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THE result of the suggestion we made in our issue for August 20 last as to the publication of further collections of measured details of Colonial work is that to-day Part III of the "*Georgian Period*" is published and forwarded to those who have subscribed for it, and that we are ready to go on with the series. Instead, however, of issuing a fourth and final instalment very much larger than its predecessors, we have decided to continue the series without definite term, and allow it to become, if fortune favors, a sort of *omnium-gatherum*, to which seekers may turn in search of definite architectural information regarding architecture of the Colonial and Provincial periods, down to the revival of Classic forms in the early part of this century. While it is desirable that this record should take in the main the form of measured drawings, it is undesirable to restrict it wholly to that form, else there would be a needless and endless repetition of essentially the same general schemes, details and motives. But there is many a building that deserves record from historical or other reasons which it is undesirable to measure and draw in full, and for such structures a half-tone reproduction of a photograph seems all that the occasion calls for. Therefore we are ready to welcome from those interested in the subject not only measured drawings of really noteworthy buildings of the epoch, but also photographs and negatives of any size, and brief descriptive notes as well, for it is our purpose to reprint with the next instalment some of the many interesting essays on the subject that have been published in this journal from time to time, and add to this record such notes as may be furnished in connection with the fresh illustrations we now solicit.

ONE of the measures characteristic of the New York Legislature is now pending before that body. This proposed law provides not only that all elevators hereafter built shall be enclosed with walls of stone, brick or iron, but prescribes that "there shall also be constructed around such elevator-shaft a suitable staircase of iron, stone or brick, leading from the ground-floor of such building to the upper floor thereof," and winds up with a clause providing that "within ninety days from and after the passage of this act the owner or owners of any building of the kind mentioned in the act in which the elevator is now placed or in use shall cause the elevator and stairway to be altered and constructed in such a manner as to comply with all the provisions of Section 1 of this act relating to the future construction of elevator-shafts and elevators and stairways in such buildings." Persons familiar with New York "strike legislation," consisting in the adoption, or threatened adoption, of measures directed at the interests of special classes of people, who are supposed to be able to spend money liberally in bribes to prevent their enactment or enforcement, will find this last proposition interesting. It is hardly necessary to say that the change of nine-tenths of the elevators in New York, and the compulsory provision of staircases around them, would necessitate the rebuilding of most of the apartment-houses and office-buildings in the city, at a cost of many millions of dollars, and the provision that all this work shall be done within ninety days from the passage of the act has much more the air of a highwayman's summons to his victim than of a sober effort to promote the public welfare. The most radical building-law ever yet seriously proposed, that suggested for Glasgow, which, we believe, failed of adoption, allowed seven years for the remodelling of old structures to conform to the new requirements; and the change of both stairways and elevators would involve almost complete reconstruction in the great majority of New York buildings of the class to which the law would apply. So far as the public interest is concerned, it is obvious to every one who knows anything of such matters that the provisions of the statute are much worse than useless. That elevators should be enclosed in fireproof walls, as the statutes of New York have for many years required, is well enough, and there would be no harm in requiring that such passenger-elevators as are still without fireproof enclosure should, within a reasonable time, be provided with it, but to insist upon surrounding elevators by stairways is to defy not only common-sense but the teachings of much painful experience. Neither in apartment-houses nor office-buildings should a staircase ever be permitted to encircle an elevator, unless the building is fireproof throughout, or, at the least, the staircase itself enclosed by heavy brick walls, within which everything is of metal or masonry. The reason of this is, of course, that, in case of fire, either the stairway or the elevator-shaft is, in almost all cases, the conduit for most of the smoke from the fire; and to unite them is to provide for cutting off both means of exit from the upper stories at once. Every architect will remember the fire in an apartment-house in Chicago, where a mother and daughter were found dead on the stairs, suffocated, in their attempt to escape, by the smoke which poured out of the elevator-shaft in the middle; and, we imagine, every architect who does not wish to be indicted for manslaughter has been careful, since that time, to keep his elevators and stairways separated, wherever there was any possibility of fire; so that the idea of being compelled by law to return to a system of construction long since condemned by all experts is rather startling. The law proposed for New York does not even say that the staircase encircling the elevator must itself be surrounded by brick walls, simply providing that it shall be of iron or masonry; and nothing is more certain than that, in ordinary apartment-houses built as this scheme requires, a trifling fire would at once fill both the stairway and the elevator-shaft with smoke, leaving to the unfortunate occupants the choice between climbing down the fire-escape and being suffocated or burned alive.

THE old complaints about the "prejudices" of the New York Building Department against certain forms of fireproof floors have broken out afresh, this time in court. Some contracts required, or permitted, the use of a certain patented system of floor-construction, described in the newspapers as consisting in "brick arching," which the Department did not approve; and the Department procured an injunction against the owner, to prevent the use of this flooring, as well as all other violations of the building regulations. On the hearing on the injunction, the contractor for the floors claimed that the owner and the Department had conspired to discredit his patent system, while the other side claimed that the contractor was trying to utilize the action to get judicial approval of his system. The Court expressed its unwillingness to try, in the statutory suit on the injunction, a technical question in architecture, and the case was settled by the owner's promise to make his building conform to the views of the Department

within a certain time. So far as the profession is concerned, it may be observed that, since the New York Building Department has long been reputed to look with unfavorable eyes on certain systems of construction which are elsewhere approved, it would be advantageous to architects and owners, who may have occasion to build in New York, to have a list made of the floor-constructions which are not likely to be approved, so that they may not be obliged to change their contracts, at a loss of time and money.

SINCE the death of the inventor, Keely, a great deal of discussion has been going on about his honesty, and the reality of his discoveries, due, in part, to the removal of his portable machinery from the workshop which he had long tenanted, and in part, as it seems, to the appearance of a swarm of other inventors, who have discovered marvellous secrets, which an assured and comfortable maintenance, at the expense of credulous stockholders, would enable them, in the course of years, to develop. Some of these persons have already brought their confiding friends to grief, and as the number of wrecks of aspirations founded on ignorance of natural laws increases, we may hope to see the claims of so-called inventors received with greater caution.

IN Paris, as in other large cities, it has been observed that the demolition of old buildings, and works of excavation, are frequently the occasion of epidemic diseases in the neighborhood, and the Prefect of Police, considering that the unusual extent of such operations in connection with the Exposition of 1900, and the extension of two great railways underground for a long distance through the city, might seriously threaten the health of a large district, directed the Municipal Conseil d'Hygiène to draw up a code of regulations, applicable to such works, which should diminish, as far as practicable, the risk to health involved in them. This code, which is in great part the work of M. Bunel, Chief Architect to the Préfecture of the Seine, gives some curious information in regard to the dangers of shifting the soil in cities, as well as directions for lessening those dangers. It has long been observed in New York that extensive excavations, for sewers, tunnels, or park improvements, have generally been accompanied by an outbreak of malarial fever among the families living near. Even the region around Madison Square, which has been closely built up for forty years, and is well sewered, paved and drained, suffered seriously, not many years ago, when some extensive earthwork was going on in the Square. In Paris the same thing is noticed, although the region in which Paris is situated is far less malarious than that about New York; and, in Paris, it is found that epidemics of typhoid fever, also, often break out in the neighborhood of fresh excavations. The evil effects due to the demolition of old buildings are, naturally, harder to trace than those which accompany earthwork, but it may be presumed that the dust incident to tearing down a dwelling infected with scarlet fever, or diphtheria, or other infectious diseases, particularly those whose germs are known to retain their vitality for hundreds of years, might carry with it, into the streets, or the windows of neighboring houses, the seeds of new epidemics, and experience indicates that this is frequently the case. To guard against all these dangers, the regulations drawn up by M. Bunel and his associates require that, where old buildings are torn down, the first step shall be the sprinkling, sweeping and cleaning of all walls and floors; the disinfection, by the health authorities, of all houses known or suspected to have harbored a case of infectious disease within five years previously; the burning of all combustible rubbish on the spot, and the emptying and cleaning of all cellars, vaults, wells, cesspools and drains on the premises, followed by sprinkling with a five-per-cent solution of sulphate of iron, and subsequent whitewashing with a wash made with quicklime. Besides these precautions, a tight enclosure must be made around the buildings to be demolished; and the incombustible rubbish, together with the earth from the new excavations, must be transported to the public dump, outside of the city, any material of doubtful character being first treated with sulphate of iron and lime, and, in certain cases, carried in covered carts. The mixture of sulphate of iron and quicklime, in the proportion of one part of the former to two of the latter, which, under the new regulations, must be sprinkled on the soil at every interruption of work in excavations in doubtful soil, has already been used, with excellent results, in cleaning out the canal at Versailles, and the lakes of Saint-Mandé and Enghien.

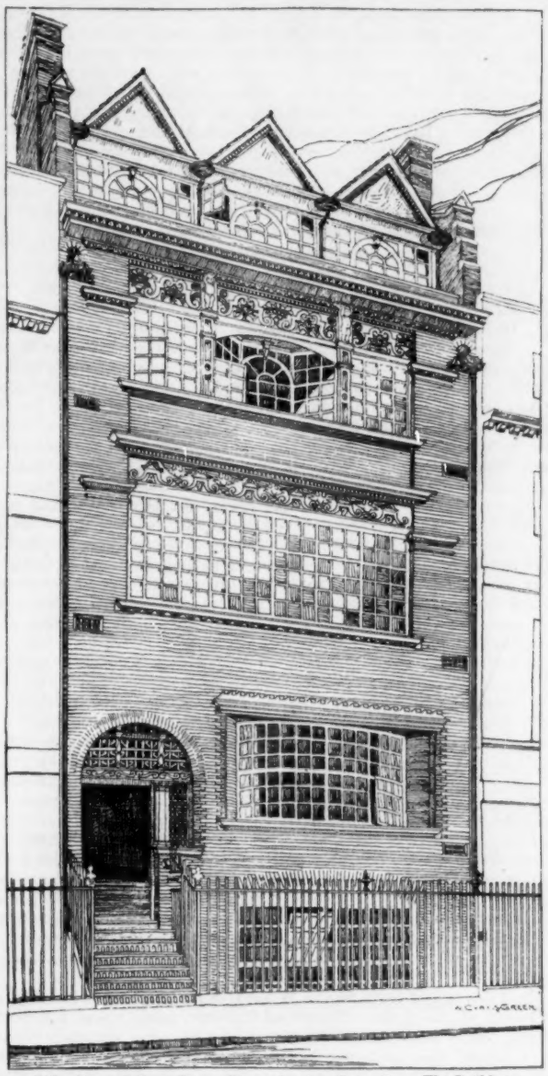
THE Architectural League of New York has set a good example to similar organizations by considering, at a regular meeting, the plan of that city, with reference to extensions and changes of the present plan. Although there is, at present, little probability that the suggestions made will be carried out, the mere criticism of the existing arrangement of streets by persons skilled in such matters is an excellent thing for them and for the public. Some of the ideas proposed, as, for instance, Mr. Post's scheme for providing adequate approaches to the new bridge across the East River, will probably form, later, the basis of actual improvements; and, in any case, it is impossible to have too much thought expended, by competent persons, on such matters.

THE New York Supreme Court has made an important interpretation of the statute in relation to coroners. In a recent case, where some men were killed by the fall of a building, the coroner applied to the Court for permission to appoint an expert to ascertain the cause of the fall; but consent was refused, the justice holding that the statute only authorized an examination of the body of the deceased, and that while the report of an expert examination of the ruined building would be instructive, there was no indication that the statute intended to empower a coroner to procure such examination; and, indeed, in view of the complete authority given to the Grand Jury in such matters, there was no reason why the coroner should have more power in making investigations than he now possessed.

THE *Bautechnische Zeitschrift* gives a piece of chemical science of considerable interest. Every one has noticed that certain wall-papers have a disagreeable odor, which is generally laid to the sour paste used for putting them on. It seems, however, that the colors in the paper itself may be at fault. The French blue, or artificial ultramarine, which is employed for all blue papers, and for most of the green and gray ones, contains sulphide of sodium, which, when treated with acids, evolves sulphuretted hydrogen. As the paste used by paper-hangers is almost always acid, or, if originally fresh, becomes acid after it is put on, papers colored with ultramarine may be expected to smell like rotten eggs for some months after they are applied. Where the paper is put directly on the wall, the lime of the plastering does much to neutralize the acid in the paste, so that the action on the ultramarine is comparatively insignificant; but if a blue or green paper is put on over another paper, and, particularly, if the paper beneath is also blue, green or gray, the full effect of the action of the acid on the ultramarine will be realized. The moral of this is that people who wish to use papers containing ultramarine colors should never put them on over old paper, but should have all old paper scraped off, down to the plastering. In fact, it is best to do this in all cases, as a thick mass of old flour paste, paper, sizing and dirt is an undesirable lining for a wall; but the effluvium from ultramarine, under the influence of acid paste, though not, perhaps, more dangerous than that from the decaying paste alone, is particularly disagreeable.

UNDER the French Code, if a person concerned in a suit summons as witnesses any of his own servants or domestics, the opposite side can "reproach," or, as we say, challenge, any or all of them; and if the judge thinks that the challenge is justified by any probability of partiality in their testimony he may refuse to allow them to testify. The theory of this provision is, of course, that a dependant, particularly if he or she is a member of the family of the person summoning them, might be expected to be so far prejudiced by fear, or by affection, as to give misleading testimony. Not long ago an effort was made to apply this principle to witnesses employed by a party to a suit, although not as domestics, the persons whose testimony was questioned being three women working regularly during the daytime for the plaintiff, and in her house, but sleeping at their own homes, but the highest Court in France decided that the words "servants and domestics" in the Code applied only to persons lodged and fed by their employer, and directly dependent on him.

THE PALACE OF THE CANCELLERIA AT ROME NOT DESIGNED BY BRAMANTE.[1] — II.



Office Front, 8 Great George Street, London, Eng. From *The Builder.*

NOW let us come to the historical argument. I ought to say at once that it was Signor Groli, Chief Librarian of the Biblioteca Vittorio Emanuele at Rome, who made the researches the results of which I here describe. The principal point to establish is the year of the departure of Bramante from Milan, and this year, which has been the subject of various disputes, now seems to have been 1499. If there can be any doubt, it would be whether Bramante arrived in Rome in this year, or later. The Cancelleria, as I have said, was built by Raffaello Riario, nephew of Cardinal Pietro Riario, and of Count Girolamo, nominated Cardinal by Sixtus IV († 1484) at nineteen years of age. But when was it commenced? In general, the time is given as the year 1486, and this date would be accepted to-day, unless, perhaps, it were to be corrected by setting it a year or two earlier. The building of the palace was undertaken with extraordinary ideas of sumptuousness and magnificence, Raffaello Riario, who paid the expense, being extremely rich. But there is, in the frieze over the first story, which extends the whole length of the façade, an inscription, which reads that "the Cardinal of S. Giorgio," that is, Raffaello Riario, "caused this palace to be built in the year 1495." Therefore, its construction must have been begun some time before. Above the middle door is another inscription, which reads "R. CARD. RIARIUS — SIXTI IV PRONEPOS — CAM. AEDES. FECIT — ANN. SALUT. MCDLXXXIX." This inscription is no longer visible, probably because it is hidden by the present sign, "*Corte Imperiale*," made in stucco in the early years of the century. The inscription of 1489 was ascertained from Giacconio, and proves that the palace of the Cancelleria was far advanced in construction in 1489, if in that year it was possible to execute the inscription referred to. Later, in 1495, was executed the inscription on the frieze, which is to-day very plainly visible. Therefore, when Bramante arrived in Rome, the palace of the Cancelleria was erected.

[1] Continued from No. 1204, page 20.

But could not our architect have made at Milan the designs for the palace? This is what De Geymüller, already quoted, supposes; and, remembering the inscription of 1495, he says that Bramante, having conceived his design, left Milan temporarily in 1493, or a little afterwards; and that the façade was begun in 1495, and the palace completed later. But De Geymüller was evidently ignorant of the inscription of 1489, and this inscription destroys his hypothesis about Bramante. In any case, the visit of Bramante to Rome, before 1499, remains to be demonstrated, and until now no basis whatever has been discovered for such demonstration. It might be possible, perhaps, to controvert the notion of the absence of Bramante from Milan at that period, if history were a matter to be accommodated to the fancy of writers; but, instead of that, history, composed, like arithmetic, of facts, is not an affair of opinion; and we are here face-to-face with obscurity such as can be cleared up only by artistic criticism. The result of this criticism we know. It removes entirely from connection with Bramante the Palace of the Cancelleria, reputed his masterpiece, the only masterpiece, De Geymüller says, including in it the adjoining church of S. Lorenzo in Damaso, the execution of which is complete.

