means that the \$31,000,000 expended by the city of Chicago for the drainage-canal has been for naught up to the present time. The plan of the canal was to intercept all the sewers which formerly led to the lake and contaminated the drinking-water of the city, and carry the sewage in the opposite direction by means of the Lockport Canal to the Desplaines River, and thence to the Mississippi River. By the material reduction of the current the plan is made impracticable. The natural flow of the river will carry the sewage back to the lake, and thereby place the city in the same position in which it was before the construction of the drainage-canal. The question now is, Are the shipping interests of Chicago, which will be materially benefited by the reduction of the flow of the river, to be considered ahead of the public health? While there is nothing for the Drainage-board to do at present except to obey the instructions from Washington, all hope that the canal will be widened in accordance with the Bill which the Board has submitted to the Legislature. With the proposed improvements it is thought that it will be possible to maintain the normal flow of the canal without detriment to shipping. — *N. Y. Tribune*.

SNAKES AND THE CELTIC CROSS.—The form of cross known distinctively as Irish, and consisting of a circle surrounding and binding together the head of the cross, is in all probability but a representation of the ancient Milesian standard—a serpent twisted about a crossed staff. Such crosses, rudely wrought in stone, have been found in pagan cemeteries, and are probably relics of the Serpent Worshipers. The form, which is a very beautiful one, was retained by the early Christians with many other memorials of paganism. Upon these crosses the most beautiful and intricate sculpture was subsequently lavished; specimens fortunately remain to us in the celebrated Cross of Cong and those of Monasterboice, one of which is 27 feet in height. A monkish manuscript informs us that the body of the cross represented salvation and the circle everlasting life; but this was also symbolized by the serpent, of which the circle was undoubtedly a pagan representation. — *April New Lippincott*.

THE SCARCITY OF DWELLINGS IN PRUSSIA.—The Prussian Government has sent a circular decree to all provincial authorities and to the municipality of Berlin regarding measures recommended to lessen the scarcity of dwellings throughout Prussia. The decree advises that communities should erect at their own risk cheap dwellings for employes, the laboring population, and persons of relatively small incomes. It also urges electric-lines for quicker suburban communication, and mentions a number of legal steps that would hinder excessive real-estate speculation, in which it sees a very great danger. Finally, it promises to introduce a bill in the Diet dealing with the whole matter. — *Exchange*.

THE COST OF THE MASSACHUSETTS STATE-HOUSE.—"All bills in connection with the extension and restoration of the State-house have been paid, and, as the unexpended balance will be quite sufficient to cover the cost of the paintings and the completion of Memorial Hall, the Commissioners are able to furnish a statement of the total expenditures in and upon the State-house, and for the purchase of lands in its vicinity. The cost on construction account of the State-house extension is \$3,522,313.79; for the restoration of the Bulfinch front, \$335,496.37; cost of lands purchased, \$1,669,859.88; cost of furniture, \$576,446.93; total cost of land, buildings and furniture, \$6,104,116.97." *Governor Crane's Inaugural Address*.

FIRE-HAZARDS AT BUFFALO.—Underwriters are likely to find much to interest them at the Pan-American Exposition. Fire-protection has been well cared for with extinguishing equipment at the grounds covering fire-houses, engines, chemical-trucks, hook-and-ladder trucks, fire-alarm boxes, fire-pumps, hydrants, stand-pipes in buildings, and 10,000 feet of hose. There are two water-systems, furnishing a maximum pressure of 250 pounds. The fire-hazards have been lessened by placing the buildings 200 feet apart. Various local chapters or associations of insurance-men will probably meet at Buffalo after May 1. For these, the railroads have offered low rates, organized parties of one hundred or more being taken over the New York Central at \$10 a head. Tickets are good from this city, and run five days. This cost will be further reduced by a subsequent allowance for advertising, etc., of one dollar for each member of the party. Other low individual rates have been quoted. A large attendance of local underwriters is expected. — *N. Y. Evening Post*.

THE AMERICAN ARCHITECT AND BUILDING NEWS

ADVERTISERS' TRADE SUPPLEMENT

No. 228

SATURDAY, MAY 4, 1901

VOLUME LXXII
No. 123

CATALOGUES.

PROBABLY our readers are quite familiar with the observation we often make, to the effect that a vast amount of useful information can be gathered from the catalogues of manufacturers. The observation, though trite, is unquestionably true, and the last argument we should ever use with a manufacturer in the endeavor to secure his advertisement would be the assertion that such advertising could in any way effectively replace, or be a substitute for, a well-prepared, judicious and truth-telling catalogue. An advertisement in the periodical press is merely the projection of the manufacturer's sign-board on his office-door or over his shop-window; it simply declares to men in all parts of the world—who cannot weekly pass by the office-door or shop-front—that at a certain address is to be found a man who has a definite article or series of articles that can be purchased by those who need them.

It seems obvious enough that the more men who pass a given office-door or shop-front where really useful articles are to be had, the more of those articles will be sold: why, else, do men seek offices and shops where there is the greatest number of passers, and why, else, are rents higher there than elsewhere?

It is equally obvious, too, that a dealer, whether his place of business be on a thoroughfare or on a side-street, would be a fool, pure and simple, if he had no sign-board above his door and no samples in his window.

Just as the advertisement in a periodical or newspaper is but the projection and development of the dealer's sign-board, so is his catalogue merely the projection and development of the actual samples that he has in his one poor little shop-window. The catalogue is a shop-window that, by mail or express, can be sent to all parts of the world.

The third agency in the development of trade—the advertising-circular—holds an intermediate—but useful—position between the advertisement and the catalogue; it is part sign-board, part shop-window, but it is a proper substitute for neither. It cannot replace the sign-board, as it has no permanency, nor can it replace the shop-window, since it has neither the requisite size nor its permanent value.

Our own feeling is strong and unalterable that no man who has reasonably good articles to sell can succeed in business who does not make the greatest number possible of human beings familiar with his sign-board—by advertising in periodicals, and with his shop-window and its samples—by having a good catalogue

to answer the questions of those who have noted his sign-board. Now, in the making of catalogues there is a vast difference, and there is an enormous amount of money wasted on the making and distributing of catalogues that are useless, or nearly so, because they either catalogue articles which are out of date or are so slovenly and ill-considered in their proportion that no one will spend time in discovering the few grains of wheat 'mid the larger amount of chaff, any more than he will waste time in flattening his nose against the shop-window of a dealer who knows so little of his business as to let dust, cobwebs and dirt obscure the glass in his window-sash.

After all, whether a catalogue should be expensive or inexpensive because of the use of fine and heavy paper, elaborate covers, many costly cuts and a variety of colored inks is of less consequence than that its contents, whether much or little in bulk, should be judiciously arranged, and the facts presented be reliable and useful.

Amongst the good catalogues—the catalogues that declare in a useful and sensible fashion the character of goods that might be found in a shop-window—that have recently come to hand is that of James Godfrey Wilson, 3 West Twenty-ninth St., New York, whose mills and shops are to be found at Olean, N. Y. Of course, any man who has been in one line of business for over quarter of a century should be able to catalogue results that show how his success has been justified, but many a man who makes such an attempt fails to convince, as he does not apparently know how to put himself into the position of the possible customer; he looks at matters from the inside, not from the outside; he lays stress on some minute feature of his business which for the moment interests him especially, and neglects the broad and general facts.

Mr. Wilson, as many people know, has been engaged in the manufacture of rolling-shutters for many years—crude, noisy and clamorous in their earlier forms, but intensely useful for all that, and clamor along the wharffronts or railway freight-yards where his great curtains of corrugated iron and steel have found their use is not to be measured against the saving of space and protection against fire and weather that their use assures. But, like all men who succeed, Mr. Wilson has not been content with his early efforts, and from year to year has adopted new devices, devised new forms of power, and put them on the market, and has protected the results of his studies by a long list of patents.

His present catalogue is well devised, since it contains the proof and the data that go to

make that proof. Here are a sufficient number of large half-tone cuts which show his steel shutters in place on pier and railway sheds, factories, and so on, and a sufficient number of plates showing at a good scale the working of the mechanical parts, so arranged and figured that the architect can see at once what provision he must make for the installation of the apparatus.

But, more than this, the catalogue contains illustrations and applications of apparatus that are new to us. For instance, we did not know that in his "Salamander" shutter he added an asbestos backing, or lining, to the fire-protecting qualities of the shutter so styled, and, as a matter of application, we had never thought of using the rolling-shutter horizontally as a protection below the ceiling-lights of upper rooms.

Another novelty that is shown is the "Lift Swing Door," where a shed-door, with counter-balance-weights attached to the edges of the door just below the centre of gravity, falls inward as it rises, the upper part of the door travelling on, and being supported by a curved track, or bracket, until the doorway-opening is sufficiently clear for use. In this position rather more than half of the upper part of the door rests inside the walls of the building, while the remainder of the door—the lower part—projects beyond the outer face of the wall, and, as the door stops on an incline, this lower portion of the door serves as a pent-house roof to the doorway, and so gives admirable weather-protection to the express-wagons loading at the door in rainy weather.

The catalogue contains many other useful points which are of use to architects, not only for the screening of large openings, but for the ordinary windows of shops and dwellings.

THE Berlin Iron Bridge Company has contracted to furnish the Province of New Brunswick, Canada, four bridges. There will be required four 63-foot riveted spans, one 150-foot through pin-connected span, one 200-foot deck pin-connected span, and one 80-foot deck pin-connected span.

INTERNATIONAL SPRINKLER COMPANY.

THE International Sprinkler Co. is continuing in the good work of fire-protection on an ever-increasing scale. They have taken in the neighborhood of thirty contracts for sprinkler installations in the past three months, which is a record that speaks well for any concern in this line. The excellence of this Company's devices, engineering and contracting work is becoming more and more widely

known, and they are beginning to reap the benefit of their high standard of business methods.

Among their contracts recently taken are the large new building of J. B. Lippincott Co., the large publishers of Philadelphia; Reiling, David & Schoen, Anchor Duck Mills, Roanoke Cotton Mills, Roanoke, Va.; Lever Bros., Ltd., the International Soap Manufacturers, in their large Philadelphia works; J. G. Brill Co., the car-builders, Philadelphia; Edna Cotton Mills, Reidville, N. C.; a second order for the Richmond Locomotive and Machine Works, Richmond, Va.; the large new establishment of Marks Bros., the Philadelphia dry-goods merchants; Lynn Cotton Mills, China Grove, N. C.; Standard Steel Works, Burnham, Pa., and Diamond Silk Co., York, Pa.

The Company is also doing an extensive business in Canada, through their representatives, Messrs. W. J. McGuire & Co., Toronto and Montreal.

The International Company is also paving the way for securing its proportion of the business throughout New England through their representatives, The Rhode Island Engineering & Supply Co., of Providence, R. I. This is an active and well-to-do concern who have just completed extensive shops for cutting and handling pipe and fittings at Providence, R. I. President Mills was the manager of the New York Branch of the Crane Co., of Chicago, in which capacity he managed a business for them of over a million dollars a year. They are thoroughly experienced sprinkler people and with their clientèle in New England, facilities and general capacity for such line of work, it is safe to predict that they will get their share of the future sprinkler business in their section.

The International devices have become so well known that any company that has the use of them is sure to get their proportion of both wet and dry installations.

INTERNATIONAL SPRINKLER CO.,
PHILADELPHIA, PA.

THE American Bridge Company will furnish to J. G. White & Co., Inc., New York, the structural steelwork for the power-plant for the Kalgoorlie Electric Power Company, Kalgoorlie, Australia. This plant consists of an engine-house 43' x 159', with a lean-to 17' x 40', and a boiler-house 41' x 132'.

"NEVER-SLIP" WROUGHT-STEEL FLOOR-PLATES FOR BUILDING PURPOSES.

THE trend in the construction of buildings is to avoid the use of cast-iron wherever at all possible, on account of the excessive weight necessary to be used to secure the desired strength. It is to meet the requirements of such a condition that the "Never-slip" Wrought-steel Floor-plates are offered architects and others upon whom rests the responsibility of designing steel structures in which strength and lightness must be combined.

These plates are made of wrought-steel from $\frac{3}{8}$ inch to 1 inch thick, and are lighter, stronger and cheaper than cast-iron, marble, slate, or any of the materials usually used for a similar purpose. They combine great strength with lightness, and on all inside and outside work where a cheap and strong construction is desired and a roughened surface necessary on account of slipperiness or wear they are a superior article, beyond anything of the kind heretofore offered.

The fact that by their use 50 per cent can

be saved in weight and the strength still be increased over other materials is causing them to be largely specified by prominent architects everywhere.

