

THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. LXIII.

Copyright, 1899, by the AMERICAN ARCHITECT AND BUILDING NEWS COMPANY, Boston, Mass.

No. 1213.

Entered at the Post-Office at Boston as second-class matter.

MARCH 25, 1899.



SUMMARY:—

Report of the Pennsylvania State Capitol Commission upon its recent Performances.—The Removal of the Forty-second Street Reservoir to be begun.—Coming Exhibition of the Boston Architectural Club.—The Düsseldorf Exhibition in 1902.—Restricting the Height-limit near the Massachusetts State-house.—The Ensuing Damage to Interests of neighboring Owners of Real Estate.—American Artists to be fed from the New York Public Crib.—The Philanthropical Model Tenement a Check on the Growth of Houses for the Poor.—Charging Champagne.—A Point in Labor Jurisprudence.

THE ARCHBISHOP'S PALACE, FLORENCE.	89
LETTER FROM LONDON.	91
COAL-MINE FIRES.	93
THE TEMPLE OF TEPEXTECO.	94
BOOKS AND PAPERS.	94

ILLUSTRATIONS:—

Church of St. Mary the Virgin, Forty-sixth Street, New York, N. Y.—Office for Dr. H. M. Spencer, St. Louis, Mo.—A Competitive Design for High school Building, Wilmington, Del.—"The Salisbury," Brooklyn, N. Y.—Brasilienische Bank für Deutschland, Sao Paulo, Brazil.—House at Upper Montclair, N. J.—Mantelpiece from the Palace of Bromley-by-Bow, London, Eng., now in South Kensington Museum.

The Crown Hotel, Lyndhurst, New Forest, Eng.

Additional: The Doorway: St. Mary the Virgin, Forty-sixth Street, New York, N. Y.—Entrance to the Caserne des Célestins, Paris, France.—Le Castel Beranger, Paris, France.—National Museum, Zurich, Switzerland.—The Scotsman Building, Edinburgh, Scotland.—Front View: "Red Branch House," Wimbledon, Eng.—Rear View of the Same.—The Gallery: Crewe Hall, Crewe, Eng.

COMMUNICATION:—

The Commission on Mantelpieces, etc.

NOTES AND CLIPPINGS.	95
----------------------	----

THE Report of the Pennsylvania State Capitol Commission has been made public, and the politicians are busy extracting from it nutriment for their respective views of public affairs. With these, of course, we have nothing to do, but it is interesting to observe that the Commission seems simply to have thrown the instructions of the Legislature overboard, at the suggestion of the architect. That the latter should have thought it desirable, instead of scattering the departments among a cluster of separate buildings, to gather them under a single roof, is quite intelligible; in fact, the same idea would occur to most architects; but that the Commission should have thought itself authorized by the statute under which it acted to adopt such a scheme is extraordinary, and it seems to us more extraordinary still that their action should have been supported by the Courts. If a man should commission another to buy him a coat, for fifty dollars, mentioning that he expected at some later time to get the rest of a suit, and his agent should bring him back a shirt, with the information that he had expended the fifty dollars for this, and had ordered in his name a four-hundred-and-fifty-dollar suit, he would hardly think that he had been well served; yet this is practically what the Commission has done for the State of Pennsylvania; for, according to its report, it will cost four million dollars, in addition to the amount already expended, to complete the building according to the designs prepared by the architect with the Commission's approval. If this is what Pennsylvania people like, and what Pennsylvania courts consider proper, we have nothing to say, except to warn architects and other unsuspecting people from trusting either in future. Meanwhile, we commend the closing paragraph of the Commission's report, with which it presents the shirt to the would-be purchaser of a coat, to the attention of the curious. "That the building in which the General Assembly now sits is not as handsomely decorated and finished, either internally or externally, as many people of the State would desire, arises solely from the fact that the Commission did not have at its disposal any money to expend upon unnecessary ornamentation." We hope that the owner of the shirt will be quite satisfied with this explanation.

A LITTLE start has been made toward the new Library for New York, by the appropriation of five hundred thousand dollars for the removal of the old reservoir, the surveying of the lot, and the construction of the foundations. By the time that these are in, it may be hoped that more appropriations will be ready, so as to carry on the work. The public interest in the matter is very great, and the objection of the Mayor to the appropriation of all the money for the building at once, on account of the doubt of the legality of such action under the Statutes limiting the indebtedness of the city, will probably be met, when the time comes, in some way.

THE Boston Arts and Crafts Exhibition, which opens April 4, promises to be a very interesting one. Besides modern works, the exhibition is this year to include a loan collection of old examples, very many of which are owned in and about Boston. To our mind, this is really the most valuable part of the whole affair. Very little modern work is as good as the old; and, while it is well to have the good modern work shown, so that those who do it may be encouraged, and stimulated to further effort, it is, unhappily, to the craftsmen of past generations that we must look for examples of the freedom of design, and fertility of resource, which are so much needed in the lesser arts. This year, the exhibition of architectural drawings, which, a year ago, was attached to that of the Arts and Crafts Society, will be held separately, the Boston Architectural Club having decided to undertake it, and to hold it more than a month later, from May 15 to 27, at the rooms of the St. Botolph Club, No. 2 Newbury Street. Drawings, photographs, models, and examples of decoration, furniture, stained-glass and other work of the kind will be received, and will be collected and returned, free of expense to exhibitors, in Boston, New York and Philadelphia. The collection will be made in Philadelphia April 25, in New York April 26, and in Boston April 28, and entry-blanks must be filled out and sent, on or before May 1, to the Exhibition Committee of the Boston Architectural Club, No. 19 Exchange Place, Boston.

THERE is to be in Düsseldorf, in the year 1902, an exhibition of manufactured products, together with one of German fine-arts, and all German architects are invited to send general plans for the exhibition in a "competition of ideas." The jury is admirably constituted, including Professor Wallot, of Dresden, the architect of the German Parliament House, at Berlin; Professor von Thiersch, of Munich, and others of distinction, and the prizes are, for economical Germany, unusually liberal, thirty-five hundred marks being offered for the best plan, twenty-five hundred for the second, and fifteen hundred for the third, while the committee reserves the right to purchase other designs at five hundred marks each. Each intending competitor must send five marks for a programme, and a plan of the city and exhibition grounds, and all designs must be received by June 15, or must, when received, bear a postage-stamp with that date upon it. We suppose that none of our readers are likely to take part in the affair, but, if any should wish for further particulars, they can be had by addressing the Central-Gewerbeverein, at Düsseldorf, Germany.

SOME curious questions are suggested by such propositions as the one now pending before the Massachusetts Legislature, to restrict all new buildings within one thousand feet of the State-house to a height not greater than that of the main cornice of the State-house. Leaving out of account, for the present, the question whether the enforced dwarfing of the buildings near it will improve the artistic effect of the State-house, there are important points to be considered in regard to the effect upon material interests of the proposed restriction. That it will inflict heavy damage on property-owners is admitted. The new Hotel Bellevue, for example, which is being constructed as fast as work by day and night can push it, will have thirty-nine feet taken from the height now allowed by law, and already contracted for. This is equivalent to at least four stories, out of the eleven stories contracted for; and, as the running expenses of the hotel will be nearly the same for seven stories as for eleven, while the capacity of the income-bringing portion will be diminished by nearly one-half, the change is very likely to convert a profitable investment into an

unprofitable one; and the same is the case with the Woman's Club Building, close by. The bill now pending provides for reimbursement, from the treasury of the Commonwealth, for all damage done by the restriction, and we imagine that the taxpayers of the State will experience a disagreeable surprise when they see the bills.

ANOTHER result of the system inaugurated in Copley Square, and extended to Beacon Hill, is likely to be the deterioration of the neighborhood of public buildings in Massachusetts. It is one thing to have the height of all buildings restricted to moderate limits, as is the case abroad, but a very different thing to single out a man who has bought a lot for improvement, in what he supposed to be a desirable situation, and, after his plans and contracts are all made for building according to law, attack him with a special statute, and compel him to abandon his property, or change his plans so as to make his investment unprofitable; and a little experience of treatment of the latter sort, which money damages can hardly make good to an honest man, while, with the help of fictitious transfers, and pretended contracts, it can be made enormously profitable to dishonest ones, is more than likely to make investors shun the neighborhood of public buildings like a pestilence. That there must be high buildings in our cities, under present conditions, is certain, and it is equally certain that the people who desire to build them in Boston will hereafter take good care to put them in localities where æsthetic considerations will not be utilized to upset their plans; that is, in places which have hitherto not been thought of for such purposes; while, if the people of Boston should take the much fairer, and far less expensive course, of limiting the height of all buildings, without discrimination, to something like the Paris standard, the consequence would be that the business district would take in Boston, as it has in Paris, a very large extension, pushing the residential portions farther out from the centre of the city. In either case, real-estate values and conditions in the city must change materially. At the same time there is no denying, in the Beacon Hill case, that the State has vested interests in real-estate in that neighborhood and it is wholly proper that the public authorities should by every lawful, even if costly, means protect these interests from depreciation through the action of the individual owner of realty acting for his selfish pecuniary interest alone. The citizens of the Commonwealth two or three years ago pronounced unmistakably what they preferred to be the aspect of the crowning feature of the hill, and, consequently, the aspect of the hill itself, and spent a goodly sum of money in preserving the Bulfinch front, and the taxpayers can have no just cause for grumbling when the State uses its paramount power in defence of its own property.

A COMMITTEE, consisting of Messrs. Perry Belmont, Raymond Ward and Amasa Thornton, with the Rev. Dr. Burrell, have requested that provision be made, under the statute authorizing the City of New York to expend annually the sum of fifty thousand dollars for works of art, for the painting of portraits of the ex-Mayors of the city, and other persons who have been prominent in municipal affairs, to be placed in the City-hall. In explanation of this request, one of the petitioners said that many native artists were now unable to make a living, the obvious inference being that these unfortunate persons would like to divide the city's money between them. They are by no means alone in this disposition, and we doubt whether some of them will relish being classed with the hungry crowd that besieges the public treasury. There is nothing dishonorable in being poor, but indigence is very far from being a good foundation for a claim to employment at the expense of the taxpayers; and the friends of artists who would like to work for the public would show prudence in dwelling on their skill, rather than their poverty.

