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THE proposed bill for the creation of a national art commission, to have the power of passing upon the designs of coins, postage-stamps, paper currency and other works of art issued by, or purchased in behalf of, the National Government, together with those of the public buildings of the United States, does not meet with the approval of "a little company of New York gentlemen," who "hold that freedom and fair play are essential to true artistic development." In what way the Public Art League is likely to interfere with "freedom and fair play" in art we should be at a loss to imagine, were it not that the postal card on which the "little company of New York gentlemen" disseminates its warnings against the "dangerous measure" under consideration informs us that the proposed bill is, "in naked truth," "the first move in a bold scheme whereby a formidable ring of New York sculptors and painters seek to control every art work in which the Government has an interest, to the complete exclusion of the great body of American artists everywhere." We presume that the "little company of gentlemen" must have some evidence to support this assertion, or they would not have made it; but they will have hard work to convince people of the truth of it without supporting their statements with something besides their mere word.

SO far as internal evidence is concerned, the claim that the bill for the establishment of the Public Art League of the United States is promoted by, or in any way, directly or indirectly, intended, either now or later, to put "a formidable ring of New York sculptors and painters" into control of the public art, appears utterly ridiculous. The idea of a "ring," either formidable or otherwise, among painters and sculptors will amuse people acquainted with the ways of artists; while, even if such a ring existed, the names of the persons who have taken most interest in urging the passage of the present measure, are very far from suggesting any connection with any such ring, and, perhaps, least of all, a ring of New York artists. Moreover, even supposing that the "formidable ring" of painters and sculptors of the metropolis is secretly at work behind the array of architects, editors and Government officials whose names are put forward as supporters of the measure, it remains to be explained how they are to profit by its enactment. The "little company of gentlemen" say that "first-class artists could not be induced to submit their works to the

judgment of an official and permanent Commission, whose appointment must, in the nature of things, be governed by political influences and wire-pulling." Without criticising the gratuitous assumption that the members of the Public Art League will owe their appointment to "political influences and wire-pulling," we should be glad to know why "first-class artists" are likely to be unwilling to submit their works to the judgment of such persons. Certainly, all the artists who wish to work for the public must expect to "submit their works" to some one's judgment for approval; and the idea on which the movement for the creation of the League is based is that artists of the highest class will be more willing to offer their work to the judgment of a permanent Commission, whose members, even if political influence should have a share in their selection, will certainly not be appointed unless they are known to have some familiarity with matters of fine-art, than to submit it, as has been the rule hitherto, to the caprices of men absolutely ignorant of the entire subject. So long as it was currently supposed among the artists of the country that only female sculptors with long curls had any chance of securing commissions for the United States Government, artists who could not boast these advantages, however great their merit in a professional way, declined to waste their time in hopeless competition; and the history of the Columbian medal, although by no means discreditable to the officials concerned, shows how serious are the misunderstandings which may arise between artists and officials who know very little, and care much less, about the æsthetic questions to which they are sometimes compelled to give a reluctant attention. An Art Commission, whether appointed by "wire-pulling" or not, will be required to devote itself systematically to these things. Its acts will be sharply criticised, and it will neither be able to award contracts for statues to the candidate with the most engaging smile, nor to defer looking at a design until it is put in execution. This systematizing of the methods of selection in the public art would be a great gain, even if the Commission had no further influence in the matter; but it is not conceivable that such a Commission should not always be composed of men of trained judgment in such things; and a commission of members of this sort, by means of its suggestions to Congress, its official programmes for competitions, its reports of its proceedings, and its mutual relations with artists and the public, may become an extremely important factor in the development of American art.

THE Royal Gold Medal of the Royal Institute of British Architects is to be bestowed this year upon Mr. Ernest George, whose work is well known to American architects. Ernest George, if we are not mistaken, was originally a professional artist, whose water-color pictures and, still more, his etchings, were widely known before he turned his attention to architecture. His adoption of this as a profession was a fortunate matter for the public, for some of his work has a charm surpassing that of any other English architect. He would naturally be compared with Mr. Norman Shaw, and the latter may undoubtedly be regarded as his superior in dignified composition, and, when at his best, in a certain greatness, but in Mr. George's work one constantly finds pieces of effect with which one, so to speak, falls in love on the spot. With all his artistic feeling and love of the picturesque, also, Mr. George is said to be a skilful and sensible practitioner, and the honor intended for him will, in this country, be thought well bestowed.

MOST of our readers have probably read with interest the observations made upon the nitrifying bacteria of the soil, made first by Messrs. Schloesing and Müntz, and continued at our own Lawrence Experiment Station, and elsewhere; and will be curious to follow the development of the investigations which have been made into the subject. Quite lately, M. Winogradsky, who, like the experimenters of the Massachusetts State Board of Health, has succeeded in isolating the nitrifying organisms, has announced that, for the complete conversion of organic matter in the soil into nitrates, three sets of animalculæ must work together. The first change that the dead organic matters in the soil undergo is a conversion of their nitrogenous portions into ammonia. This conversion, as M. Winogradsky finds, is produced by a certain set of bacteria,

known together as the ammoniacal ferment. After the conversion into ammonia, a second set of bacteria take up the work. These little organisms, which are known as the nitrous bacteria, are well known to science, having been repeatedly isolated and studied. They are rounded or elliptical in shape, slow-moving, and disposed to cluster in masses. After they have oxidized the ammonia compounds into nitrites, they turn over the material to a third set of workers, the nitric bacteria. The nitric bacteria are very different from the others, being lively little rod-like creatures. They cannot, by themselves, produce the ammoniacal fermentation, neither can they convert ammonia into nitrites; but they take the nitrites delivered to them by their plump little brothers, and oxidize them into nitrates. This completes the conversion, the nitrates being stable compounds, and suited to be taken up by plants as food.

**E**LECTRICIANS and others may be interested to learn that a solution of permanganate of potash, which can be obtained at almost any drug-store, is found to be an excellent remedy for burns. Among electricians, who often suffer from burns caused by hot wires, it is of great importance to have some of this solution ready. As soon as possible after a burn is received, the place should be bathed with it, keeping up the application for several minutes. The skin of the part affected will turn black, from the reduction of the manganese salt, but the pain will be relieved; and, a few days later, the injured tissues will be found to be healed.

**T**HE question what to do with the Bulfinch portion of the Massachusetts State-house is a matter that will not down.

The present Legislature has before it three bills, one that proposes the demolition of the building and an open competition for designs for a new "Capitol"; the second, proposed by the Commissioners in charge of the annex, seeks to destroy the old building and then reproduce it at a somewhat enlarged scale, with new material, altered dimensions, changed proportions and new features, which, nevertheless, are alleged to restore the old building on its original lines; the third seeks to retain the present building and to make it permanent by fireproofing the structure throughout. The cost of these several methods may be compared as being \$6,000,000, \$1,250,000 and \$400,000, so that ordinary business economy favors the *actual preservation* scheme, and when this scheme preserves in unimpaired and consecutive form the associations connected with a century of the Commonwealth's history and the City's growth, and when it will meet the wishes of that portion of the community which has shown most interest in the question as attested by their numbers and their pleadings, at the numerous Legislative hearings, it would seem that decision must be made in favor of the least costly and, sentimentally, most desirable scheme. The question ought properly to lie between an absolutely new and costly building and the strictly proper restoration of the present building. The scheme proposed by the present Commissioners is a compromise and a make shift and, if adopted, will result in dissatisfaction to every one save the Commissioners themselves—even to their architect, who would always regret that he was not allowed to do something else.

**W**E find, in a series of articles on iron construction, in the *Deutsche Bauzeitung*, some extracts from the standard specifications for ironwork of the Bavarian State railways, which will be interesting to American readers. As a general rule, the specifications require that all parts of structures shown without joints in the drawings shall be made in one piece, forged, bent or cast, as the case may be, no welding or sweating together of portions being allowed except by express and special permission of the State engineers. All pieces must be straightened at a red heat, at the mill. Small irregularities may be corrected when the metal is cold, but even for these, presses and special machines are to be used in preference to hand work, and no working whatever of metal at a "blue heat," either hot or cold, is permitted. Where hammer-work is necessary, the hammer must be so formed as not to make dents in the material; and straightening with the hammer is not allowed on cold metal. Plate metal, more than half an inch thick, is to be worked only at a red heat. All trimming must be done, as far as possible, with a hack-saw, or in the planing-machine; and pieces cut with shears must have at least one-twelfth of an inch of metal left next the

cut, which is to be taken off with a planer, or hack-saw, or file, as the case may be, to reduce them to the proper dimensions.

**T**HIS last provision reads curiously to Americans, who would open their eyes wide at the idea of cutting a gusset-plate wider than the drawing, so as to allow of filing it down to the proper dimensions; but iron machinery on the Continent does not, apparently, always work as smoothly as ours, and the German engineers seem to be still possessed with that fear of shattering the edges of a cut, or a punched hole, which once prevailed here. The same ideas pervade the rules for riveting, some of which are, however, worth remembering. In all cases, rivet or bolt holes must be brought together, if they do not coincide exactly, by boring, the use of drift-pins being strictly forbidden. Where the rivets or bolts intended for a given set of holes are to be subjected to a shearing strain, the holes must be absolutely true. When it is possible to do so, all the pieces must be drilled together. In cases where this is impracticable, the pieces may be bored separately, with a drill of smaller diameter than the finished hole; and, after securing them together by this means, the small holes are to be enlarged to the proper size by means of a reamer. Where the rivets are not to endure a shearing strain, a variation in the position of the holes, not greater than one-twentieth of their diameter, is admissible. This would seem to our bridge-builders a tolerably liberal margin, but the German engineers may be stricter than ours in looking for shearing strains in rivets. All rivets, according to the rules, having a diameter of more than nine millimetres, or about three-eighths of an inch, must be driven red-hot; the scale must be removed before driving, and the pieces firmly bolted together before riveting. The head of the rivet must be fully formed, and the length must be sufficient to provide for this, as well as for thoroughly filling the irregularities of the rivet-hole. A curious rule, with which workmen driving small rivets in heavy pieces of iron must find it difficult to comply, is that the head must be formed so quickly that, after its completion, there shall still be a red-hot spot in the centre. The head is also required to be free from cracks, and to have its centre exactly in the axis of the rivet-hole. Where a long row of rivets is to be driven, the driving must begin in the middle, proceeding in each direction to the ends; and it is strictly forbidden to begin riveting at the end, and proceed toward the middle. After the rivets are driven, they are to be inspected, and all that are found loose, or not in accordance with the other rules, are to be cut out, and replaced by others in conformity with the specification. The loading and unloading of structural iron must be carefully done so that the pieces may not be bent or injured; and, if any piece should be so injured, notice must be given at once to the State engineers, who will give directions for remedying the trouble.

**T**HE Russians, who, whatever may be their faults, are certainly not lacking in energy, appear to possess the most active organization of architects in Europe, in the St. Petersburg Society of Architects. This body recently celebrated its "silver wedding," on the occasion of the twenty-fifth anniversary of its foundation, by a general assembly, held in the great hall of the Academy of Fine Arts, and presided over by the Grand Duke Vladimir, who is the honorary President of the Society. After the opening festivities came an exhibition of the work of the Society since its foundation, followed by a banquet. The Society has reason to be proud of what it has accomplished. To say nothing of two successful exhibitions, one exclusively artistic, and the other exclusively technical, it has organized a Congress of Russian architects; has succeeded in establishing rules for the conduct of public competitions; has raised a fund for the relief of the widows and orphans of deceased architects, and has intervened with effect for the preservation of historic buildings; and, during the last war, it established and maintained a camp hospital in the field. Some of our readers may remember that, about twenty-five years ago, the Russian Government, expressing the opinion that the American practice of architecture was better suited than any other to Russian needs, sent to this country for one or two young architects, to initiate the Russians into American ways. Now, in some respects, at least, the tables are turned, and American architects can learn much, in regard to the social side of their professional life, from their Russian brethren.



## EVERY-DAY ITALY.—II.

A TRAMP IN THE TUSCAN HILLS, FROM SIENA TO SANTA COLOMBA.



Porta Camollia, Siena.

MORNING hours are precious to the walker, and it was not yet six, when, leaving the dark, still, stone-lined streets of old Siena, I passed beneath the great arch of the Porta Camollia, and emerged into view of the beautiful Tuscan hills, on the long road to the villa Santa Colomba.

There are two Camollia gates, an inner and an outer, with a wide plain, the *Piazza d'Arme*, between them, memorable among other things as the theatre of one of the scenes in Pinturicchio's fine frescos in the library of the cathedral—the betrothal of Emperor Frederick III with Eleonora of Portugal. The column, erected to commemorate the event, and shown in the fresco, is still standing. The outer gate is very impressive, though it consists of nothing more than a brute mass of brickwork with an arcaded cornice and castellated top, pierced on the outer side by an enormous arch of stone. The interior is painted with some now faded frescos, and the vaulted ceiling is decorated in blue and gold—gold stars on a blue ground—a favorite scheme of ceiling decoration with the Italians, and a very beautiful one.

Half a mile beyond the gate a turn of the road disclosed the famous Palazzo dei Turchi, or Palazzo dei Diavoli, as it is popularly called. I was at some pains to discover the origin of this singular title. The most reasonable explanation seems to be this: that in one of the frequent wars in which the men of that early time engaged—much as we of to-day engage in trade—during a sortie made from the palace, then in a state of siege, its inmates fought with such desperate valor that the repulsed and disconcerted enemy, to save its name for bravery, no doubt, declared that such warriors could not be men, but must be devils, and “House of the Devils” the place continues to be called until this day.