The "Never-slip" Wrought-steel Floor-

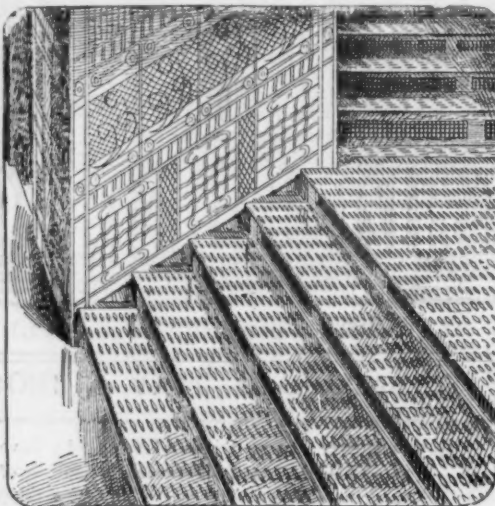


Fig. 2.

plates are especially suited for platforms, floors and steps, and in the construction of inside and outside stairways, fire-escapes, vaults, etc., in office-buildings, schools, jails, factories, reduction-works, engine and boiler-rooms.

In addition, there is a material saving in labor to the contractor and builder, especially in fire-escape work, and on the stairways and platforms around gas producers and tanks, as the plates weigh less than one-half that of cast-iron and, consequently, can be handled cheaper.

An important feature of the "Never-slip" Floor-plates is the fact that they can be furnished cut to any size or shape desired, so that the cost of fitting is no more than that of other less desirable materials. Moreover, these floor-plates, being made of wrought-steel, will not break, which means a considerable saving when applied where a heavy weight or casting, if dropped, would break a cast-iron plate.

In Figure 2 we show one of the most popular patterns in which this new and up-to-date material is furnished, and which is styled the "diamond" pattern; the "ribbed" pattern is also largely used by builders. A floor made

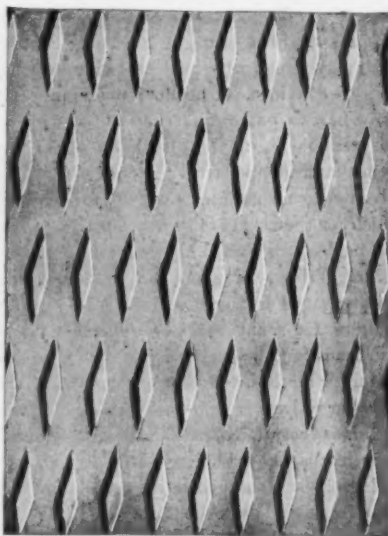


Fig. 1.

of either pattern, but especially the "diamond" pattern, presents an extremely handsome appearance, equalled by no other material used for the purpose.

In Figure 1 is shown the application of the

"diamond" pattern for inside stairway-construction in large buildings.

The immense amount of continual wear that the "Never-slip" Floor-plates will stand and yet retain their attractive appearance and non-slipping qualities makes them especially adapted for such situations, and they are being widely adopted.

Messrs. Ogden & Wallace, 577-583 Greenwich St., New York City, are the selling-agents of the "Never-slip" Patented Wrought-steel Floor-plates, and issue a finely illustrated pamphlet containing full particulars. Copies, we are informed, may be obtained, free, upon application.

THE American Bridge Company will furnish the Crown Agents for the Colonies of Great Britain the steelwork for two deck plate-girder-spans, and for strengthening two other bridges on the Jamaica Government Railway.

A NEW RUBBER-GOODS CATALOGUE.

THE New York Belting & Packing Co., Ltd., 25 Park Place, New York City, has just issued a new Catalogue and Price-list of their manufactures in the Rubber-goods line, embracing an endless variety of articles used in the mechanical arts and sciences, which will prove a valuable adjunct to any well-organized manufacturing establishment.

Rubber-belting, packing, hose, automobile tires, tubing, vulcanite emery-wheels, gaskets, mats and rubber-tiling stand out prominently, but the numberless little rubber "essentials" are also extensively represented.

The Catalogue is gotten out in convenient size, is well printed on an excellent quality of paper in clear, new type, copiously illustrated with unusually good half-tones and wood-cuts. The descriptive matter makes good reading—brief, clear, and to the point. Copies will be furnished free to those interested.

THE Alabama Bridge and Iron Company will erect the Viaduct over the C. & O. Railway tracks at Twenty-eighth Street, Newport News, Va. This will require two spans 153 feet long, seven spans 30 feet long, one span 66 feet long, ten spans 31 feet long and one span 66 feet long. This Viaduct will have a 36-foot clear roadway and two 10-foot side-walks.

INSULATION OF HEAT AND COLD, AND DEAFENING IN BUILDINGS.

IN the construction of buildings of all classes or kinds used or occupied for offices, dwellings, school-houses, amusement and concert-halls, theatres, etc., the question of insulation of heat or cold and deafening is an important one to those who are desirous of having a building as fire and sound proof as it can be made, and comfortable both in summer and winter. In the selection of a material for this purpose it is therefore well to select one which is not only fireproof, but also at the same time a good non-conductor of heat and sound. To obtain the best results, it is essential that the material employed should be properly used, that is, done only by filling the entire space between the studding, as these spaces form flues for conveyance of sound and fire from cellar to roof. For this

Atlas PORTLAND CEMENT

The
Standard
American Brand.

Used Exclusively in the Following New York Buildings:

HAVEMEYER STORES	SINGER BLDG.
ST. PAUL BLDG.	UNIVERSITY CLUB
AMERICAN SURETY BLDG.	N. Y. LIFE INS. BLDG.
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JOHNSTON and PRESBYTERIAN BLDGS.	
AND MANY OTHERS.	

Atlas Portland
Cement Company

143 LIBERTY STREET
NEW YORK



DIAMONDS AND CEILINGS

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.

Berger's "Classic" Metal Ceilings

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.
This makes it easy to make an intelligent and artistic selection.
Write for our handsome Catalogue of Classified Metal Ceilings. We mail it free upon application.

THE BERGER MFG. CO., Canton, Ohio

New York Office, 210 East 23d St.
Philadelphia Office, 1013 Arch St.
New England Branch, 176 Federal St., Boston, Mass.
Western Branch, 1428 N. Broadway, St. Louis, Mo.

SPECIALTIES:—Ceiling, Roofing, Siding, Eave Trough, Conductor Pipe, Hangers, etc.

reason, alone, asbestos-sheathing is not desirable, although in itself it is fireproof. The same may be said of paper-sheathing and hair-felt, nor are they as good as asbestos-paper, for the reason that they will decay, and in so doing give off unpleasant odors, neither are they fireproof. It is also well when selecting some material for insulation and deafening that you look for one that is light, clean, and easily applied. Brick-filling between studding is not very satisfactory either, because the space between studding (16-inch centres) is not adaptable unless you break the bricks and use what are called bats, which are not good insulators; they are heavy and hold moisture. Therefore bricks are undesirable.

Among the materials which have been extensively used during the past few years for insulating and deafening, Mineral Wool has fully met the requirements in all buildings where it has been applied. From statistics and tests we learn that its fusing-point is

2,200° Fahr. This would show that it is fireproof. It fills the entire spaces between studs, thereby ensuring the deadening of sound and the prevention of fire running from the cellar to the roof through the inevitable flues with a rapidity, most astonishing and disastrous. Experience shows also that Mineral Wool saves its cost by what it saves in fuel in two or three years in an ordinary dwelling-house. Other instances prove its doing so every five or six months. Of course this is by saving of steam heat. Furthermore, in its favor is the fact that because it is mineral it affords no abiding-place for vermin of any kind—it being vermin-proof. Therefore, as Mineral Wool possesses all the qualities claimed for it, that is, fireproof, insulation of heat and cold, deadening of sound, and vermin-proof, there can be no question as to its superiority over all other materials on the market. All who desire comfortable homes, cool in summer or warm in winter, free from noises, and for little, very little,

cost, considering the amount of comfort obtainable by proper application, will do well to give this material—Mineral Wool—their careful attention and consideration.

All that is here stated can be verified by parties who have used it. For catalogue apply to

U. S. MINERAL WOOL CO.,
143 LIBERTY STREET, N. Y.

THE American Bridge Company is furnishing to Wm. Young & Co., Mexico City, Mexico, eight Bridges to be erected over the Sacramento Canal, at Torreon, Mexico.

THE YALE & TOWNE COMPANY TO
EXPAND.

THE Yale & Towne Manufacturing Company has just floated a batch of bonds by which it raises funds for the consolidation of the Branford Department of the works with the local plant. Contracts are about to be let for the construction of new buildings covering

ALSEN'S PORTLAND CEMENT

Highest Quality, Most Reliable, Best Color, Most Enduring Surface, Greatest Bulk to the Barrel.

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

CATHEDRAL OF ST. JOHN THE DIVINE, N.Y.
WASHINGTON LIFE INSURANCE CO.'S BUILDING, N.Y.
MANHATTAN LIFE INSURANCE CO.'S BUILDING, N.Y.
AMERICAN SURETY CO.'S BUILDING, N.Y.

ELECTRIC R.R. SUBWAY, BOSTON.
METROPOLITAN SEWERAGE WORKS, BOSTON.
SEA WALL, LAKE FRONT, CHICAGO.
BRIDGES OVER HARLEM RIVER, N.Y.
THE U. S. NAVAL OBSERVATORY, WASHINGTON, D.C.

Alsen's Portland Cement Works, New York Office, 143 Liberty Street.

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

several acres of territory. The Yale & Towne Company will then have the largest lock factory in the world. The enlarged plant will give employment to about 2,000 operators.
— *New York Times.*

THE American Bridge Company report their foreign trade as developing very rapidly. Within the past few days they have received a contract for 20,000 tons of bridges for the Guayaquil & Quito R. R. Company in Ecuador, South America, and a large group of buildings for the Cananea Consolidated Copper & Silver Mining Company of Mexico; and also several large contracts for manufacturing buildings to be shipped to Australia, and a large railroad bridge to go to the Sandwich Islands. It is also announced that their tender for a large foreign contract exceeding in size anything which they have taken has been accepted, and that one of their engineers sailed this week to consummate the arrangements. The officials of the American Bridge Company decline to say anything about this matter until the contract is definitely consummated, but admit the facts substantially as above stated, that it is the most important foreign contract that they have yet taken.

NOTES.

THE merits of the Frink Special Patent Window Reflector are so well known that its success would seem to be a foregone conclusion; therefore we note with interest that this enterprising and progressive house is not only lighting the finest department-stores in this country, but is reaching out after foreign trade as well, among the very latest installations in the show-window line being that well-known firm, The J. E. Manix Dry Goods Co., of Nashville, Tenn., the show-windows of the large department-store of Señor Tomas Mendirichaga, Monterey, Mexico, who also used a large number of cluster reflectors for lighting the store interior, with the most happy results, and also a large order for the show-windows of one of the best-known houses in Dublin, Ireland, which straws would seem to indicate that the fame of the Frink Reflector is widespread. For the thorough diffusion of an even light over the entire window-space, without glare in the eyes of the observer, there is nothing equal to it; it makes the ideal light for show-windows. We might also call attention to the line of cluster reflectors manufactured by this firm for the lighting of store interiors, etc., which give a splendid light, make an exceedingly nice appearance, and are very durable. The firm, I. P. Frink, 551

The W. S. TYLER COMPANY CLEVELAND, OHIO



Wrought Iron and Bronze Elevator Enclosures erected in United States Building at Paris Exposition.