Let us continue to interrogate history, for, after this, "The rest is silence," as Shakespeare says by the mouth of Hamlet. Who has attributed to Bramante the Cancelleria palace? No one knows, yet no one has ever opposed this attribution. We are usually told that tradition is the authority for it. But tradition may, or may not, have historical foundation; and here it seems certain that tradition has no right to be considered, for the simple reason that it does not exist; that is, it does not exist in favor of Bramante, but rather the other way, if there is any tradition concerned. Vasari, in his life of Bramante, speaking of the Cancelleria, says that our architect "took part, with other excellent architects, in carrying out a large part of the palace." Thus, at the end of the sixteenth century, the palace under discussion was not attributed entirely to Bramante. Nor did Vasari pretend to give to the tradition the importance which was afterwards attributed to it. After him confusion and uncertainty reigned in regard to the designer of the palace, and Groli, comparing several authors of reputation, has shown very clearly that the writers after the sixteenth century were uncertain in regard to the architect of the Cancelleria. Titi, for example, in 1686, wrote that it was designed by Sangallo, "according to the opinion of many." That it was the work of one of the Sangalli (and the dynasty of Sangallo is so long that precision is necessary, and a lack of precision is equivalent to uncertainty) was an opinion extensively current, even in the last century, in which a writer, one Martinelli, remarks that the Palace of the Cancelleria "was designed by Bramante, or, as some think, by Sangallo." Another writer even attributes it to Vignola; but the fact is this: that the palace was sometimes attributed to one of the Sangalli (without saying which one), sometimes to Bramante; and, in the end, the credit remained to the latter. The reason is easily understood. In every Italian city there has been a persistent habit, when history is allowed to take a little from fancy, of attributing to its greatest genius, or most celebrated artist, the works of art that it contains. It is simply a form of boasting, or ambition. So, in Lombardy, nearly all the most beautiful buildings of the Renaissance have long been attributed to Bramante, as, in Tuscany, all the most beautiful pieces of glazed terra-cotta of the sort known as "della Robbia ware" are said to be by Luca della Robbia.

These are, then, the historical arguments on which rests the theory of the Bramantean origin of the palace of the Cancelleria, and such is the foundation of the universal persuasion that it was designed by Bramante. I do not believe that any one can give serious consideration to such arguments, contradicted, as they are, by an artistic criticism which shows the stylistic antithesis between the presumed author of the edifice and the character of the design of the edifice itself, which, although timid, weak, nowhere expressive of the Roman grandioseness of Bramante, was and is a magnificent work of architecture. And the Palace of the Cancelleria, which recalls, as even De Geymüller admits, the Rucellai Palace of Alberti, produces on the mind a pleasing impression, as of general harmony, which in itself recalls Alberti.

In brief: if any one asks who was the real designer of the palace of the Cancelleria, it would to-day be difficult to answer, if the answer must present any definite name; but, proceeding by way of elimination, the reply would show the improbability that the palace could have been the work of Bramante, and the possibility, or, rather, virtual certainty, that it was designed and sculptured by one of the many Tuscan sculptor-architects who in the fifteenth century lived at Rome, and, followers of Brunellesco and Alberti, adorned the city of the Popes with many florid monuments, especially of decorative architecture, such as altars, tombs, pulpits, altar-canopies, and so on.

ALFREDO MELANI.

COFFINS UNEARTHED AFTER 700 YEARS. — Excavations by the Surrey Archæological Society at Waverley Abbey, near Farnham, have disclosed the foundations of a church and the outline of the monks' dormitories, as well as the kitchens and disciplinary cells. In the cloister, opposite the chapter-house door, the coffin was found of William Manduit, the third Baron of Hanslape, and King's Chamberlain, whose burial took place in 1194, as recorded in the annals of Waverley. Several others were also uncovered. These coffins were not of stone, as is usual in English abbeys, but of oak, and the wood was almost as sound as on the day it was laid in the earth. — *Westminster Gazette.*

BENEFACTIONS TO CANADIAN COLLEGES. — BURNING OF THE CATHEDRAL OF ST. GEORGE, KINGSTON, ONT. — A CONTRACT DETERMINED BY FIRE. — LANDSLIDE ON THE FRASER RIVER. — COPPER CONGLOMERATE ON THE NORTH SIDE OF LAKE SUPERIOR.

THE Royal Victoria College of Montreal has, by the gift of an even million dollars, again benefited by the munificence of Lord Strathcona and Montreal, Canada's High Commissioner to Great Britain, who has added to the many donations he, as Sir Donald A. Smith, had previously granted to both the Royal Victoria College and the McGill University. This brings up the total of his gifts to $2,350,000. It is a magnificent thing for educational institutions when a couple of millionaires make them their hobbies, to say nothing of the benefit to the country at large. Sir W. C. McDonald, recently knighted, has given in various sums for different purposes $2,055,000 — four millions four hundred and five thousand dollars between them, so that now these two colleges are probably equipped as finely as any college on the Continent of America. Sir W. C. McDonald has given for building out of this total at least $1,000,000, the Engineering Building alone receiving $400,000.

The City of Kingston, Ont., had the grievous misfortune to lose by fire its Anglican Cathedral, St. George's, on the morning of New Year's Day. The building was constructed of wood, and as no one was in the church at the time the fire must have begun it had obtained such headway that when discovered it was too late to save it. The Cathedral was built in 1825, added to in 1840 and entirely remodelled, internally, in 1893. The original design was a fair Renaissance building but the additions of 1843 spoiled it. A pepper-box belfry over the main portico, altogether out of proportion, and panelled with louvers like Venetian blinds, painted green, became a standing subject for jokes. It must have been at this time that great galleries were added internally, but these were removed in the remodelling of 1893.

A case of considerable interest has been decided at the Assizes in Hamilton, Ont. It comes under the heading of cases of "Contracts determined by Fire." A block of offices known as the "Old Spectator Building" was in the hands of contractors who were engaged in remodelling the interior when it was destroyed by fire on May 19th last. The contract showed that it was the intention of the parties that the builders should insure the building for their own safety, while the works were being carried out, but this they neglected to do. The builders were paid by monthly certificates of the architects. At the time of the fire they had executed or supplied materials for $1,000 worth of work over and above that covered by previous certificates but at the time of the fire they were not entitled to a certificate. Mills, the builders, sued Procter, the owner, for $1,000. Judge Snider held that, the buildings having been destroyed by fire, without fault on either side, the contract was determined and there was no cause for action. The plaintiffs should have protected themselves against loss by insurance.

A tremendous landslide occurred early this month on the line of the Canadian Pacific Railway near Spence's Bridge, British Columbia. About two hundred acres of earth loosened by a rapid thaw after severe frost fell into the Fraser River just at the point where the river plunges through a narrow cañon. A great fissure appeared in the precipice the night previous to the slide, warning the settlers, whose homes were at its foot, of danger. These people removed in haste and, watching from the opposite heights, witnessed a grand sight, but appalling in its consequences to themselves. The whole mass suddenly detached itself from the mountain and, tumbling into the river, completely blocked it, crushing the homesteads and turning the river into the fertile Nicola Valley. Entering the river-bed again about a mile below the immense dam thus formed, the river destroyed in its wild career some of the most flourishing ranches. The damage done, however, is not yet entirely known, but it is not likely the river will be able to resume its original bed.

Some interesting facts have come to light in the region of the north shore of Lake Superior. It is stated that there is here a "mass of conglomerate rock like the mother rock of most of the copper mines of the Houghton district" stretching for 55 miles east and west and from 10 to 15 miles wide. Here are to be found pits where prehistoric miners are said to have done their digging. The pits have been traced for miles, filled-in with *débris*, and in many cases trees of some size are growing up, and through the waste the heads of stone hammers are constantly found, oval in shape, about six inches long, grooved for the thongs with which they would have been tied to wood handles. It is said that from this neighborhood came the first piece of the metal ever seen in America by white men, found by a priest early in the seventeenth century. He was paddled by Indians to a point where they told him there was to be seen a red rock, soft and very heavy, and he is said to have found there a chunk of copper weighing several hundred pounds. He at once named the place "Isle Royale," in honor of his King, Louis XV, and it bears that name to-day. Fifty years ago copper was mined here. There was a large trade to the island and the Government built stone lighthouses and shelters. Heavy sums were spent in harbors and in roads to the mines but for thirty years past not a pound of copper has been brought away. Many people still believe the district worth working, notwithstanding that an English Company has been spending half a million dollars there, drilling, in the attempt to find the lodes that yielded so richly years and years ago, but the veins have been lost, and so far all efforts to trace them have proved fruitless. It is pretty well agreed by mining experts that all this part of Northwestern Ontario is very rich: the developments of the past year seem to prove enormous possibilities.

DOOR LEGENDS.

FROM the earliest ages, superstitions have been associated with doorways, gates and thresholds. A modern traveller in Italy describes the curious ancient *porte de mortuccio* (doors of the dead), which still exist in many of the chief houses at Perugia, side by side with the principal door of the house. These *porta de mortuccio*, "tall, narrow, and pointed at the top, just wide enough for a coffin to pass through," are now mostly disused, blocked up, and easily overlooked by any but observant travellers; but these small openings were originally made for the exclusive use of the dead, and are mementos of a superstition handed down from Etruscan times, a belief that "where Death had once passed out Death could the more easily pass in." Opened only on the occasion of a death in the household, the old Perugian *porta de mortuccio* was heedfully bolted and barred again after the corpse had been passed out through it, and no coffin was ever carried over the threshold of the ordinary house door. In many places in Holland, at the present day, the principal door of the mansion is only opened on the occasion of a funeral or a marriage.

Blessing the threshold of a dwelling-house was a common practice in the Middle Ages, and pious mottos were frequently graven over the house doors. Perugia presents many examples of this kind of inscription: "Ora ut vivas, et Deo vivas," "Janua cœli" (over a church), "Pulchra janua ubi honesta domus." Specimens of this kind of door inscription are found all over Europe. "God's providence is mine inheritance" is written over a seventeenth-century house at Chester; and over how many an English cottage do we still see "the horseshoe nailed, the threshold's guard." Inscriptions (often descriptive of the character of the house itself) are found over some doorways at Pompeii, and when Dante described the awful gateway of the "Inferno" as bearing a motto ("All hope abandon, ye who enter here") he was probably recalling the contemporary custom of placing appropriate inscriptions over doors and gateways. The old houses at Spa formerly preserved mementos of the various celebrities who had once occupied them (Marguerite of Navarre, Peter the Great, Charles the Second, Alexander of Parma, all once visited this bright little health resort), in the shape of the armorial bearings of the former illustrious visitors carved above the house door. The Canongate of Edinburgh had formerly many specimens of similarly ancient house inscriptions. Herrick has sung of the superstitious rites practised at a wedding in connection with the house doorway:

"Ye that be her [bride's] nearest kin
O'er the threshold force her in;
But to avert the worst
Let her her fillets first
Knit to the posts, this point
Remembering — to anoint
The sides, for 't is a charm
Strong against future harm."

Witches were credited with burying noxious ingredients under a house threshold, and these rites at the door were supposed to avert an evil spell, if such had been attempted. There are many legends of enchanted doorways. Lady Fanshawe, writing in the seventeenth century from the court of Madrid (to which her husband was then ambassador), gives a long account of such a door at Granada: "There is, at this place, an iron grate, fixed into the side of the hill, which is a rock. I laid my head to the keyhole and heard sounds like the clashing of arms, but could not distinguish other shrill sounds I heard with that. Tradition says that this door could never be opened since the Moors left; several persons have tried to wrench it open, but perished in the attempt. Regarding the truth of this, I can only say that there is such a door, and that I have seen it." Probably this "tradition" was a legendary accretion to the true narrative of how the defeated Moorish King Boabdil, in resigning his capital to the Spanish conquerors, had made it his last request that the door by which he quitted the city might be walled up and never used again, a request complied with by Ferdinand and Isabella. Lady Fanshawe has another story regarding a doorway at Granada, relating that one of the gates of the Alhambra was adorned, among other carved ornaments, with the representation of "a bunch of keys, cut in stone, with this motto, that until a hand should grasp the keys the Christians should never possess this Alhambra." This prophecy served to "greatly animate the Moors," as Lady Fanshawe records; but adds, "See how true it is that there is a time for all things. It happened that when the Moors were

besieged in this place by Don Ferdinand and Queen Isabella, the King, with an arrow shot out of a bow, cut that part of the stone which held the keys (which was in the fashion of a chain), and so the keys fell upon the carving of a hand beneath. This strange occurrence happened but a day or two before the conquest of Granada." Many are the legends regarding enchanted doors in hillsides, which opened once, or on a few occasions, and then could never be found again. There is the story of the complaisant fairies, who, upon a certain invocation being made, were wont to unclose a hitherto concealed gateway, and pass out all manner of useful household utensils, only exacting that these should be duly returned at the promised dates. But one day a careless borrower failed to bring back an article lent, and the incensed fairies opened their doors no more, adopting the tactics of the French innkeeper, who wrote below his sign, "*On ne loge pas ici à credit, car il est mort, les mauvais payeurs l'ont tué.*"

Scott (in "Marmion") has written of the "grisly door," "narrow, deep and tall," into which those who enter "shall ne'er, I ween, find exit more" — alluding to those vaulted recesses in walls in which victims were buried alive. Though the fact has been disputed, it appears tolerably certain that this was sometimes the doom awarded to religious votaries, who, like "Constance" in the poem, proved false to their monastic vows; but a similar fate has befallen others than recreant monks and nuns. Some years ago one of the magazines published an interesting article upon "Kirk Grims," the supposed ghosts of victims who had been immured alive within the walls of a church to insure their spirits haunting (apparently with some idea of defence or protection) the sacred edifice. The Kirk Grim was often an animal, usually a lamb, but there are legends of human victims being sometimes selected; in one case the wife, in another the little daughter, of the chief mason or architect. These traditions are a direct survival of the old pagan superstition that the sacrifice of a human life insured the stability of a building. Visitors to Algeria still can see, in one of the local museums, a block of concrete which once formed part of the Moorish city wall, into which a Christian captive had been cast alive while the concrete was in a liquid condition — the hollow left by the corpse of the victim has been filled with plaster, and a cast thus obtained of the sufferer's form, that of a youth. Many West Country rustics still firmly believe in the existence of Kirk Grims; and there are legends that these spirits can be seen, at times, flitting about old churches or churchyards; but the sight is not one to be desired, as it presages the beholder's death within a year. One man who saw the local Kirk Grim — in this case a spectral lamb — disporting itself in a Devonian churchyard is said to have only survived the sight a few months. How many similarly fantastic legends and superstitions still lie "hidden, like lees in wine," as Lord Bacon phrases it, in the hearts of our English rustics, despite all modern educational efforts! There is still, among many of our villagers, something of the spirit of the Sussex ploughboy, who, gazing one evening at the setting sun, remarked to a companion: "Bill, you knows they tell us at school that the sun don't never move. Now, you just look out yonder," pointing to the glowing west, "and you'll see for yourself that that's a big lie." Doorway superstitions were probably coeval with the art of building, and the old crone who to-day nails up a horseshoe over her threshold "for luck" is only following in the steps of many remote races of men, who also practised superstitious rites in connection with their house doors. — *London Standard.*

IMPROVEMENTS IN BRONZE CASTING.

AT a recent meeting of the Société des Ingénieurs Civils de France M. E. Maglin made a communication on the casting of bronze statues in which he sketched the art of working in bronze from the earliest ages, while dwelling more particularly on the method of moulding known as the waste-wax process (*moulage à cire perdue*). In recent time, he observed, several inventors had endeavored to make moulds of gelatine, the results of which were not encouraging, but it was given to a French sculptor — M. Le Bourg — to devise a method perfect as regards the results obtained, and also the saving in labor.

The process in question depends upon the fact that gelatine, with the addition of glycerine and glucose, preserves a constant elasticity even when exposed to the atmosphere, and by its means a statue may be moulded in its entirety, being surrounded by an envelope or covering in two parts, which are detached with great facility, while producing moulds of remarkable sharpness. In this manner a wax (*une cire*) is obtained by a single pouring, the seam of the mould joint being easily removed, since it is upon soft wax that the retouching has to be effected. This done — by the ordinary methods of the waste-wax process — the statue to be reproduced is covered with slip (*barbotine*); the wax is melted out, and the bronze is run into the mould after the jets and vents have been arranged. The specially original point about this method is that, while affording a considerable number of copies absolutely identical, it is independent alike of the sculptor, the chaser (*ciseleur*) and the bronze mounter.