The charm of the building is quite indefinable, and cannot be conveyed by descriptions, drawings or photographs. It was built in the fifteenth century during the golden noon of the Renaissance, by one Federighi, whose hand appears in many lovely bits of sculptured detail within the city walls. It is of brick, the ornament and mouldings being of terra-cotta, of a dark salmon color, with detail as delicate as lace and strong as steel, of that chaste quality, classical yet original, which better than anything distinguishes the earlier from the later Renaissance. The composition consists of three loosely-joined and apparently little related parts, disposed quite unsymmetrically—almost at haphazard, it would appear, though such is far



Villa Sotgardi, near Siena.

from being the case, for herein lies the secret of the building's charm. By means of its two articulations it fits the double turn of the road like a glove, and presents from each direction a different aspect: towards the city the exquisite little chapel (once, perhaps, an open loggia), and toward the *contorni* the high and frowning



Palazzo dei Diavoli, near Siena.

fortress-like construction with its central circular tower—a truly mediæval motive made beautiful by the skill of the Renaissance designer. There is something very grim and even terrifying in this façade, seen at a distance down the road against the sky; it looks like some giant locomotive rushing forward on the high stone walls for rails. These two aspects of the same building fitly symbolize the dual character of the men who made it, the early dwellers in these walled Italian towns, for to the outer world they presented an always hostile and belligerent front, but among themselves exhibited those finer graces, the love of art and of literature, which were equally theirs.

A little farther on I passed the ancient Villa Mocenna, almost screened from view by dense foliage and a high stone wall. Beyond it was the Villa Sergardi, *Torri Fiorentina* with a long, plain, symmetrical façade which permitted only a glimpse of the formal, Italian garden behind it, with its balustraded terrace, sweeping out in a great curve overlooking the valley. Another half a mile or so brought me opposite the Villa Bardia, which sets as snugly on the top of the hill as though it grew there.

Following the directions given in “Baedeker,” I took a branch road whose junction with the highway was marked by towering cypress-trees—two on either side. This soon led me to the brow of a hill overlooking a vast valley, into which the road descended in a sinuous line of white, appearing and disappearing. Behind and to the left lay the city, looking at that distance not very different from when Dante's eyes beheld it, and from the time when lived those other great ones from whom emanated the glory which we

name the Renaissance—hardly different at all. The two towers, of the Palazzo Pubblico and of the Cathedral, so beautiful and yet so widely different, rose to an equal height and dominated, as they should, as symbols of the Church and State, all lesser edifices. Beside the latter campanile, clearly defined against the sky, towered the great wall of the Opera del Duomo, with its single blank arch staring down at the old city like a sightless eye. This incomplete and mutilated structure, beautiful, even yet like a beggar at the door

<sup>1</sup> Continued from No. 1051, page 74.

of a church, seemed always to recount the tale of the calamity which brought it to such plight. Siena in her prime, rich, powerful, populous, the rival even of great Florence, was to have had a cathedral worthy of her, second to none in Italy, and to that end work was begun upon a building of which the now existing church would have formed a transept only. Then came the great plague of 1348, which swept away two-thirds of all the inhabitants, and from which, to this



Villa Bardia, two miles from Siena.

day, Siena has not recovered, for the city is shrunken away from its walls, like a dry nut from its shell, and gardens grow where once were busy streets. After this calamity the ambitious plan was abandoned, and the more modest one adhered to. Only some mutilated walls and columns adorned with exquisite Gothic detail, black from exposure, like soiled lace, remain to tell how grimly Fate sometimes deals with human pride.

Before me and below me lay the valley, green with vines festooned from tree to tree, and yellow with the harvest of grain which hundreds of busy men and women were engaged in gathering in primitive fashion, with sickles, to be threshed out afterward with flails. All about were the hills, rising one beyond another, like the waves of the sea. On their fertile slopes grew corn and grape and the gray olive, and their ridges were outlined against one another and against the sky by darker masses of spreading stone-pine, and bayonet-pointed cypress, planted in long, regular rows like soldiers on parade. Farms and villages nestled in the cosy laps of the hills, and every summit wore on its brow a tower or villa like a crown.

Far on the opposite slope I discerned a large light-colored building which I knew must be the Villa Santa Colomba, from the two-storied loggia which forms a principal feature of the façade. A road led past it up the hill, and nothing seemed easier than to reach it, so dismissing from my mind all further anxiety on that score, I began my descent from the cool hill-top into the sweltering plain.

It was very interesting to watch the life which went on in the fields by the roadside: the men and women laboring equally together, the brown, barefooted children, to whom work was as yet only a new and absorbing kind of a game: the great gray oxen with their wide, indignant eyes, whose slow and dignified movements were in such great contrast to the briskness of the furry little donkeys, hardly bigger than dogs, that looked so shrewd and cynical and pretended not to mind the beatings they were constantly receiving.

I was so preoccupied in watching all this as I walked along, that I quite forgot about my destination, and when next I looked where the villa should be, it had disappeared. I was surprised, almost astounded. It did not seem possible that so large an object at such a height could vanish utterly and leave no trace, and even after I had discovered the cause of the singular phenomenon I still retained a sense of something magical about it. Expecting to see the villa appear beyond each hill which the road skirted, I kept to the level instead of mounting as I should have done. The country began to assume a very different aspect; it was no longer cultivated, and the way led through a second-growth wood full of underbrush. At every turnpike signs were posted up warning the traveller to beware of bandits. These gave me very little uneasiness, as I looked more like a bandit myself than a promising victim, so buttoning my coat over my watch-chain I continued unwittingly to increase my distance from the Villa Santa Colomba. Finally it came again into view, but this time far behind and above me. I reached it from the rear by a long detour and a stiff climb through an olive orchard. There I lay down flat on my back for a long sweet rest, and watched the little gray leaves above me twinkle against the sapphire midsummer sky. I would have gone to sleep so, if the flies would have let me.

I made it my first business, on arising, to discover if possible the cause of the villa's total invisibility from the valley immediately below. The explanation proved very simple: I found that a considerable plain intervened between the front of the villa and the brow of the hill, and behind it the building disappears as it is approached, exactly as the dome of St. Peter's sinks below the façade.

The whole thing seemed so artful that I think it may have been deliberately planned, perhaps in those ancient times when a fortress occupied the site and there was reason for such ambush.

The villa as it now stands, with the exception of the large addition in the rear, is the creation of Baldassarre Peruzzi, one of the greatest architects of the later Renaissance, whose other works may be studied in Siena, Rome and Bologna. His buildings are distinguished for their dignity, and the beauty of their proportions, and the Villa Santa Colomba possesses both these qualities in full measure.

The façade, though somewhat overloaded with the heavy and corrupt detail of the period in which it was built, is perfectly simple and straightforward in its main scheme, and the proportion of void to solid, and the relation of vertical members to horizontal, is perfectly satisfying to the eye. The principal feature of the design is a completely engaged loggia of three arches, in both the first and second stories, the upper one of which commands a view remarkable in beauty and extent. The batter of the first-story walls is all that remains to indicate that the pleasure-house was formerly a fortress. A lesser architect would doubtless have been at some pains to suppress this feature altogether, but Peruzzi, by frankly accepting it as one of the conditions of his design, has so given the building an altogether distinctive character; it seems now to be part of the hill itself.

The villa is owned by the Collegio Tolomei, and is, I believe, used by them as a school in winter, but it was now midsummer, and the place was all but deserted. Two donkeys stabled underneath the portico, some clothes spread out to dry upon the lawn, and some ragged children wide-eyed with wonder at the presence of a stranger, were all that indicated habitation.

The heavy door to the garden stood ajar, and I pushed it cautiously open and stepped inside. I found myself in fairyland in a moment. At the time I could think of nothing to compare it with but the Palace of the Sleeping Beauty, but now I believe it was more like Doctor Rappaccini's garden, in Hawthorne's immortal story, and the old man passing up and down the garden paths with a watering-pot, old Rappaccini himself tending his poisonous flowers. The whole place was enclosed by high brick walls, except at the end adjoining the villa, where there were low buildings which might once have been the stables. The beds and paths had been spun over with a mass of vines and bushes, but the ancient formal and symmetrical arrangement was still traceable by means of the rows of gigantic terra-cotta pots containing plants of a tropical luxuriance of foliage, like those one sees in Abbey's drawings, and of which we had a very good counterfeit on the balustrades at the Chicago Fair.

The old gardener, passing up and down among them, paid no more heed to my entrance than as though he had been what he appeared — a being from a different world. As he was about to vanish into the house I called to him, and in bad Italian asked for something to eat and permission to visit the interior of the villa. He only answered by a toothless smile and went his way. I despaired of ever seeing him again, and settled myself for a sketch on the road outside, but in a few minutes he appeared before me bearing a ponderous iron key, not as big nor as heavy as a crowbar, but suggesting the comparison. He led me first to a little hovel where I regaled myself upon bad bread and cheese and excellent red wine, and discoursed at the same time with the handsome woman who served me in an improvised sign language when my Italian failed. I began by telling her that I had walked that morning all the way from Siena, but as I had forgotten the word for "walk" I had to get up and illustrate by marching across the floor. She answered incomprehensibly and then made her meaning clear by laying her head, with an air of great lassitude, upon her arm, and in such manner we continued our conversation. When I had finished, and paid the absurdly small account, old Rappaccini led me to the front of the villa and pried open the ponderous front door with his key. We entered a large, damp, dismal chamber, from which a door at the left admitted us to the stairway, which is justly celebrated as being the finest feature of the interior. It winds upward very gently, about a circular well supported on a Doric colonnade. Here, again, is evident



Bell-tower of the Villa S. Colomba, five miles from Siena.

the hand of a master, for the difficulties and complications of such a treatment, which every architect knows, have all been so marvellously overcome or cleverly avoided, that it seems as though stairways ought always to ascend in circles, and columns to be as necessary an adjunct as treads and risers.

There is a story that an underground passage, starting from the bottom of the staircase-well, once connected the Villa with Siena,



nearly five miles distant, and that traces of it are still visible, but I am slow to believe the story, the valley which separates them is so vast, and Italians are such artful liars.

On the first floor we entered a great *salon* with pilastered walls and lofty vaulted ceiling. Three noble arches admitted to the loggia which commanded a view of distant Siena, the intervening valley and the surrounding hills. At a table in the centre of this chamber—once, no doubt, the gathering-place of one of the most brilliant and intellectual societies the world has ever seen—sat two peasants in their work-day clothes drinking wine and eating bread and meat, and sharing it with a homely, sociable dog.

In them and their environment I saw a symbol of modern Italy—a pauper which inhabits still the dismantled and decaying churches and palaces reared by the Renaissance, intent upon the sordid meal-eating, money-getting present, forgetful of the past which made her glorious, though mindful of the past which made her free.

CLAUDE FAYETTE BRAGDON.

[To be continued.]

#### ELEVENTH ANNUAL EXHIBITION OF THE ARCHITECTURAL LEAGUE.

THE general effect of this year's exhibition adds another to the list of successful efforts of the hanging-committees. Since the League has enjoyed the use of the galleries of the Fine-Arts Building, especially, they have succeeded in improving markedly each year, in their efforts to get an interesting and at the same time an orderly effect out of the rather heterogeneous materials sent them.

The only criticisms that can be offered is the covering of the walls of the entrance vestibule with a necessarily confused mass of architectural renderings. As this is the only entrance to the galleries, it seems a mistake to invite the public to stop at a point where, when even a very small number of visitors are entering and leaving, those stopping to examine drawings would congest the approaches to the galleries, the coat-rooms and to the second story.

The walls of the vestibule might be used without this unfortunate result, by using them for two, or possibly four, especially meritorious works, guide-posts, as it were, to the character of the exhibition inside; but such exhibits should be carefully chosen for generally striking characteristics, and their scheme or purpose should be obvious and direct; exhibits for this hallway should not be of the kind that lead the visitor to stop and search the catalogue (finding in this year's, at least, that they are not in it) or linger over intricacies or charms of detail.

Having adverted to this, *en passant*, rather as a suggestion which may bring about its more careful consideration at future exhibitions, let us pass on to the Vanderbilt Gallery, where most of the architectural work is exhibited.

The general character of the architectural work exhibited is good, and looking back through the past twenty years, no one, certainly no architect, can fail to be widely impressed with the strides made by the profession and by the public. From the epoch (1876) when the people at large were building country houses either with a mansard roof, or in the Eytalian style with scroll and ornaments, and architects were only employed in very exceptional cases, to the present time when we get in one League exhibition such designs as Mr. Hunt's "Biltmore," Robertson's "House on the Rocks" (presumably W. Seward Webb's place at Shelburne, Lake Champlain, and apparently more extensive than Biltmore), Carrère & Hastings's design for Mr. E. C. Benedict, at Indian Harbor, with a layout of the grounds reminding one of a "projet de Grand Prix," and seventy-five or one hundred more, where men of great ability exhibit designs for many very interesting and very charming country places that vary in their cost from \$100,000 or more to the modest \$4,000 or \$5,000 home, what a contrast to one who can look back over those twenty! It certainly shows on the part of the profession at large a tremendous capacity for improving the opportunity; for keeping in the van of improvement in matters of art and taste, where their competitors (their clients) are people of abundant leisure and culture. The improvement in style, the working out of detail, the development and fostering of all the allied arts, landscape-gardening, painting, sculpture, carving, weaving, ironwork, modelling—all means a steady purpose, an unwavering enthusiasm, a daily and hourly labor on the part of the profession at large; it comes as near living a life of art for art's sake as can be found this side of the Italian Renaissance.