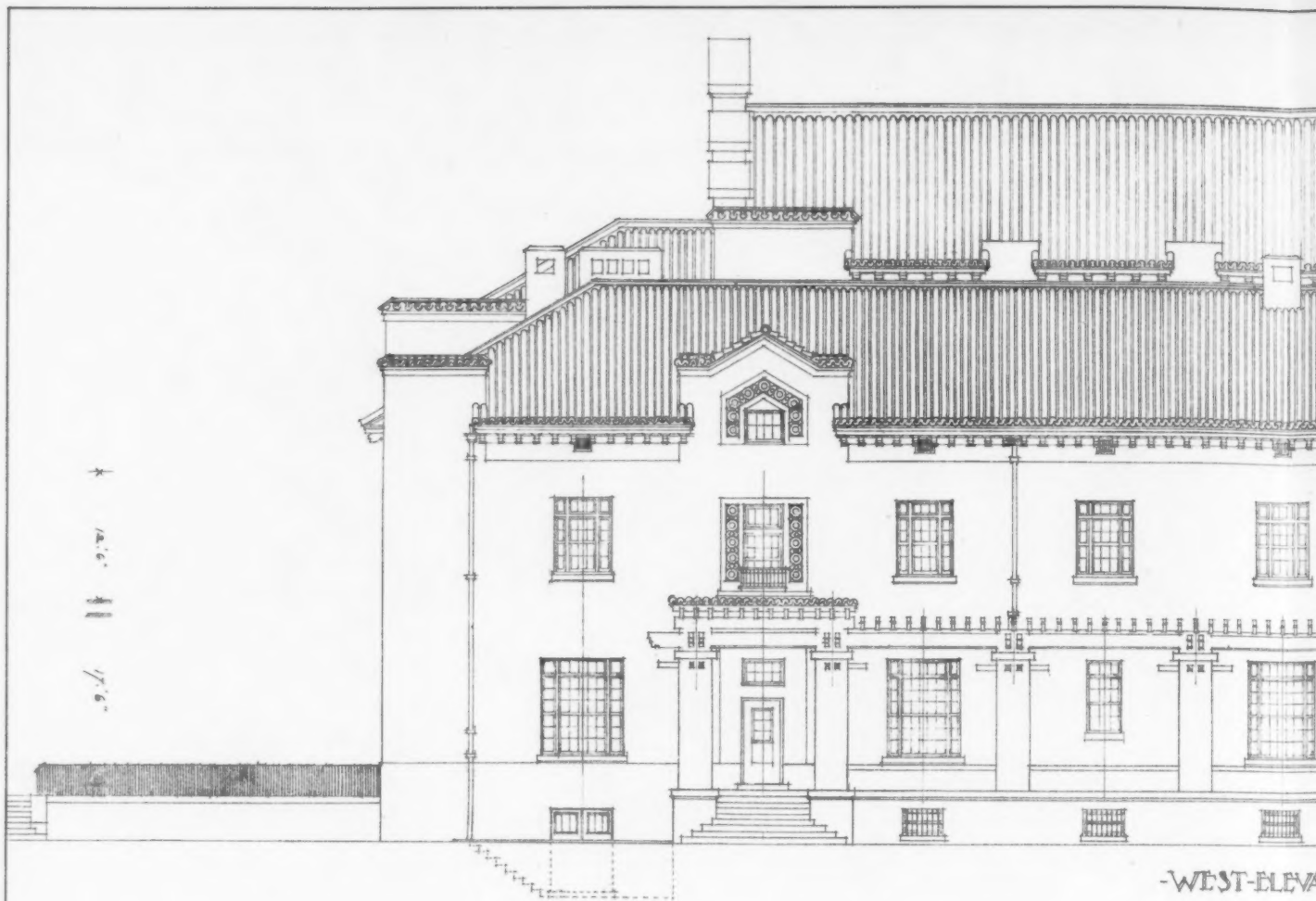
ORNAMENTAL IRON AND BRONZE

Pearl St., New York, will cheerfully furnish any information desired on request.

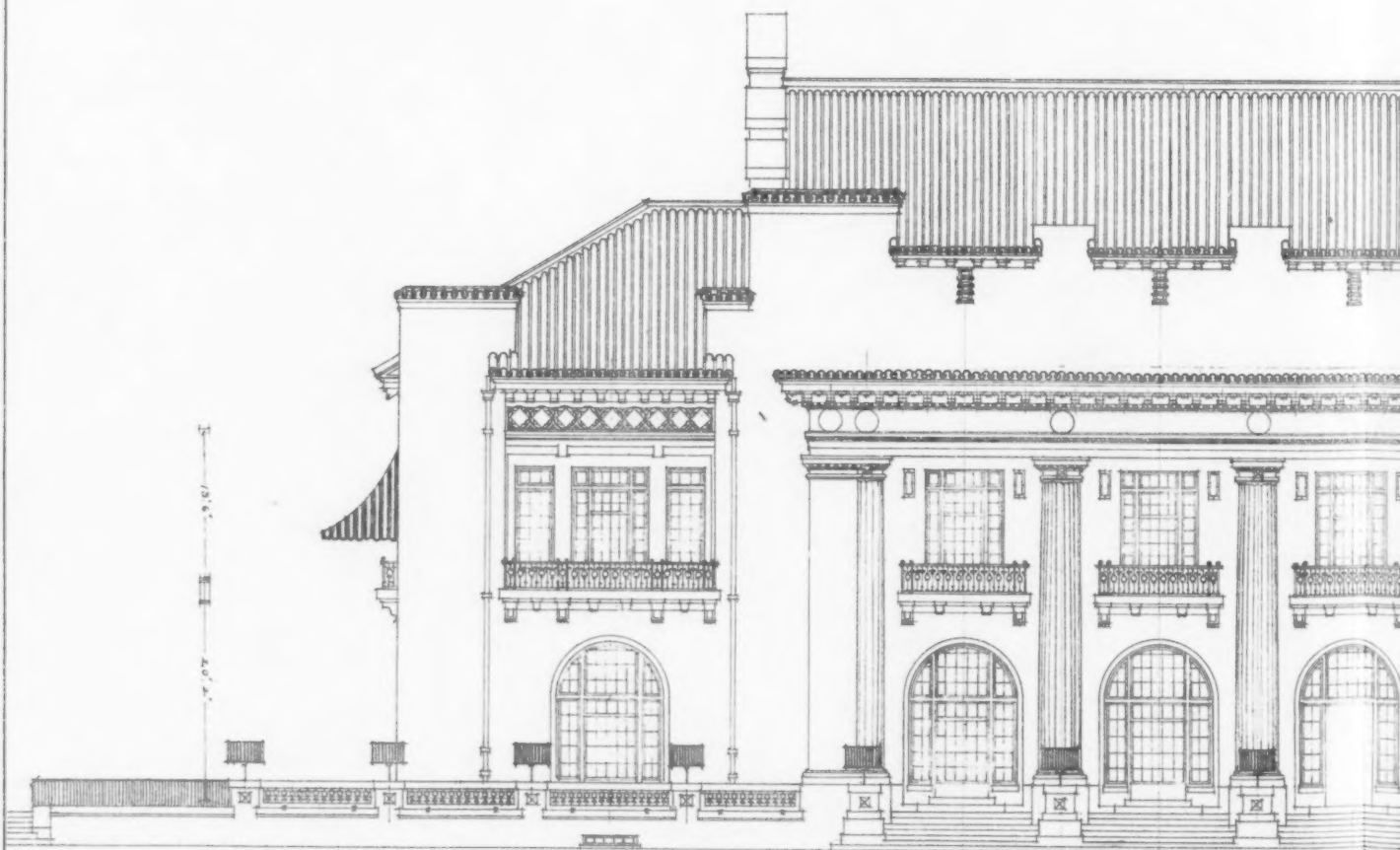
ELSEWHERE in this issue we speak of the utility there is in a manufacturer taking care that his catalogue and other printed matter of the kind should be well and usefully arranged, if he is to secure from it any adequate return. An excellent example of the exhibition of proper care on this important point has just come to hand in the shape of a table issued by the American Sheet Steel Co., Battery Park, New York, which shows the sizes, weight and gauges of the Apollo Best Bloom galvanized sheets which go to make up a bundle of this useful commodity. As a piece

of judicious arrangement on the part of the compiler, as well as a sample of excellent typographical work, this tabulation would be difficult to excel.

ACCORDING to F. L. Chase, Bridge Engineer for the N. Y. Central R. R., that road expended last year nearly \$2,000,000 for bridge-work, and this year will expend an equal amount. A few days ago the Company asked for bids on 28,000 tons of steel-work, comprising several hundred spans. This is the largest single contract for bridge-material ever let by any railroad company in the United States, and the contract for the whole lot was awarded to the American Bridge Company.