M. Maglin also observed that M. Le Bourg had made other improvements, some for preventing cracks in the wax, and others for producing various patinas in a dry manner by oxidation. At the same time he showed a series of models in different stages of progress for illustrating the details of the successive operations.

The president, M. Edouard Lippmann, asked if the method that had been described was public property, and if not, whether it was applicable to the same compositions of metal as those for other methods of moulding, to which M. Maglin replied that the method was not public property, and that it was applicable to the mixtures of metal usually employed, but the bronze could be cast at a greater heat.

To a question by M. J. Gaudry, whether the method was suitable for large statues, the author replied that, as the chief object of the method was to afford a considerable number of copies, it had chiefly been applied to statues of ordinary dimensions, although it had also been employed for others of greater size, while in theory there was no limit in this respect.

M. Périssé mentioned the case of a large equestrian statue which, instead of being cast in several pieces and afterwards united by internal sockets (*manchons*), was formed of one single cast piece, although the casting was effected in several jets or pourings. This was the statue of Etienne Marcel, intended for the Paris Hôtel de Ville, and shown — rough as it left the mould from the *atelier* of MM. Thiébaut Frères — in the wide central gallery of the 1889 Paris Exhibition, where it attracted great attention from *connoisseurs*. The method of producing this statue consisted in casting separately the ten parts, which could not have been cast all together in the ordinary manner without liability to fracture during contraction, viz, the four legs of the horse, the two arms, head and legs of its rider, and also the horse's tail, and then in putting these ten parts in their proper places in the general mould in such a manner as to obtain, thanks to certain precautions, an intimate union of the metal, advantage being taken of the heat in the last bronze run for effecting the "firing-on."

This method, which greatly simplifies the moulding, while insuring a better casting, had already been adopted with success for parts of existing statues that required changing; but, for the operation to succeed, it was necessary that the molten metal should circulate in sufficient quantity over the parts to be connected by fusion, for which object pockets, or jets, were arranged, the excess of metal being received outside the mould. Such precautions were taken for the equestrian statue above mentioned, in which case, however, there was this exceptional difficulty, that the firings-on, or fusions, had to be effected at ten different points simultaneously. Indeed, the sockets (*manchons*) for each of these ten parts had been cast previously; and above each socket there had been arranged, in the general mould, a feeding-pocket, which had furnished metal in excess for fusing the extremities of the ten parts. It is thus that the eleven parts of this equestrian statue only formed a single whole, which formed such a prominent figure at the last Paris Exhibition, although it is not this identical statue which was erected in front of the Hôtel de Ville, because the Paris Municipality insisted on strict observance of a certain clause in the contract.

In connection with an observation by M. Roget, that M. Le Bourg's method produced works of art differing widely from those to which the public are accustomed, and that perhaps a little educating up will be required before its delicacy is appreciated, M. Maglin expressed the hope that, inasmuch as reproductions by this method had already received the sanction of artists, they would eventually be appreciated generally, and also raise the tone of public taste — to which one circumstance greatly contributed, viz. that perfect replicas could be obtained at a lower rate than heretofore.

In reply to a question by M. E. Badois, M. Maglin added that about one hundred reproductions might be made with one and the same mould, but that when the gelatine process was used such moulds only lasted for five or six castings. — *The Architect and Contract Reporter.*

IMPENDING STRIKE OF ENGLISH PLASTERERS.

I INFORMED you last week of the creation of a federation of employers, including the greatest firms in all branches of industry, with the intention to fight the intolerable and growing demands of the trade-unions. The confirmation of this news has not been long in coming. Two of the strongest and most aggressive unions are the Boiler Makers' and the Plasterers'. The latter has apparently decided to bring a conflict upon itself. During the past year the building-trade enjoyed remarkable prosperity, every man connected with it being in full employ at high wages. This state of affairs has led the plasterers step by step to increase their demands to the point which finally compels the employers to fight.

It may interest both the employers and the employed in America to learn the causes which, unless the men retract their demands, will have brought another great industrial struggle upon this country. I will give a few examples: Recently an employer decided to construct certain partitions of plaster blocks. Both the plasterers and the bricklayers claimed that this work rightly belonged to them. Both their unions informed the employer that, whichever men he employed, the others would strike. He offered to arbitrate, but the offer was refused; thereupon he closed his works while the unions settled the matter. As they failed to do so, he gave the job to the plasterers, whereupon the bricklayers struck and for nine months he could not get a brick laid; then the bricklayers gave way. Again the bricklayers struck, because one good workman was laying more bricks than the union permitted. Union rules now allow a man to

lay only 400 bricks daily, whereas the employers state that ten years ago 1,000 daily was the rate. The union publishes regularly a black-list of employers for whom all their men are forbidden to work. If a unionist assists to procure work for a non-unionist he is fined 5*s.* for the first offence and 10*s.* afterwards. In one instance the council of a union issued instructions that on no account must the men accept the introduction of the words "skilled," "superior," "inferior," or "non-unionist" into the rules agreed upon with their employers.

So powerful has the Plasterers' Union become that it positively fines employers who infringe the trade-union rules. For example, the Coventry Branch reported: "We have withdrawn our members from the firm of C. Gray Hall, owing to the bricklayers doing the plastering, and had the firm fined £5."

The Plasterers' Union, moreover, limits the number of apprentices to one apprentice to seven workmen. The immediate cause of the pending struggle is that on the premises of a firm of London builders named Higgs & Hill a delegate of the union called and gave notice to the foremen that unless they joined the union by a certain date all the employees of that firm would be called out. The foremen, I must explain, were previously members of the union, and even if they rejoined it now they would not be admitted to the union deliberations. The foremen refused, and every plasterer was called out by the union, and thus the present situation has been precipitated.

The plasterers' wages never have been so high, probably averaging now 55 cents an hour, while many men who have struck in obedience to the union orders are skilled workmen who have served the same firm twenty years and are earning from $15 to $20 a week in a country where the cost of living is much less than in America. The infatuation of the men may be further judged from the fact that the whole weight of serious official trade-unionism is against them, John Burns, for example, having denounced their action, while even the Socialist-Labor paper condemns their policy as foolish and advises the union to order them back to work.

I have dwelt upon this matter at such length because the action of the plasterers is typical of several of the principal trades-unions and because all conditions are ripe for a struggle disastrous to British industry, whichever side wins. In view, however, of the huge proportions of the Employers' Federation described last week, the ultimate issue is beyond doubt. The plasterers may give way and the struggle be averted on this particular issue, but sooner or later the great fight between capital and labor on these lines is certain, and, I imagine, such matter is of great interest in America. — *Henry Norman in the N. Y. Times.*

THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES. — DEPARTMENT OF ARCHITECTURE.

AN important new movement has been set on foot in the Department of Architecture of the Brooklyn Institute of Arts and Sciences looking towards the expansion of the department on general lines as distinguished from the more professional aspects of architecture with which it has hitherto been chiefly concerned. The Brooklyn Institute, with a membership of between 5,000 and 6,000 persons, is one of the most remarkable institutions in the country. Its work is chiefly concerned with popular adult education and its large membership and rapid development are eloquent testimony to its success. The various departments within the Institute form independent societies with independent organization, and are encouraged and aided by the Institute in every useful undertaking.

It has been felt in the Department of Architecture that the scope of that department was more immediately concerned with the broader public, of which the membership of the Institute is chiefly composed, than with the professional phases of architecture, and at a recent meeting of the Executive Committee of the department this view was formulated in the following Report, which has been presented to the Council, the general advisory body of the Institute: —

To the Council of the Brooklyn Institute: —

At a recent meeting of the Executive Committee of this Department the relationship of the Department to the Institute and the scope of its possible influence were carefully and fully considered. The President pointed out that its present membership as given in the Year Book is two hundred and sixty-eight. Of these thirty-six are architects. The Department in the past has undertaken to develop the professional aspects of architecture more fully than its relationship to the general public, although the architects have always been in the minority in the membership, and are now very much so, notwithstanding that the list includes most of the representative architects living in Brooklyn. The members of the architectural profession in any city necessarily form a small proportion of its citizens, and it appears obvious from the figures just quoted that the work of the Department needs to be developed on a broader and more general basis than heretofore in order to pursue the very valuable work that necessarily belongs to it. Moreover, the professional side of architecture in Brooklyn is now so ably and so admirably represented by the Brooklyn Chapter of the American Institute of Architects that professional lines could not be developed without coming in conflict with that professional organization and thus entailing rivalry that would be helpful to no one and decidedly injurious to the Institute.

It was considered advisable, therefore, to establish a new series of committees, which, while not conflicting with the present Standing Committees of the Department, would not only represent the more general aspects of architecture but which would give immediate strength to the Department by greatly increasing its membership.

Architecture is an art and a science that touches every one in many ways. It is a subject in which there is a profound popular ignorance and in which there is urgent necessity for a wide dissemination of information. The clergy are interested in its ecclesiastical side, and, more than any other body of our citizens, are directly and personally responsible for the erection of many of our most important buildings. The householder is interested in the construction of his dwelling, the storekeeper in the erection of his shop or office-building. The women are interested not only in their houses and their arrangement, but also in their decoration and furniture. Many people are legitimately interested in the public aspects of our cities, in the location and arrangement of our parks and gardens, in the adornment of our streets and squares. And still others are interested in that most important of municipal problems, better houses for the people — a problem every one feels and for which so few can do anything. All these are general topics in architecture and all have a bearing that this Department in this great educational institution cannot afford to ignore.

It was proposed, therefore, while not neglecting the professional side of architecture, nor ignoring such professional problems as might come before it, that the Department should at once organize committees in these general subjects with the thought of interesting a large number of people in the work of the Department. It was further considered advisable to enlist the women members of the Institute in this new work. It was voted, thereupon, to establish committees on the following subjects: —

Committee on Church Architecture, Committee on Better Homes (Domestic Architecture), Committee on Commercial Architecture (shops, stores, etc.), Committee on Public Decoration, Committee on Parks and Gardens, Committee on Household Decoration, Committee on Sanitation.

These Committees are, in each case, to be composed of men and women directly interested in these special topics and who recognize the value of diffusing correct ideas and information concerning them throughout the community. The first work of such Committees would be to bring such members of the Institute who are interested in these subjects and those outside it together. The general plan of work of the Institute for the current year being now well under way, it could not be possible, perhaps, to attempt this year anything in the nature of public meetings or other exercises involving the Department of the Institute in expense; but it was proposed to hold meetings of these Committees to which others might be invited, and it was presumed that the Institute would, if requested to do so, provide places for such meetings. It was hoped that by organizing this new work this year it would be possible to organize the more general work of the Department next year, with a programme commensurate with the importance of this new undertaking.

At the meeting at which these matters were considered this general scheme was adopted and the President was authorized to report it to the Council in order to have the sanction and coöperation of that body in this new undertaking. This report is, therefore, submitted in compliance with the direction of the Executive Committee.

Respectfully, Barr Ferree, *President.*

The significance of the movement outlined in this report can hardly be overestimated. Not only does it mean the great development of the Department of Architecture on the broad lines on which the Institute itself has been founded, but it also means the speedy creation of a general society of friends of architecture which will be unique among the art organizations of the country, most of the architectural societies in America being either limited to architects or to artists in conjunction with architects. The new work of the Department of Architecture promises most important results, and the personal interest of every member of the Department and of the Institute is bespoken in this enterprise. Active steps are now being taken to develop the ideas embodied in the President's report.

The Executive Committee of the Department consists of Barr Ferree, *President;* Henry M. Congden, *Vice-President;* Woodruff Leeming, *Secretary;* Albert A. Hopkins, Richard M. Upjohn, Stephen W. Dodge, Charles M. Shean, Charles M. Skinner, Gustave A. Skrzyneki. Woodruff Leeming, *Secretary.*

NEW JERSEY SOCIETY OF ARCHITECTS.

The New Jersey Society held their annual meeting Friday, January 6, 1899, at 842–844 Broad Street, Newark, N. J., and elected the following officers for the ensuing year: *President,* Paul G. Botticher, Newark, N. J.; *First Vice-President,* James H. Lindsley, Newark, N. J.; *Second Vice-President,* Robert C. Dixon, Jr., Township of Union, N. J.; *Secretary and Treasurer,* George W. von Arx, Jersey City, N. J. (re-elected).

Trustees for three years, Albert Beyer, Hoboken, N. J. and Henry C. Klemm, Newark, N. J.

The President appointed Standing Committees as follows: *Law and Press,* — Charles P. Baldwin, *Chairman,* James H. Lindsley and Herman Kreitler; *Entertainment,* — Thomas Cressey, *Chairman,* Valentine J. Hobbis and Henry C. Klemm. The new Constitution, By-Laws and Code of Ethics were distributed and after usual routine business was transacted the members adjourned to a banquet, where an enjoyable evening was spent.

George W. von Arx, *Secretary.*

ILLUSTRATIONS

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

THE UNITARIAN CHURCH, BALTIMORE, MD. MAXIMILIAN GODEFROY, ARCHITECT.

[Gelatine Print, issued with the International and Imperial Editions only.]

THIS building, on the northwest corner of Charles and Franklin Streets, was dedicated on October 18, 1818. The whole length of the edifice, including the portico, is 108 feet, and its breadth is 78 feet. The peristyle is formed by a colonnade of the Tuscan order, four columns and two pilasters, forming three arcades of about 12 feet opening, supporting the grand Tuscan cornice which runs around the exterior of the pediment. In the centre there is a colossal figure of the "Angel of Truth" surrounded by rays, and holding a scroll on which is inscribed in Greek characters, "To the only God." Five doors of equal size open from the portico, and are copied from those of the Vatican in Rome. The nave of the church is a square, formed by four equal arches, full semicircles of 33 feet, 6 inches in diameter, which support a dome of 55 feet, 4 inches in diameter. The dome, a reduced copy of the Pantheon at Rome, is now concealed above a barrel-vault which was introduced a few years ago because of serious acoustic defects.

A COMPETITIVE DESIGN FOR "SHATTUCK PRIZE" FOR ARTISANS' HOMES. [OPEN COMPETITION.] SUBMITTED BY MESSRS. ACKERMAN & ROSS, ARCHITECTS, NEW YORK, N. Y.

WE assume to provide a home for a mechanic who earns a salary of $1,200 per annum, and propose a house to cost $2,500.

Each house is to be provided with a parlor, hall, dining-room, pantry and kitchen on the first floor, three and four bedrooms and a bath-room on the second floor; the kitchen to have a range, sink and two laundry-tubs, and the bath-room to have a water-closet, bowl and bath-tub.

The house to be heated by a furnace and lighted by gas.

Space is provided at the back of each house for a vegetable-garden.

In the centre of the plot is a park with fountain, seats and light-standards; small shade-trees to be planted at the edges of the curbs.

We submit an estimate of the cost and profit on the investment: —

TENANTS' INCOME AND EXPENSES.

Income per annum		$1,200.00
Table expense	$300	
Rent	240	
Car-fare	50	
Clothes	200	
Light and fuel	60	
	$850	
Savings per annum	350	
		$1,200.00
Investment: —		
Ground at 15 cents per ft		$26,083.35
Grading, laying sewer and water pipes, sidewalks, etc		8,694.00
Houses		125,000.00
		$159,777.35
Running expenses:—		
Water		$600.00
Repairs		2,000.00
Taxes		2,200.00
		$3,800.00
Income on investment		$12,000.00
Running expenses		3,800.00
		$8,200.00

Eight thousand and two hundred dollars is $5\frac{13}{100}$ per cent return upon investment, and from this we deduct $1\frac{25}{100}$ per cent for property not rented and we have $3\frac{88}{100}$ per cent net profit upon investment.

The cost of the houses is $6\frac{6}{10}$ cents per cubic foot and $2.381 per square foot.

PLANS OF THE SAME.

UNITED STATES POST-OFFICE BUILDING, NEWPORT, KY. MR. J. K. TAYLOR, SUPERVISING ARCHITECT OF THE TREASURY DEPARTMENT.

BRONZE STATUES OF HENDRICK HUDSON AND PETER STUYVESANT ON THE EXCHANGE COURT BUILDING, NEW YORK, N. Y. MR. J. MASSEY RHIND, SCULPTOR, NEW YORK, N. Y.

HOUSE AND PARLOR OF MRS. JOHN SWANN, STOCKBRIDGE, MASS. MESSRS. STEPHENSON & GREENE, ARCHITECTS, NEW YORK, N. Y.

HOUSE FOR MR. CARLOS ARMSTRONG, PONCE, PORTO RICO, W. I. DON MANUEL V. DOMENECH, C. E., ARCHITECT.