I have purposely referred above to country places only as they seem to mark more clearly and emphatically the tendency and the improvement. We have made, as shown clearly in this exhibition, the same general advance in many other directions, in private city residences, clubs, in certain classes of investment buildings, in college buildings and hospitals, and in one direction where success promises to have the greatest and most powerful influence for the good both of the profession and the community, in public buildings.

The only discouraging spot is in the *m-ty-story* buildings where practical needs, steel skeletons and outward shell are still hopelessly at variance.

To come back more directly to this Eleventh League Exhibition, which forces the contrast with the past so strongly upon one, the same arrangement has been adopted that was inaugurated last year, of forming alcoves by projecting screens, and devoting each alcove, as far as may be, to some firm or group of men. The saddest

feature this year is that two alcoves are memorials to four men, each one a serious loss to the profession: the oldest, Mr. Hunt, not really old; Mr. Atwood, in the prime of life; and Mr. Page Brown and Mr. Stewardson, both young men whose life-work had been but brilliantly begun.

The work exhibited in their memory is necessarily scant and fragmentary, but the school *projets* of Mr. Hunt and his working-drawings for the Louvre are full of interest, whilst a few drawings or reproductions of drawings of the others are very characteristic of the individual methods and will be seen with pleasure by all who knew them. Deserving of special mention are Atwood's competitive sketch for the Fine-Arts Building at the Chicago Fair, Page Brown's reproduction of a water-color of a Newport house (not built, unfortunately) and Stewardson's color-sketch of the east entrance tower of the dormitories for the University of Pennsylvania.

The country work this year is rather meagre, as compared with ordinary years, and there is nothing especially notable to record in the exhibits. Mr. Hunt's work is not worthily shown, although the photographs of such work as is exhibited are well chosen and admirable in execution; perhaps the committee thought his work well enough known through other publications and general knowledge. Mr. Robertson's "House on the Rocks" is rather archaeological than architectural; no doubt the plan, not exhibited, is modern enough, but why an architect of Mr. Robertson's experience should wish to choose the English or Scotch castellated style, then put flat tin roofs below the level of all his battlements, and then exhibit a *bird's-eye* view, Mr. Nye being dead, we shall never discover, unless it is when Mark Twain returns from Australia. Carrère & Hastings's house at Indian Harbor is good, although it savors a little too strongly of the "*projet d'Ecole*." I believe as firmly as any one can in the value of Beaux-Arts training, but any one who has compared the Grands Prix in either painting, sculpture or architecture, with the subsequent work of the winners, will understand the danger of limiting one's aspirations to the ideals of the school age. Any *nouveau* with Messrs. Carrère & Hastings's opportunity might have remembered a charming *esquisse-esquisse* by Lebreque, February, '67, for "*un ezedre joint à une salle de billard*," and with the beautiful promontory of Indian Harbor as his subject, have felt impelled to realize Lebreque's composition. I don't believe Carrère & Hastings remembered it or used it, their problem was so different a one, but I do feel that the atmosphere of their office is at times too Beaux-Arts for Indian Harbor, when their own individualities on top of their training are all that is necessary. Their design is very good and very interesting, is suitable and fit, and their general plan of gardens, piers, stables, etc., landscape-gardening and all, a most admirable conception, and marking an epoch in such matters. The only criticism of detail suggested is that the Palladian motive in the second story seems a bit thin and meagre, but that is not a fair criticism on a first sketch from an office that studies its work, as they do, from beginning to end. Rossiter & Wright have several good things in country work, notably a bowling-alley and billiard-room sketch for a Water Witch Club, which is charming both in conception and in its rendering, with a judicious use of *gouache* on grayish paper.

C. C. Haight has a series of very charming little houses in the Shinnecock Hills; F. E. Wallis has a sketch for a modest stone country-house showing a very considerable ability in handling his masses, and another more important house in the entrance corridor; both show a broad treatment of water-color work, which is admirably adapted to architectural sketches, and is to be commended as drawing a fair and honest line between the exaggerations of certain clever draughtsmen whose work bears no relation to the executed building, and the other extremists, who having no imagination and much skill, over-realize, if it may be permitted to coin a word. It would be well for the younger men to study Mr. Wallis's methods with care and try to catch his spirit—not necessarily his particular knack. Berg & Clark; Dehli, Chamberlin & Havard, and C. P. H. Gilbert may also be mentioned as having done some country-houses well worth looking at. The best interior, by the way, is of a Mrs. Hewitt's residence, Cambridge, N. Y.; F. R. Comstock, architect; G. N. Kutchins, delineavit.

Coming to town houses, there seems to be a dearth in this exhibition, outside of Carrère & Hastings's front elevation of a house for Mr. Sloan, Butler & Dubois's design, and a slight sketch in pen-and-ink of a part of a house by G. P. Fernald, which is one of the best bits of pen-and-ink in the exhibition. As showing the colorist gone wild and overwhelming the architect's composition, one might study No. 165, a house on Commonwealth Avenue by J. A. Schweinfurth. If any Bostonian ever saw a house, a grass-plot and a lady on Commonwealth Avenue that actually gave him the impression of this drawing, he would leave at once, and go, who knows where—to Philadelphia, or the north of Scotland. The impression made on Boston by the Neo-Grec Martin Brimmer house when it arose on Beacon Street was not in it, could such color-effects as Mr. Schweinfurth's be built and made to stay; and yet, his design for the Minnesota State Capitol, as far as the perspective goes, no plan being given, is one of the best of the several exhibited.

There is not a good store or office-building exhibited; those of moderate height are simply commonplace, those that aspire to from eleven to twenty-two stories are each worse the one than the other. Some day this problem may be solved architecturally, but up to the present time no one of the tall buildings is architecture. Mr. Haight's

Lawyers' Title Insurance Co.'s Building is one of the most satisfactory, but the streets are so narrow you can't see it near by, and its neighbors are so tall you can't see it from a distance. Kimball & Thompson's Manhattan Life Building seems to be the next most successful, and barring too much detail of balconies and arches in the front and an insufficient allowance for perspective in the crowning motives, whereby small domes that were to have supported the central feature and carried the sky-line up easily, disappear from view at ordinary distances and can only be seen from Hoboken, it might be held to have solved the problem in one good way. Bruce Price came very near to a good solution in the American Surety Building, but it is very evident that his detail, especially at the top, does not count as from his drawings he thought it would, and starting from what seems the soundest idea for such monsters, an interesting basement, a plain shaft punched with holes for windows and a good and rich crown or sky-line, he lost the courage of his convictions, so that the parts that should be plain have detail enough to hurt the top and bottom richness which, thereby, seems not rich enough.

Of the drawings exhibited this year in this class, W. & G. Audsley are easily the champions in ugliness with their Bowling Green Building, and they hold it also, by the way, in a model exhibited for a half-timbered "mansion," modelled and colored in black-and-white; that Death would not be willing to live in it, is not a bull in this case. The second prize in ugliness in tall buildings can be disputed in friendly competition between Mr. Post, Messrs. Lamb & Rich, Messrs. Berg & Clark, and G. F. Tilden and Mr. Alex. Mackintosh. Mr. Post would probably win, as he has already erected the ugliest building in New York, the World Building, and the jury would, therefore, be entitled to disregard his attempt to escape the prize by hiring a clever water-colorist to hide his claims.

Clinton & Russell have several designs for office-buildings which seem rather ineffective in drawing, but which may develop in execution the qualities of good sense and refinement for which Mr. Clinton has been favorably known in that class of work.

The Manhattan Storage Warehouse, Seventh Avenue and Fifty-second Street, by James E. Ware, although shown in a rather poor and meagre sketch, is known as one of the best industrial buildings in the city. It is a great pity that Mr. Ware does not reach the same level of excellence in his less important work.

There are several fragments of competitions, none of them complete enough to enable one to really judge of the respective or actual merits, but their exhibition and the quality of the work in most cases is so good as to add greatly to the general interest and to cheer the profession.

Amongst the more notable are: A. M. Welch for the Philadelphia Art Museum, good scholarly elevation, but no plans; for the Minnesota State Capitol, perspectives and a few plans are submitted (not enough in any case upon which to form a judgment); one by Bruce Price and A. D. Pickering, which is weak in the transition from square base to dome, and the Greek style adopted seems forced; one by J. A. Schweinfurth, good, as mentioned above; one by Ernest Flagg, the plan of which seems weak in general conception; one by Lord, Hewlett & Hull, showing only a ground floor, and making it, therefore, very difficult to judge of the most important features (Assembly, Senate, lobbies, etc.).

Mr. Flagg has the perspective of the Washington State Capitol, now being erected from his designs, and certainly to be a much finer and more scholarly building than could have been secured under the old system of pulls and favoritism, under which so many State Capitols have been built.

McKim, Mead & White are not very well represented in this exhibition, and outside of the line-drawings for the Columbia College Library, which have been very generally published, they have nothing worthy of special comment.

There are, besides some interesting and able sketches of entrances to the New York City Parks by Howard & Caldwell, a plan of theirs for the approaches to the Grant Monument, competitive designs for a new tower to the Brooklyn City-hall, recently burned down, which are not very successful, perhaps because the City-hall was not burned down also, and that therefore Messrs. Lord, Hewlett & Hull and Messrs. Griffith, Stoughton & Stoughton were unduly handicapped. Competitive designs for the New York Athletic Club form an interesting series—Howard & Caldwell, Dodge & Brown, Wells & Bates, R. L. Daus, F. A. Moore, and Marsh, Isaacs & Harder are represented, whilst the successful competitor is not. Marsh & Co.'s design was premiated, Howard & Caldwell's perspective seemed very good, and Mr. Daus's plan seemed to distinguish itself and its skeleton construction by allowing the partitions on each floor to be entirely independent of those either above or below.

There are few church designs exhibited and none that are particularly notable. Messrs. Brunner & Tryon are perhaps the most startling, in giving a Jewish synagogue in purely Classic style, very like the Bowery Savings Bank in general composition, and a very good English Gothic country church; deserving passing mention are the Shepard Memorial Church, by Haydel & Shepard, in a late French style and glowing inwardly with all the possibilities of marble and mosaic and color, and a Methodist Church front in the city, by W. B. Bigelow, which is intended to express the opposite tendency, the meeting-house in its strict significance.

H. J. Hardenbergh has an alcove to himself and also the hotel

business, as far as this exhibition is concerned. His designs raise principally the question in one's mind whether four times as much Waldorf will be four times as impressive, or whether, like some vulgar fractions, the multiplication may not have the opposite effect. Whatever the result, it is not his fault, but that of his clients, and, as I hope to show when speaking of the allied arts, Mr. Hardenbergh has done an immense amount of good in fostering intelligently and in the best spirit, that coöperation between architects, artists and handicraftsmen which we believe to be essential to true live work. Messrs. Renwick, Aspinwall & Owen also have an alcove practically to themselves; to quote Joseph H. Choate, who is said to have said it apropos of some one else, "They show a great deal of taste and some of it is good."

Amongst the miscellaneous work worthy of more than passing mention, are the only too few and too meagre drawings of E. P. Casey, who has been working out the details, and especially the interior work, and the decoration by paintings and sculpture in the Congressional Library under his father, General Casey, to whom Congress entrusted the work of executing the designs of Messrs. Smithmeyer & Pelz. Through the carelessness of the average newspaper reporter, both Messrs. Smithmeyer and Pelz, who designed the Library and began its construction, and Mr. Casey who took up the work when it was about at the first story, and followed their plans as far as they went, have been injured in the eyes of the public by partial statements. It would seem to be clear enough to any architect with a knowledge of the character of the building, growing with the deliberation which characterizes our Government work, that there was ample room for each of the parties to have his due share of praise. The plan is generally recognized to be one of the best library plans in the world. The exterior is dignified and appropriate. The interior, on the other hand, promises to surpass any of our Government buildings in excellence, and has naturally given to the younger architect abundant opportunity for personal distinction. Whether Congress was wise or right in taking the execution of the Library away from the original designers and entrusting it to the Engineer Corps of the Army does not enter into this particular discussion at all, or in any way affect it.

Bruce Price has a design in the exhibition that is extremely interesting. To give the title, and to add that it is pervaded by a strong Greek feeling as to detail, and is carefully studied, well-balanced and well-proportioned as to masses, is all that one can say in the limits of a general review. It is "A project for erecting upon the square of a New York City block a monumental Public Library of the capacity of the Boston Public Library." The result seems to be about four hundred feet high.

A design by Cady, Berg & See, for a gateway to the Yale Campus, must close this review of the architectural part of the League Exhibition. Harvard cannot always have her own way in athletics (not often, one might say nowadays), but she need not feel uneasy lest her gateways be surpassed, and yet the design above mentioned is a very good second.



#### T-SQUARE CLUB OF PHILADELPHIA.

THE regular meeting was held on the 19th inst., and was anticipated with much interest owing to the new business announced for discussion, and also because of the novelty and romantic attractiveness of the problem in design.

Those who are familiar with Mr. Henry B. Fuller's delightful work, "*The Chevalier of Pensieri-Vani*," would at once perceive from the T-Square Club's programme that the author of the competition had attempted to lay down conditions similar to those existing in the cosmopolitan atmosphere of Arcopia—the ostensible locality of the Chevalier's *dilettante* home.