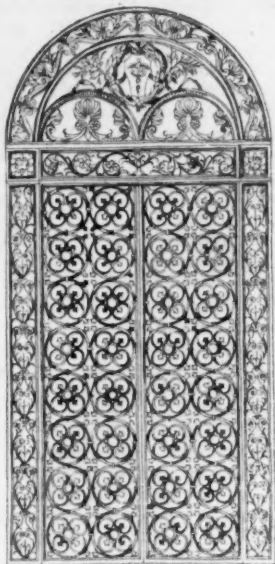
A VERY curious economical phenomenon is noted by the *Record and Guide*. In London, as is well known, the municipal administration has for some time had socialistic leanings. Partly, it seems, for this reason, and partly through the well-meant efforts of philanthropists, many improved dwellings for working people have been built, well planned, well lighted and aired, and rented at low rates. Unthinking people would imagine this to be an unmixed blessing to the community, but the result has been such as to cast serious doubts on this view of the matter. Naturally enough, private owners, who require a reasonable income from their investments,

will not build tenement-houses which must compete for tenants with buildings owned by the municipality, or by other philanthropists, who are satisfied with two per cent interest and the sense of well-doing, or who think that virtue is its own sufficient reward, without any admixture of worldly dross, and the consequence is that, as there is not room enough in the philanthropists' houses for all the people who want a place to live in, the others have to shift for themselves as best they can; and, as the number of modern tenements owned as investments is very small, they are obliged to take refuge in anything in the shape of a dwelling that they can find, and there are not even enough of these to supply the demand, which is becoming more urgent daily. We will not attempt to moralize over the ills which follow from even well-intentioned attempts to interfere with a legitimate industry, but it may be remarked that no investment is more steadily and reasonably remunerative than that which has for its object the construction and maintenance of tenements in places where the renting of them is not obstructed by the offer of competing tenements for nothing, or at a rent in which charity takes the place of interest on the cost. Under natural circumstances, well-built and cheerful dwellings for the poorest people, within easy reach of their work, are sure of being rented. Even dull times, which empty the more expensive houses, bring to the simpler ones tenants, who find it necessary to economize temporarily, and it is to the credit of the very poor that they are at least as honest in paying their bills as people of much larger income, so that the owner of tenements suffers little from bad debts. It may be said that the charitable enterprises save poor people from unmerited condemnation to filthy and pestilential surroundings, overcrowding and other evils; and careful inspection of tenements, in which the filth and overcrowding are almost always due to the tenants, and not to the owners, is necessary, but with this, joined to a strict prohibition of the conversion of old and unsuitable buildings into tenements, the dwellings of the poor may be, and are, as statistics show, as free from disease as those of the rich; and their owners will naturally be disposed, for the sake of filling their houses with tenants of a good class, to compete with each other in providing air, sunshine and facilities for cleanliness and decency.

THE consumers of champagne may be pleased to learn that the French variety of this beverage is openly charged with carbonic acid, in the same way as soda-water. *Le Génie Civil*, in a review of the French chemical industries, says that about four thousand tons of liquid carbonic acid are produced annually in France, and much more is imported from Germany. Some of this is used in freezing-machines, although ammonia and sulphurous acid are much more commonly employed; some is used in making soda-water and in bottling beer, and a little is utilized in foundries, for compressing the liquid metal; but "a big amount," — *une grosse consommation*, is employed in the manufacture of champagne. What are the other ingredients it does not say. The carbonic acid is obtained partly from burning coke, partly from the vapors of lime-kilns, partly from the fermentation of "saccharine juices," and partly from the action of acids on carbonate of lime. In any case, the carbonic acid requires purification before it is used, but it must be an interesting study to amateurs of sparkling wines to distinguish, in their Grand Vin Sec, between the bouquets of coke, lime-kilns and rotten apples. It may be remembered that an ingenious German dealer once charged his champagne with laughing-gas, and learned, behind the bars of a prison, that the German law disapproved of the process. What it says of carbonic acid we do not know.

TWO labor associations have been quarrelling in Boston, the officers of one ordering strikes and boycotts where the members of the other were employed, and, in general, pursuing the tactics of coercion so familiar in this land of liberty. After a time, the aggrieved association applied to the courts for an injunction against the other, but was refused, on the ground that as a corporation, owning no property, and neither employing nor furnishing labor, it was not injured in its business or estate by the other party, it was not entitled to the relief which one having a more tangible grievance could claim, and the injunction was refused. Apparently, any individual member of the complainant association, who had been discharged through the efforts of the defendants, could have sued successfully for damages and perhaps for an injunction, and his association could have paid his counsel-fees for him.

THE ARCHBISHOP'S PALACE, FLORENCE.



From a Bank Building in Tuscany.

appeared, clouds of dust fill the space where goods were once displayed, and workmen appear and disappear high up in the rooms whose inner walls are exposed to the vulgar gaze.

The courtesy of the cultured secretary of the Archaeological Commission, Sig. Giuseppe Conti, well known as author and journalist, offered us the opportunity of visiting this vanishing historical relic of ancient Florence.

The building, as indeed might be expected in an edifice of so rambling a nature, dates from widely different epochs. We enter, first, an extremely fine specimen of a seventh-century court-yard. The columns and arches are most graceful, colored, of course, with the two shades of yellowish-brown which we observed in the above-mentioned bridge over the street. The arches are outlined in the darker color. On the right-hand side of the court-yard a short flight of stone steps runs up to a painted, alcove-like vestibule from which opens out on the right a succession of noble rooms, on the left a pretty terrace with slender columns, that overlooks the court-yard. The line of the stairway is extremely pleasing, comparable only, though on a much smaller scale, to the famous one in the Durazzo-Pallavicini Palace at Genoa.

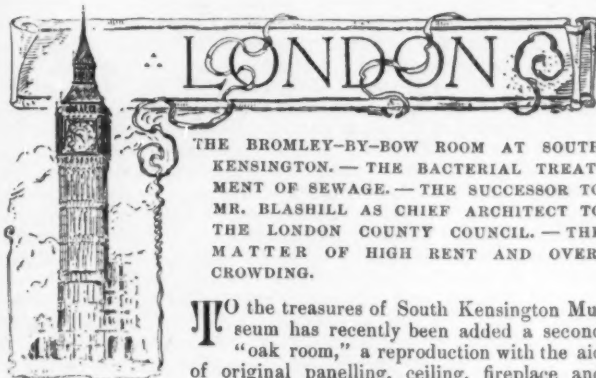
From the court-yard, which happily is included in that part of the building not doomed to destruction, we enter the ancient hall of the tribunal, which bears over the door the words "*Audientia causarum*." This is a low room, heavily vaulted, and frescoed with biblical subjects and heads of ecclesiastics. In the middle of it stands a fine column dating from the thirteenth or fourteenth century. The shaft is octagonal; and it curves to blend with the vaulting without the intervention of a capital. Wherever the ribs of the vaulting meet a heavy iron ring is fixed—relic of a time when it was usual to stimulate men's memories by a friendly application of the rack. It was perhaps here that the extraordinary case of Ginevra degli Almieri was tried. This lady of noble birth fell into a trance, and, the plague raging at the time, was at once buried as dead. Her tomb, near Giotto's bell-tower, was opened at night by intending robbers, who, being frightened by the approach of the patrol, ran away. Ginevra, reviving, climbed out of the tomb and visited first her husband, then her father, who repulsed her as a ghost, whereupon she wandered up and down the street until she met her original lover. He took her home, nursed her back to life, and married her. The matter was brought before the notice of the ecclesiastical court, which decided that he might keep her, in consideration of the very evident desire of her royal husband to get rid of her.

Leaving the tribunal-hall, we ascend the easy steps of the stairway, noticing the characteristic stone balusters, and, turning to the right, pass from the little painted vestibule into a fine ante-chamber the doorways around which present the well-known seventeenth-century form. From this ante-room we enter a hall, frescoed from ceiling to floor in most marvellous perspective of terraces and plants. This part of the palace, now fast disappearing, was in part rebuilt, after a great fire, by Archbishop Alessandro Marzio de' Medici, and bears his name engraved over every door. Certainly the architect, Antonio Bosio, knew how to make use of his space: the building is a labyrinth of fine lofty halls and unexpected smaller suites of rooms with queer retreats and hiding-places that appeal vividly to the imagination. The ceilings present beautiful designs in stucco-work. In one of the great halls we noticed a most interesting fresco representing a grand game either at foot-ball or at hockey (*giuoco del calcio* or *giuoco del maglio*) played before the Palazzo Vecchio in the Piazza della Signoria. This fresco is to be cleaned and photographed.

The windows of this part of the building are good examples of

seventeenth-century work. We noticed also, however, an older form, something like that of those in the Palazzo Vecchio: two narrow arches divided by a slender column; and in the lower part of the palace one with three arches and two columns has just been laid bare. They command the square and neighboring streets on all sides. As we looked down onto the crowds below, and then let the eye wander down Borgo San Lorenzo to the hill and cathedral of Fiesole, which, framed by the nearer houses, close in the distance, we experienced a curious sense of power, and somehow should have found it no anachronism had the peaceable nineteenth-century streets suddenly filled with a roaring seventeenth-century mob, to be harangued and dominated by some princely ecclesiastical figure at our side. One window carries us right back to pagan times. It looks out onto the baptistery just where, at the spring of the roof, a piece of Roman sculpture reminds us that, long before the Arcivescovado, now vanishing, was thought of, men offered sacrifices to Mars where now they baptize their children into the religion of Christ.

ISABELLA M. ANDERTON.



THE BROMLEY-BY-BOW ROOM AT SOUTH KENSINGTON.—THE BACTERIAL TREATMENT OF SEWAGE.—THE SUCCESSOR TO MR. BLASHILL AS CHIEF ARCHITECT TO THE LONDON COUNTY COUNCIL.—THE MATTER OF HIGH RENT AND OVER-CROWDING.