THIS building is to be a steel-skeleton structure, the outer walls, of local brickwork, being covered on the outside with sheet-metal "dressed to imitate pinked granite stone." The metalwork, both inside and outside, together with much of the interior work, will be prepared in this country and shipped to destination under the general direction of Messrs. Bornn & Co., Exporting Agents.

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

GARDENS AND PROPOSED ADDITIONS TO RED HOUSE, AYR, SCOTLAND. MR. JAMES A. MORRIS, ARCHITECT.

THIS plate is copied from the *Building News*.

A GROUP OF EAST INDIAN EQUESTRIAN STATUES.

[Additional Illustrations in the International Edition.]

MAIN TOWER: BLAIR HALL, PRINCETON UNIVERSITY, PRINCETON, N. J. MESSRS. COPE & STEWARDSON, ARCHITECTS, PHILADELPHIA, PA.

[Gelatine Print.]

OFFICES FOR MESSRS. ISMAY, IMRIE & CO., LIVERPOOL, ENG. MESSRS. R. NORMAN SHAW & J. F. DOYLE, ARCHITECTS.

HAYDEN HALL LODGE, PINNER, ENG. MESSRS. ERNEST GEORGE & YEATES, ARCHITECTS.

CHURCH, UPPER RICHMOND ROAD, PUTNEY, ENG. MR. E. W. MOUNTFORD, ARCHITECT.

NOTES & CLIPPINGS

A SUBSTITUTE FOR GALVANIZING IRON AND STEEL. — Wilder's patented process for coating steel and iron consists in the use of a bath composed of zinc, tin and aluminium. This mixture, it is claimed, produces a coating on iron and steel much superior to any now known, being so firmly adherent that the sheets will stand working after it has been applied, will resist corrosion, and can be heated red hot without injury. The coating is applied by the same method as galvanizing, *i. e.*, by dipping the cleansed sheets, etc., in the melted alloy. The most approved mixture is the following composition by weight: Zinc, 84 per cent; tin, 14 per cent; lead, 1.5 per cent; aluminium, 0.5 per cent. — *W in the Journal of the Franklin Institute.*

AIR IN TUNNELS. — The figures given a few days ago at the Institution of Civil Engineers by Mr. Francis Fox respecting the ventilation of tunnels should have the effect, if any need exist, of hastening the ultimate decision of the directors of our underground railways to substitute electric for steam locomotives. Competent medical authorities have decided that the quantity of carbon dioxide in the air of rooms should not exceed 10 parts in 10,000, while the amount of carbon dioxide in the air of a railway tunnel must not exceed twenty parts. Yet recent investigations of the atmosphere in the tunnels of the Metropolitan Railway has shown it to contain as many as 86 parts of carbon dioxide per 10,000. It is generally assumed that the London tunnels rival all others in the foulness of atmosphere; but, as a matter of fact, it may be taken as certain that tunnels, of which there are many abroad, which are built with their highest altitude in the centre, are considerably worse than those on the Metropolitan. A notable instance in this respect is the Mont Cenis, which is $8\frac{1}{2}$ miles long and 20 feet wide, and becomes so foul on occasions that traffic is kept up with the greatest difficulty. For several reasons the purification of our tunnels can never be satisfactorily effected by artificial ventilation, and the only possible solution is the adoption of electric locomotives. When that important change is effected we may look with confidence to an enormous accession to the traffic on our underground lines, and a corresponding relief to the present congested condition of the streets. It is a significant fact that all new urban underground railways are now supplied with electric traction instead of steam. — *Exchange.*

THE UNDERMINING OF LONDON. — The peril that threatens London and that is about to lead to statutory action in Parliament is serious. But it is one by which Paris, Rome and a number of other great cities of the Old World are menaced in the same way. One hundred years ago there was practically no underground London, save along the river's edge, where wine-cellars centuries old extended for several miles. To-day there is almost as much life and traffic beneath the surface of the British metropolis as above it. Two and even three tiers of underground railroads, with their underground stations and shops,

as well as other huge conduits, tunnels, sewers and subways of every description, honeycomb the subsoil of London to the depth of more than 100 feet, and unless some check is offered to this form of enterprise there is no knowing where it will end. The results of this tampering with the foundations of London are beginning to be felt, and are giving rise to no end of alarm. A goodly portion of the metropolis appears threatened with subsidence, and the gravest fears are entertained for Westminster Abbey, St. Paul's Cathedral and other historic State edifices. In fact, no one would be surprised to learn that their safety has become affected by the imprudent interference with their foundations. It was only the other day that the London papers placed on record an alarming subsidence in Hyde Park, where the ground suddenly showed a rift several hundred feet in length, and a week later the sinking of about a hundred yards of the roadway on one side of Fleet Street, while the police reports and the weekly returns of the building inspectors are said to furnish sensational reading with regard to the large number of big edifices in the City, and mansions both great and small in the residential districts, that show cracked walls, that are tottering, or that are actually wrecked by the subsidence of the ground. A curious feature about the whole affair is that, in spite of all these burrowings, no one seems to possess any definite knowledge as to their extent, and it would appear that they are, so to speak, uncharted. For it was only ten years ago that general amazement was caused by the chance discovery that a gigantic metropolitan sewer passed right under Buckingham Palace, and that it was so imperfectly constructed as to have impregnated the entire subsoil of this, the Queen's London residence, with sewage, a circumstance which served to account for the fact that Her Majesty invariably complained of feeling ill after spending more than twenty-four hours in this palace. That a huge sewer of this kind should have existed right under the palace within a few feet of the floors of the royal cellars without any one being aware of its presence there speaks volumes for the happy-go-lucky methods that govern the subterranean portion of the British metropolis. — *Ex-Attaché in the N. Y. Evening Post.*

NATURAL DRY-DOCK ON THE ST. CROIX RIVER. — We are indebted to T. Hodgson of Bedford, Province of Quebec, for a description of a natural dry-dock and the manner in which it has been utilized, says the *Engineering News.* This dock is on the Maine side of the St. Croix River, between Calais and Passamaquoddy Bay. At this point a small brook has cut a channel of sufficient width through the river-bank down to about the level of low tide, the difference in tide-levels at this place being nearly twenty-five feet. As there was a considerable amount of shipping owned in this neighborhood and docking facilities were absent, some ingenious Yankee concluded that he would utilize the cut made by the small stream, especially as the high range of tide provided all the appliances needed to fill and empty the dry-dock. Starting several hundred feet from the river, on the small tributary, a cut was made across the bed of the stream, extending into each bank, and a ten-foot wall of stone laid in cement was built. At the centre opening the top of this wall was about on the level of the bed of the stream; but at the sides it extended above the highest tide. Sills were laid in the opening and a pair of ordinary lock-gates were put in place, opening outwards. A pipe controlled by a valve was laid in the centre wall level with the stream bed, and carried off any water intercepted by the low walls and the sills, and a ditch, cut above the level of high tide, provided an outlet for the small amount of water usually coming down the brook channel. A few well-bedded cross-timbers for supporting the keel of the vessel completed this serviceable dry-dock. The operation of the dock was very simple. The vessel came up the river on the flood-tide and was hauled into the dock and held in position over the keel-blocks as the tide ran out. As the water-level lowered shores from the banks kept the vessel upright, and these are found sufficient for the class of vessel using this dock. When the tides had run out the gates were shut and the water was kept out until repairs were completed. To undock the ship the gates can be opened at low tide and the water thus admitted on the rise of the tide will float the vessel, and she can pass out and down stream on the ebb-tide. This dock has been in successful operation for some years, and is an interesting example of the utilization of existing natural conditions for securing a much-needed convenience. — *Exchange.*

TWO HISTORIC LONDON CHURCHES. — Four churches in London — two of them yet remain — have preserved in their dedication the memory of the Christian King of Norway, Olaf, and his repulse of the Danes in the reign of Ethelred II. By another account, as given by Rapin, Olaf and Sweyn, having ravaged Kent, Sussex and Hampshire, concluded a peace with Ethelred, who persuaded Olaf to be baptized, and received his vows of lasting friendship. Olaf was eventually slain in battle by Knut, in 1028, and adjudged to be a saint and martyr. The church in Hart Street, which escaped from the Great Fire, contains many interesting monuments and architectural features; it is chiefly memorable as being often mentioned in his Diary by Pepys, who lived close by at the old Navy Office, between Seething Lane and Crutched Friars, and latterly in Hart Street. He, his much-enduring wife, Elizabeth, and his brother, lie in a vault beneath the nave. He set up the monument, with a bust, in the chancel to Mrs. Pepys, who died on November 10, 1669, aged twenty-nine, after fifteen years of wedded life. The memorial to Samuel Pepys was unveiled on March 18, 1889, by the late Russel Lowell. It marks the position, against the south wall, of the little gallery appropriated to the Navy Office, which was entered by a staircase from without, as we see depicted in the old and rare view of the church's exterior by R. West and W. H. Toms. Sir Andrew Riccard, an eminent Turkey and East Indies merchant, whose effigy (1672) stands by his tomb in the church, vested the advowson in trustees, and to trustees it still belongs. Many victims of the great plague, that is believed to have broken out in the (Old) Drapers' Almshouses, Cooper's Row, hard by, are buried in the churchyard. — *London News.*

ECCENTRIC TOMBS. — Next in point of interest comes the strange tomb of Anthony Ettericke, who was an eminent lawyer, and once recorder of Poole. Having some cause of offence against the people of Wimborne, in which town he lived, he declared that he was to be buried in a consecrated spot, but not above nor below the ground, not in the church nor out of it. To make certain that this would be done, he got permission to build a coffin into the wall of Wimborne Minster, so that it is half in the church and half out of it, half above the ground and half below it. To do this a special arch had to be made, and for the repair of this arch and the coffin Anthony Ettericke gave the church a sum of money. To bury him, the wall of the church level with the pavement was opened and the body deposited in the coffin as described. It is of slate, and engraved with many coats-of-arms. There are two dates upon it — 1691 and 1703 — one over the other, so as to render both almost unreadable. He was fully convinced that he should die in 1691, and had his coffin made and that date placed upon it. But he did not die till 1703, and so the second date was cut over the first. Another and somewhat similar case may be seen in Pinner Churchyard at the present day, where a mausoleum raised on arches above the ground has a stone coffin inserted through it, one end of which — utilized as a tablet for the inscription — projects through. The story goes that the descendants of the occupant, a Scotch merchant named Loudoun, who died in 1804, enjoy a large property so long as it remains in this position, plainly above ground. There are even gratings at the foot of the edifice, probably in order to prove that there is no deception. — *Mail.*

BEQUEST OF MME. DE CHAVANNES TO LYONS. — Lyons, the native town of the late artist Puvis de Chavannes, has received the portrait of the artist's wife, the Princess Cantacuzène, painted by the master himself. The picture was bequeathed to the Museum of Lyons by Mme. de Chavannes before her death. It is said to be a splendid piece of art, and was exhibited in Paris about twelve years since without any designation. By the possession of this portrait the Lyons people have four of the most characteristic works of their celebrated townsman, the others being "Bois Sacré," "Vision Antique," and "Inspiration Chrétienne." In the picture the Princess, whom the artist married in his old age, is represented standing in mourning habiliments, with sorrow and suffering depicted on her pale face. The hands are painted in particular with remarkable precision, it is said, and form one of the most striking characteristics of this high work of art, which connoisseurs will now have to go to Lyons in order to see and study. — *N. Y. Times.*

NON-DRINKERS DEMANDED BY FELLOW-WORKMEN. — The daring men who daily swarm over the new sky-scrapers that are going up all over town are not without their measures of precaution. The ironworkers themselves, as a class, are men who will indulge in a social glass whenever they feel like it, but they take good care never to go on the job when under the influence of liquor. However, no matter what they do themselves in their hours off, they will not permit the employment of any one in the capacity of scaffold-builder or derrickman who is known to take a drink either off or on duty. The ironworkers themselves insist upon this, and they simply do it as a precaution of safety to themselves. If any one of them sees or hears of a derrick or scaffold man taking a drink it is his duty to report at once, and the man is watched. When proof is found the offender is instantly discharged. The contractor might protest against such extreme action, but he has the alternative of either abiding by the rule or procuring a new gang of ironworkers. — *Philadelphia Record.*

INDIANA TRYING TO KEEP ITS GAS. — The residents of the Indiana natural-gas belt have started a movement by which they expect to confine the gas to their own territory, and prevent it from being piped to Chicago and this city and others outside of the belt proper. In a law passed in 1895 the Legislature made it a penal offence to force gas through pipe-lines at a higher pressure than 300 pounds to the square inch. This law was sustained by the Supreme Court, which held that the Legislature had a right to fix the rate of pressure under the general provision for police powers. The initial or rock pressure of the gas is now so low that pipe-line companies, it is said, have to exceed the legal pressure at their pumping-stations, and the law is to be invoked to stop it. If the effort is successful many cities will be deprived of fuel gas. — *Correspondence Chicago Times-Herald.*

WILLIAM II AND THE TECHNICAL COLLEGES. — In a paper read lately by Mr. Robert James Bennett at the Glasgow Building Trades' Exchange on "The Relationship which the Exchange ought to have to the Technical College" the lecturer said that in respect to technical education the German Emperor had taught the whole world a lesson. There were technical colleges at Berlin, Munich, Dresden, Leipsic, Cologne, Karlsruhe, Hanover, Heidelberg, Düsseldorf and Hamburg, and the Government had just issued an order converting all the general technical schools into colleges in towns of from 60,000 to 100,000 inhabitants, the cost falling upon the municipalities, in the first instance, aided by State grants of from 1,500*l* to 3,000*l* a year according to requirements and the number of pupils. — *The Architect.*

A SPIRE AS OBSERVATORY. — The City Councillors of Ulm have resolved to utilize the spire of their magnificent cathedral as a meteorological observatory. The Minster of Ulm is not only the largest church in Germany, with the exception of Cologne Cathedral, but its spire is one of the highest buildings in the world. The instruments will be supplied by the Royal Observatory at Stuttgart, and the registrations made by the watchmen of the cathedral, under the oversight of a meteorological director, Dr. Schimpf. Next to the Eiffel Tower, in Paris, the cathedral spire of Ulm will be the highest post of meteorological observation in the world erected by human hands. — *Westminster Gazette.*

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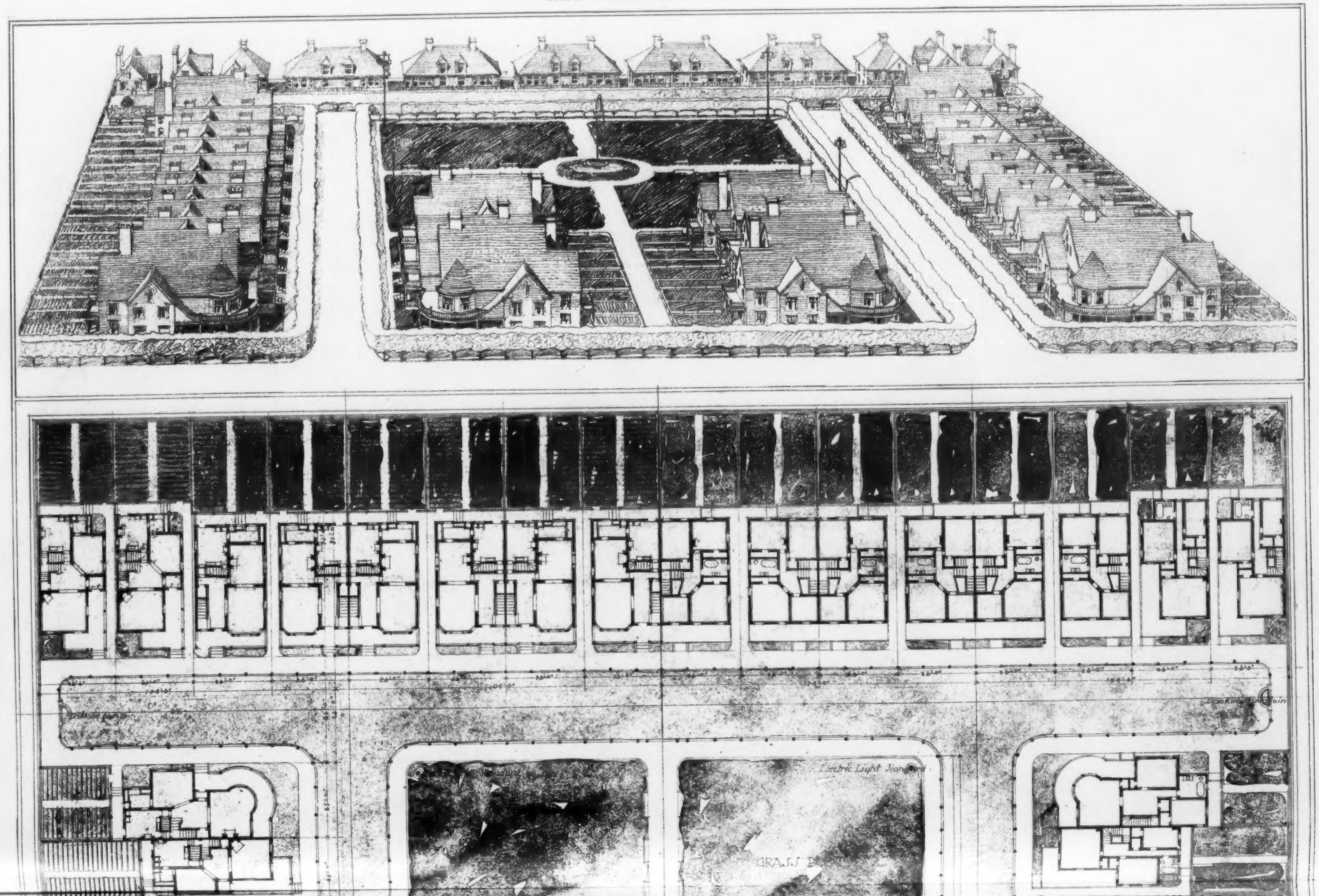