-WEST-ELEVATION



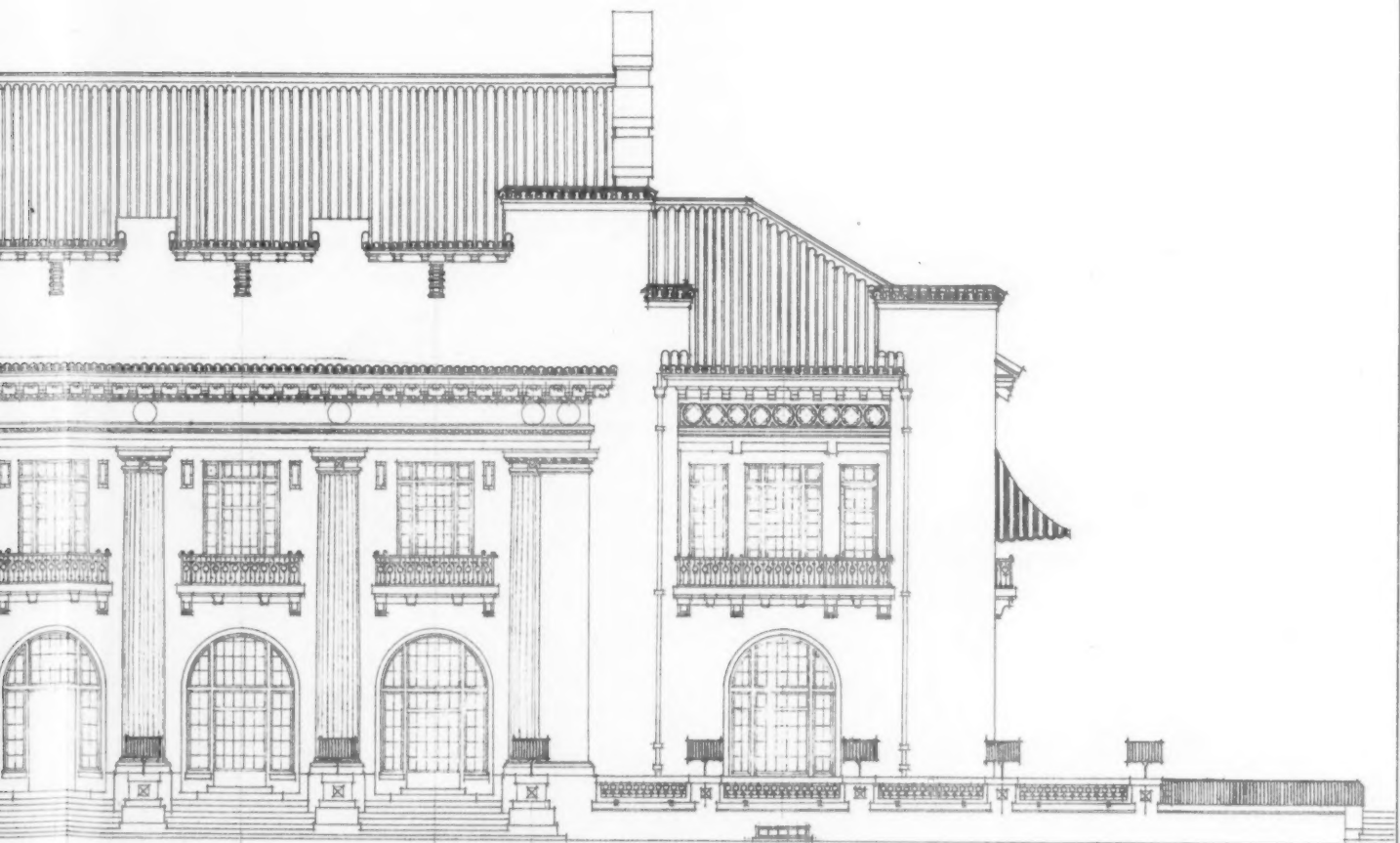
-EAST-ELEVATION

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"WHITEHALL:" RESIDENCE FOR H. M. F.
CARRÈRE & HASTINGS,



FRONT ELEVATION -

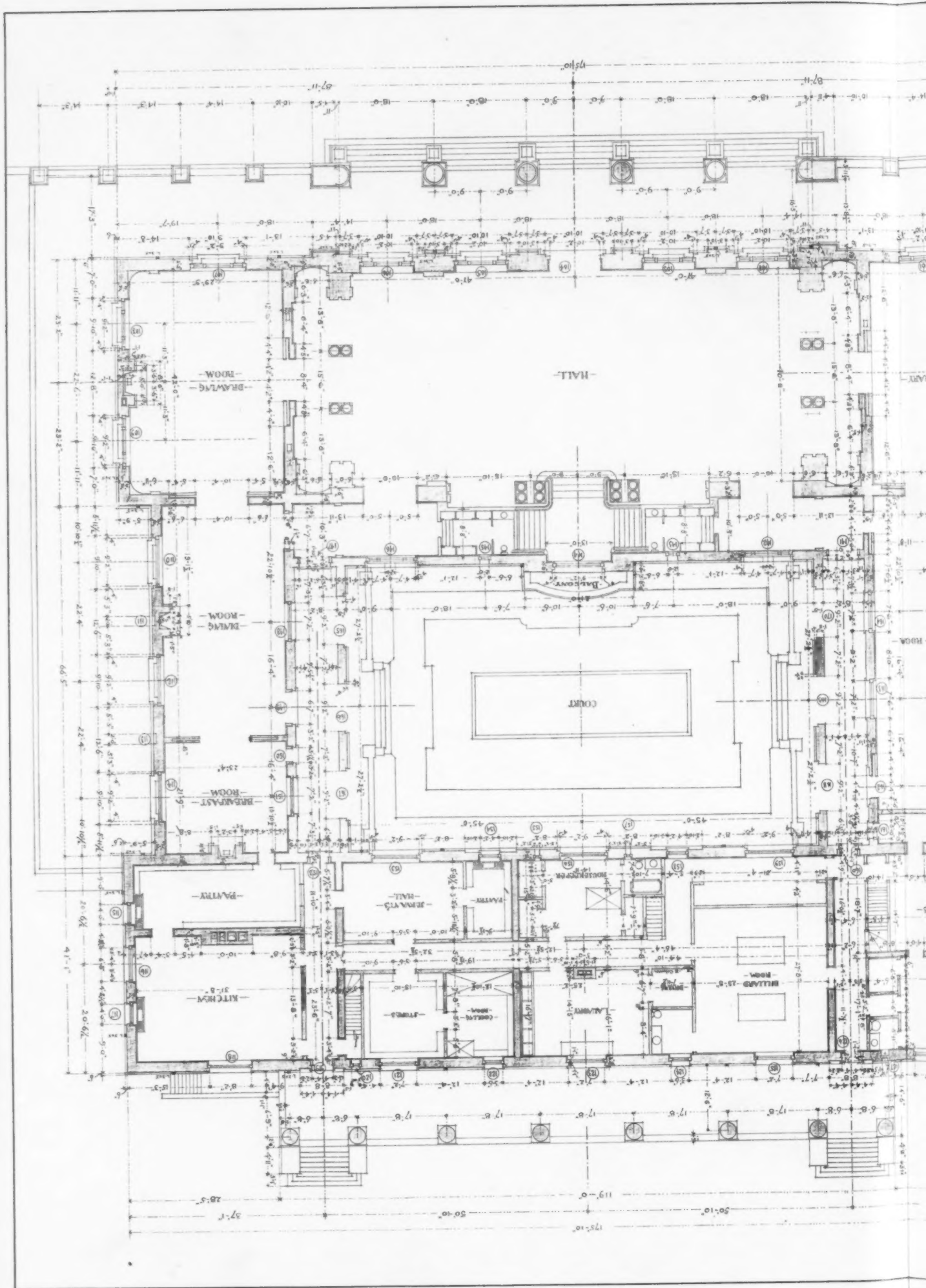


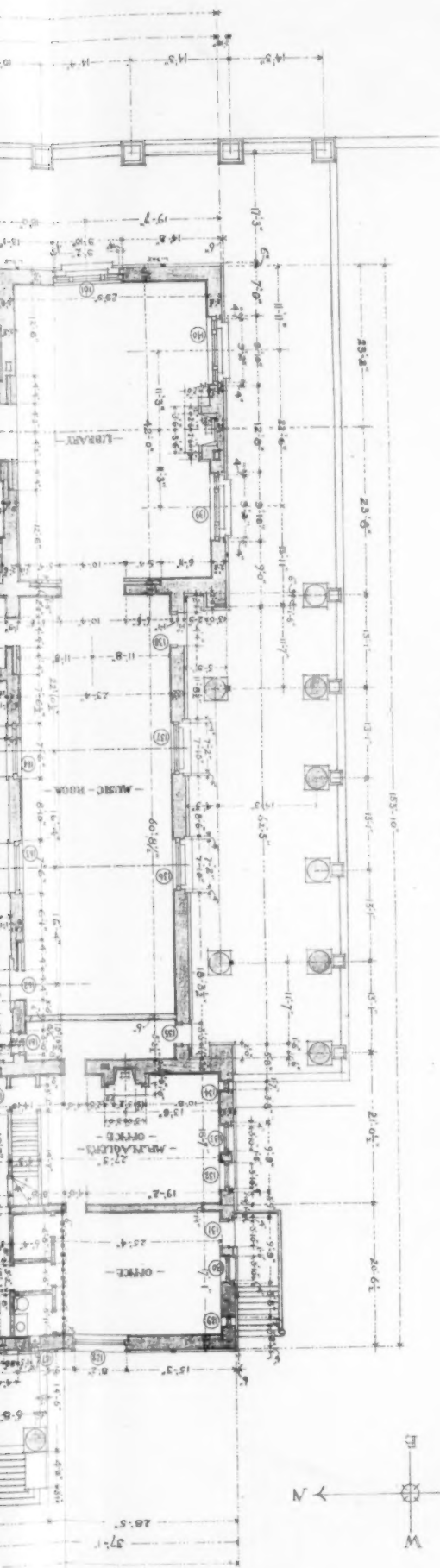
SIDE ELEVATION -

FOR H. M. FLAGLER ESQ., PALM BEACH, FLA.
& HASTINGS, ARCHITECTS.

WILLIAMS PRINTING CO., BOSTON

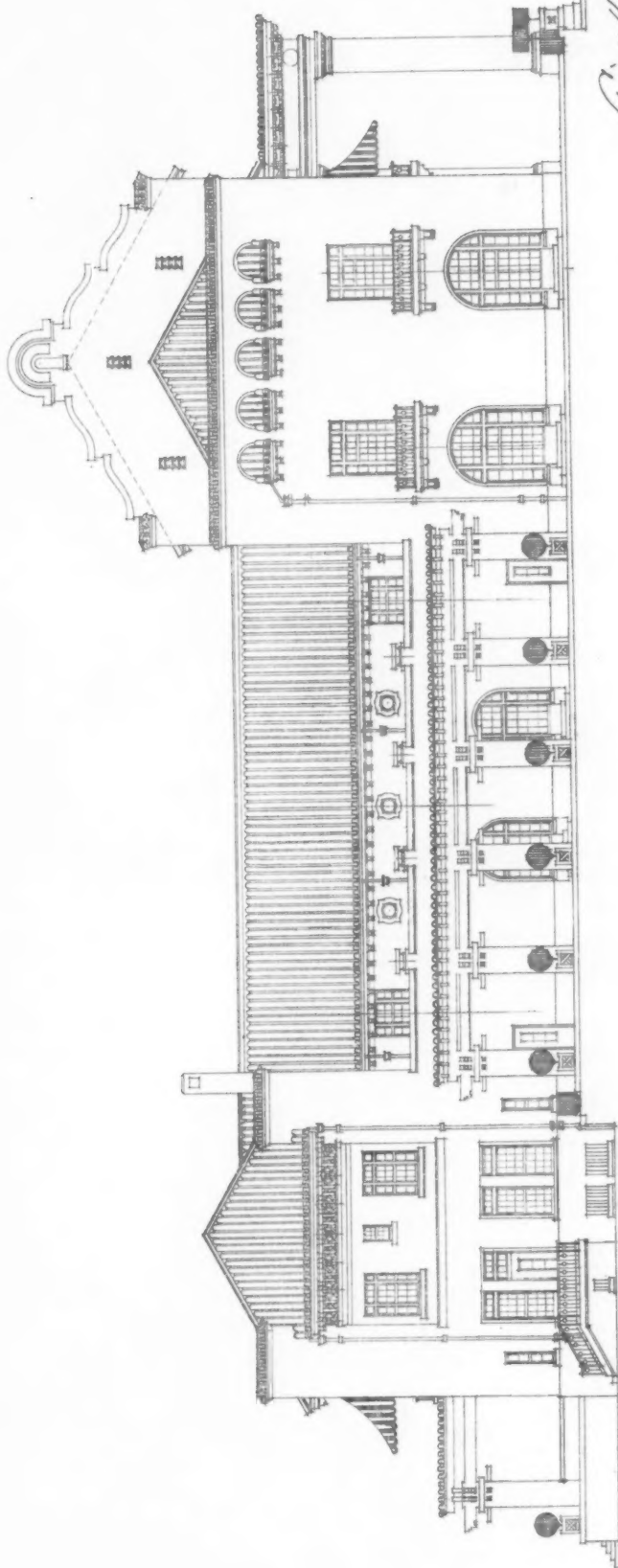
The American Architect
May 4, 1901.
No. 1323.