TO the treasures of South Kensington Museum has recently been added a second "oak room," a reproduction with the aid of original panelling, ceiling, fireplace and furniture of a typical room of a great house as existing in the rich oak period of the early seventeenth century. The first of these interesting compositions was taken in its entirety from Sizergh Castle, Westmoreland, and the splendor and beauty of this bedchamber, with panelling inlaid in holly and bog-oak and plaster ceiling encrusted with bold ornament, form quite one of the most striking features of the museum. The second room, though far simpler in design and more modest in treatment, is not less interesting. The walls are panelled in oak, with pilasters, frieze and cornice all richly adorned with ornament in low relief. But the general tone of restraint which prevails in the panelling serves the more to express the beauties of the mantelpiece and plaster ceiling. In these features, and especially in the mantelpiece, is crowded a wealth of ornament and enrichment which, without undue emphasis, compels the eye to satisfaction.

The recent history of the room is not uninteresting. Until a short time ago it formed part of a house styled the "Old Palace of Bromley-by-Bow," London, E. This, so far as London was concerned, was an almost unique example of an Elizabethan or Jacobean building of the date 1606. It was built if not by, at least under the influence of, John Thorpe, and, with slight internal alteration, remained perfect until its recent destruction. The history of Bromley Palace is very vague; indeed, beyond the internal evidences of date there is little to go upon. The ceiling in this room, known always as the "James I room," has a central medallion containing the Royal Arms within the Garter and the initials of the King. And into the design of the mantelpiece, as shown [See Illustrations], the Royal Arms again enter largely. It is not, however, a matter of history that James possessed a palace at Bromley. The house was comparatively unknown until the question of destruction was mooted, when a fruitless effort was made to secure its preservation. The London School Board in plausible desire for the extension of education cast eyes upon the site on which this house stood, with desire to utilize the ground for the purpose of school-building. Effort to thwart this intention proving futile, a suggestion was made that the old palace should be embodied in the new school; this, however, was considered impracticable, and the house was accordingly sold as it stood to a house-breaker. The principal room in the house was that now in question, but there were in addition some twenty-five panelled rooms. Mr. Ashbee, A. R. I. B. A., who had interested himself in the effort made to save the house, succeeded with difficulty in saving the work which is now in South Kensington Museum, but the cost was considerable; the mantelpiece, which forms the subject of illustration, changed hands at more than half the amount which the School Board accepted for the entire house. The work was very carefully cleaned and restored, and the transport and setting-up in the new position have been carried out with the utmost success, principally under Mr. Ashbee's own supervision.

An extensive alteration was made in the last century involving the shortening of the room and the panelling was slightly shifted to meet the new conditions. A few mouldings and doorheads of this later period have been omitted, as they were in pine, and, consequently, appeared incongruous beside the old work. The room as we have it to-day is, therefore, more nearly in its original form than

at the time when the house was demolished. Rich as is South Kensington Museum in old furniture and oak-work in general, these two rooms have a composite value which no amount of casual specimens of work can possess. And in that the same fate which destroyed the palace has been the means of bringing the beauties of this James I room into the reach of student and dilettante by no means can the vandalism of the London School Board be accounted an unmixed evil.

In a general survey of those branches of science which more particularly appeal to the architect and builder, it is likely that sanitary science would, in point of progress, be found to stand among the most conspicuous. And to the present day, when the detail of sanitary appliance, so far as present principles hold, has been brought to a high stage of development, is delegated for solution the problem of the disposal of sewage in great bulk. For many years the best efforts of engineers and millions of money have been devoted to sewage schemes, differing in detail, but all elaborate and all, from the nature of the problem, experimental. To the last four years, however, it has fallen to produce a very remarkable and promising discovery—the bacterial treatment. For the past two or three years, and especially in recent months, it has been practically impossible to take up a technical journal without finding considerable space devoted to this question. The importance of the subject commercially, together with the scientific interest attaching to it, places bacteriolysis, as we can now call it, among the foremost of current matters of attention in London and the country generally. The complete success of a system on such principles adopted by the City of Exeter is now an old story, and the experiments which have been made at Sutton in Surrey, and at the northern outfall of the London Main Drainage System, Barking, have been well described with attention to scientific observation in papers read from time to time before the Society of Engineers by the experimenters, Messrs. Dibdin and Thudicum, the former the late chief of the chemical and gas department of the London County Council. It may not, however, be considered beside the point to review briefly the history of the discovery of the bacterial treatment of sewage.

The earliest published record in this connection, so far as I am aware, is to be found in "*Cosmos*" for 1881–82, reviewed in the *Proceedings* of the Society of Civil Engineers, vol. 68. This article, written by the Abbé F. Moigno, is descriptive of the "automatic scavenger," an apparatus invented by a M. Mouras and in successful operation in France for twenty years previous to the date of the article. The apparatus consisted of an air-tight chamber formed in the length of a drain, an enlargement, so to speak, having inlet and outlet of quadrant pipes so arranged that the mouth of each was some inches below the surface of the sewage, which stood in the chamber at a constant level. By a mysterious operation and one that revealed an entirely novel principle, all that the chamber received was transformed into a homogeneous fluid, only slightly turbid, holding all solid matter in suspension in the form of scarcely visible filaments. No deposit of sludge or other matter took place either in discharge-pipe or sewer, and the effluent was almost devoid of smell. There followed a description of laboratory experiments with a glass receiver in which fecal matters, kitchen-refuse and paper, introduced with ordinary liquid sewage, were entirely disintegrated in less than three weeks. The author completed his article with a proposition to treat the whole of the sewage of Paris in this way, automatic scavengers to be provided to every house-drain connecting with the sewers. He held that the outlay of installation would in a short time be amply repaid by the facility of sewage disposal for the future; there is, however, no reason to think that the proposition was in any degree entertained. In volume 78 of the *Annales Industrielles* describing the successful employment of an automatic scavenger on these lines for 150 work-people. The chamber was a cube of four metres with capacity of about 14,000 gallons. Apropos of the scientific explanation of the facts, it is to-day curious to note that while the author attributed the phenomena to a purely chemical process, which he went on to describe minutely, the reviewer even at that early date suggested the probability that the cause lay in the action of "those vibrations or anaërobes which, according to Pasteur, are destroyed by oxygen and only manifest their activity in vessels from which air is excluded."

From this point there is practically no advance to record for twelve years until the City of Exeter, on the advice of the city engineer, Mr. J. Cameron, embarked experimentally upon the trial of the "septic-tank" system. But in these years note may be taken of the consistent use of the automatic scavenger in its original form by at least one well-known firm of London architects. For many years they have made practical use of the invention in dealing with the sewage of country-houses, and with complete success. The scavenger as adopted for a certain country-house in Sussex worked without attention for ten years, producing an effluent, clear and fairly inoffensive, well adapted by reason of its fluidity for agricultural purposes. After ten years the scavenger was opened and found to contain, besides recent solid and liquid matters in process of disintegration, only a quantity of insoluble silt, principally sand, which had in course of time collected at the bottom of the chamber.

There is no patent evidence that the Exeter scheme is other than the automatic scavenger developed, somewhat, on scientific lines and enlarged to meet the requirement of a comparatively great daily quantity of sewage. It is, in fact, the scavenger combined with a

system of filters of cinders, coke, ballast, or other similar material. The sewage is first allowed to resolve itself in air-tight tanks and the liquid effluent is then strained through the filters. The characteristic point with regard to the filters is that they are self-cleansing. After a filter has been worked for a length of time, and its pores are somewhat clogged with small particles of matter, it is allowed to rest, and the effluent from the tank is passed into another filter. During this period of inaction the filter effectually cleanses itself and is ready in a short time to recommence its work. The phenomenon is attributed to the action of aërobes, to whose prosperity and activity complete aëration is primarily essential. Thus by the successive action of anaërobes and aërobes the crude sewage is finally reduced to a clear, limpid, odorless, and innocuous fluid, entirely adapted for discharge into waterways or for agricultural distribution. Demonstrative of this is the story reported in the building papers recently of a medical officer of a public body who visited the Exeter works and was permitted to take samples of the matters at such time as he thought fit. He placed a sample of the final effluent together with a sample of water from a London Water Company's main before his committee. It is reported that neither the sense of sight nor smell could enable the members to say definitely which was the effluent. The insoluble deposit is so small that it is estimated a clearance of the tanks every two or three years will amply suffice, and the apparatus is so far automatic that it requires the attendance of one man not more frequently than for an hour or two every three days. The Exeter authorities have in this way dealt successfully with the sewage of 5,000 people, and are now acquiring powers to treat the sewage of the entire city in the same way. This extension of the system has won over the local bodies of the British Isles to something like enthusiasm, and from all parts of the country local authorities who have tried sewage-farms and filter-works without success are now applying to the Local Government Board for permission to embark on a scheme equivalent to that of Exeter. Only the other day Dr. A. Bostock Hill reading an address before the Institute of Civil Engineers said that the old views with reference to the chemical treatment of sewage were false both in theory and in practice. He strongly favored the disposal of sewage by the modern bacteriological methods, and affirmed that any system opposed to the principle on which the resolution of sewage by the action of bacteria depends must fail. Col. E. C. S. Moore, again, in his monumental work on Sanitary Engineering, just published, though he says nothing of sewage purification or disposal of sludge and refuse beyond describing systems, concludes that "special cases will always demand special treatment, although the progress that has been made during the last few years in the system of biological treatment tends to show that in this direction the ultimate solution of this troublesome problem will be found."

As to its adoption for London, we may hesitate to speculate in face of the facts of London's main drainage. The disposal of the sewage of over 5,000,000 people, involving the treatment of about 60,000,000 tons of sewage annually, is a task of such proportions that it seems unlikely that any scheme of bacterial destruction could here be adopted, owing to the inconvenience of keeping so large a quantity of sewage on hand. At present a vast organization, involving an annual expenditure of £200,000, treats the sewage chemically, and by precipitation reduces the matter to binary components—clear innocuous fluid which is passed into the Thames, and a form of sludge which is shipped on vessels and deposited in the deep sea. The thoroughness with which this work is done is reflected in the condition of the Thames. In spite of the enormous amount of pure water taken daily from the river above the locks by five of the London Water Companies, the Thames has been purified to a marked degree within recent years, chiefly through the efforts of the Thames Conservancy. This body has the whole watershed of 4,000 square miles under the closest observation for the arrest of pollution. Riverside men of Wapping and Limehouse, centres of docks and shipping, tell of fish reappearing in recent years in haunts that fifty years ago were well stocked, but latterly have been void of any suspicion of piscine life. We are more than beginning to realize the extreme beauties and hygienic values of the Thames to London, but it is hardly probable that the conception of a clean river has as yet found place in the programme of the most ardent of dreamers.