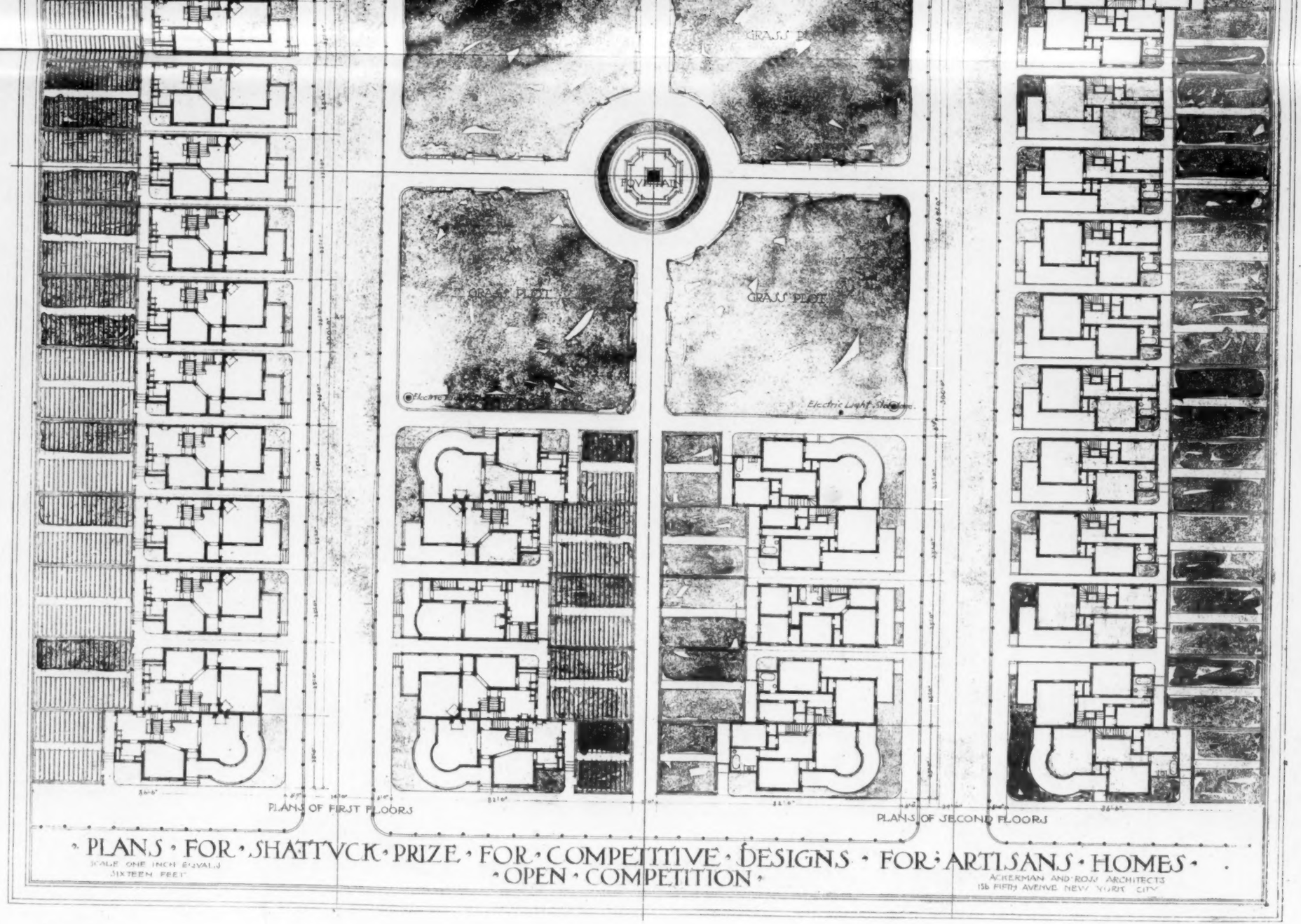

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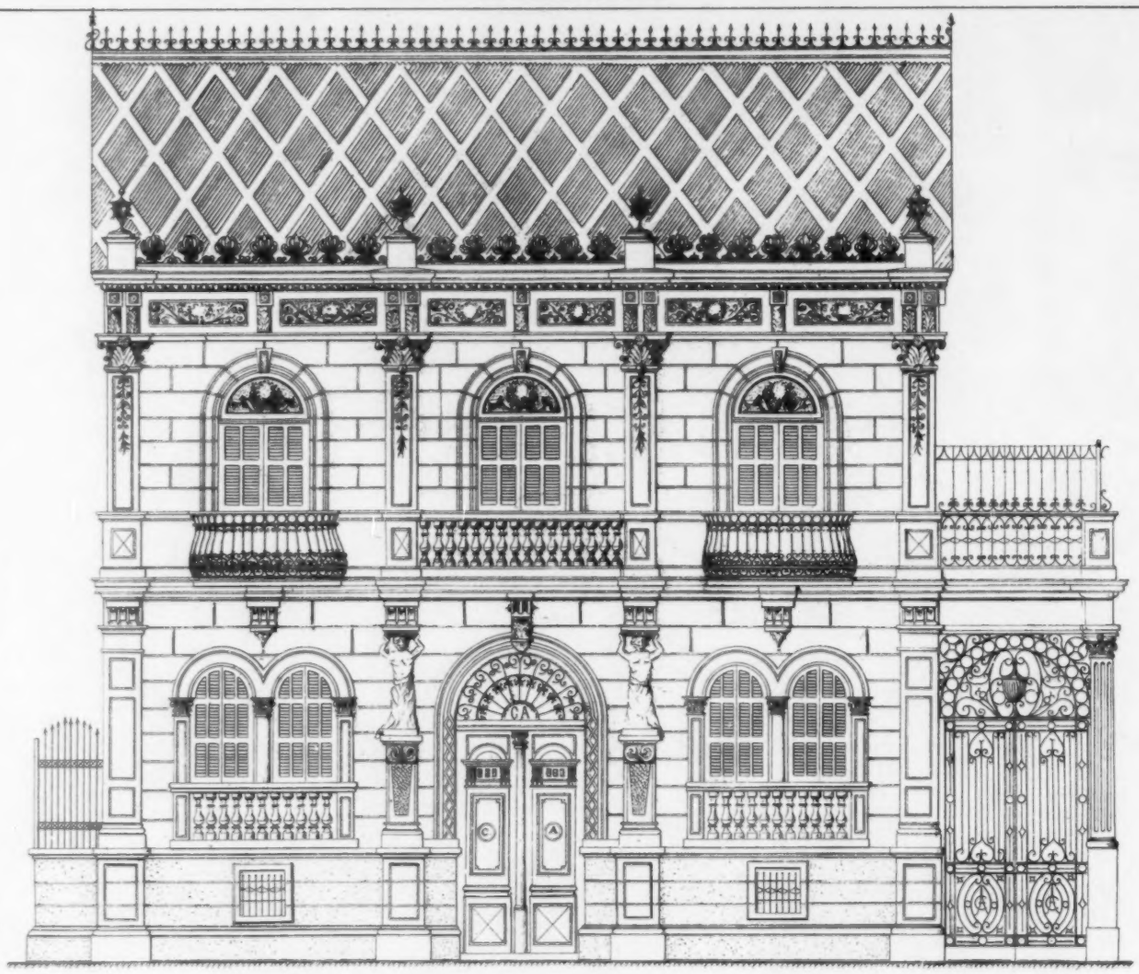

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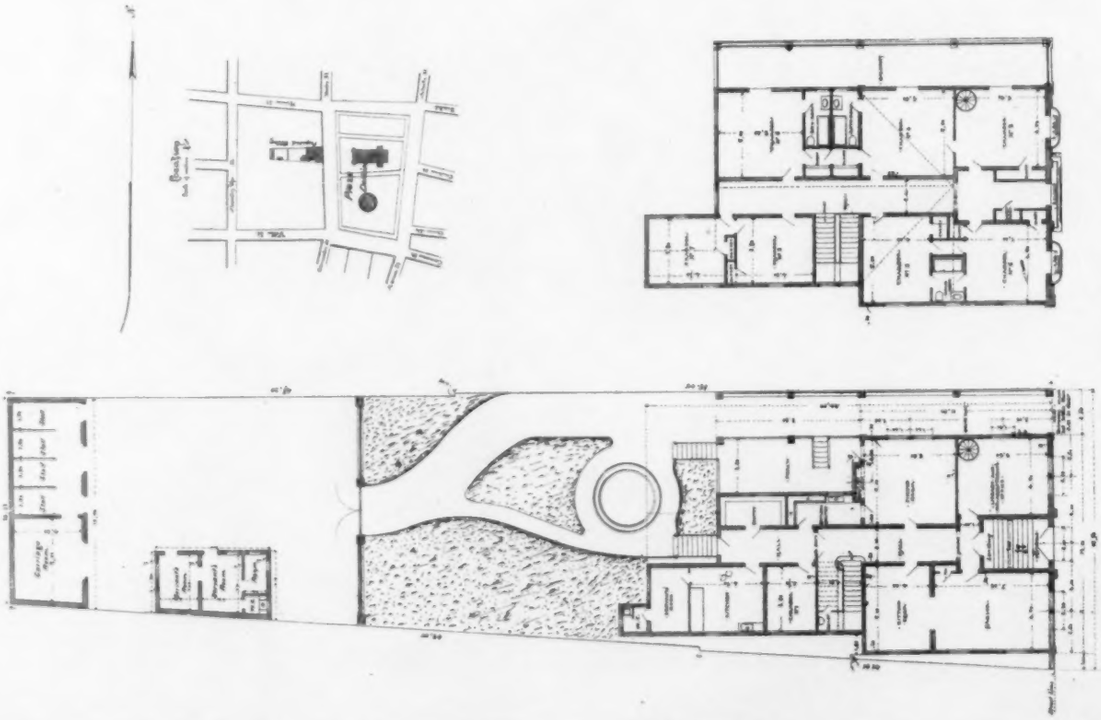

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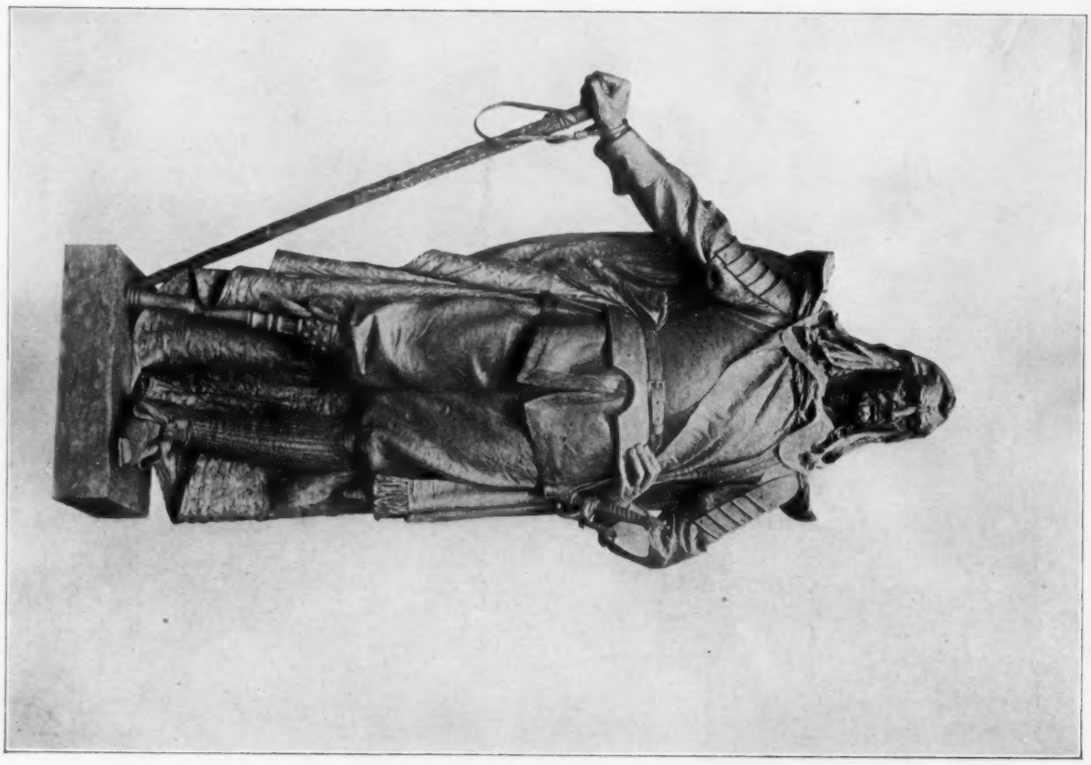

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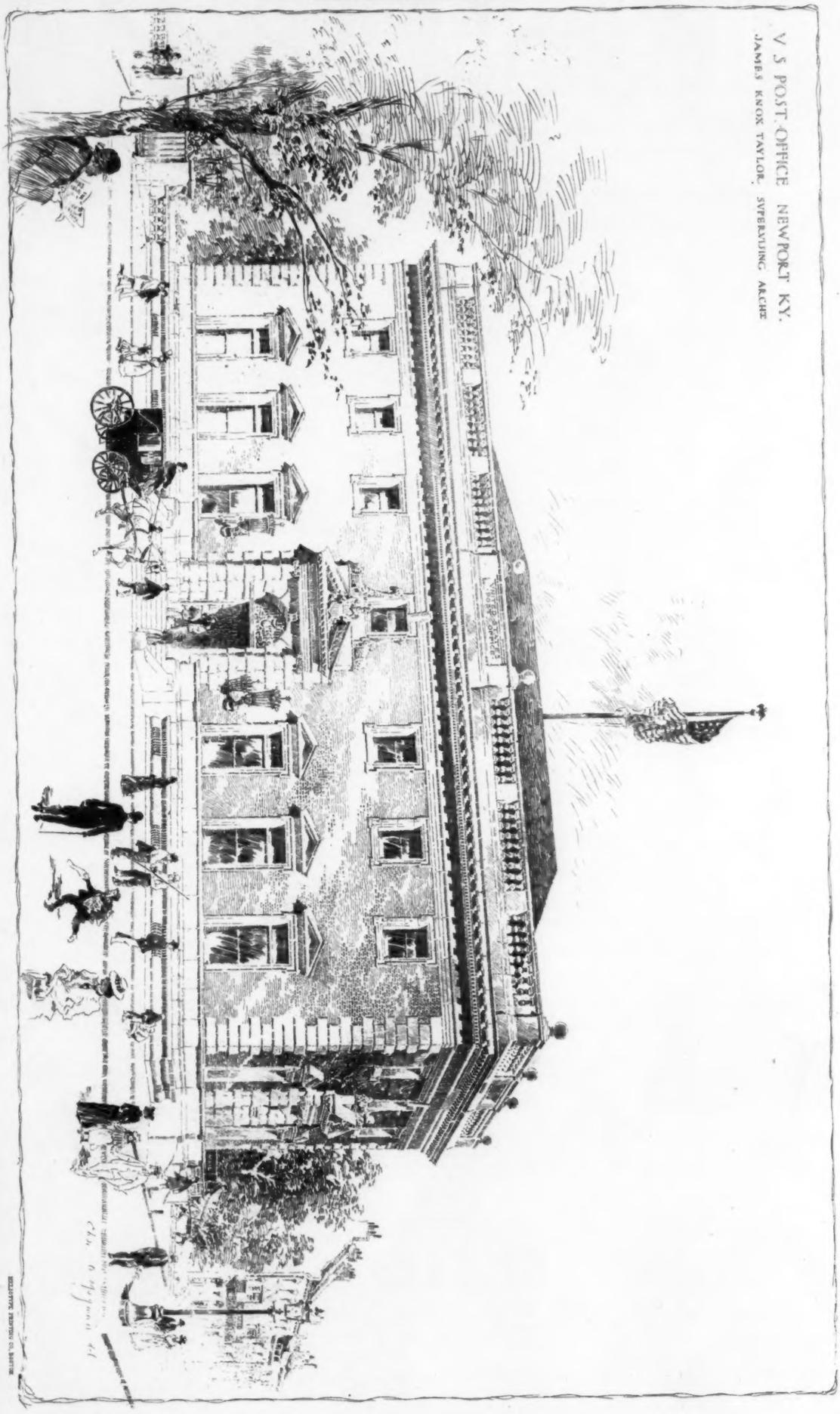