— FIRST FLOOR PLAN —

NOTE. MASONRY DIMENSIONS TO ROUGH BRICKWORK



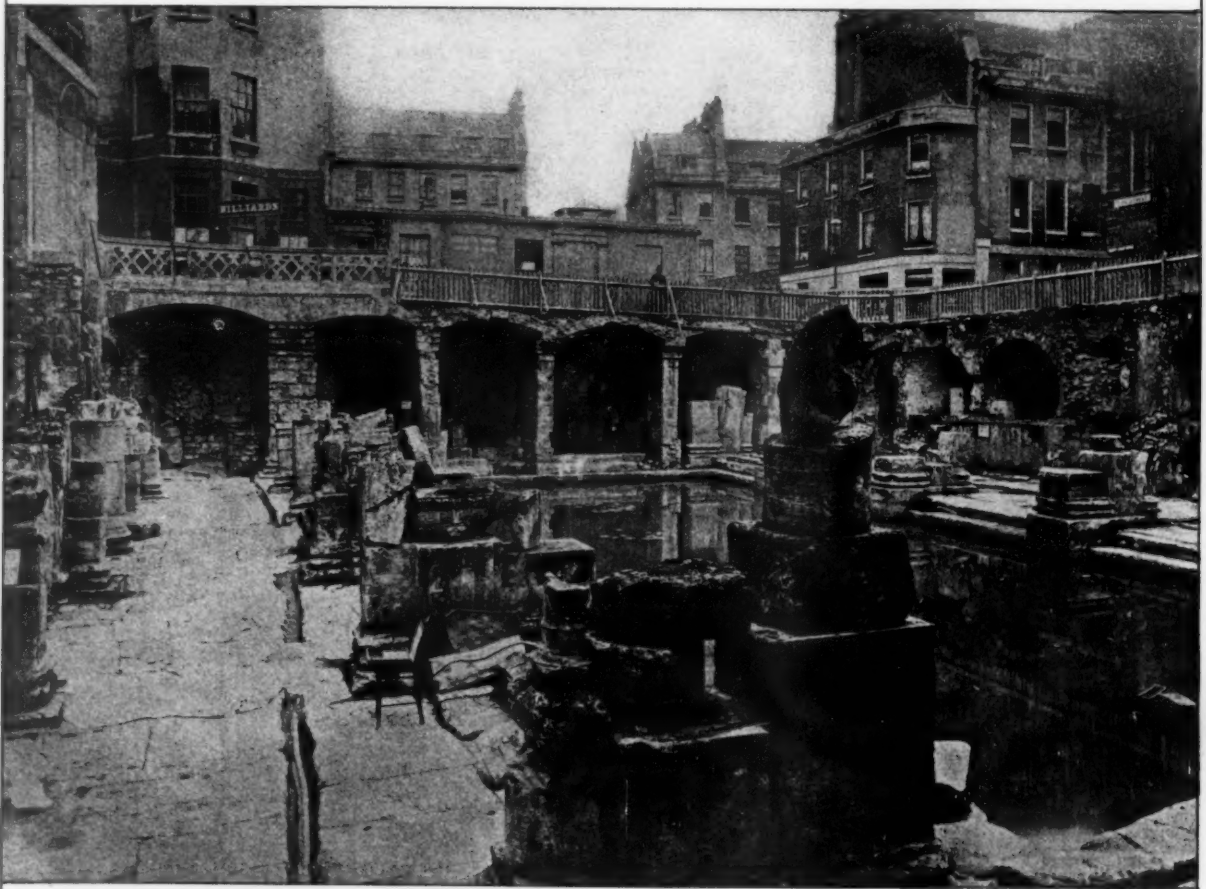
— SOUTH ELEVATION —

The American Architect
May 4, 1901.
No. 1993

"WHITEHALL," HOUSE OF H. M. FLAGLER ESQ., PALM BEACH, FLA.
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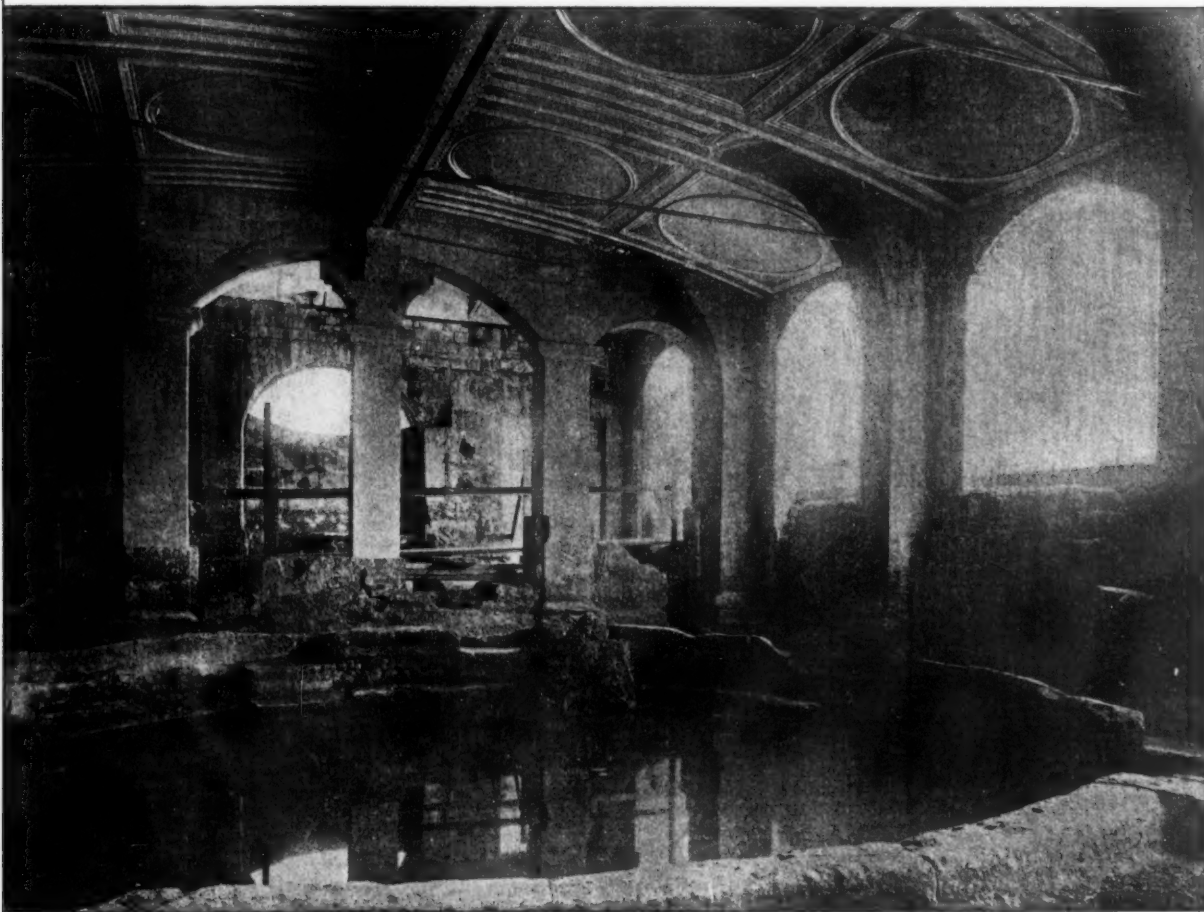
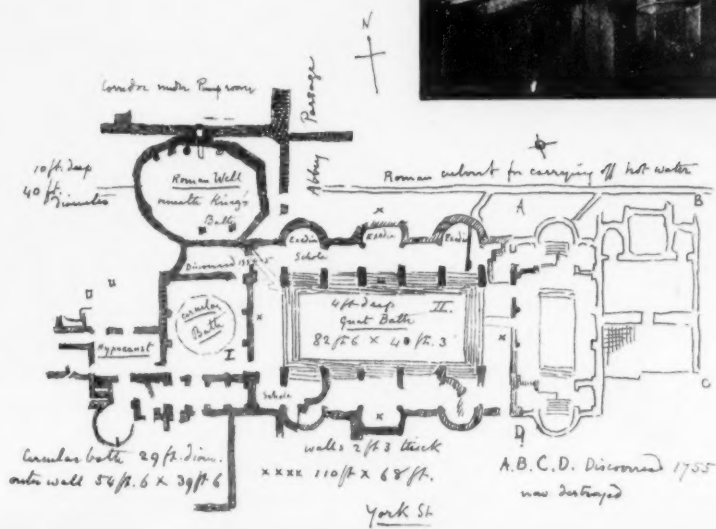
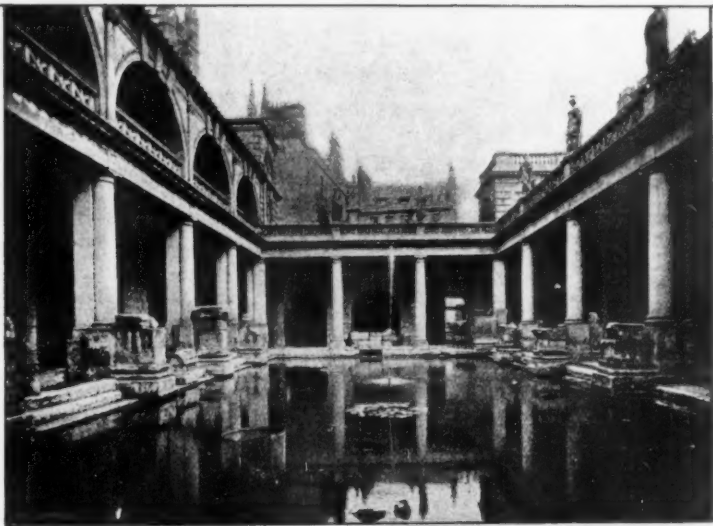


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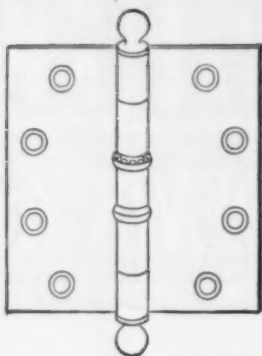
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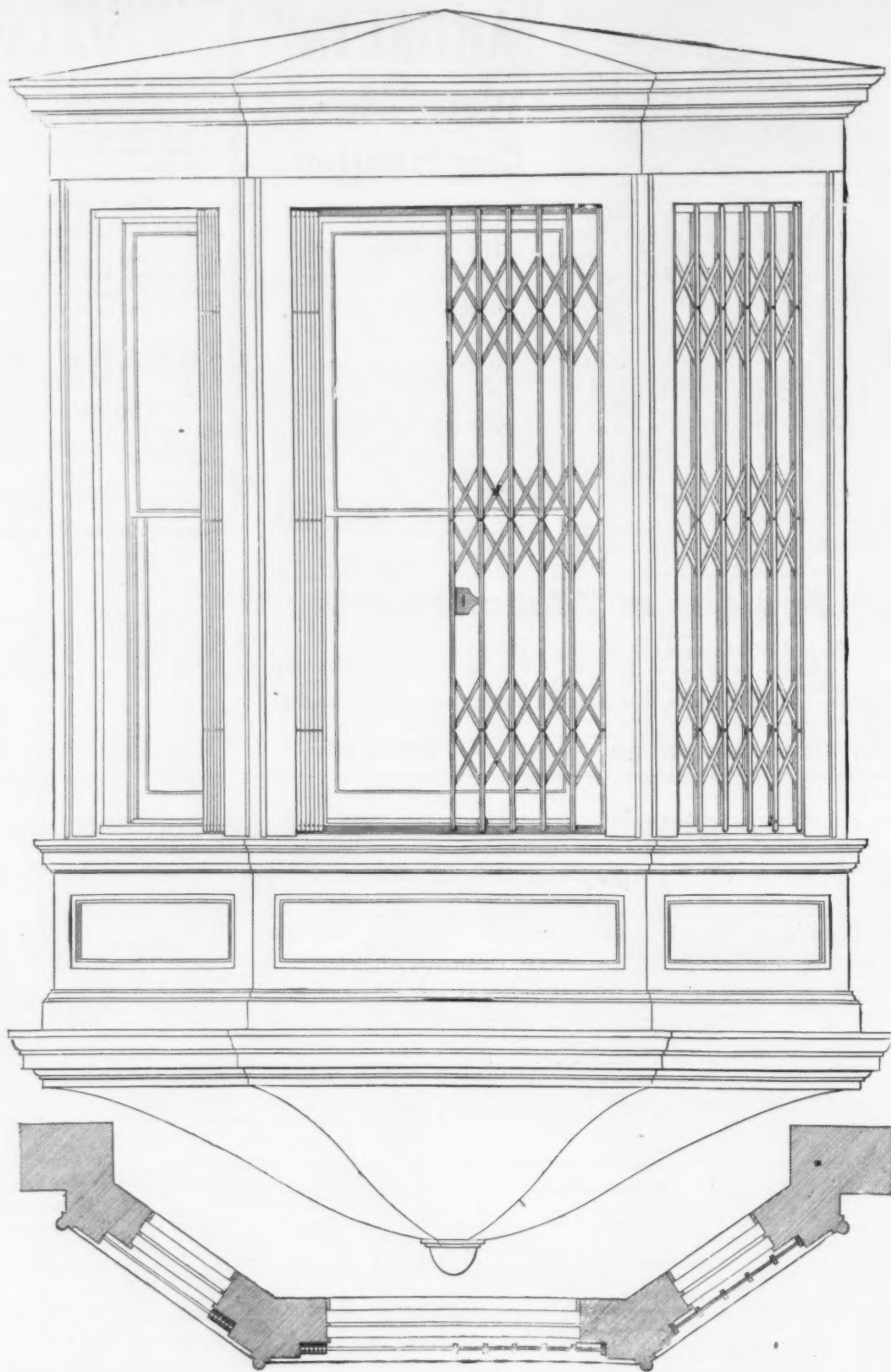
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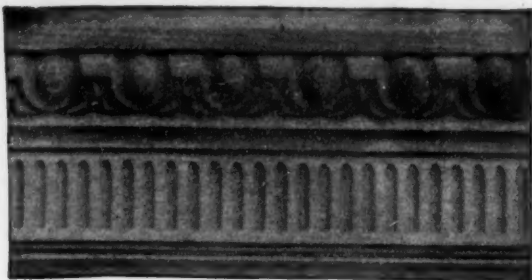
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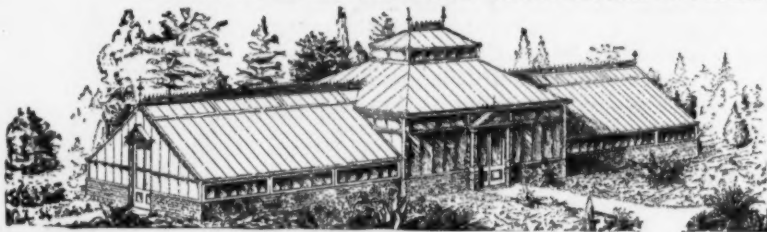
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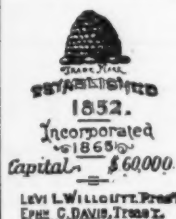
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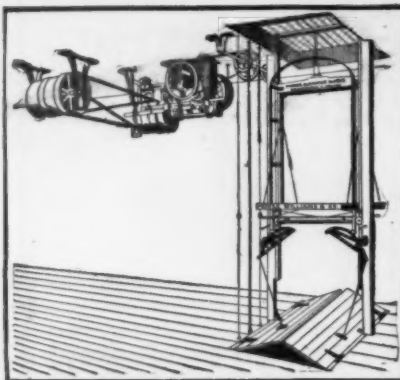
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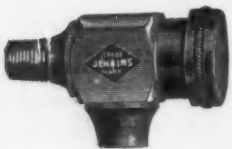


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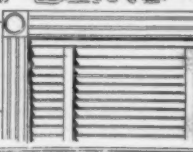


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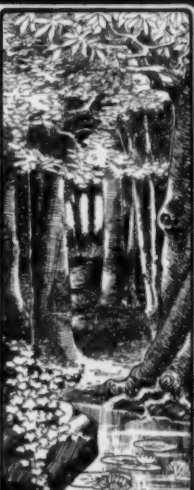
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Important Litigation Relating to Magnesia Covering Patents

THE KEASBEY & MATTISON CO., the owners of the patents for magnesia covering, have commenced a suit in the United States Circuit Court for the Southern District of New York against the Philip Carey Mfg. Co., George D. Crabbs, J. E. Breese, Schoellkopf, Hartford & Hanna Co., J. F. Schoellkopf, Jr., James Hartford, W. W. Hanna, C. P. Hugo Schoellkopf and Jesse W. Starr, to restrain the defendants from making and selling magnesia covering for boilers and steam pipes containing more than 50 per cent of magnesia, and especially coverings containing 85 per cent magnesia.