Some comment has been aroused by the difficulty that the London County Council are experiencing in obtaining a successor to Mr. Blashill, F. R. I. B. A., the chief architect. Under the normal regulations which govern the Council's staff, the age of automatic retirement is 65. Mr. Blashill attained that age in 1895, but owing to the unsettled and unsatisfactory condition of the Works Department in that year he was requested to retain his position for a further twelve months. In 1896 the irregularities in the Works Department to which I have in these columns made descriptive reference were brought to light, and the demands of the situation rendered it still less desirable to effect an immediate change in the headship of the architect's department. Matters were therefore left in the same position until the close of the last year. Mr. Blashill was now, *malgré* the evidence of a wonderful external appearance and faculty unimpaired, in his sixty-ninth year, and it was decided to make no further delay in regard to his resignation. Announcement of the fact was duly made and two months before the end of the year advertisements were published with a view to obtaining a successor. The salary offered was £1,500 per annum. Some thirty to forty candidates applied for the post, but the committee entrusted with the selection announced that they were unable to recommend

the acceptance of any one of these. The Council found themselves thus in something of a quandary, the advertised day for Mr. Blashill's retirement being upon them. It was, therefore, decided to retain the services of Mr. Blashill for a further period of three months, to allow time for the consideration of a fresh course of action. Many rumors found currency as to the direction this might take. It was considered by some that the complexity of the duties which the chief architect is expected to perform was of a character so arduous that the necessary combination of qualities would not be discoverable in a single personality; it was suggested that the executive duties, those, that is, relating to the Building Act—dangerous structures, theatre, factory and workshop inspection, control of street formation and nomenclature—should, with kindred matter, be divided from the constructive and more truly architectural work of the housing of the working classes, fire-brigade, and "general" branches. To select a man altogether adapted to either of these ends would be, it was felt, a matter of no great difficulty. On the other hand, it was urged, it would be necessary to attach a high salary to each post, in order to secure a suitable candidate, and the prospect of paying £2,500 to £3,000 for a service that now costs £1,500 is one that has no attractions to the mind of the municipal economist. Bearing on this point an amusing story is told of a candidate who offered his services in response to the general invitation issued by the Council. At the time, it happened that applications were being made for the new post of Manager of Tramways, an office that has come into existence with the assumption by the Council of the direct control of a part of the tramways of London—parenthetically it may be noted that, step by step, the whole of the systems in the metropolis is being brought under the direct management of the municipality. It occurred, then, to the thrifty mind of this applicant that, in view of the fact that the superintending architect's duties are already diverse, there would be entailed no great onus if the duties of tramways manager were added; he therefore proposed to contract for the double duty at the single figure £1,500!

The actual step that the Council has taken towards solving the difficulty is in resorting afresh to advertisement, this time placing the salary at £2,000 per annum. It remains to be seen whether the additional £500 will be fruitful in producing a suitable candidate. The general view is not hopeful. It is felt that those architects capable of the work whose practice is not worth £1,500 have, in all probability, already applied under the first invitation, while those who possess a practice bringing more than £1,500 are sufficiently comfortable to render the choice between a private practice and a peculiarly harrassing public post a matter of no great difficulty. Apart from the worries of organization and control incident to such a position, the fact that the County Council is to all intents a political body run on strict party-lines must breed a natural diffidence in any but those who have been reared in such an atmosphere. There is good reason to think, therefore, that, should the present offer of the Council meet with as little success as in the former case, the post will be offered to one of the existing departmental heads, and, as a matter-of-fact, the opinion does not lack expression that such would from the first have been an economical and satisfactory solution of the difficulty.

The machinery designed to effect the development of a great city must necessarily appear, in proper perspective, to move slowly, and while there is gratification over reforms and improvements, it is at the same time not unlikely that there are being laid down factors which shall go to form acute problems of the future. Building Acts, Health Acts, Metropolitan Management Acts have in past years combined to render London no fair field for the jerry-builder, and the same view may be extended in other terms to builders of other types. Trade combinations and the general rise in cost of materials have made speculative building as a whole unprofitable at anything like the return which obtained ten years ago. The immediate result is of course an automatic rise in rents, extending to old buildings as well as new, and in this is to be found a primary cause for overcrowding. The subject is one with which it is impossible to deal adequately in a few words, but it is one to which in the immediate future great attention will be given by all conditions, beginning with Imperial Parliament. Speaking generally, it is doubtful if any local matter at the present time is cause for such deep-seated feeling as this double question of high rent and overcrowding. The same agents have brought it about that the boroughs on the outskirts of London, included in Greater London for certain purposes as police and post office administration but independent of the general controlling ordinances governing the Metropolis, have expanded phenomenally. Villages have become towns, and towns that twenty years ago contained 20,000 persons to-day possess 250,000. The aggregate of increase in these outlying districts during the past twenty years has been, roughly speaking, from a population of 120,000 to one of 600,000, while the ratable value has risen to £4,000,000. All these surrounding towns (they are some thirteen in number) are eminently progressive in character and the municipal enterprise is largely developed. Board-schools, workmen's dwellings, baths, libraries, electric light, fire-brigade, tramways, hospitals and asylums are in most in the common ownership. In some, however, it is merely intrusive upon one viewing them from afar, that above the roofs of small speculative houses built in endless array, in indistinguishable similarity, there rise up near-spaced immense buildings of notable character and purpose unmistakable—board-schools. Not in themselves intrinsically interesting, they yet form to him who may seek

some spirit of beauty in modern life vague temples of hope in a land that is otherwise very gross. At present the property, though jerry-built by the hundred acres, is yet modern; and being in very high demand, the class of the tenant is good. It is, however, easy to foresee a day when, the demand shrinking, the tenant-class falling, the buildings may reach that condition when repair or reconstruction is not sound investment. There will be found in England in such a day no more deplorable aspect than these mushroom districts with which London is fast being encompassed.

COAL-MINE FIRES.

A CORRESPONDENT, P. S. R., of the New York Evening Post gives the following instructive account of the present method of extinguishing fires in coal-mines:—

Ever since coal-mining began, the system of fighting fires has been practically the same, namely, smothering the fire by sealing the mines so that air cannot get to the fire, or drowning the fire with water. The latter plan is nearly always used. Flooding a mine is so expensive an operation that mine-owners always dread to undertake it. At last a plan has been devised which seems to be proved to be cheap, quick, and effective.

Flooding a mine means not only filling nearly the whole mine with water, but, what takes three times as long, pumping the water out again. To the expense of pumping must be added the loss of time and the damage to the mine by the water. Under the new plan, the damage to a mine is comparatively slight, and a fire has been extinguished in seventeen days which, under the old system, would have required three years—one year to pump the mine full of water, and two years to pump it out and repair the workings.

The new method was devised by John D. Law, superintendent of the Pennsylvania Coal Companies at Pittston, and is generally known as the "tank system." It is not patented. Its operation was illustrated at a recent fire in the No. 6 colliery at Pittston. The fire broke out in the timbers about 4,000 feet from the foot of the slope in one of the upper workings. It was at first fought with a hose, but gained rapidly. The idea of flooding the mine appalled the officials, for mines Nos. 3 and 14 are connected with No. 6, and the flood would have to be general, entailing an expense of hundreds of thousands and perhaps a million dollars. Then the superintendent's plan came in. The fire, as explained, was 4,000 feet from the foot of the long steep slope, and in workings higher than the bottom of the slope. As nearly as possible a water-tight funnel was made of the gangway leading to the burning district by closing all side-openings. Then at a point near the mouth of the slope there was built a pair of strong water-tight gates of 3-inch oak. They were fitted on big hinges and opened downward, and were held closed by two massive chains running to the mouth of the slope, and attached to a big beam. That is all there is to the device which will save mine companies millions of dollars. With the gates closed, water was pumped into this big dam, or tank, until it held 250,000 gallons. Then the beam holding the chain was knocked away, and the water shot down the slope with a prolonged roar.

The water dashing in a body down the 500 feet of the slope was carried by its momentum to the fire in great waves until the fire was extinguished. So great was the momentum of the water that it broke through the bodies of gas and air surrounding the fire, which in such cases sometimes prove an impenetrable barrier to water pumped in in the old way. The process was successful, and it had the additional advantages of being quick, of doing little damage to the mine, and of keeping only one part of the mine idle. This method was successful also at the Pardee slope at Hazleton, and will be used wherever circumstances permit.

But perhaps not half the mines are entered by slopes. Most of them have shafts, and a different way of fighting fire is necessary in these cases. Superintendent Law had an opportunity to try his skill at a fire in a shaft at the same time that the one in No. 6 slope was being extinguished. This was in the Newton mine. The Newton has two shafts, and is connected with the Nos. 8 and 10 collieries, so that flooding the mine meant drowning out those collieries also.

The fire was in the lowest working, and the vein was 200 feet higher than the foot of the shaft. Instead of proceeding to flood the mine, Superintendent Law sent skilful mechanics to a point near the bottom of each shaft, and had them build a massive stone arch, not curving upwards towards the surface, but hanging downwards towards the foot of the shaft, with the keystone the lowest stone. This alone was a difficult engineering feat, but it had to be built that way to resist the pressure of water. In one shaft this arch was solid, in the other a big pipe was placed in the middle of it, through which water was forced by powerful engines until it gradually climbed up the steep pitch of the vein to where the fire was raging and extinguished it. The fire was thus entirely out seventeen days after water was first poured into the mine. Under the old plan, it is estimated it would have taken a year to pump sufficient water into the mine to reach the fire and two years to pump it out.

The amount of water required to flood a mine may be conceived by a realization of the fact that for twenty-three miles, from Archbald to Wilkes-Barre, the valley is undermined, and that all that separates the mines or divisions of mines is a 50 foot pillar of coal in each, which is left as an "ownership line." This underground lake would hold all the water the Susquehanna could pour into it in several days.

THE TEMPLE OF TEPOXTECO.