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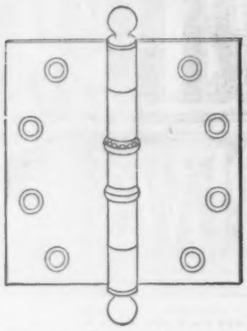

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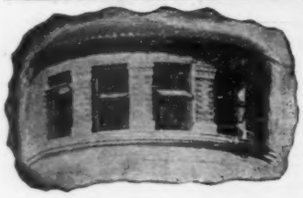

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Foundation:				
Dimension	@	5 00 ₱ ton.	20 @ foot	@ 5 00
Block	@	4 60 ₱ perch.	10 00 @ cord	Conshocken
Rubble	@	1 25 @ 1 50	9 00 @ "	1 45 @ 2 50
Sandstone:				
Longmeadow	@ 80	80 @ 90	@	
Kibbe	@ 90	90 @ 1 10	@	95 @ 1 05
Brown (Connecticut)	1 00 @	1 00 @ 1 30	1 50 ₱ cub. ft.	1 05 @ 1 25
Amherst Ohio	90 @ 95	90 @ 1 00	45 @ 55	85 @ 95
Berea "	75 @ 1 00	85 @ 90	45 @ 55	55 @ 75
Berlin "	75 @ 1 00	80 @ 90	45 @ 55	85 @ 95
Belleville	80 @ 1 25	25 @ 1 35	@ 1 25	1 00 @ 1 10
New Brunswick (Dorchester)	@ 1 00	75 @ 90	*Not sold.*	1 05 @ 1 15
Potsdam Red	@ 1 30	@ 1 40	@ 1 55	@ 1 40
Caen	@	@ 2 00	@	1 25 @ 1 35
Carlisle. English	@ 1 05	@ 1 05	@	95 @ 1 05
Corse Hill (Scotch)	@ 1 05	@ 1 05	@	95 @ 1 05
Granite: (*Maine*)		@ 60	80 @ 1 50	55 @ 65
Limestone:				
Bedford	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 85
Joliet	1 00		@	Richmond
Lemont			@	₱ 75 @ 1 50
Serpentine		10 50 per ton.	@	Perch 4 50 @ 5 50
Bluestone: (₱ *sq. ft.*)			cub. ft.	
Sidewalk	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 in. th. 10 @ 25
Planed	50 @ 6 00	@ 75	1 00 @ 1 25	37 @ 50
Marble: (₱ *cu. ft.*)				
Lee, Mass	@	1 75 @ 2 50	*Not sold.*	2 00 @ 2 50
Rutland, white and blue	@	@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black	@	@	*Not sold.*	4 00 @ 4 50
Italian, blue-veined	@	@	@ 4 40	2 50 @ 2 75
" Sienna	@	@	*Not sold.*	@ 5 00
Tennessee, red	@	@	@ 4 40	4 00 @ 6 00
" Knoxville	@	@	@ 4 40	3 00 @ 4 00
Pennsylvania, blue	@	@	*Not sold.*	2 00 @ 3 00
Vermont, white	@	@	3 50 @ 6 00	2 25 @ 3 00
Slate · Roofing (₱ *square*)				
Green	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red	@ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 35
" Chapmans	@	@	5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 50	4 35 @ 5 50
Unfading black,	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
" "	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am. ₱ M	@	@	Salt-glazed tiles	@ 28 00
N. Peach Bottom, war. unfading	@	@	9″ 8c. per ft.	5 76 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 6 50	8 60 @
LUMBER. — ₱ M.				
Boards: (*Ordinary dimensions.*)				
Pine, 1st quality, clear	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality	18 00 @ 22 00	20 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce	@ 25 00	12 00 @ 18 00	*Not sold.*	15 00 @ 21 50
Hemlock	ea13½ @ 14	12 50 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress	@	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce	@	24 00 @ 35 00	*Not sold.*	*Not sold.*
Framing Timber:				
Pine			15 00 @ 25 00	25 00 @ 37 30
Spruce	14 00 @ 16 00	14 00 @ 16 00	*Not sold.*	15 00 @ 21 50
Hemlock	12 00 @ 16 00	12 00 @ 15 00	10 00 @ 15 00	14 00 @ 20 00
Yellow pine	18 00 @ 21 00	19 00 @ 25 00	16 00 @ 25 00	22 50 @ 30 00
Laths:	@			
Pine ..... Round Wood	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Spruce ..... Slab	2 00 @ 2 25	1 80 @ 2 25	*Not sold.*	2 30 @ 2 35
Shingles:				
Pine, shaved ₱ M	5 00 @ 6 00	@	*Not sold.*	
Pine, sawed "	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Spruce, sawed "	1 50 @ 2 00	1 50 @ 1 75	*Not sold.*	
Redwood ₱ 125.	1 40 @ 1 60	3 00 @ 3 75	4 60 @ 6 00	30″ $35 @ 40
Cedar split ₱ M		@ 6 00	*Not sold.*	24″ 8 @ 21
Cedar sawed "	@	2 00 @ 3 25	2 50 @ 2 90	30″ 35 @ 14
Cypress. Split ..... 7 x 24 "	18 00 @ 20 00	5 00 @ 6 00	@	11 00 @ 14

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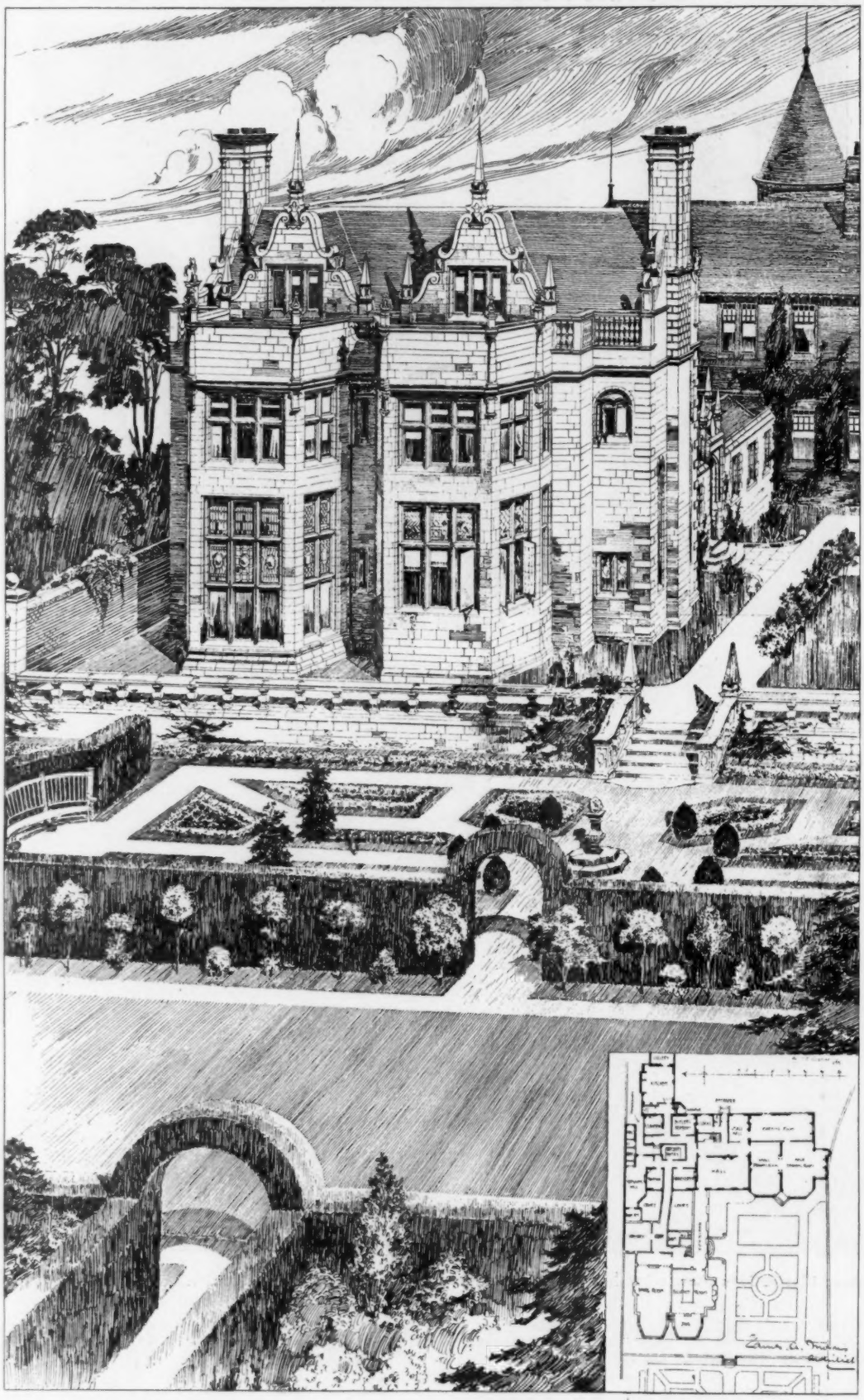

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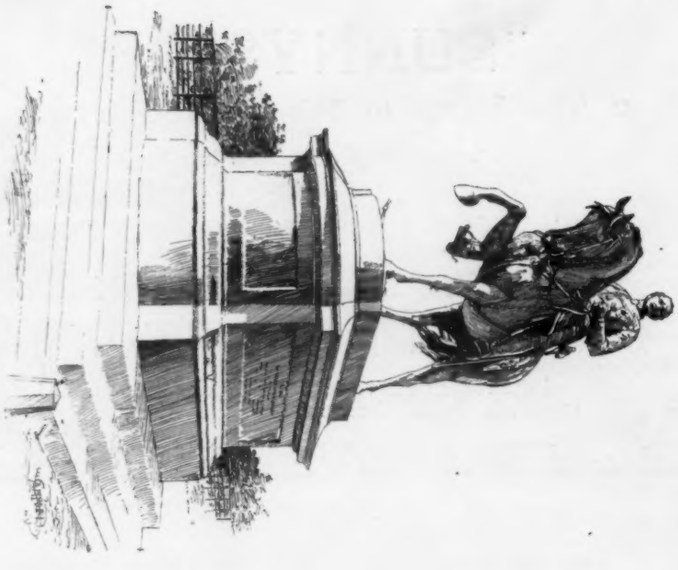
Sir Runnoo deep Sing (bronze), Katmandu, India.
Thomas Brock, Sculptor.

Gen. Sir James Outram (bronze), Calcutta, India.
J. H. Foley, Sculptor. 1873.

Viscount Hardinge (bronze), Calcutta, India.
J. H. Foley, Sculptor. 1859.



Lord Gough (bronze), Dublin, Phœnix Park.
J. H. Foley, Sculptor.
Completed by Thomas Brock. 1880. Pedestal also bronze.

Sir Jung Bahadur (bronze), Katmandu, Nepaul, India.
Thomas Brock, Sculptor.

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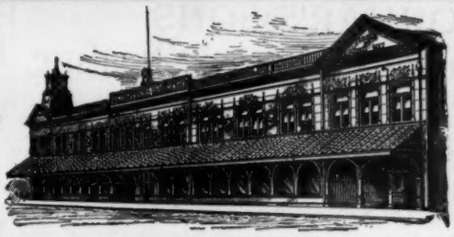

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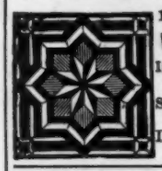

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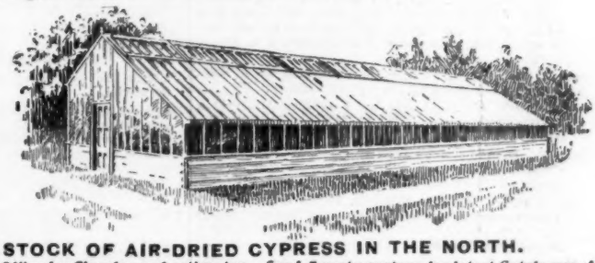

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New Advertisements.

KEUFFEL & ESSER CO. (New York, N. Y.), Drawing Materials. Page vii.

See last or next issue for the following advertisements: —

Barron, Boyle & Co.
Butcher Polish Co.
Chrome Steel Works.
Expanded Metal Co.
Gorton & Lidgerwood.
L. Haberstroh & Son.
New York Belting & Packing Co.
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See the first issue of the month for the following advertisements: —

Alsen's Portland Cement Works.
Atlas Cement Co.
Brooks & Co., T. H.
Folsom Snow Guard Co.
Grand Rapids Moulding Co.
Ludlow Saylor Wire Co.
Nelson, C. T., & Co.
Northrop, Henry S.
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Pitt, Wm. R.
Thiele, E.

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C. W. SPEIERMANN, architect, has removed from Logan, Utah, and has opened offices at Rexburg, Fremont Co., Idaho, where he will be pleased to receive catalogues and samples. 1205

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January 24, No. 787, 1891.
March 28, " 796, "
May 2, " 801, "
June 13, " 807, "
October 3, " 823, "

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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.*]

617,706. COMPOSITION FOR ROOFING, PAVING, ETC. — Charles E. Anthony, Denver, Col.

617,745. COWL. — Louis H. Henigbaum, San Francisco, Cal.

BUILDING PATENTS.

617,875. WATER-CLOSET SEAT. — Edward F. Chaffee, Albany, N. Y.

617,881. CORNER-BEAD. — Edward B. Marsh, Amherst, Mass.

617,980. KEYLESS DOOR-LOCK. — Joseph Arner, Weissport, Pa.

617,989. SASH-LOCK AND ALARM. — William Madison, Los Gatos, Cal.

618,013. THRESHOLD FOR DOORS. — William D. Roeder, Dwight, Ill.

618,025. SAFETY-LOCK FOR ELEVATORS. — Robert Butterworth, Somerville, Mass.

618,040. DUMB-WAITER. — James E. Lehrman, Allentown, Pa.

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.

Auburn, Ind. — The question of building a new Court-house in De Kalb County is said to be under consideration.

Baltimore, Md. — Henry Smith & Sons, 116 Regester St., are stated to have received the contract for the new Camden Station warehouse for the Baltimore & Ohio R. R. Co.; cost, $250,000.

E. ELDON DEANE,
Architectural Colorist and Draughtsman.
63 Seymour Building, Fifth Ave., cor. 42d St.
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SPAULDING PRINT PAPER CO. for Blue Prints — the best place in the city. We take them while you wait. 1105 Exchange Bldg.

BUILDING INTELLIGENCE.

Baraboo, Wis. — A new high-school building will be erected here at a cost of $25,000.

Birmingham, Ala. — It is stated that the Addiston Pipe & Steel Co., of Cincinnati, O., will erect a $400,000 three-story pipe and steel casting plant near Bessemer.

Brooklyn, N. Y. — A company of capitalists has been organized to build a large hotel and music-hall near the Willink entrance to Prospect Park. The hotel is to be built at Washington Ave. and Montgomery St., adjacent to the brewery of the Consumers' Park Brewing Co., with a frontage of 100′ and running back for 200′. Between the new building and the brewery building a park will be made, and the music-hall will be near by. Each building is expected to cost $75,000. Stephen M. Hoye, of 187 Montague St., is one of the prime movers in the new enterprise.

Canton, S. D. — A $50,000 Insane Asylum is to be erected at this place.

Chicago, Ill. — Report states that Leopold Mayer & Sons, bankers, 157 Randolph St., will erect a $40,000 six-story printers' building at 167 Adams St., after plans of Chas. J. Furst, 172 Washington St.

The Western Electric Co. will add three new buildings to their plant at Clinton, Jefferson and Congress Sts., at a cost of $250,000; Sam'l A. Treat, architect.

Chillicothe, Mo. — An infirmary costing about $40,000 will be erected by Livingston County.