The Bill prays for a preliminary writ of injunction, to be continued during the pendency of the suit, and upon the final determination thereof to be made perpetual, and also demands an accounting and damages.

☞ All persons are respectfully requested to refrain from purchasing covering infringing these patents, as such purchasing must of necessity lead to suit. ☞

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211 TREMONT ST., BOSTON, MASS.

Advance Subscription Rates:
Regular Edition, \$6.00 per year; six months, \$ 3.50
[Foreign Postage, \$2.00 Extra.]

International Edition, per year in advance, 16.00
" quarterly " 18.00

Payment should be made to American Architect and Building News Co. direct, either by draft or post-office order.

Address all business correspondence to the publishers direct.

Advertising Agents:

New York City:—
H. M. Carleton, Temple Court, 5 Beekman St.

Agents at Large:—
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New Advertisements.

O. B. MAGINNIS (New York, N. Y.), Books. Page 1.

See last or next issue for the following advertisements:—

American Steel Roofing Co.
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CATALOGUES.

CATALOGUES.—Edward R. Swain, architect, of San Francisco, has opened a branch office in the Stanginwald Building, Honolulu, H. I. Manufacturers' catalogues and samples desired. 1324

BUILDING PATENTS.

[Printed specifications of any patents here mentioned together with full detail illustrations may be obtained of the Commissioner of Patents, at Washington, for five cents.]

670,596. LATCH.—Henry H. Dent, Allentown, Pa.
671,579. BRIDGE.—Willis F. Walker, Charlestown, W. Va.

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BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]

ADVANCE RUMORS.

Baltimore, Md.—Henry Walters, president of the Atlantic Coast Line Co., has offered to contribute a very large sum of money to aid in providing buildings for the Johns Hopkins University upon the large tract of land recently offered to the institution by several prominent gentlemen.

Brunswick, Me.—Work will begin the 1st of May on the new library building for Bowdoin College. This structure is the gift of Gen. Hubbard, of New York, class of '57, and will be complete and modern, costing in the neighborhood of a quarter of a million.

Buffalo, N. Y.—The American Bridge Co. will make quite an elaborate building exhibit at the Pan-American Exposition, furnishing two buildings each about 60 feet in width, about 150 feet in length. One of the buildings will be of extremely plain construction, being designed for use as a manufacturing plant. The second, however, will be of ornamental design, such as would naturally be used for freight-depots, street-car barns and that class of structures. The American Bridge Co. will also make an extensive exhibit of parts of large bridges.

Centerville, Ia.—Ex-Governor Drake has offered this city \$25,000 for a public library.

Chicago, Ill.—Crane Co., manufacturers of valves, fittings, etc., has decided to erect this summer a modern fireproof building exclusively for offices. It will be about 90' x 100', five stories and basement, and will be located in the vicinity of its large cast-iron and malleable fitting and valve works, at Canal and 12th Sts.

Derby, Conn.—Hartley Dennett, Devonshire Bldg., Boston, Mass., has drawn the plans for a one and one-half story stone library building. The structure is the gift of H. H. Wood, of Brookline, Mass.

Fairhaven, Mass.—The Atlas Tack Co., of Taunton, will erect a \$350,000 factory here. It will be a modern building of every respect. Plans are now being prepared.

Flint, Mich.—It is stated that W. A. Patterson is having plans prepared for a five-story brick office-building; cost, \$50,000.

Hyde Park, Mass.—A fine brick and stone high-school building will be erected by the city at a cost of \$60,000 from plans by Messrs. Loring & Phipps, architects, 53 State St., City.

W. S. Weston has the contract to erect the new Y. M. C. A. building at the corner of E. River and Winthrop Sts.; cost, \$35,000.

DIAMOND FINISHES

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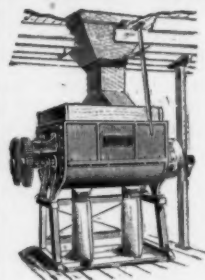
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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Indianapolis, Ind.—Plans have been drawn by W. Scott Moore, Stevenson Block, for a new wing to the City Hospital, to cost \$24,000.

Lexington, Ky.—Jas. K. Patterson, Pres. Kentucky State College, has offered the college \$50,000 for the erection of a library.

Lynn, Mass.—A three-story colonial business building is to be erected in Central Sq. by Miss L. C. Folson, after plans by Penn Varney. It will be of brick and granite, modern in every respect.

Memphis, Tenn.—Plans have been prepared for a five-story department-store for the Hunter Dry Goods Co., to be erected at Court and Main Sts., at a cost of \$90,000.

Nashua, N. H.—Boston parties are to erect a \$50,000 theatre building on E. Pearl St.

New York, N. Y.—Plans have been prepared by Bruce Price, 1133 Broadway, for a twelve-story fireproof office-building to be erected at Broadway and New St. for the Century Building Co.; cost, \$900,000.

It is reported that Geo. H. Streeton, 289 Fourth Ave., has prepared plans for a \$75,000 brick edifice for St. Charles Borromeo's R. C. Society to be erected on 141st St., near 7th Ave.

Plans for the new Stock Exchange building have been submitted by Geo. B. Post, 33 E. 17th St., on behalf of Donald Mackay, Pres. of the N. Y. Stock Exchange Building Co. The new building will occupy the site of the present home of the Exchange, and three adjoining buildings, and is designed to cost \$1,000,000.

Alterations costing \$30,000 will be made to the nine-story brick and stone building, 18 Broadway, known as the Welles Building, owned by the Hunnewell estate, of Boston, from plans by Frank Freeman, 132 Nassau St.

A large five-story building is to be erected at Nos. 209-11 W. 40th St., for the storage of the scenery of the Metropolitan Opera House. It will cost about \$50,000.

Oshkosh, Wis.—A \$20,000 parish house is contemplated by the Trinity Episcopal Society.

Pawtucket, R. I.—Wright & Isham are the architects of the new building for the Franklin Savings Bank. It is to be erected on East Ave., adjoining the Dexter Building. It will be a two-story structure, costing about \$30,000.

Philadelphia, Pa.—The University of Pennsylvania has received a gift of \$25,000 from Mrs. C. R. Newbold for the erection of an obstetrical amphitheatre as an addition to the maternity department of the university hospital. The gift was made in honor of her mother, Mrs. Thomas A. Scott.

Pittsburgh, Pa.—Plans have been completed for the new church, parochial school, convent and pastoral residence to be erected for St. John the Baptist R. C. congregation at 32d St. and Liberty Ave.; cost, \$150,000.

Plymouth, Mass.—Eben D. Jordan, of Boston, is to erect a four-story brick hospital as a gift to the town. It will be known as the Jordan Hospital. Plans by Wm. Atkinson, 15 Exchange St., Boston.

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Princeton, N. J.—The fund for the new gymnasium building at the University has reached \$80,000.

Spokane, Wash.—Plans have been completed by A. A. Searey, of Marysville, Mo., for a \$25,000 edifice for the Central Christian Church.

Waterbury, Conn.—The Waterbury Brass Co. has purchased land on W. Main St. from the Novelty Manufacturing Co., and will, it is reported, erect a large building on the site.

Waverly, N. J.—It is reported that George Stengel is having plans drawn for a new \$60,000 factory building.

Way Cross, Ga.—The Chamber of Commerce is promoting a movement for the location of a \$200,000 cotton factory here. Charles Schwing is also interested, and he will visit Northern cities to enlist capital in the enterprise. At the preliminary meeting to consider the project about \$25,000 was subscribed.

ALTERATIONS AND ADDITIONS.

New York, N. Y.—*Fifth Ave.*, No. 601, three-sty' extension, 9' x 17'; \$30,000; o., Anson R. Flower, 45 Broadway; a., H. F. Steven, 15 W. 29th St.; b., William Baumgarten, 323 Fifth Ave.

Westchester Ave., Nos. 784-790, raise buildings; \$40,000; o., Edw. Michling, 854 West End Ave.; a., B. W. B. rger, 121 Bible House.

W. Fifth St., No. 9, one-sty' extension, 10' x 13' 4"; \$20,000; o., Jessie I. Blair, 763 Fifth Ave.; a., T. R. Cutler, 18 W. 43d St.

Pittsfield, Mass.—Three-sty' bk. extension, 50' x 100'; \$25,000; o., Eaton-Hulbert Paper Co.

APARTMENT-HOUSES.

Cambridge, Mass.—*Lee St.*, Nos. 35-37, four-sty' bk. apart., 77' x 112'; steam; \$50,000; o., Horace B. Howlett, 631 Massachusetts Ave.; b., Wm. Crane, 7 Water St., Boston.

Chicago, Ill.—*Monroe Ave.*, Nos. 6022-30, three-sty' bk. apart., 100' x 122'; steam; \$50,000; o., Miss Clara M. Evans; a., Geo. Beaumont, 115 Dearborn St.

Newton, Mass.—*Washington and Channing Sts.*, Ward 7, four-sty' bk. apart., 61' x 62'; steam; \$35,000; o., W. C. Evans; a., Gay & Proctor, Boston.

New York, N. Y.—*Second Ave.*, Nos. 77-79, six-sty' bk. flat & store, 40' x 120'; \$40,000; o., Friedman & Feinberg, 72 Division St.; a., M. Bernstein.

One Hundred and Eighteenth St., nr. Amsterdam Ave., 2 seven-sty' bk. flats, 62' 6" x 90'; \$120,000; o., Globe Realty Co, 135 Broadway; a., Harde & Short, 3 W. 29th St.

Ninety-fifth St., nr. West End Ave., 2 seven-sty' bk. & st. flats, 62' x 89'; \$240,000; o., Le Grand K. Pettit, 556 Halsey St., Brooklyn; a., Schneider & Herter, 46 Bible House.

West End Ave., cor. 70th St., seven-sty' bk flat, 95' x 100'; \$175,000; o., Fred'k W. White, 45 Cedar St.; a., Harde & Short.

Central Park West, nr. 91st St., 2 eight-sty' bk. flats, 88' x 100'; \$760,000; o., John V. Sienell, 1 W. 92d St.; a., Neville & Bagge, 217 W. 125th St.

Manhattan Ave., cor. 111th St., seven-sty' bk. flat, 95' x 100' 11"; \$200,000; o., Daniel D. Lawson, 580 W. 146th St.; a., George F. Pelham.

Ninety-fifth St., nr. West End Ave., 2 seven-sty' bk. & st. flats, 75' x 87' 6"; \$309,000; o., Metropolitan Impt. Co., 145 Broadway; a., Schneider & Herter, 46 Bible House.

West End Ave., cor. 80th St., ten-sty' bk. & st. flat, 92' x 94' 10", tile roof; \$600,000; o., Arthur D. Hyde, 60 Liberty St.; a., C. Steinmetz, 60 Liberty St.

Perry St., Nos. 63-65, seven-sty' bk. & st. flat, 50' 1" x 82'; \$30,000; o., Henry Hart, 739 Madison Ave.; a., G. F. Pelham.

Broadway, cor. 77th St., nine-sty' bk. flat, 93' 10" x 133', slate & copper roof; \$550,000; o., Francis M. Jencks, 146 Broadway; a., Stein, Cohen & Roth, 41 Union Sq.

West End Ave., cor. 82d St., 2 seven-sty' bk. flats, 50' x 52' 2" x 90' x 95'; \$400,000; o., Boehm & Coon, 31 Nassau St.; a., James & Leo, 2585 Broadway.

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Lenox Ave., from 140th to 141st Sts., 7 seven-sty' bk. & st. apart.; \$1,000,000; o., Hymann & Henry Sonn; a., Henry Fouchaux.

Toledo, O.—Four-sty' bk. apart., steam; \$50,000; o., Richard Hattersley; a., L. G. Weiker.

CHURCHES.

New York, N. Y.—*Ninety-seventh St.*, nr. Madison Ave., bk. & st. church & rectory, 50' x 25' x 59' 8" & 85' 10"; slate roofs; \$45,000; o., Russian Orthodox St. Nicholas Church, 232 Second Ave.; a., J. Burgen, 177 Broadway.