THE Temple of Tepoxteco in Mexico is built upon a cliff which is a sheer mass of rock more than 2,000 feet in height. Between this cliff and the extraordinary ring of cliffs above it there is a *couloir* or chimney of loose fragments of rock, up which the visitor must climb, no matter whether he ascends from Tepoxtlan or descends from San Juanico, a village above the circular cliffs. He is aided by a ladder at the worst part, but he must transfer himself from the topmost rung to a basaltic mass 3 feet to the left of the ladder, with the prospect of rolling down 200 feet if he slips, and the probability of pitching down the gorge of Tepoxtlan head foremost, about 1,800 feet. Holes for the hands and feet were cut long ago.

The ascent up the gorge of Tepoxtlan is toilsome to the last degree. Though it is narrow, yet it would have been feasible to make a winding trail like the one in the Yosemite which leads to Eagle Cliff. But this was not done. On the contrary, the ascent was made as difficult as possible by making a rude stairway of masses of rock from 2 to 3 feet in height, so that climbing the Canyada of Tepoxtlan is as bad as getting to the top of the pyramid of Cheops.

The temple is a building of two terraces, upon the model of the so-called pyramid of Cholula, which has four terraces, and of the Tower of Babel, which had eight. If the tomb of Lars Porsena was ever constructed, which competent authorities have doubted, Tepoxtlan was upon precisely the same lines of architecture, if we eschew the structures upon the terraces. It is because these could not be constructed that the tomb of the great Etruscan chief has been scouted. What may be called the skeleton was simply a structure of two terraces, a mound of masonry with the tomb at the farther end. This is precisely what Tepoxtlan is, only that instead of a tomb there was an enclosure with an arched or vaulted roof supported by four pillars built up of masonry, which was covered originally with a fine white stucco. The exterior of the whole temple was covered with this stucco, so that from below upon the crest of the slope leading down to Tepoxtlan it is exceedingly conspicuous. It was a "white house" beyond question, and suggests the inquiry as to whether there was not some symbolic meaning to all such structures, which are mentioned in the earliest chronicles of all European nations. We had in England more than one "Candida Casa," more than one Whitern and Whitby, and Casa Blanca is by no means a rare thing in Spain and Italy.

Upon the second terrace are the remains of the four pillars that supported the roof and the three walls of the temple. These are intact up to the spring of the vaulting. If there had been any openings for the purpose of giving light there would have been traces of them, but there is none, from which we must draw the conclusion that lamps were used during the ceremonies. Had torches been employed the walls would have been blackened. The temple was all the darker because it was subdivided into two by breast-high walls that joined the third and fourth pillars to the side-walls of the structure. All along these side-walls there was a broad seat about twenty inches high, and the front of this was covered with sculptured slabs nearly square. These have been stolen and rude imitations have been substituted. When I paid my first visit I particularly noticed that the slabs were of red sandstone and that the carving was Aztec, but singularly fine. I have seen Aztec sculpture in many places, but I do not recall any that could compare with these slabs. My observation of them was very general, because my whole attention was absorbed by one, which represented an "elephant in war trappings." It was carved very well, but minute observation made it clear that it was certainly copied from an older slab whose place it occupied. This was not the case with the others, which in style and subject were distinctly Aztec. The impression made upon my mind at that time was that the original was Carthaginian, and I had no doubt that it was a symbol of the Tyrian Hercules, whose name in Phœnician was Yar Cul.

The examination of the masonry corroborated my general impressions. Where the cement had been removed or had scaled off the courses of stone-laying showed clearly that the work was done by civilized men. The stones, although irregular in size, were all beautifully squared, and were laid in a very hard mortar. The plateau had not originally been quite broad enough, and to lay the foundation of the first terrace it was found necessary to build a retaining-wall some fifteen feet down the side of the *couloir*, up which the visitor drags himself. Here the stones are all of one size and the courses are perfectly regular, and the angle of inward inclination is maintained with exactitude. There is not in all Mexico any masonry that will compare with it except at Mitla, but the retaining-wall of Tepoxteco was laid by masons who had to be lowered on a plank to do the work, precisely as house-painters are lowered to paint the lofty walls of modern buildings. — *San Francisco Chronicle*.

BOOKS AND PAPERS.

"*ENGLISH CONTEMPORARY ART.*" Translated from the French of R. de la Sizeranne by H. M. Poynter (Constable & Co., 12s.). In this book the author points out, what has been frequently said in these pages in a modified form, that France and Eng-

land have distinct schools of painting, but that the rest of Europe and the United States have taken all that is good in them from the French schools. This is somewhat sweeping, unless painting means simply the technical side of art. South Germany certainly is distinctive in its style, and it is a good style; and the United States has painters who are not peculiarly French, as, for example, Mr. Abbey. But M. de la Sizeranne is right as regards Spain, Italy, the Scandinavians and Russia; and after all, France is the great Art School, and he who would be wise naturally puts himself in the way of learning the best lessons possible, in the best possible schools.

The French author gives us the history of the Pre-Raphaelite movement once more: how it was backed up by Mr. Ruskin, and run down by Charles Dickens, as "mean, odious, repulsive and repelling." One can only say, Poor Dickens! M. de la Sizeranne's last words are "Let us admire them (the English painters, who are 'charming'), but do not let us follow them," apparently because they paint a moral — they are not purely art for Art's sake. But cannot this be said of all the modern impressionists? Is not their method frequently the pure preaching of a sermon on morals?

One opinion of the French author, that the Pre-Raphaelites were the first painters who insisted upon everything being studied from nature, and all pictures representing outdoor effects painted out of doors, should be noted, as we frequently find it stated in print that this reform was introduced by the impressionists, the naturalists and the realists. As a matter-of-fact, it was the basis of the revival of the Pre-Raphaelite painters before the latter schools were born.

"*London Impressions*," being illustrations to George Meredith's "Nature Poems," by William Hyde. These black-and-white sketches are simply charming to all those who can see poetry in London, or any other, smoke. The reaches of the Thames, the distant views of St. Paul's, the exquisitely tender grays of our smoke-begrimed skies prove Mr. Hyde to be a poet — perhaps, to some of us, a pleasanter one than he whose poems are illustrated. But then we can follow the one, and it is only given to the elect few to comprehend Mr. George Meredith.

"*The Royal Academy, its Uses and Abuses*," by W. J. Laidley (Simpkin & Marshall). Can anything new be said about the English Royal Academy? Who that writes upon art subjects has not sighed for reforms and moreover given a list of the pressing ones? Why, for instance, should every one be allowed to send in eight works to the exhibition, thus multiplying fourfold the weariness of looking through a crowd of pictures? Why not limit the Royal Academicians to two and the outsiders to one work? — better would it be, of course, to put it the other way round; but that would be hopeless to suggest. And then, again, why muddle a pupil by turning on a different master every month? If any one wants to be posted up in all things appertaining to the Royal Academy and its more or less wicked ways Mr. Laidley's book will be a good guide at a very small cost.

"*The Bayeux Tapestry*": a History and Description by Frank Rede Fowke (G. Bell & Sons). This book is illustrated by a method of photographic reproduction invented by Count Ostrorog, which seems perfect in its results, as far as one can see, without being an expert.

"*Memorials of Beverley Minster*," by A. F. Leech, M. A. F. S. A. (published for the Surtus Society). This learned work treats the architectural side of the subject somewhat briefly, but the historical and archaeological with great minuteness. Beverley is one of the most beautiful of English churches, and from having been founded as a college of priests has now been made the cathedral of a new see. As elsewhere in former times, Beverley, being a college, was a centre of civilization and learning, but it was not always "free" to all comers, the free list generally being confined to choristers. In 1447 the head master rode "with two horses" to meet King Henry VI on his coming to Beverley, and advanced £10 towards the present of £85 given to the King, thereby showing the importance of the school over which he presided.

ILLUSTRATIONS.

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

CHURCH OF ST. MARY THE VIRGIN, FORTY-SIXTH STREET, NEW YORK, N. Y. MESSRS. N. LE BRUN & SONS, ARCHITECTS, NEW YORK, N. Y.

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

OFFICE FOR DR. H. M. SPENCER, ST. LOUIS, MO. MR. J. L. WEES, ARCHITECT, ST. LOUIS, MO.

A COMPETITIVE DESIGN FOR HIGH-SCHOOL BUILDING, WILMINGTON, DEL. MR. H. A. CAMPBELL, ARCHITECT, WASHINGTON, D. C.

"THE SALISBURY," BROOKLYN, N. Y. MESSRS. J. G. GLOVER AND H. C. CARREL, ASSOCIATED ARCHITECTS, BROOKLYN, N. Y.

BRASILIENISCHE BANK FÜR DEUTSCHLAND, SAO PAULO, BRAZIL.
MESSRS. WILLIAM KRUG & SON, ARCHITECTS, SAO PAULO,
BRAZIL.

DIMENSIONS are 10.50 metres by 35 metres and height 20 metres to top of ornament (over figure).

The front is entirely of granite, mostly of an exceedingly hard variety. The floors are made of native hard woods on steel-girder construction. Ground-floor is of Venetian mosaic; the counters and divisions, in same style as façade, of solid rosewood; the ceilings are in caissons of native hard woods and polished. Main staircase is of Carrara marble with ornamental wrought-iron rampe, enclosure ending in newel-post, or, rather, column of black-and-white veined Sorocabá marble, with green-and-white veined cap of Piragibér opicalcite, both of which qualities of stone we are the first to use, if we are not mistaken, for architectural purposes. The wrought-iron eagle standard-bearers over doorway were executed by Ed. Puls of Berlin. All other wrought-iron work we had made by Italian workmen here in the city. We had to go daily to the stone-yard and either make the clay models or draw on the stone in charcoal the ornament, as the stone-cutters had no idea of what was intended. They became however very much interested as we got along, and in some of the upper work in the gallery the older man of the two stone-cutters cutting the ornament gave decided proof of his ability. The figure of Mercury was modelled from a young boy-carrier of eighteen years of age from the yard, and cut by the same two men who cut the ornament. The figure is in five pieces clamped and cemented together on the back, otherwise we could never have got it up 66 feet in the front with the poor means at our disposal.

"We contracted and built the bank in one year, for about thirty thousand dollars American money."