Of the seven competitors, three failed to finish their designs, thereby leaving the field to the other four.

"A Sea-wall, Stairway and Landing" was the subject of their efforts and resulted as follows:

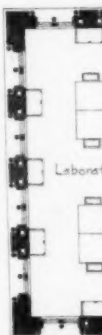
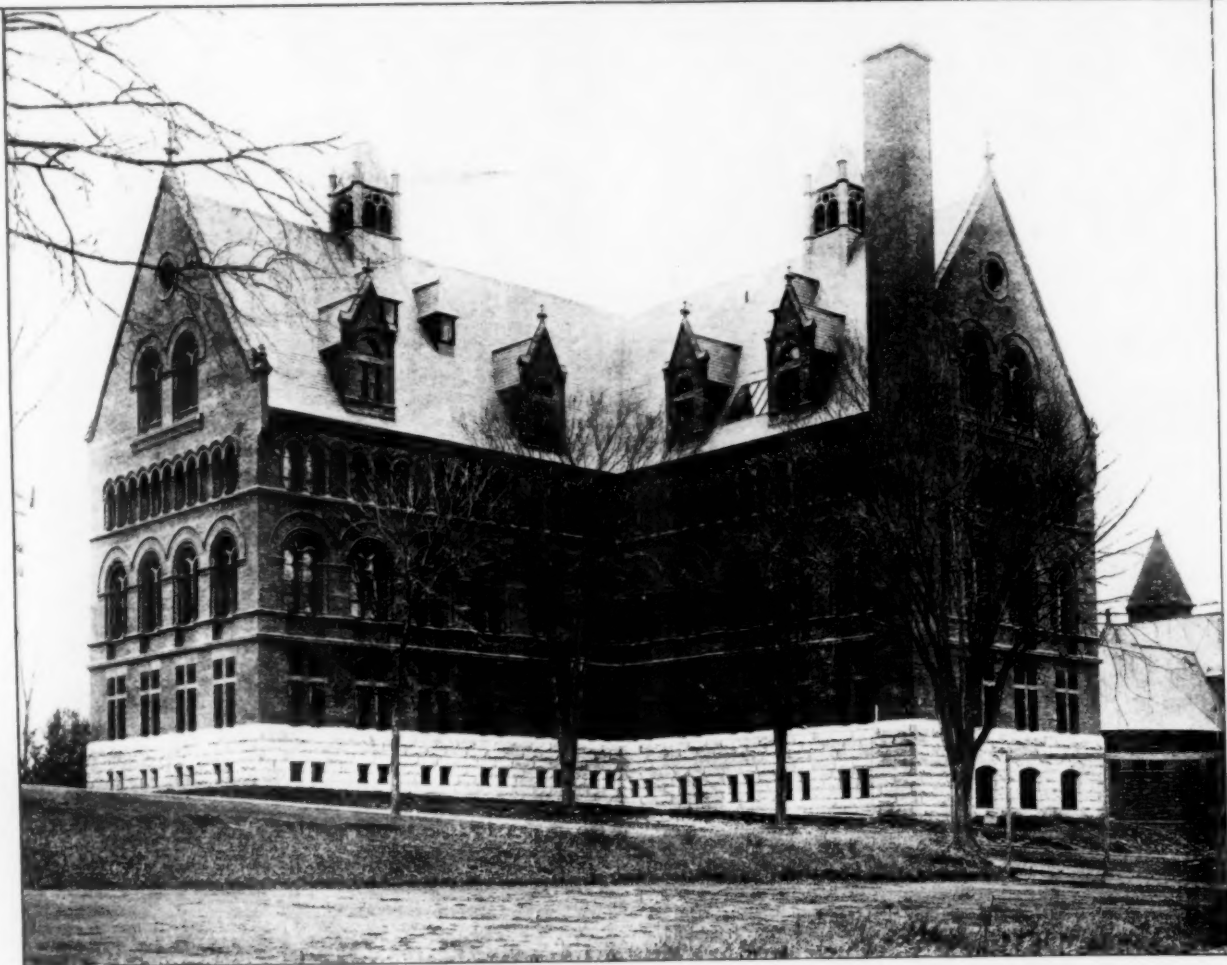
Lloyd Titus's well-rendered graded-wash drawings secured First Mention. His semicircular stairway, sweeping around the sides of a fountain which formed his central *motif*, was criticised for the lack of continuous circulation in planning; the abruptness of his turn on the lower platform being very unfortunate, his terrace wall was divided off by a number of niches which were too evenly spaced and not high enough up to show off the wall to a good advantage. Nevertheless, the character of his scheme was very appropriate. The design awarded Second Mention was by Albert Kelsey, the plan showing a coved wall cut into the shore and having two belvederes jutting slightly out into the sea, either side of this indentation.

Under his upper stair-landing was a vaulted boat-house. A very careless section-drawing and his unfinished plan detracted from the scheme which was rendered in bright colors. His belvederes were considered out of proportion to the sea-wall, and his statuary was very inappropriately introduced.

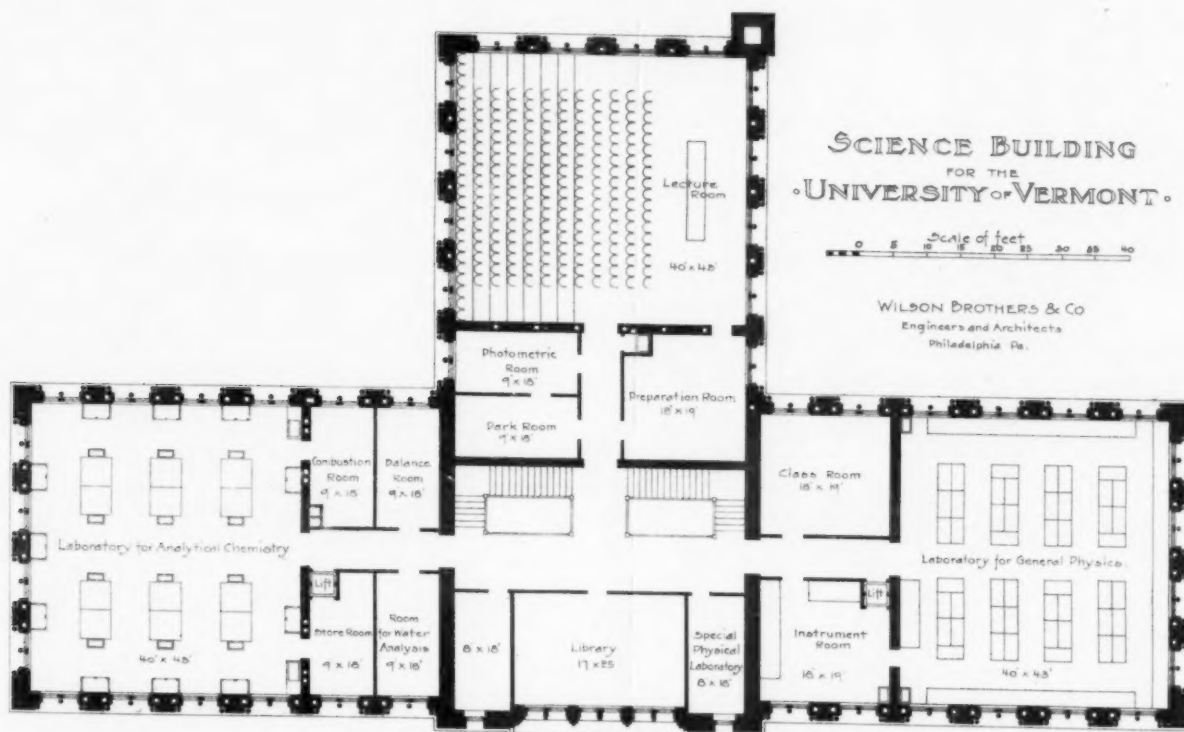
Chas. Z. Klauder's Third Mention design was rendered beautifully. His stairway was very gracefully curved and framed-in a niched fountain without suggesting a forced appearance.