One Hundred and Forty-first St., nr. 7th Ave., one-sty' bk. & st. church, 70' x 135'; \$75,000; o., Henry J. Gordon, 211 W. 141st St.; a., Geo. H. Streeter, 289 Fourth Ave.

Orono, Me.—One-sty' & base, st. church, 66' x 120', slate roof, steam; \$20,000; o., Catholic Society; a., Davis & Hodgins, 39 Hammond St., Bangor.

EDUCATIONAL.

Boston, Mass.—*Bunker Hill St.*, three-sty' bk. convent, 38' x 49' x 80', flat roof, steam; \$25,000; o., Rev. J. J. Williams; a., C. J. Bateman, 7 Exchange Pl.

Cambridge, Mass.—*Cambridge St.*, cor. Felton St., three-sty' bk. school, 109' x 128', steam; \$80,000; o., City of Cambridge; a., Geo. Fogarty.

Concord, Mass.—Two-sty' stone private school, gravel roof, steam; \$65,000; o., Frederick Windsor, 803 Boylston St., Boston; a., Peabody & Stearns, 53 State St., Boston.

HOTELS.

New York, N. Y.—*Seventy-second St.*, nr. Columbus Ave., twelve-sty' bk. & st. hotel, 50' x 88' x 98'; \$500,000; o., Geo. L. Felt, 60 St. Nicholas Ave.; a., Fred'k C. Browne, 143 W. 125th St.

Madison Ave., cor. 63d St., twelve-sty' bk. & st. hotel, 77' x 100', tile roof; \$700,000; o., Park Realty Co., 135 Broadway; a., Buchman & Fox, 11 E. 59th St.

HOUSES.

Boston, Mass.—*Francis St.*, Ward 19, three-sty' fr. dwell., 27' x 60', pitch roof, furnaces; \$6,000; o. & a., Michael O'Neil, 7 Leon St., Roxbury.

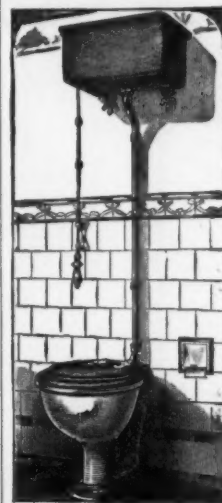
Morris St., Nos. 5-7, Ward 1, 2 three-sty' fr. dwell., 21' x 41', flat roofs, stoves; \$75,000; o. & b., J. Gollinger, E. Boston; a., J. S. Eastman, 18 Decatur St.

Hewins St., nr. Columbia Road, Ward 20, two-sty' fr. dwell., 28' x 43', pitch roof, furnaces; \$5,000; o., Matilda Day; a. & b., L. A. Belyea, 3 Page Ave.

Mayfield St., Dorchester Ave., Ward 20, three-sty' fr. dwell., 29' x 57', flat roof, stoves; \$7,000; o., T. F. & M. Halleran; a., W. H. Smith, 615 Dorchester Ave.

THE J. L. MOTT IRON WORKS,

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NEW YORK, N. Y.



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PLATE 495 R.

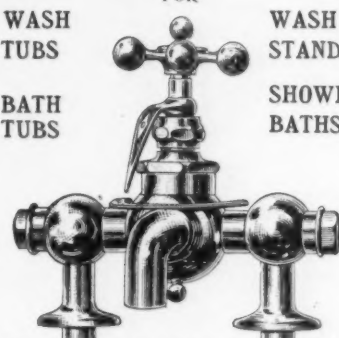
No. 33 Design L Cistern with Nickel-plated Brass Brackets, Nickel-plated Brass Flush Pipe, Nickel-plated Chain, Hardwood Pull and Brass Floor Flange.

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STANDSBATH
TUBSSHOWER
BATHS

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BUILDING INTELLIGENCE.

(Houses Continued.)

Bridgeport, Conn.—*Washington Terrace*, two-sty' fr. dwell., 50' x 70', shingle roof, hot air; \$8,000; o., Hon. P. H. Skidmore; a., Herbert Longstaff, Sanford Building.

Brooklyn, N. Y.—*Emmons Ave.*, cor. E. 19th St., three-sty' fr. dwell., 30' x 50', gravel roof; \$7,500; o., Annie Gilbert, Sheepshead Bay; a., Parfitt Bros., 26 Court St.

E. Thirty-seventh St., nr. Avenue J, two-sty' & attic fr. dwell., 27' 6" x 34', shingle roof, steam heat; \$6,000; o., H. G. Tuttle, 723 Macon St.; a., B. Driesler, 1432 Flatbush Ave.

Bay Eleventh St., nr. Cropsy Ave., two-sty' & attic fr. dwell., 30' x 33', shingle roof, steam heat; \$5,500; o., R. Mitchell, on premises; a., H. H. Squires, Bath Ave. & Bay 10th St.

Forty-ninth St., nr. 6th Ave., 5 two-sty' bk. dwells., 20' x 48'; \$20,000; o., M. Stiner, 467 Fifty-sixth St.; a., H. L. Spicer, 326 Fifty-sixth St.

Seventh Ave., nr. 84th St., 2 two-sty' & attic fr. dwells., 22' x 32', shingle roofs; \$7,000; o., Jacob Schule, on premises; a., Chas. Stechel, 65th St. & 7th Ave.

Caton Ave., cor. E. 17th St., two-sty' & attic fr. dwell., 32' x 48', slate roof, steam heat; \$12,000; o., J. C. Sawkins, 81 Church Ave.; a., A. D. Isham, 1134 Flatbush Ave.

Homecrest Ave., nr. Avenue T, two-sty' & attic fr. dwell., 23' x 51', shingle roof, steam heat; \$5,500; o., Mrs. Mary Grey, 1317 Forty-sixth St.; a., A. Isham, 220 Broadway, N. Y.

Ocean Ave., nr. Avenue L, one-sty' fr. dwell., 23' 6" x 40', shingle roof; \$6,000; o., W. H. Mooney, 1 Broadway, N. Y.; a., H. G. Hansen Co., 1 Broadway, N. Y.

E. Nineteenth St., nr. Avenue C, two-sty' & attic fr. dwell., 34' 10" x 38', shingle roof, steam heat; \$6,500; o., S. B. Ackerson Construction Co., E. 19th St. & Beverly Road; a., J. J. Petit, 186 Remsen St.

Cambridge, Mass.—*Magazine St.*, cor. Williams St., four-sty' bk. dwell., hot water; \$50,000; o., Edw. A. Barnard, 11 Magazine St.; b., John B. Byrne.

Chicago, Ill.—*Riverside*, three-sty' fr. dwell., 45' x 73'; \$12,000; o., Malcolm Lawrence; a., Edgar S. Helden, 164 La Salle St.

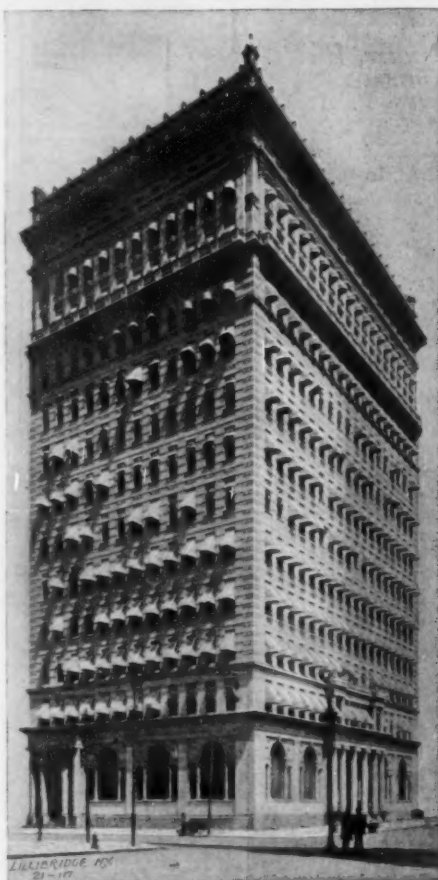
Dedham, Mass.—2½-sty' fr. dwell., 34' x 49', shingle roof, hot air; \$8,000; o., Geo. A. Dean; a., Cooper & Bailey.

2½-sty' fr. dwell., 35' x 49', hot air; \$5,000; o., F. H. Clarke; a., Frank W. Tucker, 101 Harvard St.

Dorchester, Mass.—*Harlem St.*, nr. Glenway St., two-sty' fr. dwell., 30' x 48', furnace; \$6,500; o., J. F. MacLearn, Bowdoin Sq., Dorchester.

Hancock, Mich.—Two-sty' bk. dwell., 38' x 47', shingle roof, hot water; \$7,000; o., Mrs. Philip Scheuermann; a., H. T. Liebert.

Malden, Mass.—*Baldwin St.*, 2½-sty' fr. dwell., 26'



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BUILDING INTELLIGENCE.

(Houses Continued.)

x 46', furnace; \$5,500; o., Thos. A. Tait, 82 Frost Ave., Melrose; b., H. E. Black.
High St., two-sty fr. dwell., 28' x 50', furnace; \$5,000; o., Marcellus Coggan, Pine St.; b., W. B. Cornell.
Newton, Mass.—Lawrence Road, Ward 6, two-sty fr. dwell., 29' x 42', furnace; \$6,000; o., Etta Belcher; b., W. A. Briggs & Co.
Lawrence Road, Ward 6, two-sty fr. dwell., 31' x 42', furnace; \$7,000; o., Mrs. H. K. Brigham; a., Frank A. Bourne.
North Adams, Mass.—Willow St., 2½-sty fr. dwell., 30' x 40'; \$5,000; o., Dr. H. H. Gadsby; a., E. T. Barlow.
Worcester, Mass.—Waverly St., three-sty fr. dwell., 48' x 65'; \$8,000; o. & c., B. Isenberg; a., J. P. Kingston.
Eastern Ave., 2 three-sty fr. dwells., 28' x 62'; \$8,800; o., Oscar W. Vaudland; e., J. H. Skoglund.
Cambridge St., three-sty fr. dwell., 27' x 62'; \$4,500; o., Miss Martha C. Warden; e., Dorais & Dupuis.
Whipple St., three-sty fr. dwell., 28' x 60'; \$4,600; o., Joseph Pardoe; e., H. A. Tupper.
Cambridge St., three-sty fr. dwell., 28' x 52'; \$3,800; o., John Brophy; e., Legrenade & Son; a., A. J. Harrington.
Cambridge St., three-sty fr. dwell., 28' x 62'; \$4,500; o., Samuel Davis; e., Dorais & Dupuis; a., J. P. Kingston.
Orne St., 1½-sty fr. dwell., 26' x 49'; \$3,800; o., P. J. Judge; e., Dorais & Dupuis; a., Chapin & Topalian.
Everard St., three-sty fr. dwell., 28' x 52'; \$3,500; o., G. P. Svensen; a., Nicolas Nelsen.
Hawthorne St., two-sty private fr. dwell., 29' x 60'; \$7,500; o., Mrs. Caroline M. Thayer; e., H. L. Houghton; a., Cutting, Carleton & Cutting.
Downing St., two-sty fr. dwell., 27' x 55'; \$5,500; o., Wm. C. Gale; b., Jas. I. Elliot.

MERCANTILE BUILDINGS.

Boston, Mass.—Milk St., bet. Pearl & Oliver Sts., ten-sty bk. & st. business building, comp. roof, steam; o., E. S. Converse, Malden; a., Winslow & Bigelow, 120 Tremont St.
Sears St., No. 7, Ward 7, five-sty bk. mercantile building, 51' x 91', flat roof, steam; \$50,000; o., Sears Trust; a., Chas. E. Park.
Indianapolis, Ind.—E. Washington St., Nos. 16-18, seven-sty bk. business block, 36' x 126'; \$70,000; o., Wm. B. Burford; a., Vonnegut & Bohn, Indiana Trust Building.

BUILDING INTELLIGENCE.

OFFICE BUILDINGS.

Boston, Mass.—Washington St., Nos. 2341-5, Ward 18, two-sty office & bank building, 86' x 90', steam; \$100,000; o., Rex. Inst. for Savings; a., Peabody & Stearns; b., McNeil Bros.
Bridgeport, Conn.—Broad St., three-sty bk. office-building, 45' x 100', tin roof, steam; \$20,000; o., Hon. Thos. P. Taylor; a., Herbert Longstaff.
New York, N. Y.—Broadway, No. 180, twelve-sty bk. & st. office-building, 26' 4" x 78', tile roof; \$120,000; o., Estate Chas. A. Bandouine, 1181 Broadway; a., Clinton & Russell, 32 Nassau St.
Worcester, Mass.—Main St., four-sty bk. & st. office-building, 100' x 125'; \$20,000; o. & c., John G. Heywood.