HOUSE FOR FRANK LORD, ESQ., UPPER MONTCLAIR, N. J. MESSRS. HAFGOOD & HAFGOOD, ARCHITECTS, HARTFORD, CONN.

The general layout of the plan is accounted for by the slope of the lot being steep, and by the view from the rear being unusually attractive.

The shingles are to be stained two slightly varying tones of terracotta laid haphazard. The trim and the timber-work will be painted ivory, the blinds and all trim below water-table medium olive, and the plaster tinted with buff mortar-stain worked into the last coat.

The inside trim is cypress, natural color. The plastered walls are rough floated, and then tinted or painted in solid colors.

MANTELPIECE FROM THE PALACE OF BROMLEY-BY-BOW, LONDON, ENG., NOW IN SOUTH KENSINGTON MUSEUM.

SEE "London Letter" elsewhere in this issue.

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

THE CROWN HOTEL, LYNDHURST, NEW FOREST, ENG. MESSRS. W. H. MITCHELL, SON & GUTTERIDGE, ARCHITECTS.

This plate is copied from the *British Architect*.

[Additional Illustrations in the International Edition.]

THE DOORWAY: ST. MARY THE VIRGIN, FORTY-SIXTH STREET, NEW YORK, N. Y. MESSRS. N. LE BRUN & SONS, ARCHITECTS, NEW YORK, N. Y.

[Gelatine Print.]

ENTRANCE TO THE CASERNE DES CÉLESTINS, PARIS, FRANCE. M. J. HERMAUT, ARCHITECT.

This plate is copied from *La Construction Moderne*.

LE CASTEL BERANGER, PARIS, FRANCE. M. HECTOR GUIMARD, ARCHITECT.

THESE illustrations are copied from *Revue des Arts Décoratifs*.

NATIONAL MUSEUM, ZURICH, SWITZERLAND. HERR GUSTAV GULL, ARCHITECT.

THESE illustrations are copied from *Sweizerische Bauzeitung*.

THE Scotsman BUILDING, EDINBURGH, SCOTLAND. MESSRS. DUNN & FINDLAY, ARCHITECTS.

This plate is copied from *Building News*.

FRONT VIEW: "RED BRANCH HOUSE," WIMBLEDON, ENG. MR. WALTER E. HEWITT, ARCHITECT.

REAR VIEW OF THE SAME.

THE GALLERY: CREWE HALL, CREWE, ENG.

COMMUNICATIONS

[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.]

THE COMMISSION ON MANTELPIECES, ETC.

ST. LOUIS, MO., March 11, 1899.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—In your answer to Mr. Walter B. Hill's question of commission (issue of February 18th) I notice you give an opinion as to the right of an architect to charge a commission for mantels and electric-light fixtures, which he admits he had nothing to do with, and states that they were installed after the building had been completed. This question has been referred to me on several occasions by owners and I have always given an opinion contrary to the one you set forth and as laid down by the American Institute of Architects.

To expect pay for something which the architect has had nothing to do with does not strike a business man as being correct and usually leads to a misunderstanding. I maintain that an architect is entitled to pay for only such things as he has planned, specified, purchased, or given advice upon, in other words, only for actual services, whether it be in the nature of drawing, superintending, consultation or advice. If the owner chooses to put in an ice-box, for which the architect has planned a space and drain, or a water-cooler, a niche for a piece of furniture, or a great many other things I might name, which are just as essential to the completeness of the building for occupancy as mantels and light fixture, then (according to the schedule you quote and answer you give in view of the question) the architect is entitled to a commission. No, I think this rule (?) should be modified to cover only such matters as the architect has actually given service on.

Yours very truly, W. L.

[As the "schedule" of the American Institute of Architects is merely recommendatory there is no reason why our correspondent and others who feel as he does should not disregard its suggestions and run counter to the "custom of the trade." The percentage system is only an accepted means of securing to the practitioner what decades of experience in many countries has proved to be merely a fair income from the capital invested in the education and skill that justifies him in practicing his art. Unless the tax is levied upon the completed whole, why may not the line of exception be drawn in one place as well as another? Why may not a client go into the market and himself buy all his raw material and then demand that the sum so expended shall be exempted from the architect's tax? In this way a client could claim that he should be expected to pay only for the "picture" his architect makes. We wonder how much our correspondent would charge for his "picture" in such a case.—EDS. AMERICAN ARCHITECT.

NOTES & CLIPPINGS

MAHOGANY AND VENEERS.—The large exports of electrical and other machinery to South America have been the means of fostering an import trade in mahogany wood that affects the furniture and cabinet business in all parts of the country. Most of the steamers that return from the South stop at Nicaragua and the United States of Colombia to load up with mahogany and cedar—two woods that are in constant demand in this country. Last year over 6,000,000 feet of mahogany logs were brought to this port, and the coming year the imports will probably run much higher. Our increased trade with the South American countries must naturally stimulate these imports, for the rare hard woods of the tropical forests do not enter into competition with any native product. Their use is extending into many new fields and uses never before dreamed of. The perfection of the veneering machinery by which very thin slices of the wood can be cut off at half the former prices enables cabinet and furniture manufacturers to turn out loads of mahogany articles. These furniture articles are what the trade calls "built-up" furniture; that is, they have a core of white pine or other cheap wood, and the surface is then veneered with thin layers of mahogany. Before the veneering machinery was invented all veneers were handsawed, and they cost considerable; but to-day 75 per cent of the veneers are cut or sliced by huge knives. The sawed veneers are much better than the cut, and they last longer, but for the cheaper trade the cut answers all purposes. The slicer, as the veneer-cutting machine is called, is a costly machine, but it performs its work with wonderful effects. A large mahogany log is put into the powerful grip of the slicer, and as it moves against a rigid knife, which is 17 feet long, the veneer is cut off as evenly as a shaving is sliced from a block of wood by a plane. The whole log is thus sliced up into veneers one-thirtieth of an inch thick. Thus one log may yield several hundred veneers. Sawed veneers are more expensive, because not more than ten to fifteen can be cut from an inch of wood. The rest of the wood is lost in sawdust, while in the cut veneers there is no waste at all. The relative cheapness of mahogany logs is also making revolutions in furniture manufacturing. The sailing-vessels and steamers engaged in the trade are more numerous than ever before, and each steamer may bring 700,000 feet of mahogany logs to New York, and the sailing-vessels from 200,000 to 300,000 feet. The mahogany forests of South America are not being ruthlessly destroyed, as are many of our American woods. In Central America, where the forests are controlled by Americans, two trees are planted for every

one cut. This wise policy ensures a permanency of supply that practically makes the wood inexhaustible. The trees cut for this mahogany trade average 25 inches in diameter, with some running as large as 40 inches. They vary in age from twenty-five to seventy-five years. In twenty-five years, it is estimated by those controlling the forests, a mahogany-tree will attain a good commercial age, when it can be cut with profit to those planting it. As most of the logs are used for veneering purposes, their size does not count as much as it does with many of our native woods. — *N. Y. Times.*

LYNN'S FLOATING BRIDGE. — The City of Lynn will have to expend about \$800 next summer in replanking the floating bridge on Glenmere Pond. A new set of 3-inch planks is required every third year on the structure, as the timbers of which it is composed decay quickly on the water side. Few people of the hundreds who cross the bridge daily have any idea of its great thickness, which has been proved by recent soundings to be as much as 17 feet in some places. Although so much thicker and heavier than when first built, it seems to have lost none of its flexibility, and always adapts itself instantly to any changes in the level of the water. Floating Bridge is one of the curiosities of Lynn, and is claimed to be the only structure of its kind in the world. In 1808 a bridge of somewhat similar design was built across the upper end of Lake Quinsigamond in Worcester, but it was constructed simply of two tiers of logs, covered with planks, and was never satisfactory. The Lynn bridge, on the other hand, has been in constant use for nearly a century, and is stronger now than ever, as the wood does not rot under water, and the pine logs which form the foundation are as firm as on the day when they were hewed and put together. Capt. Moses Brown was the originator of the idea of thus bridging Collins Pond, as it was then called. In March, 1802, a charter was granted to the Salem Turnpike & Chelsea Bridge Corporation, and the bridge was completed in 1804, at a cost of \$55,409. A diver has investigated the foundations of the structure, and has found that the original bridge was made of five layers of pine laid at right angles to each other, the first two layers of pine logs hewn on one side, and the upper three of hewn timber 1-foot square, the whole secured together by 3-inch dowels, and covered with planking 5 1/2 feet thick. The bridge is 511 feet long, 28 feet wide, and the pond which it crosses is about seventeen acres in area, and about sixty-four feet above the sea-level. The bed of the pond appears to be a bed of quicksand, and it would be very difficult to build a road around the pond without making a very long detour, owing to the boggy nature of the soil. The bridge is kept from tipping over by being moored at the ends, embedded in long trenches dug in the shores of the pond at the approaches. — *Boston Transcript.*

THE WALKING-DELEGATE. — There is probably no officer more misunderstood and maligned by outsiders than the walking-delegate of a labor organization. We are glad, says the *Independent*, to commend the following extract from an article in the current number of the *American Journal of Sociology*, by Miss Jane Addams, of Hull House, Chicago: "We hear contemptuous references to the walking-delegate and agitator, without stopping to ask ourselves why the workman is not entitled to his advocate, paid to represent his legal and industrial rights, quite as much as the manager of the corporation is entitled to his lawyer. We ignorantly allow ourselves to believe that a walking-delegate may declare a strike at his own pleasure, without taking the pains to discover that the organization of a trades-union is so democratic that no man, even in exceptional crises, can set aside the constitution of the union. Indeed, the walking-delegate is almost the only professional man whose fees are set by those employing him. He is paid the standard wage received in his trade, and no more, and holds office subject to a vote of his union, which may fail to reelect him at any annual meeting. In case of his failure of reelection his chances for obtaining work at his trade are much lessened by the fact that he has held this office. At any moment in his career he is far from possessing that plenitude of power with which the popular mind has clothed him. In spite of all these facts the community continues to dogmatize concerning the dictatorial action of the walking-delegate, whose every executive act has been authorized by his constituency. An ignorant person might easily consider a peace commissioner sent by the United States to Paris as a raging dictator. That is quite possible if one looks at his outside acts alone, but we are accustomed to consider a minister plenipotentiary in relation to Government, and do not misunderstand his power, but we are slower to realize that it is only as a commissioner that the business agent of the union orders strikes and arranges terms of settlement."