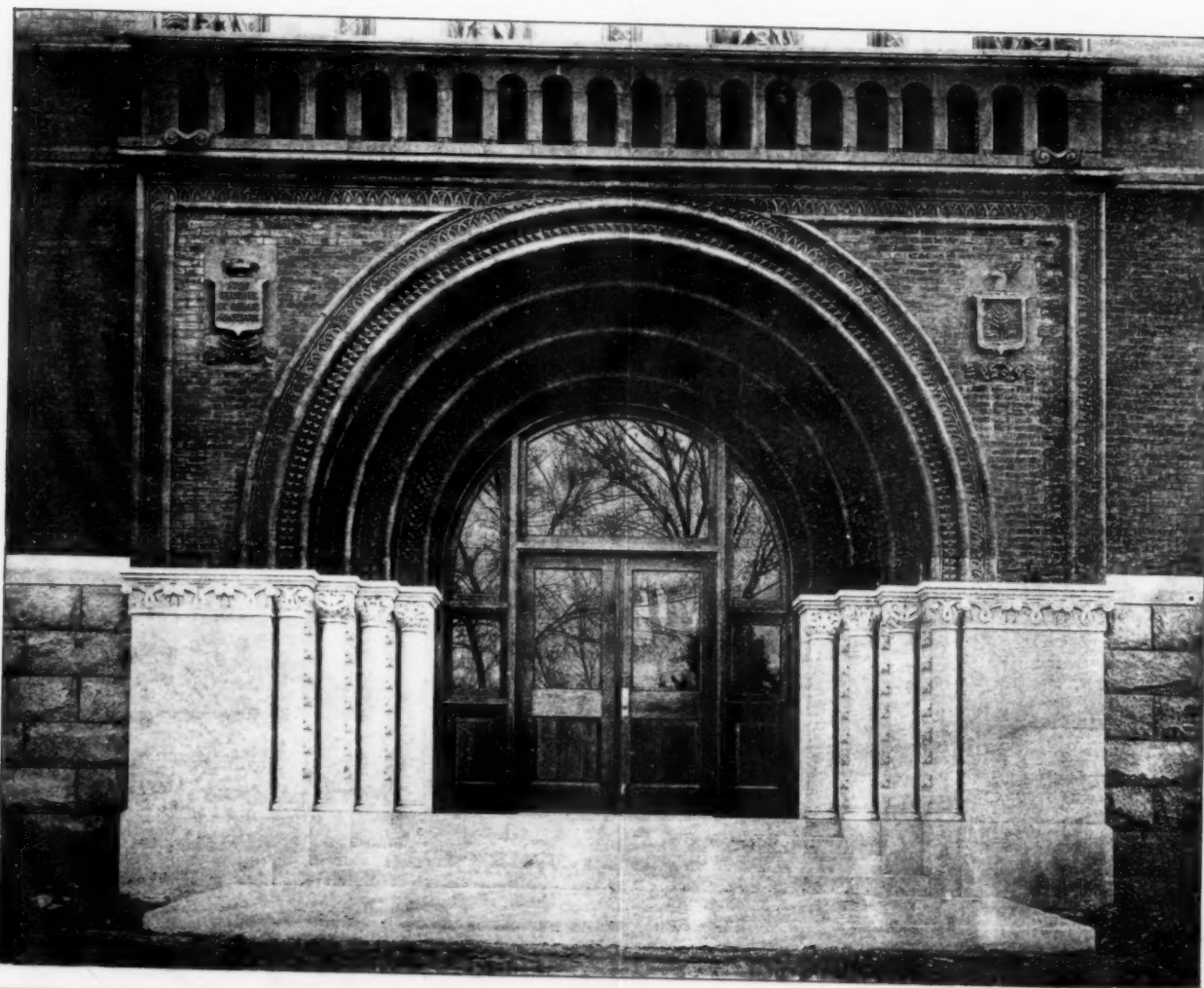


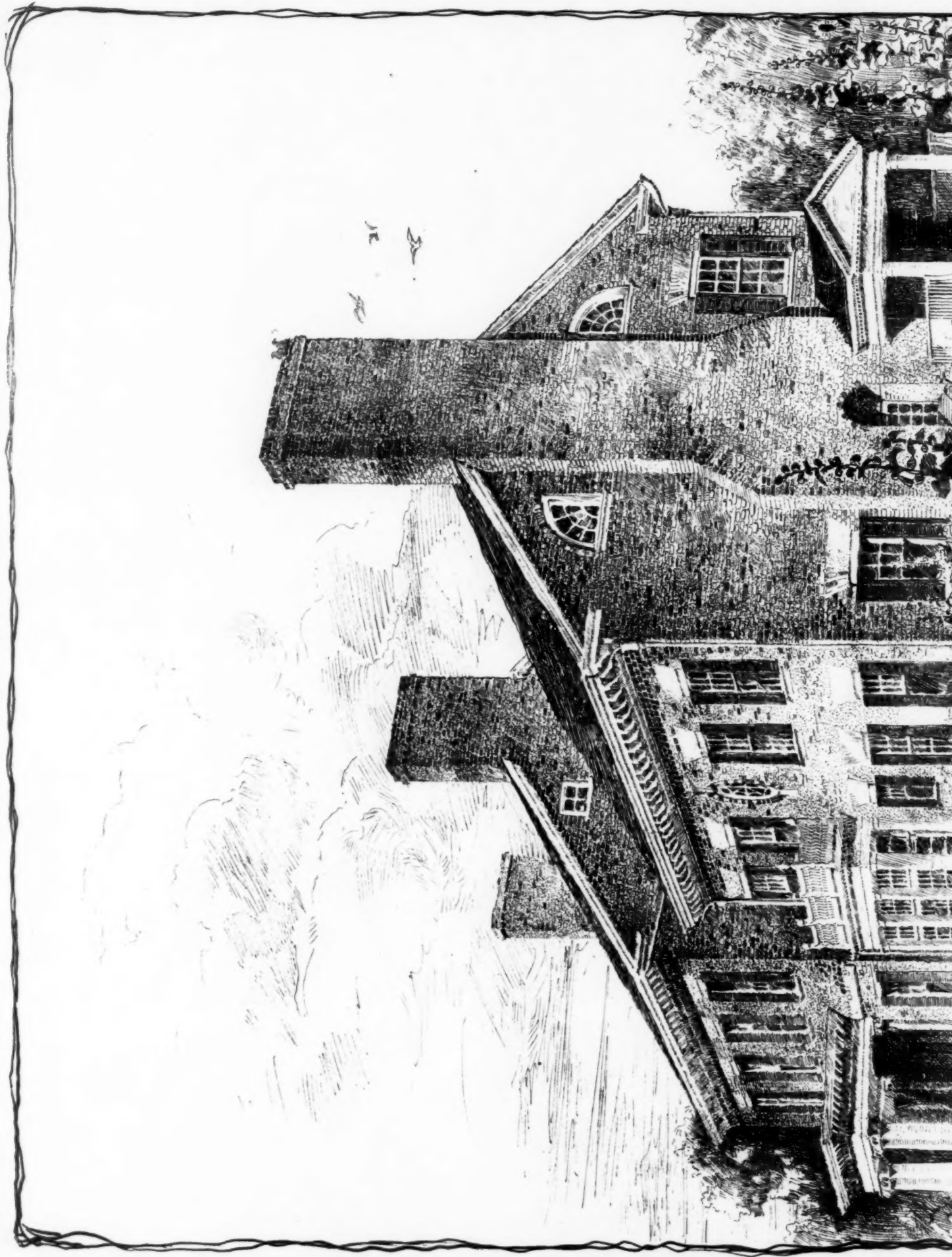






SECOND FLOOR PLAN









dition · to · Hayes ·  
Country · Seat · of ·

G · T · Dunlop · Esq ·

Donn · and · Peter ·

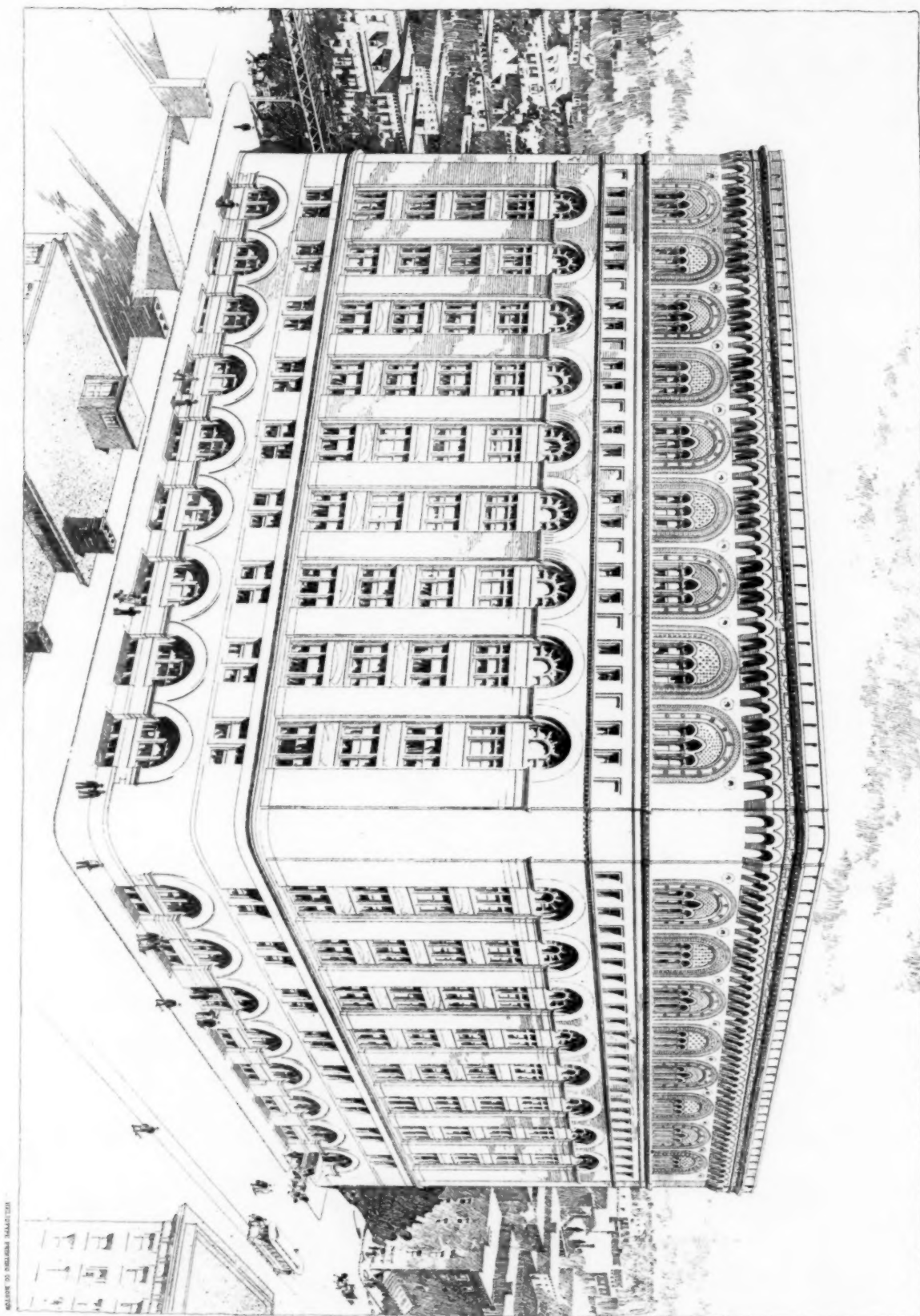
Architects ·  
Washington · D · C ·

ILLUSTRATION BY H. B. WATSON

*Christopher Washington,  
Barren and Greenwich, N.Y.*

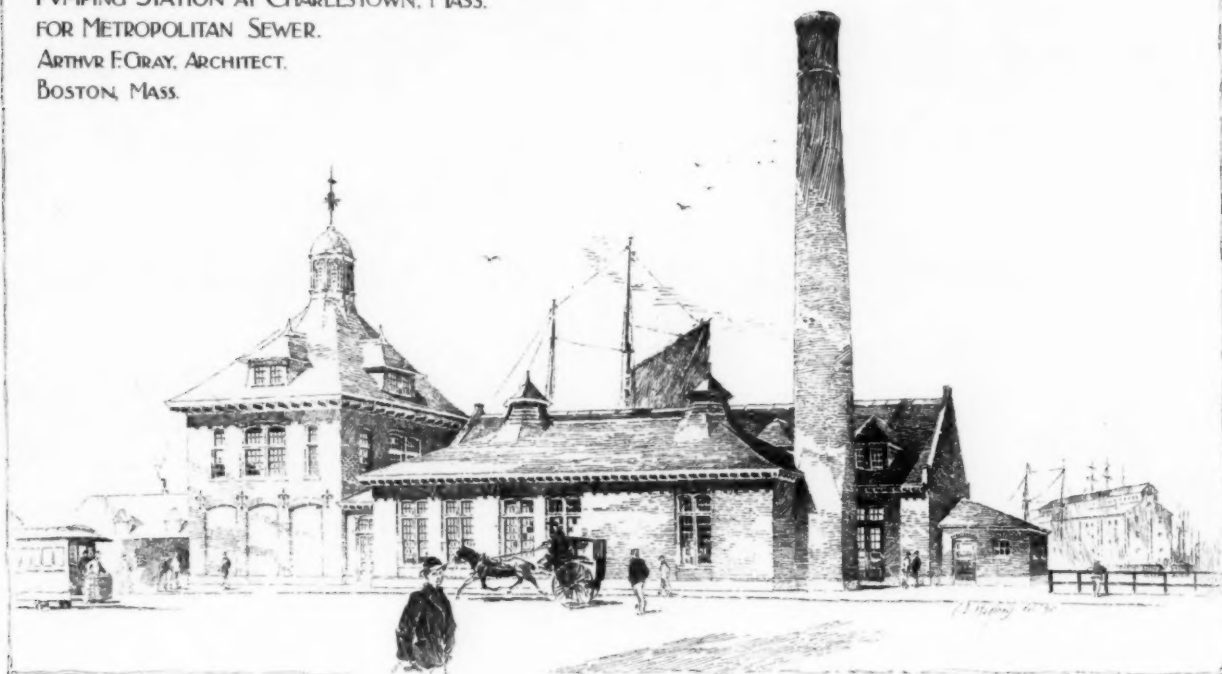
APPRAISERS WAREHOUSE  
NEW YORK

*Wm. Martin, Ill.  
Superintendent  
The Albany Building Co.*

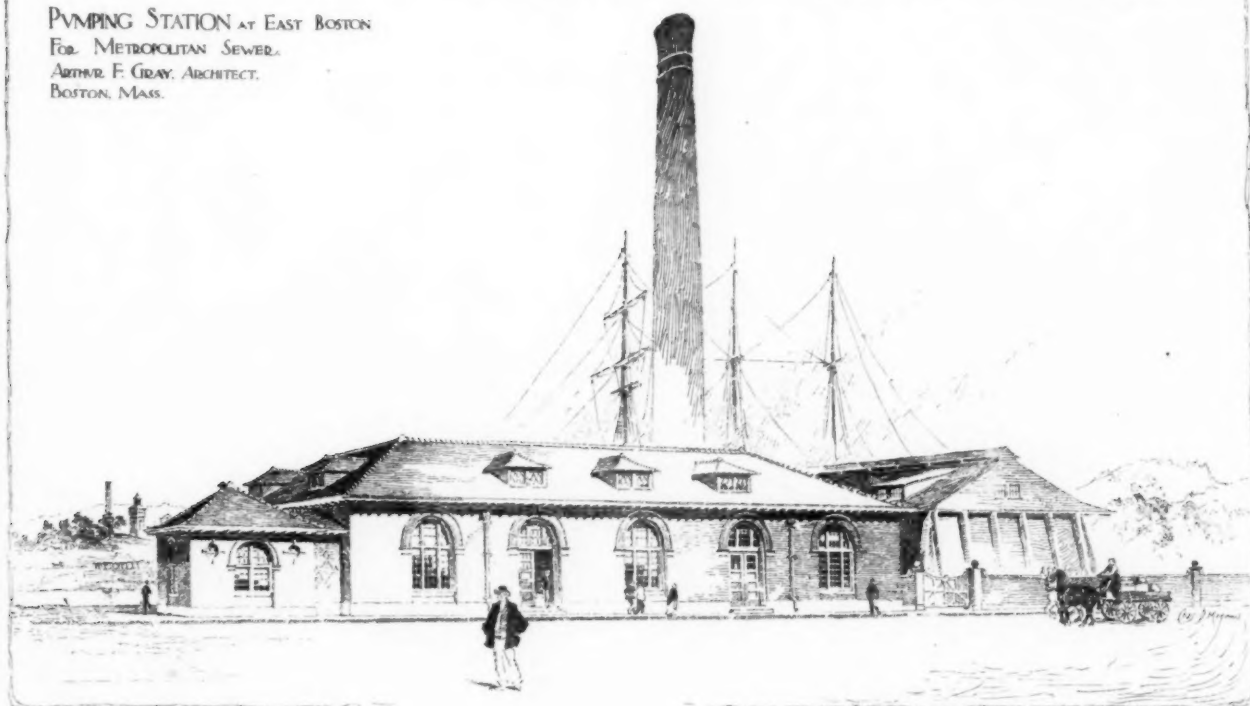




PUMPING STATION AT CHARLESTOWN, MASS.  
FOR METROPOLITAN SEWER.  
ARTHUR F. GRAY, ARCHITECT.  
BOSTON, MASS.



PUMPING STATION AT EAST BOSTON  
FOR METROPOLITAN SEWER.  
ARTHUR F. GRAY, ARCHITECT.  
BOSTON, MASS.







Storage-room for small pleasure-boats under the terrace wall, and two sheltered basins for them in front of it, were provided. His central motif was a very rich entranceway between two columns and a pylon each side, surmounted by a figure holding a flambeau.

The whole design was criticised for its stern dignity and public character.

The fourth design was entirely different from any of the others, the conception being grand, although less suitable for the purpose as some of the others. It had a long peristyle, with a very wide stairway leading straight down to the water. The central pavilion was thought to be weak and unnecessarily encumbered by interior columns, and although A. B. Lacey's design showed a treatment of shrubbery which displayed the architectural features to good advantage, yet it was not calculated to diminish the hugeness of his conception.

Under the head of "New Business," notice was given of an Amendment to the Constitution, changing the election of officers from October to April, so as to allow the incoming officers time between their election and inauguration to prepare their year's work.

The notices sent to members asking them to name five of the most inappropriate buildings in Philadelphia were very generally replied to, but owing to such a wide diversity of opinion, it has been as yet impossible to classify the result obtained. This inquiry by the Executive Committee was the result of the offer of a medal for a series of years by a gentleman interested in the development of better architecture for Philadelphia; the idea being that a competition should be held during the summer months to re-design the structure chosen from the result of this inquiry.