Dartford, Wis. — It has been decided to erect a $25,000 Court-house, and a $10,000 Jail and sheriff's house. Wm. Waters, of Oshkosh, is the architect.

Des Moines, Ia. — Charles A. Frost, of Chicago, has prepared plans for the new passenger depot to be erected here by the C. R. I. & P. Ry.; cost, $200,000.

Fitchburg, Mass. — Kendall, Taylor & Stevens, of Boston, have prepared plans for the five new buildings to be erected for the Burbank Hospital; estimated cost, $80,000.

Homestead, Pa. — It is stated that the congregation of the St. Matthew's P. E. Church will build a $20,000 edifice, Rev. W. J. White, pastor.

Hot Springs, Ark. — The Committee representing the grand lodge, Knights of Pythias, Missouri, Arkansas, Illinois and Indiana, which has been here investigating the site for a national Pythian sanitarium, will recommend its establishment in this city. The location here means an investment of $500,000.

Janesville, Wis. — It is stated that the congregation of St. Mary's R. C. Church will erect a $25,000 edifice, Rev. W. A. Goebel, pastor.

Jersey City, N. J. — Plans have been approved and bids will soon be asked for the new library building, to be erected at Jersey Ave. and Montgomery and Mercer Sts., at a cost of about $120,000. Brite & Bacon, architects, 111 Fifth Ave., New York.

Kenosha, Wis. — Ex-mayor Z. G. Simmons, who recently offered to give the city a soldier's monument to cost $10,000, has now given the city $100,000 for a free library building, and promises that when it is built he will furnish it with 25,000 well-selected volumes.

Knoxville, Tenn. — Report states that the Southern Railway Co. will erect a depot in this city to cost $45,000. J. A. Gammon, General Manager, Washington, D. C.

Lincoln, Ill. — It is stated that Jacob A. Harman, Engineer of the Asylum Board, has prepared plans for an extension to the Institute for Feeble-minded Children. An appropriation of $200,000 will be asked.

Little Rock, Ark. — The St. Louis File Works will erect a plant in this State to cost $400,000. William Wassel is their representative.

McKee's Rock, Pa. — Plans are being prepared for a new structure for the St. Francis de Sales' Church; cost, $50,000. C. F. Engle, Chairman Board Trustees.

Menominee, Mich. — A $12,000 academy will be erected here by St. Anne's Society.

Milwaukee, Wis. — The Boston Ground Rent Trust Co. will erect on Milwaukee St., a six-story brick building, 60′ x 120′; cost, $75,000.

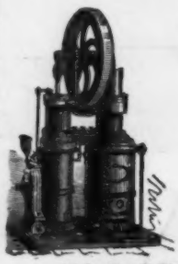
New Castle, Pa. — It is stated that the Pittsburgh & Lake Erie, Pittsburgh & Western and the Pennsylvania Railroad officials are making arrangements for the erection of a union station.

New Haven, Conn. — Architect Allen has completed plans for a $30,000 edifice for the Plymouth Church.

New York, N. Y. — It is proposed to erect a $200,000 club-house at 164th St. and 3d Ave., for the Union Republican Club of the 35th Assembly District.

Oswego, N. Y. — The Oswego Boiler Works which were burned last October, are to be rebuilt. The

DOMESTIC WATER SUPPLY.



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684 Craig St., MONTREAL, P. Q.
86 Lake St., CHICAGO.
40 N. 7th St., PHILADELPHIA.
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Can be applied over old Plaster without removing same
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Give Measurements for estimate.
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MASON SAFETY TREAD.
UNWEARABLE. NON-SLIPPING.
The approved stair covering. Refer to Brooklyn Bridge and Boston Subway. For information address
American Mason Safety Tread Co., 40 Water Street, BOSTON.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

works are owned by John & W. M. Jermyn, of Scranton.

Overbrook, Pa. — Plans are being prepared for a Protestant Episcopal Church. The church, which is the gift of Mrs. William M. Simpson, as a memorial to her husband, is to cost $25,000, and when completed it will be one of the most beautiful edifices in the city. The new church will be called "St. Paul's Memorial Church of Overbrook."

Philadelphia, Pa. — Baily & Truscott, 421 Chestnut St., have been selected to prepare plans for the new P. E. Church of St. John Chrysostom, on 28th St. and Susquehanna Ave.

Architects G. W. & W. D. Hewitt, Bullitt Building, are preparing plans for the new Nurses' Home that will be built on the grounds of the Episcopal Hospital, Front St. and Lehigh Ave.; cost, $100,000.

Pittsburgh, Pa. — The West Penn Hospital will erect a $50,000 addition to their building. Work will be commenced in the spring.

W. A. Thomas, Carnegie Building, is preparing plans for remodelling the Church of the Holy Rosary; cost, $20,000. Rev. D. J. Malady, pastor.

Plattsburg, N. Y. — The citizens are to vote on building a $65,000 school.

Roslyn, L. I., N. Y. — An estate of about 100 acres known as Harbor Hill has been purchased by one of the Vanderbilt family, and it is rumored that a $1,000,000 residence is to be erected this spring.

Rexburg, Tremont Co., Idaho. — C. W. Speiermann, architect, is preparing plans for a one-story stone church to cost $40,000, also for a church for the Catholic Society to cost $3,000 to be built here.

San Francisco, Cal. — It is stated that the Baldwin Hotel will be replaced by a structure to cost $3,000,000.

Stoneham, Mass. — Report states that the Metropolitan Water Commission has awarded to McNeil Bros., of Boston, the contract for building the new pumping-station at Spot Pond; cost, $108,480.

Syracuse, N. Y. — A new brewery is contemplated by Charles Robinson of Scranton, Pa., together with G. J. Stegmaier, of Wilkesbarre, Pa., and others. The proposed capacity is to be 100,000 barrels annually.

Trenton, N. J. — A new infirmary is greatly needed at the State Insane Asylum and the Board of Managers suggest that the Legislature appropriate $60,000 for the construction of an infirmary for the aged, paralytic and infirm insane.

Union, S. C. — Frank P. Milburn, Charlotte, N. C., has prepared plans for a new hotel to be erected in this city, at a cost of about $15,000.

Villanova, Pa. — Plans have been completed for a monastery building to be three stories, 160′ x 400′, to be built by Villanova College, at a cost of $200,000.

Washington, D. C. — Andrew Carnegie offers to give $250,000 to erect a building for a Public Library for Washington, provided Congress will furnish a site and provide suitable maintenance, not less than $10,000 a year. Steps will be taken at once to secure the needed legislation.

Architects Marsh & Peter have prepared plans for a fireproof office-building for the *Evening Star* Publishing Co.; cost, $300,000.

Wilmington, Del. — It is stated that plans have been prepared and approved for a new depot to be erected on 4th St., for the Philadelphia, Wilmington & Baltimore R. R. Co.

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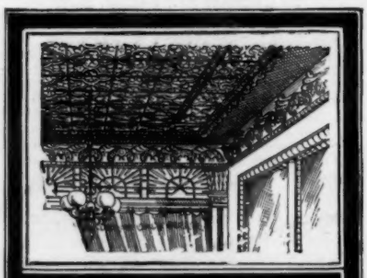

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APARTMENT-HOUSES.

New York, N. Y. — *Seventh Ave.*, cor. 113th St., six-st'y bk. & st. apart., 94′ x 100′; $250,000; o., Seaboard Realty Co., 320 Broadway.

W. One Hundred and Twentieth St., No. 44, seven-st'y st. apart., 30′ x 89′; $35,000; o., James Everard, 12 E. 133d St.; a., James W. Cole, 403 W. 51st St.

Eighth Ave., cor. 112th St., five-st'y bk. & st. flats & stores, 25′ 3″ x 95′; $32,000; o., Wm. Cummings, Jr., 121 Manhattan Ave.; a., Geo. F. Pelham, 503 Fifth Ave.

Eighth Ave., cor. 112th St., five-st'y bk. & st. flat & stores, 25′ 3″ x 95′; $32,000; o., Robert Ferguson, 109 Manhattan Ave.; a., Geo. F. Pelham, 503 Fifth Ave.

E. Seventh St., Nos. 254-256, six-st'y bk., st. & terra-cotta flat & store, 36′ x 80′; $30,000; o., Michael O. Hanlon, 122 Bowery; a., Horenburger & Straub, 122 Bowery.

W. Central Park, nr. 106th St., seven-st'y bk. & st. apart., 42′ 9″ x 100′; $100,000; o., Patrick McMorrow, 470 W. Central Park; a., Neville & Bagge, 217 W. 125th St.

PUBLISHED TO-DAY

PART III

"THE GEORGIAN PERIOD"

Part III, though it contains only the same number of plates as does Part I, includes *seven more* Gelatine Plates than did that one.

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BUILDING INTELLIGENCE.

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One Hundred and Fourteenth St., nr. 8th Ave., 10 aparts., on plot 100′ 11″ x 250′; $22,000 each; o. & b., Daniel D. Lawson, 580 W. 146th St.

Eagle Ave., nr. 101st St., 6 four-st'y bk. & st. flats, 25′ x 85′; $90,000; o., John H. Horan, 155 Madison St., Brooklyn; a., F. J. Miller & Co., 962 Boston Road.

Gouverneur Pl., nr. Washington Ave., 2 five-st'y bk. & st. aparts., 25′ x 100′; $60,000; o., August Jacob, 527 W. 149th St.; a., John Hauser, 1441 Third Ave.

Goerck St., No. 137, five-st'y bk., st. & terra-cotta flat, 25′ x 88′; $18,000; o., Abraham Perelman, 161 Orchard St.; a., Horenburger & Straub, 122 Bowery.

One Hundred and Nineteenth St., nr. 5th Ave., five-st'y bk. & st. apart., 25′ x 85′; $21,000; o., Dennis Comfrey, 302 W. 134th St.; a., Geo. F. Pelham, 503 Fifth Ave.

One Hundred and Twenty-second St., nr. 8th Ave., 3 five-st'y bk., st. & terra-cotta flats, 33′ 8″ x 88′; $69,000; o., Marcus Hoffberg, 212 Delancey St.; a., Geo. F. Pelham, 503 Fifth Ave.

Omaha, Neb.—*Tenth St.*, bet. Pierce & Pacific Sts., three-st'y bk. & st. flats, hot water; $16,000; o., Fidelity Trust Co.; a., Fisher & Lawrie.

St. Louis, Mo.—*Cook Ave.*, bet. Jones & Sarah Sts., two-st'y bk. apart., 25′ x 62′, comp. roof; $35,000; o., Mrs. Belle Jackson; a., M. T. O. Allardt, 313 Pine St.

CLUB-HOUSES.

Omaha, Neb.—*Thirteenth and Dorcas Sts.*, two-st'y fr., iron & bk. club-house; $10,000; o., Bohemian Turner Society; b., George W. Sprague; a., J. E. Dietrick.

FACTORIES.

Brooklyn, N. Y.—*Nevins St.*, cor. Union St., four-st'y bk. factory, 78′ x 100′, gravel roof; $12,000; o., James H. Dykeman, 170 Sixth Ave.; a., R. Dixon, 213 Montague St.

HOTELS.

Boston, Mass.—*Beacon St., Nos.* 19-23, Ward 6, eleven-st'y bk. hotel, 81′ x 105′, flat roof, steam; $500,000; o., Bellevue Hotel Trust; a., Peabody & Stearns, 19 Exchange Building.

South Omaha, Neb.—*N and Half Sts.*, three-st'y bk. hotel, steam heat; $10,000; o., Pabst Brewing Co.; a., J. P. Guth.

HOUSES.

Boston, Mass.—*Aldrich St.*, nr. Cornell St., Ward 23, two-st'y fr. dwell., 26′ x 35′, gambrel roof, furnace; $4,000; o., M. T. McEachern; a. & b., Chas. T. McEachern, 120 Tremont St.

Mattapan St., nr. Blue Hill Ave., Ward 24, two-st'y fr. dwell., 24′ x 45′, pitch roof, stoves; $4,300; o. & b., J. B. Mulvey, 653 Walk Hill St.

Pinckney Road, nr. Columbia Road, Ward 20, two-st'y fr. dwell., 31′ x 60′, pitch roof, furnace; $5,500; o., Annie E. Todd; b., E. J. MacIlroy, Lauriat Ave.

Blue Hill Ave., Nos. 392-98, Ward 20, four 2½-st'y bk. dwells., 23′ x 61′, flat roofs, hot water; $36,000; o., Ralph M. Sharaff, 110 Chauncy St.; a., J. S. Harrold.

Brunswick St., No. 69, Ward 20, three-st'y bk. dwell., 24′ x 69′, flat roof, hot water; $9,000; o., Ralph M. Sharaff, 110 Chauncy St.; a., J. S. Harrold.

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(*Apartment-Houses Continued.*)

fr. dwells., 22′ x 25′ x 49′, flat roofs, stoves; $10,000; o., Thos. J. Finneran; a., S. Rantin & Son, 1117 Columbus Ave.

Park Road, nr. Hampstead St., Ward 23, 2½-st'y fr. dwell., 33′ x 50′, gambrel roof, hot water; $10,000; o., Thos. Downey; b., H. F. McNeil, Jamaica Plain.

Boardman St., nr. Wachusett St., Ward 23, 2½-st'y fr. dwell., 29′ x 52′, pitch roof, furnace; $5,000; o., a. & b., J. A. Marchbank, 19 Forbes St. Jamaica Plain.

Tonawanda St., nr. Greenbriar St., Ward 20, two-st'y fr. dwell., 26′ x 53′, pitch roof, furnace; $4,500; o., John Cook, 38 Everett Road; b., James Cook.

Rochester St., No. 22, Ward 9, three-st'y bk. dwell., 15′ x 20′ x 45′, flat roof, stoves; $6,000; o. & b., Jos. Adolph, 226 Dover St.

Lubec St., nr. Maverick St., Ward 2, three-st'y bk. dwell., 25′ x 52′, flat roof, stoves; $6,000; o., Carmela Scantone; b., Lewis Cirigham, 19 Battery St.

Nightingale St., nr. Bernard St., Ward 20, two-st'y fr. dwell., 28′ x 45′, pitch roof, furnace; $5,000; o., Julie A. Belyea, 76 Lauriat Ave; b., A. R. Belyea.

Stanwood St., Nos. 51-63, Ward 20, 7 two-st'y fr. dwells., 24′ x 54′, flat roofs, furnaces; $40,000; o., a. & b., John J. Johnson, Sr., 65 Bainbridge St.

Brooklyn, N. Y.—*Avenue C*, cor. E. 23d St., two-st'y & attic fr. dwell., 29′ x 50′, shingle roof; $6,000; o., a. & b., T. J. Sinnott, 279 E. 18th St.

Poplar Ave., nr. Highland Ave., 2 two-st'y & attic fr. dwells., 30′ x 63′, shingle roofs; $8,000; o., Walter Tompkins, Tomkins Cove, N. Y.; a., Rossiter & Wright, 94 Liberty St., New York.

Chicago, Ill. — *Douglas Boulevard and Thirteenth St.*, three-st'y bk. & st. dwell., 33′ x 67′, slate roof, steam; $15,000; o., Alexander Burke; a., Wm. F. Gubbins, 685 Ogden Ave.

Covington, Ky.—*Wallace and Madison Aves.*, two-st'y bk. dwell. & store, 41′ x 85′, tin roof, furnace; $5,500; o., Thomas Car, 1816 Greenup St.; a., Schofield & Rube, Pike & Madison Sts.

El Paso, Tex.—Two-st'y bk. dwell., 40′ x 60′, shingle roof; $8,000; o., Ed Moye; a., E. Krause.

Safford, Ariz. — Two-st'y bk. & st. dwell., 35′ x 50′, shingle roof; $5,000; o., D. W. Wickersham; a., E. Krause, El Paso, Tex.

Washington, D. C. — *Kalorama Ave.*, 7 three-st'y bk. & st. dwells., 20′ x 56′, flat roofs, hot water; $50,000; o. & b., John N. Nolan.

PUBLIC BUILDINGS.

Appleton, Wis. — Two-st'y bk. & st. city hall & library, 72′ x 167′, comp. roof, steam; $25,000; o., City; a., Holbrook & Co., First National Bank Building, Milwaukee.

STABLES.

New York, N. Y.—*One Hundred and Nineteenth St.*, nr. 5th Ave., three-st'y bk. & st. stable, 75′ x 90′; $25,000; o., Dennis Comfrey, 302 W. 134th St.; a., Geo. F. Pelham, 503 Fifth Ave.

Ninetieth St., nr. Amsterdam Ave., two-st'y bk. stable, 20′ x 93′; $8,500; o., A. & S. Bloch, 791 Park Ave.; a., Buchman & Deisler, 11 E. 59th St.