TALL vs. SHORT FACTORY CHIMNEYS. — The days of the tall, smoke-belching factory chimneys are numbered, according to a writer in the *Iron Trade Review*. Instead, there are to be short stacks and blowers. For illustration, the experience of a Boston manufacturing firm is related. Changes in the arrangement of the works necessitated the removal of the boiler-plant, but it was out of the question to take the chimney along. In its stead a fan-blower was installed on top of the boilers, and provided with a special engine to drive it at just the speed required. It is automatically regulated so that less than one pound drop in steam pressure greatly increases the draught, starts up the fire, and brings the pressure back to where it belongs. The fan works by suction, draws the gases from the boiler-flue and forces them out through a short stack extending only 31 feet above the boiler-room floor. The draught which may be produced is two or three times stronger than that of the chimney which has been discarded, and is just as strong in all kinds of weather, while the cost of the entire mechanical-draught equipment, including the stack, has been less than one-half of that of a new chimney. Because of the stronger draught much cheaper fuel is burned, the saving being about \$1,000 a year. It is possible with mechanical draught to use smaller boilers and still produce the required amount of steam. — *N. Y. Evening Post.*

A NEW WAY TO THAW WATER-PIPES. — Prof. R. W. Wood, instructor in physics in the University of Wisconsin, has originated the idea of thawing out frozen water-pipes with electricity, and made two successful experiments. In view of the fact that water-pipes in a number of cities of the Northwest are frozen at this time, his discovery, which is simple and inexpensive, is of great importance. He takes the electric current used for street-lighting purposes, attaches one wire to the frozen pipe inside the cellar of one house, and the other wire to a similar pipe in the adjoining or any other house, thus completing the circuit. A current of about fifty volts is then turned on, heating the pipes and melting the ice within. Professor Wood's plan has been successfully worked at the residences of former Senator W. F. Vilas and Alderman C. N. Brown. At the Vilas home 150 feet of frozen lead pipe was thawed out in eighteen minutes. Professor Wood uses a "transformer" to reduce the voltage, so that the current will not melt the pipes. There are over four hundred frozen pipes in Madison, and the work of thawing them out with electricity will begin in earnest to-day. The discovery will obviate the necessity for excavating, which has always heretofore been the expensive feature. — *Madison (Wis.) Evening Wisconsin.*

THE EXCAVATION OF BABYLON. — German savants are busy with plans for the excavation of Babylon. It was Layard, the discoverer of Nineveh, who really first did anything in the way of excavating. Then followed Sir Henry Rawlinson, in the footsteps of a French mission. All this, say the Germans, was done in a very half-hearted way, and they are determined that their work shall be thorough. It will be a very costly work, and it is estimated that it cannot be completed in less than five years. It is to be carried out by the Orient Society, jointly with the directors of the Royal German Museums, and the funds for the commencement of the work will be found by the Orient Society and supplemented by a grant out of the public money voted by the State for such purposes. The leader of the expedition is Dr. Robert Koldewey, who has already had much experience in such work, and Dr. Meissner is also attached to the party. They will start from Beyroot, going from there to Aleppo, whence they will travel by caravan to Bagdad. There the German consul, a man of wide experience, will give them advice as to the best course to pursue. Babylon itself is two days' journey from Bagdad, and consists of rough hillocks scattered on the banks of the Euphrates, under which lie the ruins of the great city. The excavators will begin with El Kasr, the fortress, which is the remains of Nebuchadnezzar's palace, and where Alexander died. Besides this, they will also investigate a number of other ruins situated near. — *London Sketch.*

EXPERIMENTS IN PICTURE-CLEANING. — If there is any subject in which the average picture-collector is interested it is that of the proper cleaning of pictures. Professor Church, to whom has been entrusted the cleaning of the pictures in the Houses of Parliament in London, has invented a novel and curious apparatus for the purpose. In the London atmosphere pictures are attacked by fog, soot, sulphuric acid and other products of coal combustion, which reach even pictures that are under glass. Professor Church's treatment is to blow upon the spoiled picture a perfect cloud of bread-crumbs. Two crumbed-up quatern loaves are put into his machine, which is run by compressed air, and which discharges the crumbs through a tube upon any part of the picture. This is no doubt an effective way of removing soot and dirt; but it is obvious that if the treatment be continued too long it may remove some of the painting also. The trials so far made, however, seem to have been satisfactory. In obstinate cases, the picture is also washed with distilled water and "flicked with silk handkerchiefs containing pads of cotton wool." In some cases it has been found necessary to "restore" parts of the paintings, and it is interesting to note that parchment-size, size colors, a solution of paraffine wax in benzol, and pigments mixed with the yolk of egg have been used for this purpose. It is possible that some of the Westminster pictures may serve a more useful purpose as the subjects of Professor Church's experiments than in any other way. — *Art Amateur.*

THE SCULPTURE ON THE NEW YORK APPELLATE COURT-BUILDING. — The designs for the decorations and sculptured embellishment of the Appellate Court-building, now nearing completion at Twenty-fifth Street and Madison Square, East, by James Brown Lord, have been shown recently to some of Mr. Lord's friends. The sculptors and mural painters who have been engaged to do the work are now busily employed at it. The building is a quiet, dignified mass, emphasized in certain parts by sculptural enrichment. The strong feature of the main facade is an imposing portico approached by a flight of steps. On each side, at the summit of these steps, is to be a seated statue, one of "Force" and the other of "Wisdom." These are to be done by F. Wellington Ruckstuhl. In the pediment over the portico is to be an allegorical representation, executed by Charles H. Niehaus, of "Law Triumphant over Anarchy." This is to be 9 feet high and 43 feet long. The short end of the building fronting on the square is to have four caryatides supporting the top cornice. Thomas Shields Clarke is to be entrusted with this portion of the work. Above the cornice in the centre Carl Bitter is to place a pyramidal group entitled "Peace." Over the main entrance there is to be a group embodying "Justice," of which Daniel C. French is to be the sculptor. Each group will be 12 feet in height. The rest of the sky-line is to be broken at intervals by statues, the individual characteristics of which will count for little, their value being merely architectural. The sculptors who have the designing of these ten figures are Herbert Adams, E. C. Potter, J. Scott Hartley, George E. Bissell, H. K. Bush-Brown, John Donoghue, Augustus Lukeman, Charles A. Lopez, Philip Martigny, and William Cowper. H. M. Schwartzott will fill in the small pediments over the windows of the *bel étage* with reliefs, representing the "Hours." — *N. Y. Times.*

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY
CHICAGO, ILL., U.S.A.

Published by the
AMERICAN MEDICAL ASSOCIATION
535 North Dearborn Street
Chicago, Ill., U.S.A.

Subscription price, Five Dollars Per Annum
In Advance

Single Copies, Fifteen Cents

Entered as Second-Class Matter, May 2, 1912
Postoffice at Chicago, Ill., under No. 100,000
Acceptance for mailing at special rate of postage provided for in
Act of October 3, 1917, authorized on July 10, 1918

Postpaid

Copyright, 1918, by American Medical Association

Printed at the
The American Medical Association
535 North Dearborn Street
Chicago, Ill., U.S.A.

Volume 17, No. 1, January 1, 1918

Published by the
AMERICAN MEDICAL ASSOCIATION
535 North Dearborn Street
Chicago, Ill., U.S.A.

Subscription price, Five Dollars Per Annum
In Advance

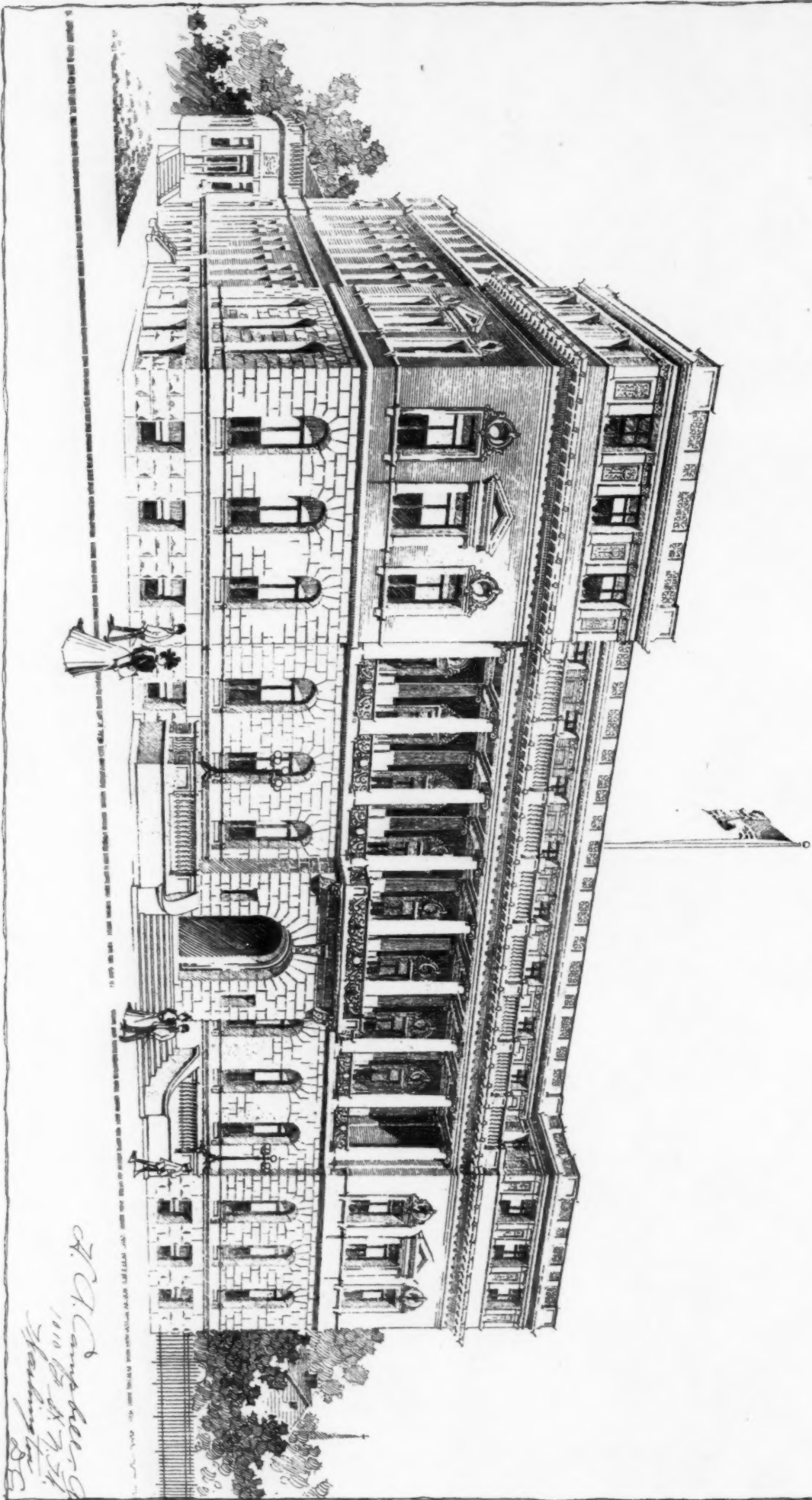
Single Copies, Fifteen Cents

Entered as Second-Class Matter, May 2, 1912
Postoffice at Chicago, Ill., under No. 100,000
Acceptance for mailing at special rate of postage provided for in
Act of October 3, 1917, authorized on July 10, 1918