The Stewardson Memorial Committee reported reasonably successful results.



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

LADIES' PRIVATE DINING-ROOM: METROPOLITAN CLUB-HOUSE, NEW YORK, N. Y. MESSRS. MCKIM, MEAD & WHITE, ARCHITECTS, NEW YORK, N. Y.

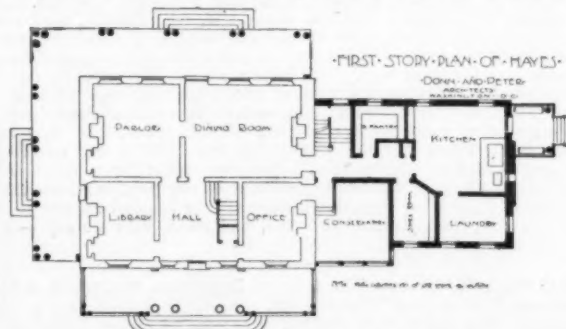
[Gelatine Print, issued with the International and Imperial Editions only.]

SCIENCE BUILDING: UNIVERSITY OF VERMONT, BURLINGTON, VT. MESSRS. WILSON BROS. & CO., ARCHITECTS, PHILADELPHIA, PA.

THE illustrations represent the Science Building of the University of Vermont, recently erected and presented to the University by Dr. Edward H. Williams of Philadelphia, and now being completely furnished and fitted up at his expense, for chemical and physical work. It stands between the Billings's Library (the gift of the late Mr. Frederick Billings, and one of the late Mr. Richardson's best designs) and the old college building, on the former site of the old library building, which was removed to make room for it. The plan shows the arrangement of the second story which gives the key to the building and from which the other plans may be inferred. The dimensions are 175 feet front by 106 feet deep, and the stories are about 15 feet high. The construction is fireproof and very substantial. The exterior is of red brick and terra-cotta above a granite basement; and the interior is of brick throughout, without plaster. The floors are all of cement-concrete and iron, finished on top with cement, except in the chemical laboratories, where Neufchâtel asphalt is used. The builders were Messrs. Stacy Reeves & Sons, of Philadelphia.

ADDITION TO "HAYES." MESSRS. DONN & PETER, ARCHITECTS, WASHINGTON, D. C.

THE main building of "Hayes," the country seat of Mr. G. T. Dunlop, was erected in the latter part of the last century, and was



originally intended as a parsonage for Rock Creek Parish. The walls are unusually thick, and the bricks are larger than those of to-day, while the front and rear walls show all headers, many

of which are quite blue, which adds a great deal to their beauty. The addition was designed to give a few more bedrooms, as well as to do away with a kitchen which now stands on the spot it is to occupy, and was built at a much later date than the main part of the house, and is anything but an ornament to it.

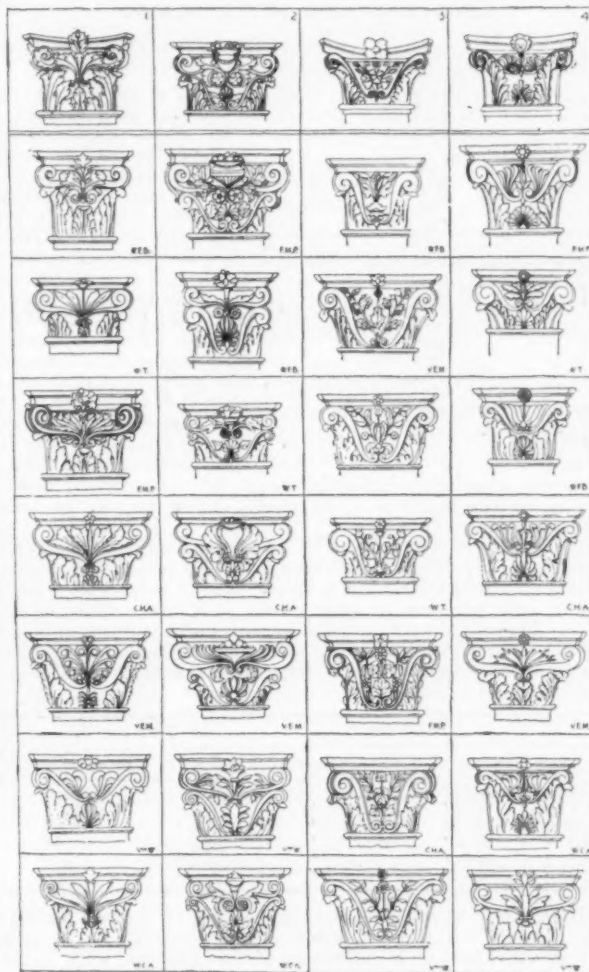
APPRAISERS' WAREHOUSE, NEW YORK, N. Y. MR. WM. MARTIN AIKEN, SUPERVISING ARCHITECT OF THE TREASURY DEPARTMENT, WASHINGTON, D. C.

THE amount already expended on this building including the contracts let foots up about \$1,172,000, a sum which, of course, includes the cost of the site. Although the building is unfinished, it is already found that it is not large enough to meet the increased requirements.

PUMPING-STATIONS FOR THE MAIN SEWERAGE SYSTEM AT EAST BOSTON, MASS. AND CHARLESTOWN, MASS. MR. ARTHUR F. GRAY, ARCHITECT, BOSTON, MASS.

#### DESIGN BY DESCRIPTION.

THIS plate illustrates the paper by Prof. William R. Ware upon the "Teaching of Architectural History," printed in the November number of the *School of Mines Quarterly*. The four drawings of Italian pilaster capitals, shown at the top of the cut, were, as was



explained in that paper, carefully described to a class of architectural students in the School of Mines, and the sketches that follow were made by them according to their own conceptions, without further recourse to the originals. This print is made from tracings of their sketches.

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

ACCESSORIES OF LANDSCAPE ARCHITECTURE, NO. VII: LA MAISON DU SEIGNEUR AT THE TRIANON, VERSAILLES, FRANCE.

PALAZZO FARNESE, CAPRAROLA, ITALY: DECORATIONS OF THE VAULTED CEILING OF THE SALA DEI LANIFICII.

PALAZZO FARNESE, CAPRAROLA, ITALY: CEILING ON THE GROUND FLOOR BELOW THE HALL OF ANGELS.

A GROUP OF URBAN CHURCHES.

[Additional Illustrations in the International Edition.]

THE SOUTH LOUNGING-ROOM: METROPOLITAN CLUB-HOUSE,  
FIFTH AVE. AND SIXTIETH ST., NEW YORK, N. Y. MESSRS.  
MCKIM, MEAD & WHITE, ARCHITECTS, NEW YORK, N. Y.  
[Gelatine Print.]

THE view that was published under this title in our issue for Jan-  
uary 11 really represented a lounging-room, in the same building  
known by another title.

THE LIBRARY IN THE SAME CLUB-HOUSE.

[Gelatine Print.]

MANTEL-PIECE IN THE SAME LIBRARY.

[Gelatine Print.]



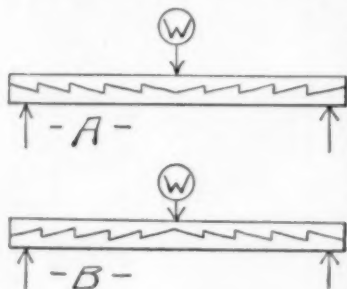
[The editors cannot pay attention to demands of correspondents who  
forget to give their names and addresses as guaranty of good faith;  
nor do they hold themselves responsible for opinions expressed by  
their correspondents.]

NOTCHED AND BUILT BEAMS.

TERRE HAUTE, IND., February 20, 1896.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—The writer was much interested at the time, in the  
discussion which took place through the columns of your valued  
paper in the spring of 1890, concerning the proper position of an  
ordinary notched or built-up wooden girder. Especially since coming into  
possession, some time after, of a copy of Mr. L. DeC. Berg's "Safe Building,"  
has he had a desire to test in a practical way a matter upon which authorities  
seem to differ so radically. The opportunity, however, did not present itself until  
some few weeks ago. At that time while engaged in making a series of tests of  
small model beams of different made and tested for deflection in the two positions.  
The results, which may be of some interest, are herewith given.



The model was of white-pine 1 1/2" x 2" in total section, the notches  
being 1/2" deep. It was placed upon thin steel plates at each end,  
resting upon steel knife edges 3' apart. Known weights were hung  
from a knife edge resting upon a steel plate in the centre of the  
beam. Deflections were measured by means of a micrometer screw  
making electrical contact at the same point. The following table  
shows the loads applied with corresponding deflections for the two  
positions:

| Load.     | POSITION A. |                   | POSITION B. |                   |
|-----------|-------------|-------------------|-------------|-------------------|
|           | Deflection. | Total deflection. | Deflection. | Total Deflection. |
| 10.5 lbs. | .0598"      | .0598"            | .0164"      | .0164"            |
| 21.0 "    | .0613"      | .1211"            | .0174"      | .0338"            |
| 31.5 "    | .0598"      | .1809"            | .0154"      | .0492"            |
| 42.0 "    | .0609"      | .2418"            | .0149"      | .0641"            |
| 52.5 "    | .0611"      | .3020"            | .0151"      | .0792"            |
| 63.0 "    | .0599"      | .3619"            | .0150"      | .0942"            |

It is, of course, to be expected that in one of the two positions  
the parts of the girder will act together, approaching, to some  
extent, the rigidity of a single beam of the same size, while in the  
other position they will act independently or simply as two beams  
of nearly half the depth each. According to the well-known  
formula, the deflection in the second or weaker case should be about  
four times that of the stronger. Referring to the table, it will be  
seen that for each load applied, the deflection for case A was very  
nearly equal to four times that of case B. This seems to indicate  
very clearly, that position B is that in which the built-up beam has  
the greater rigidity. This is the position given as correct by  
Clarke's "Building Superintendence" and by Kidder's "Architects'  
Pocketbook," while the opposite position, or A, is given by Mr. Berg  
in "Safe Building." Yours very truly, O. E. McMEANS.

THE ROTCH TRAVELLING-SCHOLARSHIP EXAMINA-  
TIONS.

BOSTON, February 26, 1896.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Will you permit me the use of your columns to make  
a statement in regard to the Rotch Scholarship? A change has been

made in the manner of conducting the examinations. The topics  
will be the same as heretofore, but the Scholarship will be awarded  
on the result of the examination in design, the committee, however,  
reserving the right to consider the preliminary examinations, if nec-  
essary, for decision. Furthermore, a candidate who has once passed  
in the preliminary examinations is eligible for admission in the com-  
petition in design in the same or any subsequent year without re-  
examination. The regulations state that the Committee having the  
Scholarship in charge may invite examiners to act with it on the dif-  
ferent subjects but will retain the final decision in its own hands.

The preliminary examinations are to be held April 6th and 7th  
and the sketch-design is to be made on April 25th. Further notice  
of the date of the examinations will be made later.

Yours very truly, C. H. BLACKALL,  
Secretary Rotch Travelling-Scholarship Committee.



BALTIMORE, MD.—The Walters Art Gallery will be open to the  
public on all Wednesdays till May 1, on all Saturdays in April, and  
on Easter Monday.

BOSTON, MASS.—Paintings recently purchased; the Martin Brimmer  
Pictures; Japanese Paintings; Line Engravings, Mezzotints and Etch-  
ings by Rembrandt: at the Museum of Fine Arts.

Paintings from the Paris Salons of 1895: at the Jordan Art Gallery,  
450 Washington St.

Loan Collection of Portraits: at Copley Hall, Clarendon St., March  
2 to 23.

Photographs by Miss Emilie V. Clarkson: at the Boston Camera  
Club, 60 Bromfield St., March 4 to 14.

Paintings by Boston Artists: at the St. Botolph Club, March 10 to 21.

Paintings by Charles H. Davis: at Doll & Richards's Gallery, 2  
Park St., until March 11.

Water-colors of Flowers by Paul de Longpré, also, Bronzes by Edward  
Kemlys: at Williams & Everett's Gallery, 100 Boylston St., until  
March 14.

BRIDGEPORT, CONN.—Second Annual Exhibition of Pictures: at the  
Public Library, January 25 to March 15.

CHICAGO, ILL.—Works by Gustave Doré: January 21 to March 21,  
Annual Exhibition of the Cosmopolitan Club: March 10 to 31, at the  
Art Institute.

NEW YORK, N. Y.—Twenty-ninth Semi-annual Exhibition, including Loan  
Exhibition of Early American Paintings, Old English Paintings, and the  
Cullum Collection of Classic Sculptures: at the Metropolitan Museum  
of Art.

Eleventh Annual Exhibition of the Architectural League: at 215 West  
57th St., February 15 to March 9.

Paintings by Henry Mosler: at the Avery Galleries, 308 Fifth Ave.,  
until March 7.

Pictures by J. B. Jongkind: at the Durand-Ruel Galleries, 389  
Fifth Ave., March 7 to 21.

PROVIDENCE, R. I.—Exhibition of the Providence Art Club: opened  
March 4.

WASHINGTON, D. C.—The Art Gallery of Thomas E. Waggaman  
will be open to the public on Thursdays during March and April.