Overbrook, Pa. — *Sherwood Road and Lancaster Ave.*, two-st'y stable, 33′ 4″ x 38′ 6″; $4,300; o., Wm. F. Harrity; b., Joseph F. Dolan.

TENEMENT-HOUSES.

Chicago, Ill. — *Vernon Ave.*, nr. 60th St., three-st'y & base. bk. & st. flat, 25′ x 66′, gravel roof, steam; $12,000; o., Thomas Newell, 7120 Rhodes Ave.; a., E. C. Healy, Room 40, 84 Washington St.

THEATRES AND HALLS.

New York, N. Y. — *Seventy-second St. and North River*, three-st'y bk. & st. Young Men's Christian Association Building to be occupied by the railroad branch of the Young Men's Christian Association, 40′ x 90′; $20,000; o., New York Central & Hudson River Railroad Co., Grand Central Station; a., J. D. Fouquet, 35 Broadway.

WAREHOUSES.

New York, N. Y. — *Deshrosses St.*, cor. Washington St., six-st'y bk., st. & terra-cotta stores & lofts, 21′ 10″ x 82′ 4½″; $30,000; o., Sylvester L. Mitchell, 1782 Lexington Ave; a., Kurtzer & Rohl, 3d Ave. & 7th St.

Washington, D. C. — *D St.*, bet. 12th & 13th Sts., five-st'y bk. warehouse, 58′ x 138′, tin roof; $50,000; o., D. A. Sanford, 333 Indiana Ave.; a., Edward Woltz, 610 Fifth St., N. W.

COMPETITIONS.

SOCIETY OF BEAUX-ARTS ARCHITECTS. SEASON 1899-1900.

A SOLDIERS' MONUMENT FOR A SMALL TOWN, IN THE ROMAN DORIC ORDER.

[CLASS B, ORDER PROGRAMME NO. 9.]

COMPETITION NO. 34.

The Committee on Education proposes as a subject for competition, "A Soldiers' Monument for a Small Town, in the Roman Doric Order."

REQUIREMENTS.

The monument is to stand in a triangular green in the centre of the town. The green measures 200 feet on one side and 400 feet on the other two sides. There are streets on all sides. The form the monument is to take is left to the taste of the students, except that the Roman Doric Order must be used. Fountains may be introduced at the base.

The height of the monument must not exceed 46 feet and no part of the base can project beyond a circle of 25 feet radius.

This programme will be judged especially on the merits of the details, which need to be carefully drawn and rendered.

Sketches Required: Students intending to compete are required to send, on or before February 1, 1899, to Ernest Flagg, Chairman, 35 Wall St., New York, the following sketch on tracing-paper: Elevation drawn to scale of 1-8″ to the foot.

Finished Drawings Required: Elevation of monument to the scale of 1-4″ to the foot. Plan of monument nad green at the scale of 1-8″ to the foot. Details of entablature, capital and base at one-fourth full size. Drawings may be rendered in water-color or India-ink, at student's option.

Drawings to be mounted on strainers or compo board and forwarded, on or before April 15, 1899, to W. S. Budworth & Son, 424 West 52d St., New York City, expressage prepaid.

NOTICE.

Non-observance of the following conditions will render a student liable to be thrown *hors de concours:* —

First. — If the sketch is carelessly drawn.
Second. — If the limits set by the programme are exceeded.
Third. — If the rendered drawings differ essentially from the sketches.
Fourth. — If the drawings are not delivered to Messrs. Budworth & Son, or to the Express Co., or Carrier, on the date mentioned.

NOTE. — This competition is open to all students of architecture, the conditions of judgment and jury to be arranged by committee.

Students will be required to obtain four values in this class before being eligible to Class A. The values will count as follows: —

Mention for a sketch problem equals	½ value.
Second Mention for an order problem equals	1 value.
First Mention for an order problem equals	1½ value.
Second Mention for a plan problem equals	1 value.
First Mention for a plan problem equals	2 values.

At least one of these values must be for an order problem.

(Signed) ERNEST FLAGG, *Chairman*,
JOHN M. CARRÈRE,
CHAS. MORRIS,
JNO. G. HOWARD, *ex officio*,
EDWARD L. TILTON, *ex officio*,
Committee on Education.

NEW YORK, January 15, 1899.

Date of following competition: Programme will be issued April 15, 1899.
Drawings will be rendered September 15, 1899.

A SUBURBAN HOUSE WITH ITS DEPENDENCIES.

[CLASS A, PROGRAMME NO. 15.]

COMPETITION NO. 35.

The Committee on Education proposes as a subject for competition, "A Suburban House with its Dependencies," including stable, gardener's house and water-tower, also the laying-out of the grounds.

The buildings are to be of local stone and shingles, the trimmings and other architectural details are to be in wood.

House: On the ground-floor the main features are to be an entrance-hall, living-room or library, billiard-room, dining-room with its pantry, a conservatory and a swimming or plunge bath, the tank of the latter to measure 15′ x 50′, and the room to be covered by a glass roof. The greatest dimension of the house must not exceed 200 feet.

Ten bedrooms are desired for the family, and each bedroom on the second floor is to have its own bath-room.

The kitchen may be in the basement or on the ground-floor.

There must be a large piazza and a *porte-cochère* or a *marquise.*

Gardener's House: This is to answer the purpose of a gate-lodge. There must be two bedrooms, a bath-room, sitting-room and kitchen.

Stable: The stable is to have accommodations for ten horses, each horse to have a box-stall. There must be a paddock containing at least 5,000 square feet.

The Grounds: The plot is in the form of a rectangular parallelogram and measures 400′ on the road by 1,000′ in depth. From the road the land rises gradually for 250′ until it reaches an elevation of 15′ above the road, it is then nearly level for a farther distance of 200 feet. This plateau is finely wooded, and there is a fine view from it in the direction of the road. From the grove the land falls gently for a distance of about 350′ to a brook running parallel to the road, the general level of which is about 10′ below the level of the road. From the brook the ground again rises gently to the rear line. The land in front of the grove is to be used as a lawn, and the back of the grove is to be a formal vegetable and flower garden. An artificial geometrical ice-pond is to be made on the line of the brook. There may be terraces about the house.

Sketches Required: Students intending to compete are required to send, on or before February 1, 1899, to Ernest Flagg, Chairman, 35 Wall St., New York, the following sketches relating to the house, on tracing-paper: Plans of ground-floor and first floor, and a section at a scale of 1-32″ to the foot, and an elevation at a scale of 1-16″ to the foot.

Finished Drawings Required: Plans of ground and first floors and section of house, all at a scale of 1-16″ to the foot.

An elevation at a scale of 1-8″ to the foot. (The elevation may show, besides the house, any or all the buildings mentioned above, also one or more human figures.)

A plan of the grounds and buildings at a scale of 1-32″ to the foot. This plan is to show the arrangement of the ground-floors of stable and gardener's house.

These drawings may be rendered in water-color or India-ink.

Drawings to be mounted on strainers or compo board and forwarded, on or before April 15, 1899, to W. S. Budworth & Son, 424 West 52d St., New York City, expressage prepaid.

NOTICE.

Non-observance of the following conditions will render a student liable to be thrown *hors de concours:* —

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Second. — If the limits set by the programme are exceeded.
Third. — If the rendered drawings differ essentially from the sketches.
Fourth. — If the drawings are not delivered to Messrs. Budworth & Son, or to the Express Co., or Carrier, on the date mentioned.

NOTE. — This competition is restricted to students having already obtained a mention in Class A, or having already obtained four values in Class B.

New York, January 15, 1899.
Date of following competition: Programme will be issued April 15, 1899.
Drawings will be rendered September 15, 1899.

A BATH-HOUSE AND ADDITIONAL LODGINGS FOR A COUNTRY CLUB.

[CLASS B, PLAN PROGRAMME NO. 7.]

COMPETITION NO. 35.

The Committee on Education proposes as a subject for competition, "A Bath-house and Additional Lodgings for a Country Club."

This little building is supposed to be situated at about one hundred yards from the club-house, in a grove, and on the line of a small stream or brook which it is proposed to make flow through the plunge.

It is to be built of local stone, laid up as rubble, and shingles. The trim and other architectural details are to be of wood.

The requirements are a plunge-bath or tank containing not less than 1,000 square feet of area, with a platform around it not less than three feet wide, the tank-room to be covered by a glass roof. A vestibule, a lounging-room of not less than 600 feet area, 12 dressing-rooms for males and a like number for females (these to be about 4′ square, arranged in two groups, each group to be connected with a toilet-room and to be provided with a shower, and to have direct connection with the tank-room). A room opening from the bath to be used as a small gymnasium, which should contain at least 1,000 square feet of floor area. There may be a sun parlor covered with glass like the pool, where bathers can sit in the sun after a bath, and there may also be a second story over a part of the building to be used as bedrooms by men who take their meals at the club.

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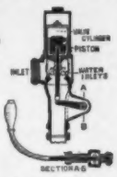

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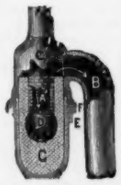

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COMPETITIONS.

There must be a court-yard in front of the main entrance, enclosed on two or three sides by twelve small attached dwellings for young married couples who take their meals at the club. Each dwelling is to consist of an entrance-hall with a stairway, a living-room downstairs, and two bedrooms and a bath-room up-stairs. There must be a suitable entrance to the court-yard for carriages on the side opposite the main entrance to the bath-house. The greatest dimensions of the group must not exceed 200 feet.

Sketches Required: Students intending to compete are required to send, on or before February 1, 1899, to Ernest Flagg, Chairman, 35 Wall St., New York, the three following sketches on tracing-paper: First-floor plan, front elevation and section, all to a scale of 1-32″ to a foot.

Finished Drawings Required: First and second floor plans and section at the scale of 1-16″ to the foot; front elevation at the scale of 1-8″ to the foot. A single human figure to be drawn on the elevation.

These drawings may be rendered in water-color or India-ink.

Drawings to be mounted on strainers or compo board and forwarded, on or before April 15, 1899, to W. S. Budworth & Son, 424 West 52d St., New York City, expressage prepaid.

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Second. — If the limits set by the programme are exceeded.

Third. — If the rendered drawings differ essentially from the sketches.

Fourth. — If the drawings are not delivered to Messrs. Budworth & Son, or to the Express Co., or Carrier, on the date mentioned.

NOTE. — This competition is open to all students of architecture, the conditions of judgment and jury to be arranged by committee.

Students will be required to obtain four values in this class before being eligible to Class A. The values will count as follows: —

Second Mention for an order problem equals 1 value.
First Mention for an order problem equals 1½ value.
Second Mention for a plan problem equals 1 value.
First Mention for a plan problem equals 2 values.
Mention for a sketch problem equals ½ value.
At least one of these values must be for an order problem.

NEW YORK, January 15, 1899.

Date of following competition: Programme will be issued April 15, 1899.

Drawings will be rendered September 15, 1899.

AN ENTRANCE TO A NAVY YARD.

[CLASS B, SKETCH PROGRAMME, NO. 4.]

COMPETITION NO. 33.

The Committee on Education proposes as a subject for competition, "An Entrance to a Navy Yard."

The entrance is situated at the foot of a city street 60 feet wide; another street at right angles to the first, and of the same width, runs along the outside of the wall of the yard. The entrance should be dignified and monumental in appearance and in keeping with the purpose for which it is to be used. It may be recessed somewhat from the street so as to form a small place in front of it. Provision must be made for a guard-house and an office. These may be in one or two small buildings. The guard-house must have a room containing about 400 square feet, a small office for the officer of the guard, and a toilet-room. The office is to consist of a small public waiting-room, two small private rooms and a toilet-room.

COMPETITIONS.

There must be two sentry-boxes. The structure is to be of stone.

No restrictions are made regarding the dimensions, style of architecture, or method of rendering the sketch, but the drawing is limited to a single sheet of paper about 14″ x 20″.

Scale: Plan and section must be shown at 1-16″ scale. Elevation or perspective at 1-8″ scale.

Each competitor is required to design and render the problem unaided, and to devote but 18 hours of actual work upon it.

The finished sketch must be sent flat, unmounted, on or before April 15, 1899, to Ernest Flagg, Chairman, 35 Wall St., New York.

These drawings will be exhibited and judged at the next regular exhibition of the Society.

A Mention awarded for this sketch will count as a half-value.

NOTE. — This competition is open to all students of architecture, the conditions of judgment and jury to be arranged by Committee.

Students will be required to obtain four values in Class B before being eligible to Class A. The values will count as follows: —

Mention for a sketch problem equals ½ value.
Second Mention for an order problem equals 1 value.
First Mention for an order problem equals 1½ value.
Second Mention for a plan problem equals 1 value.
First Mention for a plan problem equals 2 values.
At least one of these values must be for an order problem.

NEW YORK, January 15, 1899.

Date of following competition: Sketch Programme will be issued April 15, 1899.

Sketch will be rendered April 23, 1899.

PROPOSALS.

COURT-HOUSE. [At Buckhannon, W. Va.]
Bids are wanted **February 16** for a Court-house. R. A. DARNALL, Chmn. Co. Commrs. 1206

VENTILATING AND HEATING. [At Cleveland, O.]
Bids are wanted **February 4** for a ventilating and heating apparatus in the Children's Hospital, at the City Infirmary. WILLIAM J. AKERS, Director of Charities and Correction. 1205

ARMORY. [At Annapolis, Md.]
Proposals will be received at the Bureau of Navigation, Navy Department, **until the 16th day of February, 1899,** for the construction of a boat-house and an armory at the Naval Academy, Annapolis, Md. A. S. CROWNINSHIELD, Chief of Bureau of Navigation. 1206

COURT-HOUSE. [At Arkadelphia, Ark.]
Bids will be received **until March 1** for erecting a Court-house. J. H. CRAWFORD, Chairman Committee in Charge. 1206

SCHOOL-HOUSE. [At Ellendale, N. D.]
Bids will be received **until February 16** by the Industrial School Board for erecting a new school. 1206

JAIL. [At Keyser, W. Va.]
Sealed proposals will be received **until February 10,** for the erection of the Mineral County Jail, in accordance with plans and specifications prepared by **Frank P. Milburn, architect, Charlotte, N. C.** It will be built of brick and stone, steel cells and will cost about $10,000. 1205

COURT-HOUSE. [At Douglass, Ga.]
Bids will be received **until February 25** by the Commissioners of Coffee County for the erection of a new Court-house. 1205

Treasury Department, Office Supervising Architect, Washington, D. C., January 12, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 2d day of February, 1899, and then opened, for the new isolation ward and disinfecting annex at the United States Marine Hospital, St. Louis, Mo., in accordance with the drawings and specification, copies of which may be had at this office or the office of the Custodian at St. Louis, Mo. JAMES KNOX TAYLOR, Supervising Architect. 1205

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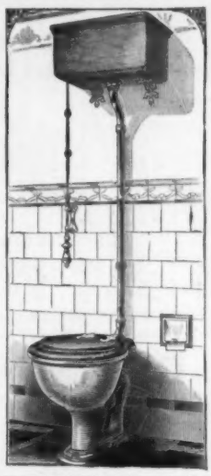

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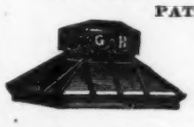

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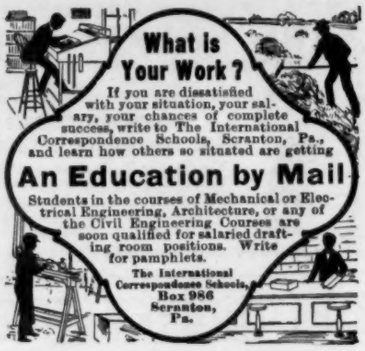

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SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

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 drawings 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 alterations of a building designed by another architect, 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, without 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 designs 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 drawings 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 Architects' "schedule of charges" represents minimum 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 architect 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, illustration and supervision of all building operations which he may undertake.

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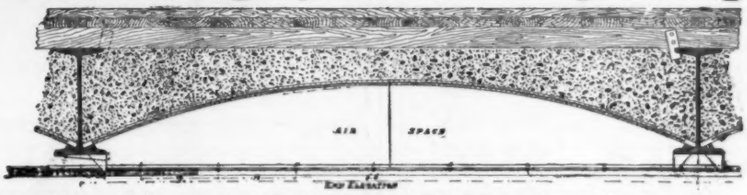

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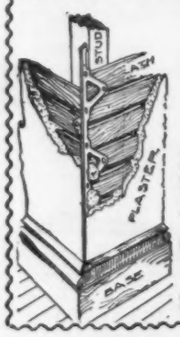

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