STABLES.

Boston, Mass.—Cummings Road, No. 36, one-sty fr. stable, 20' x 34' x 35', pitch roof; \$1,500; o., Edw. E. Wood, on premises; a. & b., Edw. L. Rogers, 58 Englewood Ave., Roxbury.
Freeport St., Dorchester, two-sty bk. stable, comp. roof; \$50,000; o., City of Boston; a., A. Warren Gould, 1 Somerset St.
Pond St., No. 233, Ward 23, two-sty fr. stable, 34' x 93', furnace; \$8,000; o., Eliza G. Rice; a., Peabody & Stearns.
Brooklyn, N. Y.—Kosciusko St., nr. Reid Ave., one-sty fr. stable, 23' 6" x 100'; \$6,000; o., H. Batterman, Broadway & Graham Ave.; a., Th. Engelhardt, 905 Broadway.
Newport, R. I.—1½-sty fr. stable, 32' x 50'; \$3,500; o., Wm. Pomeroy, New York City; a., Dudley Newton.
Newton, Mass.—Old Orchard Road, Ward 6, two-sty stable, 27' x 47', hot water; \$3,300; o., E. G. Bemis; b., H. H. Hunt, W. Newton.
Chester St., Ward 5, two-sty fr. stable, 20' x 34', stoves; \$1,200; o., W. E. Bowen; b., G. E. Philbrook.

STORES.

Boston, Mass.—Hampden St., cor. Eustis St., Roxbury, one-sty fr. store-building, 24' x 64' x 102', flat roof, stoves; \$6,000; o., Myles McCabe; a., S. Rantin & Son, 1117 Columbus Ave.
New Hampton, Ia.—Two-sty bk. store-building, 80' x 115', gravel roof; \$20,000; o., Sherman & Sheakley; a., Wm. M. Kenyon, Minneapolis, Minn.
New York, N. Y.—Sixty-fifth St., nr. 10th Ave., one-sty fr. store, 30' x 44'; \$25,000; o., Minnie Harris; a., Geo. H. Van Auken, 30 E. 14th St.

BUILDING INTELLIGENCE.

(Stores Continued.)

Twenty-first St., nr. 6th Ave., six-sty bk. lofts & stores, 46' x 88' 9"; \$70,000; o., Higgins & Seiter, 54 W. 22d St.; a., Mortimer C. Merritt, 1267 Broadway.
TENEMENT-HOUSES.
New York, N. Y.—E. Fourteenth St., Nos. 520-522, 2 six-sty bk. tenements, 25' x 92'; \$44,000; o., Bridget Golden, 520 E. 14th St.; a., B. W. Berger, 121 Bible House.
E. Fifth St., Nos. 734-740, 3 six-sty bk. tenements, 21' 6" x 90'; \$75,000; o., John Katzman, on premises; a., M. Bernstein.
Broome St., Nos. 249-251, seven-sty bk. tenement & store, 40' 2" x 87' 7"; \$40,000; o., Isidor Ginsberg, 214 Clinton St.; a., Sass & Smallheiser.
Chrystie St., nr. Delancey St., 2 seven-sty bk. tenements & stores, 25' x 89' 9"; \$70,000; o., Frances Glover, 39 E. 30th St.; a., Moore & Lansiedel.
Second Ave., cor. 6th St., 2 seven-sty bk. tenements & store, 25' x 120' x 115'; \$70,000; o., Cohen & Glauber, 245 Broadway; a., M. Bernstein.
Monroe St., Nos. 169-173, 2 six-sty bk. tenements, 23' 2" x 86'; \$50,000; o., Merryash & Parnes, on premises; a., M. Bernstein.
Orchard St., nr. Stanton St., six-sty bk. tenement & store, 25' x 75'; \$22,000; o., P. L. Ronalds, 54 Cliff St.; a., Youngs & Cornell, 281 Fourth Ave.
Christopher St., No. 75, seven-sty bk. tenement, 25' 10" x 90'; \$30,000; o., Israel Cohen, 245 Broadway; a., M. Bernstein.
King St., Nos. 56-58, six-sty bk. tenement, 41' 8" x 86' 10"; \$42,000; o., Lowenfeld & Prager, 111 Broadway; a., G. F. Pelham.
WAREHOUSES.
New York, N. Y.—Lewis St., No. 65, seven-sty bk. loft-building, 25' x 100'; \$20,000; o., Hershkowitz & Roth, 245 Broadway; a., M. Bernstein.

SOME Portland Cements may show a high tensile strength at a short period and yet be so defective that the work done with them will disintegrate with age. This is due to imperfect composition. The Dyckerhoff brand is invariably of correct chemical composition and the work done with it is invariably strong and absolutely durable.

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PROPOSALS.

SEWER PIPE.

[At West Newton, Mass.]

Sealed proposals for furnishing about 69,000 feet of vitrified salt-glazed sewer pipe, with necessary bends, branch connections, and stoppers, will be received at the office of the Street Commissioner, City-hall, West Newton, Mass., until May 13, 1901. 1323

Treasury Department, Office of Supervising Architect, Washington, D. C., April 27, 1901. Sealed proposals will be received at this office until 2 o'clock P. M. on the 27th day of May, 1901, and then opened, for the construction of a glazed porch at the U. S. Immigrant Station, Ellis Island, New York Harbor, in accordance with the drawings and specification, copies of which may be had at this office or at the office of Messrs. Boring & Tilton, architects, 32 Broadway, New York, N. Y. JAMES KNOX TAYLOR, Supervising Architect. 1324

Treasury Department, Office of Supervising Architect, Washington, D. C., April 22, 1901. Sealed proposals will be received at this office until 2 o'clock P. M., on the 23d day of May, 1901, and then opened, for renovation of the plumbing and drainage system, etc., in the U. S. Post-office and Court-house at Philadelphia, Pa., in accordance with drawings and specification, which will be furnished at the discretion of the Supervising Architect at this office or at the office of the Custodian of the building, at Philadelphia, Pa. JAMES KNOX TAYLOR, Supervising Architect. 1324

Treasury Department, Office Supervising Architect, Washington, D. C., April 25, 1901. Sealed proposals will be received at this office until 2 o'clock P. M. on the 18th day of May, 1901, and then opened, for painting, etc., for the U. S. Post-office and Sub-treasury at Boston, Mass., in accordance with specification, copies of which may be had at this office or at the office of the Custodian of the building at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1324

BUILDING.

[At Columbus, O.]

Bids are wanted May 16 for erecting a building, to cost about \$75,000, for the College of Law, Ohio State University. Alexis Cope, sec'y. Architect, Stillman Dutton, New England Bldg., Cleveland. 1324

PROPOSALS.

BUILDINGS.

[At Hapeville, Ga.]

Bids are asked until May 30 for constructing buildings for the Fulton County Industrial Farm. GEORGE WILSON STEWART, Atlanta Ga. 1324

PAVING.

[At Alexandria, Ind.]

Proposals will be received at the office of W. I. Hall, City Clerk, of the City of Alexandria, Ind., up to May 30th, 1901, for the paving of certain alleys in the central portion of the city with vitrified paving brick. The amount to be put under contract amounts to about 6,000 square yards. J. S. HUMPHREY, city engineer. 1324

BANK BUILDING.

[At Bird Island, Minn.]

The undersigned hereby gives notice that sealed proposals for the erection of bank building and drug store including all labor and material, will be received by Bank of Bird Island until the 15th day of May, 1901. F. L. PUFFER, pres. 1324

BUILDING.

[At Fort Revere, Boston Harbor, Mass.]

Depot Quartermaster's Office, 170 Summer St., Boston, Mass. Sealed proposals will be received at this office until May 27, 1901, for constructing at Fort Revere, Nantasket Head, Boston Harbor, Mass., one barrack, two single and one double officers' quarters, one hospital, three non-commissioned officers' quarters, one guard-house, one bake-house, one stable, one storehouse, one shop, one fuel shed and one oil-house. W. H. MILLER, depot quartermaster. 1325

SIGNAL STATION.

[At Rockland Harbor, Me.]

Sealed proposals will be received at the office of the Lighthouse Engineer, Room 1017, 25 Pemberton Sq., Boston, Mass., until May 28, 1901, for building a light and fog signal station on the Breakwater at Rockland Harbor, Me., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to Lieut. Colonel W. S. Stanton, Corps of Engineers, U. S. A. 1325

PROPOSALS.

COURT-HOUSE.

[At Newroads, I. a.]

Bids are wanted May 15 for a brick court-house, also for remodelling the present court-house. O. ST. DIZIER, chmn. police jury com. 1323

SEWERAGE WORKS.

[At Quincy, Mass.]

Sealed proposals will be received at the office of the Metropolitan Water and Sewerage Board, 1 Ashburton Pl., Boston, Mass., until May 13, 1901, for building Section 49 and culverts and embankments for Sections 48 and 49 of the high-level sewer in Quincy, Mass., in accordance with the form of contract and specifications to be furnished by the Board. Plans can be seen and specifications and form of contract can be obtained at the above office, or at the office of the Engineering Department, Pemberton Building, Boston, Mass. WM. N. DAVENPORT, sec. 1323

Treasury Department, Office Supervising Architect, Washington, D. C., April 23, 1901. Sealed proposals will be received at this office until 2 o'clock P. M., on the 14th day of May, 1901, and then opened, for covering steam-pipes, tanks and other hot surfaces, cold-water pipes, ducts, etc., in the various buildings at the U. S. Immigrant Station, Ellis Island, New York Harbor, in accordance with the specification, copies of which may be had at this office or at the office of Messrs. Boring & Tilton, architects, 32 Broadway, New York City, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1323

HEATING AND VENTILATION.

[At Newton, Mass.]

City of Newton, City-hall, West Newton, Mass. Sealed proposals for installing the heating and ventilation in the proposed building for contagious diseases, at the Newton Hospital, in accordance with the plans and specifications prepared by the S. H. Woodbridge Co., 93 Federal St., Boston, where plans and further information may be obtained, will be received at the office of the Public Buildings Commissioner until May 15th, 1901. GEO. H. ELDER, public buildings commissioner. 1323



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No. 16.

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Professional Ethics.

The following . . .

. . . CODE OF ETHICS . . .

Prepared in Conformity with the
Best Standards of Practice, and
Recommended to its Members by
the Boston Society of Architects,
was

ADOPTED BY THE SOCIETY, FEBRUARY 1,
.. 1895. . .

SECTION 1. No Member should enter into
partnership, in any form or degree, with any
builder, contractor, or manufacturer.

SECTION 2. A Member having any ownership
in any building material, device or invention,
proposed to be used on work for which he is
architect, should inform his employer of the
fact of such ownership.

SECTION 3. No Member should be a party to
a building contract except as "owner."

SECTION 4. No Member should guarantee an
estimate or contract by personal bond.

SECTION 5. It is unprofessional to offer draw-
ings or other services "on approval" and
without adequate pecuniary compensation.

SECTION 6. It is unprofessional to advertise in
any other way than by a notice giving name,
address, profession, and office hours, and
special branch (if such) of practice.

SECTION 7. It is unprofessional to make altera-
tions of a building designed by another archi-
tect, within ten years of its completion,
without ascertaining that the owner refuses
to employ the original designer, or, in event
of the property having changed hands, with-
out due notice to the said designer.

SECTION 8. It is unprofessional to attempt
to supplant an architect after definite steps
have been taken toward his employment.

SECTION 9. It is unprofessional for a Member
to criticise in the public prints the professional
conduct or work of another architect except
over his own name or under the authority of
a professional journal.

SECTION 10. It is unprofessional to furnish de-
signs in competition for private work or for
public work, unless for proper compensation,
and unless a competent professional adviser
is employed to draw up the "conditions" and
assist in the award.

SECTION 11. No Member should submit draw-
ings except as an original contributor in any
duly instituted competition, or attempt to
secure any work for which such a competition
remains undecided.

SECTION 12. The American Institute of Archi-
tects' "schedule of charges" represents mini-
mum rates for full, faithful and competent
service. It is the duty of every architect to
charge higher rates whenever the demand for
his services will justify the increase, rather
than to accept work to which he cannot give
proper personal attention.

SECTION 13. No Member shall compete in
amount of commission, or offer to work for
less than another, in order to secure the work.

SECTION 14. It is unprofessional to enter into
competition with or to consult with an archi-
tect who has been dishonorably expelled from
the "Institute" or "Society."

SECTION 15. The assumption of the title of
"Architect" should be held to mean that the
bearer has the professional knowledge and
natural ability needed for the proper invention,
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