§ HOW SCULPTORS' FRAUD ENRICHED THE ENGLISH LANGUAGE.—The  
origin of the word "sincerity" is profoundly interesting and sugges-  
tive. When Rome flourished, when her fame was spread the world  
over, when the Tiber was lined with noble palaces built of choicest  
marbles, men vied with each other in the construction of their habita-  
tions. Skillful sculptors were in request, and immense sums of money  
were paid for elaborate workmanship. The workmen, however, were  
then guilty of practising deceitful tricks. If, for example, they ac-  
cidentally chipped the edges of the marble, or if they discovered some  
conspicuous flaw, they would fill up the chink and supply the deficiency  
by means of prepared wax. For some time the deception would not  
be discovered, but when the weather tested the buildings the heat or  
damp would disclose the wax. At length those who had determined on  
the erection of mansions introduced a binding clause into their con-  
tracts, to the effect that the whole work from first to last was to be  
sine cera—that is "without wax." Thus we obtain our word sincerity.  
To be sincere is to be without any attempt on our part to mislead, mis-  
represent, deceive or impose on another; to be, and appear to be,  
what we are; to say what we mean, and mean what we say.—The  
Churchman.

GAS FROM SAWDUST.—The town of Deseronto, in Canada, where  
there are several large lumber mills, is partially lighted by gas from  
sawdust. The sawdust is charged in retorts which are heated by a  
wood fire, the gas from the retorts passing into a series of coils, and  
thence into the purifiers, which are similar to those used for coal-gas.  
Lime is the principal purifying agent employed.—Cincinnati Commer-  
cial-Gazette.



# THE AMERICAN ARCHITECT AND BUILDING NEWS

ADVERTISERS' TRADE SUPPLEMENT.

No. 165.

SATURDAY, MARCH 7, 1896.

VOLUME L.I.  
No. 1051.

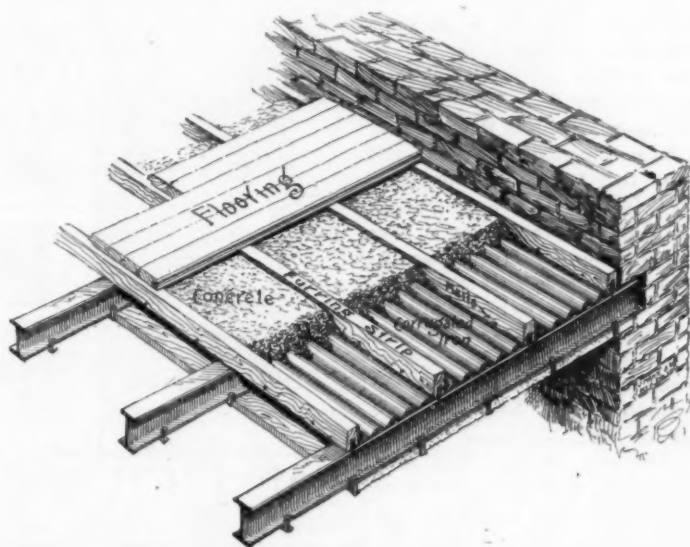
## COMMON-SENSE FIREPROOF CONSTRUCTION.

If you consider the steel beam preferable to the wood beam because stiffer and more stable, if you have a client who would like his property to be free from depreciation and who can afford something better than wood joists and wood lath—do not propose the mongrel and disappointing *semi-fireproof* idea until you have ascertained the cost of *Common-Sense Fireproof Construction*.

It has been demonstrated in Chicago and the West that the radical reduction in cost of fireproof construction brought about by this system has practically abolished the half-way

Schedules are also supplied, stating clearly the items to omit and alter in the different portions of the general specifications drawn for combustible construction, so that the increased cost of any fireproof work may easily be ascertained.

As compared with hollow tile, which is next to the common-sense system in point of cost, the saving on structural iron and fireproofing ranges from 20 to 30 per cent, according to circumstances. This difference in cost has been developed by skilful application of constructive devices and utilization of the waste elements of the old types of construction. That the result has not been attained by



semi-fireproof form. In every case where bids have been taken both ways the Common-Sense Fireproof Construction has been adopted. It may therefore be stated with confidence that modern fireproof construction is economical and within the reach of ordinary investors.

The exact cost of any building may be ascertained by sending ordinary plans to H. B. Seely, 1740 Monadnock Block, Chicago, Contracting Engineer for structural steel and fireproofing. He will furnish proposals for all iron-work and fireproofing, erected complete, in any part of the United States, using iron diagrams prepared by himself and adapted to the common-sense construction so that architects will be at no expense for iron drawings. Architects may depend upon all points being covered by proposals so that no disputes will arise between contractors in the subsequent prosecution of the building work.

sacrificing fireproofing qualities the following extract will show:

CHICAGO UNDERWRITERS' ASSOCIATION.  
CHICAGO, Jan. 14, 1896.

H. B. SEELY.

The Common-Sense Fireproof Construction that you have put in buildings in this city is considered and valued as fireproof construction by the Chicago Underwriters' Association.

T. A. BOWDEN, Supt. of Ratings.

References furnished if desired. For further information address

H. B. SEELY,  
Contracting Eng'r, Structural Steel and Fireproofing,  
1740 MONADNOCK BLOCK, CHICAGO, ILL.

## AUTOMATIC WATER-HEATER.

THERE is no department of building, especially of modern structures, in which there has been as little advancement in recent years, as in the apparatus for supplying hot

water. The device ordinarily used consists of a tank and coil heater, which fails to supply water heated sufficiently when there is a considerable demand, and that heats the water excessively—with steam frequently blowing from the faucets—when there is but little being used, and therefore it is with pleasure that we call the attention of architects and engineers to the Tobey Automatic Water Heater.

This heater can be set to deliver water heated to any desired temperature, and maintains at all times a constant supply of hot water heated to this temperature, regardless of the amount of variation there may be in the quantity of hot water used. By referring to the accompanying cut, it will be seen that the water is heated in the lower shell and passes to the upper one which contains a perforated copper tube, which is extremely sensitive to any variations of temperature, and in case the water is heated in excess of the temperature at which the thermostat is set to deliver it, the tube expands, allowing the weighted steam-valve to close. If the water is not heated to the set temperature, the expansion-tube contracts, opening the steam-valve and admitting enough steam to the heating-surfaces to bring the water to the desired temperature. It will readily be seen that the temperature of the water delivered from the heater can vary but slightly from the point at which it is set to operate, whether water is being drawn in small quantities at long intervals, or drawn continuously to the full capacity of the heater.

The heating shell is completely filled with heating tubes sufficient to heat the water to any temperature, as fast as the heaviest draught may require. There is no necessity for any provision of storage capacity for hot water, as is the case in all other hot-water generators, and therefore the heater is small, compact and occupies but little space, which will be recognized as of great importance, especially for use in large buildings where space is valuable.

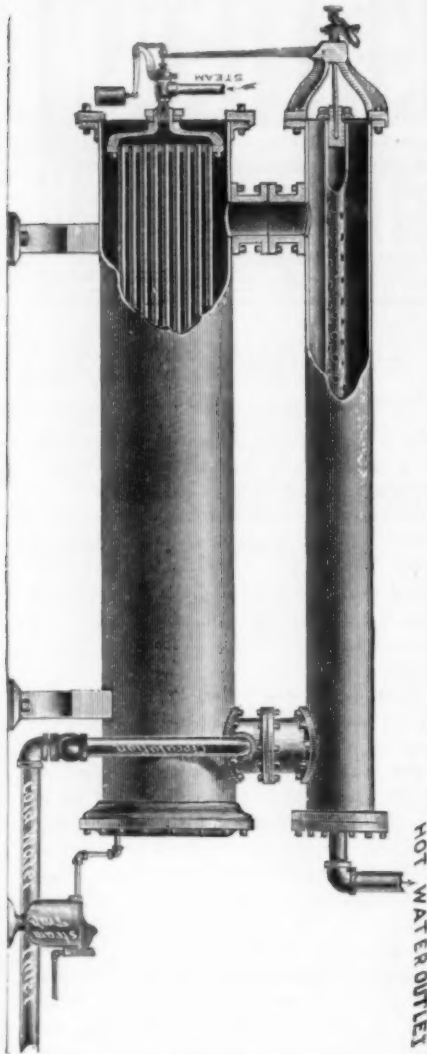
The heater can be used in connection with high-pressure or exhaust steam, or both together as may be desired, and if it is set to deliver water below the boiling-point, there will be no trouble from incrustation of heating-surfaces.

Its use precludes all annoyance of having water heated much hotter at one time than is desired, and the inconvenience at another of having it but lukewarm, and it is adapted for use wherever a constant supply of hot water of a uniform temperature—any desired temperature—is needed, especially in office-



buildings, apartment-houses, hotels, public institutions, flats, bath-houses, etc.

Correspondence is invited from architects and engineers, and the manufacturers will be



Tobey Water Heater.

pleased to send their catalogue, descriptive of the heater, to any one asking for it.

THE TOBEY WATER HEATER & MFG. CO.,  
TOLEDO, OHIO.

#### POTSDAM RED SANDSTONE.

Among the many problems to be solved in the construction of a great modern office-building, the choice of the exterior facings is not the least. In proposing Potsdam Red Sandstone for these facings we do so with the full conviction that, setting aside the question of price, no other material can compete with it in the four great essentials of beauty, durability, fire-resisting quality and strength.

Dr. Newberry, the eminent geologist of Columbia College School of Mines and holder of the Murchison Gold Medal from the Geological Society of London, speaking of Potsdam Red Sandstone, says, "The element of beauty is no less important in a building-stone than strength and durability. In these three qualities this stone is certainly unrivalled. It is stronger than any granite and much more durable."

He who wishes to build a building that will not, from the color of the material used, appear dull, gloomy and oppressive, must choose with care among the granites and among many of the dark red and brown stones, or he will fail in his purpose. The soft, neutral tints of Potsdam Red

Sandstone suggest anything rather than darkness and gloom, nor can they be mistaken for any other stone or material. Being free from the dull, bricky reds which make some of the softer red stones undesirable, the effect of large masses is exceedingly fine, and this is particularly so when the surfaces exposed to view are hammer-dressed, or rubbed. With these finishes dust and smoke do not collect, but are washed off by rain, and as the stone never stains any more than glass, undesirable changes in color which are so noticeable with some materials need not be feared.

The physical texture and chemical nature of the stone is such that its durability can be no more questioned than the durability of flint glass. Buildings have stood in the trying climate of Northern New York, where the thermometer ranges from ninety or more above zero in summer and thirty degrees below in winter, for over seventy years, absolutely without change; the slightest tool-mark being as evident as upon the day it was made. Chemical tests show that it is unaffected by acids or by gases in the atmosphere. It absorbs but a slight quantity of water (some stone taking over twenty times as much) and is entirely unaffected by the freezing and thawing test. These facts are proved by the disinterested investigations of many of the leading scientists of the United States.

High buildings like those we are considering are specially liable to injury by fire from the outside. Without considering the limestones, which from their nature are easily burned to quick lime, we quote as follows from the *Scientific American* in an editorial upon the subject of building-stones:

"We have spoken of the poor qualities of granite as a resistant of fire. The action of a conflagration upon granite is to cause it to flake off; walls composed entirely of this material may thus become so reduced in thickness as to fall. It is there the qualities of Potsdam Red Sandstone appear at their best. It is so absolutely fire-resisting, its granular structure so completely prevents it from cracking, that it can be heated to a red or white heat without injury. By many foundrymen it is preferred to fire-brick for lining cupolas, and in the vicinity of the quarries is always used for lining lime kilns. The report of Prof. Wilbur, of Rutgers College, to Dr. Smock, the New York State Economic Geologist, showed that this stone withstood repeated heating to the temperature of melted copper, and sudden cooling, without injury or change of color,—something which no other stone of the large number tested by him could do." A special circular has been issued, which shows exclusively the fire-resisting qualities of Potsdam Red Sandstone, and which will be mailed on application.

The strength of the stone not only as regards its resistance to crushing force, but its resistance to bending and its tensile strength, are not approached by any other stone whatever, whether granite, marble or otherwise. A comparative table of crushing tests from the highest authority will be mailed on application. Potsdam sandstone has withstood a crushing force of over twenty-one tons to the inch as shown by tests made at Columbia College at the testing laboratory of the School of Mines.

That many of the popular stones have failed to answer the expectations of their users cannot be denied. Their failure to

preserve the integrity of stone-cutting done upon them, or their serious change in color, either because of the effects of the atmosphere or from forces acting from within the material, are among the leading causes of dissatisfaction. But one of the greatest fears which the builder and owner has when using stone is the lack of promptness in filling contracts which makes serious delay in completing the building.

There are few quarries, where absolute certainty of production of stone of even quality and color is assured, particularly in large quantities. Nothing is surer than the product of the brick-maker, yet his sales are almost invariably from stock, ready manufactured, and this applies to many of the "stock designs" of the terra-cotta maker. The advantage of this in the competition between stone and clay in favor of clay is obvious, and the fact must be met by the stone producer. To meet these requirements we constantly carry a heavy stock of dimension-stone ready quarried, and which can be shipped at short notice, and we have the best facilities for taking extensive cut-stone contracts, and for delivering such promptly and without the exasperating delay which is so injurious to everyone concerned in building operations. The stone can be moulded and carved to meet any requirements, and with modern apparatus such work is greatly reduced in cost.

POTSDAM RED SANDSTONE CO.,  
POTSDAM, NEW YORK.



**MINOR ITALIAN PALACES**  
BY  
**CLAUDE F. BRAGDON**

NUMBER ONE

PUBLISHED BY THE  
**CUTLER MANUFACTURING CO.**  
SOLE MAKERS OF UNITED STATES MAIL CHUTES (PAT'D) ROCHESTER, NEW YORK

The Cutler Manufacturing Company, of Rochester, N. Y., makers of the United States Mail Chute, now a familiar feature in the equipment of first-class hotels and office-buildings, have secured a series of Mr. Claude Fayette Bragdon's admirable pen-and-ink sketches of Minor Italian Palaces, made on the spot in the summer of 1895 and not before published. The sketches will be issued quarterly in four portfolios, each containing six plates, and will be sent to architects who are or have been in correspondence with the firm regarding their specialty. Architects should be familiar with the simple but somewhat exacting requirements which are a prerequisite to the installation of the Cutler Patent Mailing System, and a statement of them, with detail drawings and specifications of preparatory work and estimates of cost, etc., will be promptly forwarded by the manufacturers, on request.

## A PRACTICAL PUTTYLESS SKY-LIGHT.

As every practical skylight man knows, the uses of putty in the construction of large skylights has been found to be very unsatisfactory, among other reasons, because it soon hardens, holding the glass rigid, and when expansion and contraction take place, either the putty is dislodged, or the glass is broken, causing leakage.

Mr. Henry S. De Forest, Consulting Engineer of the Metallic Glazing Co., of 23 South Street, New York City, a practical skylight man of many years' experience, and a graduate of the Yale University scientific school, believes that he has solved the difficulty, and in connection with that company has taken out patents in England, France, Belgium and the United States, for the De Forest glazing system, which will be readily understood by referring to the accompanying cuts.

The main patent embraces in substance, a steel bar (a) which supports the edges of the glass; a packing of soft sheet lead (b) with which the edges of the glass are wrapped; a metal cap (c) placed over the bar, with its lips resting on the lead; a spring metal clip (d) placed over the cap at intervals of every eight inches or thereabout, and secured to

tian Association Building which has been estimated to cost \$350,000.

This company will be glad to furnish references to work mentioned above.

METALLIC GLAZING CO.,  
NEW YORK, N. Y.

## GENUINE BANGOR ROOFING SLATE.

It is a recognized fact among architects and builders that slate is the best material in the market for roofing purposes.

Being a natural product, it is especially enduring, resisting the action of water and frost, and of smoke and acid fumes from manufacturing.

The roofing slate manufactured by the operators in the Bangor Valley stands high in the opinion of all who use it, the slate being of a permanent dark bluish color, fine grain, free from knots or hard lumps, and of very strong texture, reducing the breakage in transportation and handling to a minimum.

As slate of inferior strength and qualities, through resembling the Genuine Bangor Slate somewhat, have been sold as Bangor Slate, much to the injury of trade and dissatisfaction of architects, all the manufacturers in the Bangor region formed an organization for the purpose of issuing a certificate for every

toughness and softness and the less is its porosity and corrodibility.

"Softness or liability to abrasion does not indicate inferior roofing slate; but, on the contrary, it is an indication of strength and good weathering qualities.

"The strongest slate stands highest in weathering qualities, so that a flexural test affords an excellent index of all its properties, particularly if the ultimate deflection and the manner of rupture be noted.

"The strongest and best slate has the highest percentage of iron and aluminium, but is not necessarily the lowest in carbonates of lime and magnesia."

The Association will be pleased to answer any inquiries in their line, and would refer the reader to its advertisement, giving a copy of certificate and addresses of Genuine Bangor Roofing Slate Manufacturers.

BANGOR ROOFING SLATE MANUFACTURERS' ASSOCIATION.

BANGOR, PA.

## POINTS ON UNFADING GREEN AND RED.

THERE is a great difference in the quality of unfading green and red slate. Those taken from many quarries have spots and dark streaks that mar the appearance of a roof. At our "Eureka" unfading green quarry, and at our "Eagle" red quarry, great care is taken in culling out all spotted or streaked slates, and shipping only those that are uniform in color. At the "Eureka" quarry a specialty will be made the coming year of producing a slate guaranteed full three-sixteenths of an inch in thickness, with nail-holes drilled and countersunk, as architects have called largely for a heavier slate than the ordinary run of quarries.

Where buff-colored stone or brick is used, the unfading green slate makes a very fine contrast and blends in color with the other materials. A special selection of all slate will be made at our "Eagle" red quarry also, and the slate will run somewhat heavier than heretofore.

Attention is directed to the fact that our red slate will be very much lower in price than good tile, and make a much more durable roof. A roof of this slate can be made absolutely tight and will last years without requiring repairs. In this climate it is very difficult to make a tile roof tight, and there is constant expense for repairs.

If the unfading green or the red slate is wanted, specifications should call for best "Eureka" unfading green and "Eagle" quarry red. While first cost of these slates is greater than that of slate from some other quarries, they are unquestionably cheaper in the end.

JOHN GALT & SONS,  
253 BROADWAY, NEW YORK, N. Y.

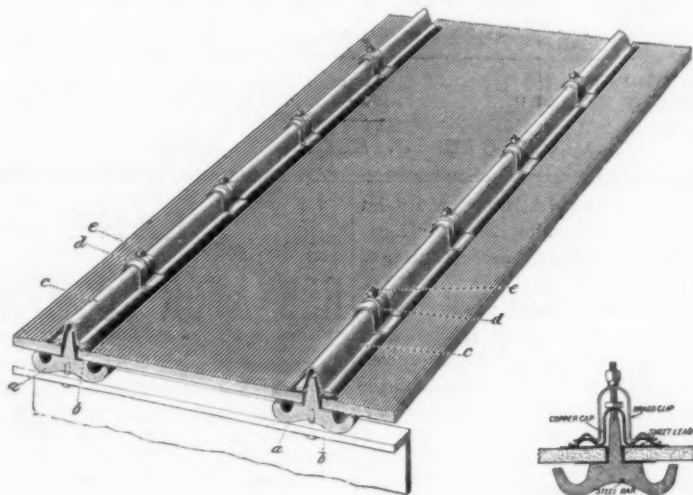
## ON THE QUALITY OF TIN PLATES.

ALLEGHENY, PA., Dec. 9.

EDITORS *National Labor Tribune*:—

Allow me a little space in your valuable paper to inform the readers of the *Tribune* a little about the quality of the plates turned out through the States. We have had quite enough about the quantity, and I believe it is time for us to change the subject to the quality of tin plates.

I was very glad to see a little about the quality in Mr. Harry Herbert's letter in the paper of week before last. I can't deny him about the quality of black plates he turned out at New Castle, but Mr. Herbert must



the steel bar by a brass bolt and nut (e). The special advantages of this system are: 1st, As the clip does not bear on the top of the cap, pressure applied to the nut is transmitted by the clip directly to the lips of the cap on each side of the bar, making a tight but not rigid joint. 2d, The clip forms a cushion that responds to the contraction or expansion of the glass and metal, thus avoiding breakage. 3d, The construction is fire-proof, being entirely of metal and glass. 4th, It is durable, as the external portions are of non-corrosive material, and the metal packing is not affected by acids or gases, nor can it be dislodged by contraction, expansion or vibration. 5th, It is simple, and broken lights of glass can be easily replaced, no putty or cement being required.

This system has passed the experimental stage, having been thoroughly tested, and proved of value, as will be shown by the fact that it has been erected and in successful operation for the Pennsylvania Steel Co., and has been placed upon such buildings as churches, school-houses, railroad depots, boiler houses, and other structures where large skylights are required.

This system is to be exclusively used upon the new and handsome Young Men's Chris-

car of Genuine Bangor Slate shipped, giving initials and car number, date of shipment, signed by the inspector with seal of the Association, same to accompany the invoice, that upon request of architect or contractor the roofer can produce the certificate, being absolute guaranty of the slate. The cost of slate compares very favorably with the costs of other roofing materials, as the following figures show for Genuine Bangor Slate delivered at the following points: Boston \$4.25 to \$5.98, New York and Philadelphia \$3.85 to \$5.00, Chicago \$4.75 to \$5.90 per square.

We give a few of the conclusions from a paper, "The Strength and Wearing Qualities of Roofing Slate," by Mansfield Merriman, M. Am. Soc. C. E., read before the Society September 21, 1892, after careful tests by him of Bangor Slate:

"That the valuable constituents of slate are the silicates of iron and aluminium, or the clay, this being inert and incorrodible."

The Bangor Slate tested had 83.02 per cent of the named qualities.

"The soft roofing slate weighs about 173 pounds per cubic foot and the best qualities have a modulus of rupture from 7,000 to 10,000 pounds per square inch.

"The stronger the slate, the greater is its



# ALSEN'S PORTLAND CEMENT

is the strongest and most serviceable Cement made, and will permit the admixture of a larger amount of sand or gravel with less loss of strength than any other brand; it is therefore the most economical. It is the finest ground cement made, and has the largest bulk to the barrel.

The following test, made in actual work, by Col. D. C. HOUSTON, Corps of Engineers, U. S. A., at the sea wall around Governor's Island, New York Harbor, has never been equalled by any other cement. It is as follows: Tensile strength per square inch, one day, 384 pounds; seven days, 600 pounds; thirty days, 818 pounds.

For Sidewalks it gives the best color, and the most enduring wearing surface. Most of the prominent Railroad Bridges and the large Office Buildings of the country stand upon a foundation of concrete made of ALSEN'S CEMENT.

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

remember that he can turn out good quality in the hot mills, but what quality do they turn out in the tin-houses? I don't think there is one tin-house superintendent who can produce good, healthy tin plates through tinning machines as long as they use acid flux. Out of the 158 hot mills working I don't think there are one-fourth of the plates they produce tinned through palm oil, and before we can get good quality they must be worked through the palm oil.

We see in our paper every week that the quality is dying away. You can see that in the letter from Gas City last week; they are putting in flux machines instead of the old healthy process. Well, brothers, don't you think it is time for us to write a little more about the quality?

We occasionally see articles about testing the armor plate, and the way that they are testing it is by firing at it. I saw three sheets of our roofing-tin being tested, and the way these plates were tested was by nailing them outside of the mill for a year, and they can be seen to-day after being tested from November 27, 1894, to November, 1895. But you must remember these plates were worked through palm oil, and they were coated 45 pounds per case, and manufactured by the Follansbee Bros. Co., Allegheny City, Pa. These plates have stood the test. You can see that they have been out in the weather for twelve long months, and every month brings their guns with them to fire at them, but they have stood the test well, and every plate is worked through the palm-oil process.

With best wishes for all union men and the *Labor Tribune*, I remain,

G. QUALITY.

The above article appeared in the *National Labor Tribune*, of Pittsburgh, Dec. 12, 1895.

As to its authorship, we are entirely uninformed.

FOLLANSBEE BROS. CO.  
328, 330 and 332 Second Ave.,  
PITTSBURGH, PA.

## POETRY AND PAINTS.

WITH the coming of each and every spring, editors and publishers are offered "Spring Poetry" which is considered by the authors, of a quality quite equal, if not superior, to anything ever launched upon the poetry-loving world. As with poetry, so it is with paint,—as the spring season of painting and repainting comes along there is sure to be offered something new in the way of paint mixture for the protection of roofs, iron-work, etc. Fortunately the public, as a rule, discriminate as wisely against such new nostrums as it

## BROOKS, SHOEBRIDGE & Co.

ARE MAKING THE...

## Finest Ground Portland Cement

Imported into the United States.

Quick or Slow-Setting as Required.

WORKS:  
GRAYS, ESSEX, ENGLAND.

NEW YORK OFFICE: 7 BOWLING GREEN.

CHARLES J. STEVENS, Agent.

does in its poetry, and rightly chooses a paint like Dixon's Silica Graphite Paint, which has been so favorably known for over a quarter of a century.

Roofs painted with Dixon's "Silica Graphite" Paint have not required repainting in twelve to fifteen years and over. Railway and other corporations, known for their thorough testing and careful selection of materials, use this paint in large quantities.

Any one desiring to know more about Graphite Paint should address

JOSEPH DIXON CRUCIBLE COMPANY,  
JERSEY CITY, N. J.

## NOTES.

MESSRS. MERCHANT & Co., of Philadelphia, are distributing a pretty little brochure that architects and draughtsmen will be glad to have. Printed in colors and showing in attractive and artistic sketches sundry buildings that have been roofed with their "Spanish Copper Tiles," this little booklet has a use aside from its advertising qualities in giving colorists suggestions as to the effects that can be produced. As Messrs. Merchant & Co. have been particular to note the names of the architects who designed the several buildings they illustrate, they afford information that would be otherwise inaccessible.

I. P. FRINK, 551 Pearl Street, New York, has recently lighted the Art Gallery of Mr. Potter Palmer, Chicago, Ill., with Reflectors specially designed for the purpose. The result, it is said, is highly satisfactory.

THE Globe Ventilator Company, 203 River Street, Troy, N. Y., have lately made the shipment of seven 60-inch Globe Ventilators for the new building of the General Electric Co., at Schenectady, N. Y.

## CRANE ELEVATOR COMPANY.

The Crane Elevator Company wishes to call particular attention to its improved vertical elevator machines of the

*Plunger Type,  
geared only  
two to one,  
even for the  
highest build-  
ings.*

These machines occupy no more space than the counterweights of ordinary elevator machines.

For economy of operation they are unparalleled by the elevators of any other make or motive power.

In ease and certainty of control, and smoothness of operation, they are superior even to the best hydraulic elevators heretofore made.

GENERAL OFFICES AND WORKS:

219 South Jefferson Street,  
CHICAGO.