Postpaid

Copyright, 1918, by American Medical Association

DESIGN FOR HIGH SCHOOL BUILDING
WILMINGTON DEL.

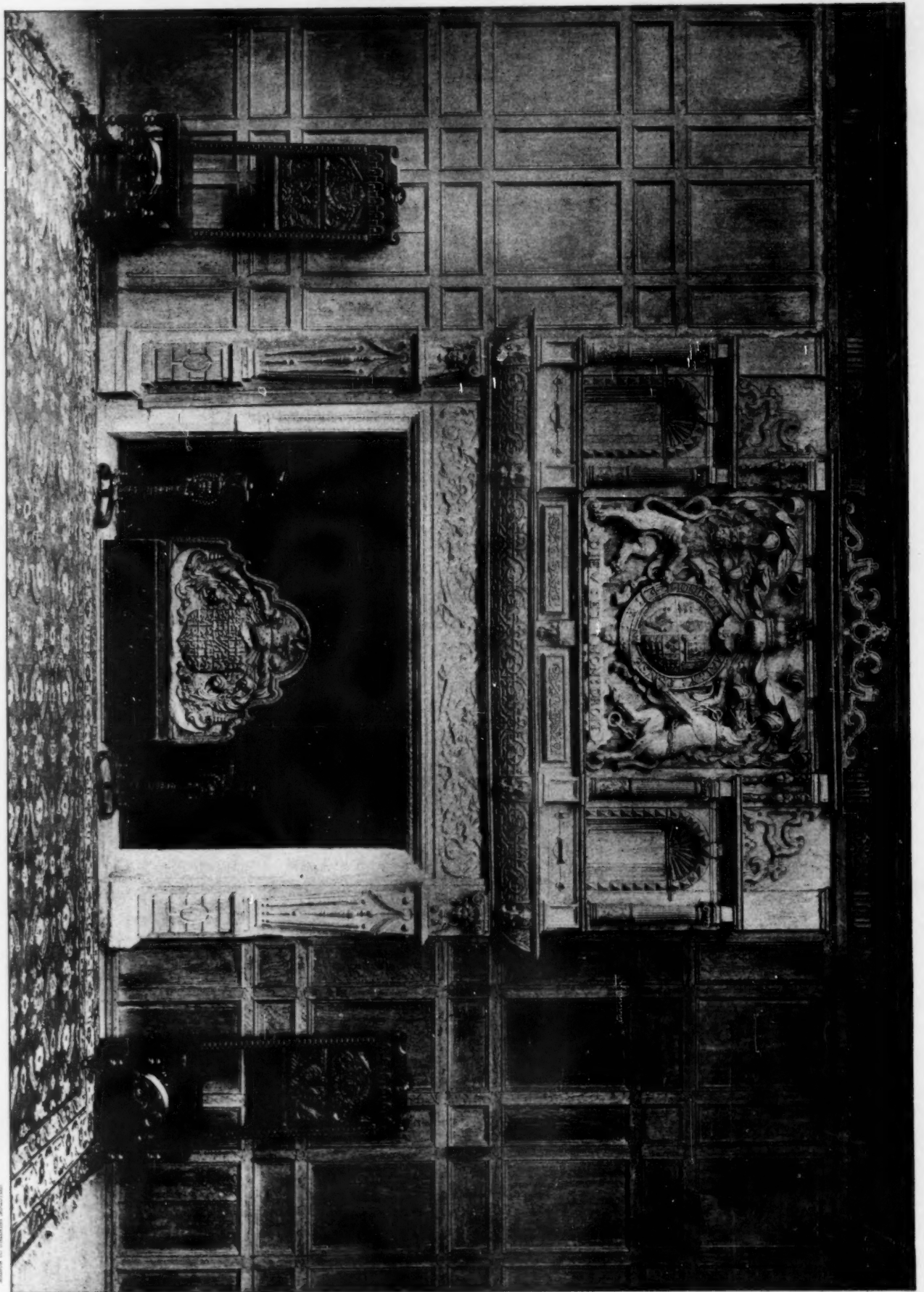


THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
PUBLISHED WEEKLY

CHICAGO, ILL., MAY 1, 1914

CONTENTS

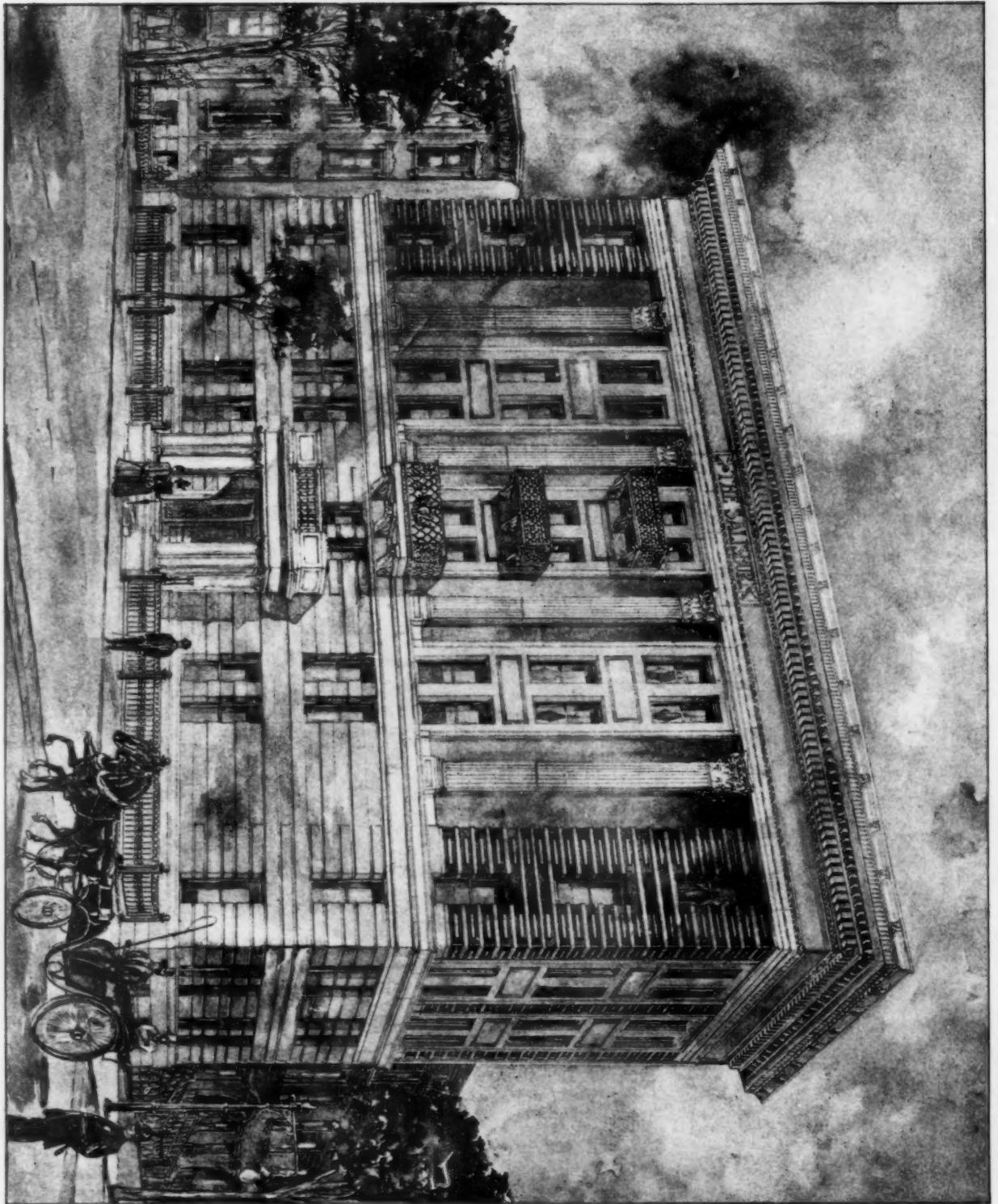
Original Articles	1
Editorial	1
Book Reviews	1
Correspondence	1
Obituary	1
News and Notes	1
Announcements	1
Advertisements	1



OAK AND STONE MANTELPIECE FROM THE OLD PALACE, BROMLEY-BY-BOW, LONDON, 1606.
NOW IN SOUTH KENSINGTON MUSEUM.

THE NEW YORK PUBLIC LIBRARY ASTOR LENOX TILDEN FOUNDATION





"THE SALISBURY," BROOKLYN, N. Y.

J. G. GLOVER AND H. C. CARREL, ASSOCIATE ARCHITECTS.

COPYRIGHT 1899 BY THE AMERICAN ARCHITECT AND BUILDING NEWS CO.



BRASILIANISCHE BANK FÜR DEUTSCHLAND, SÃO PAULO, BRAZIL.

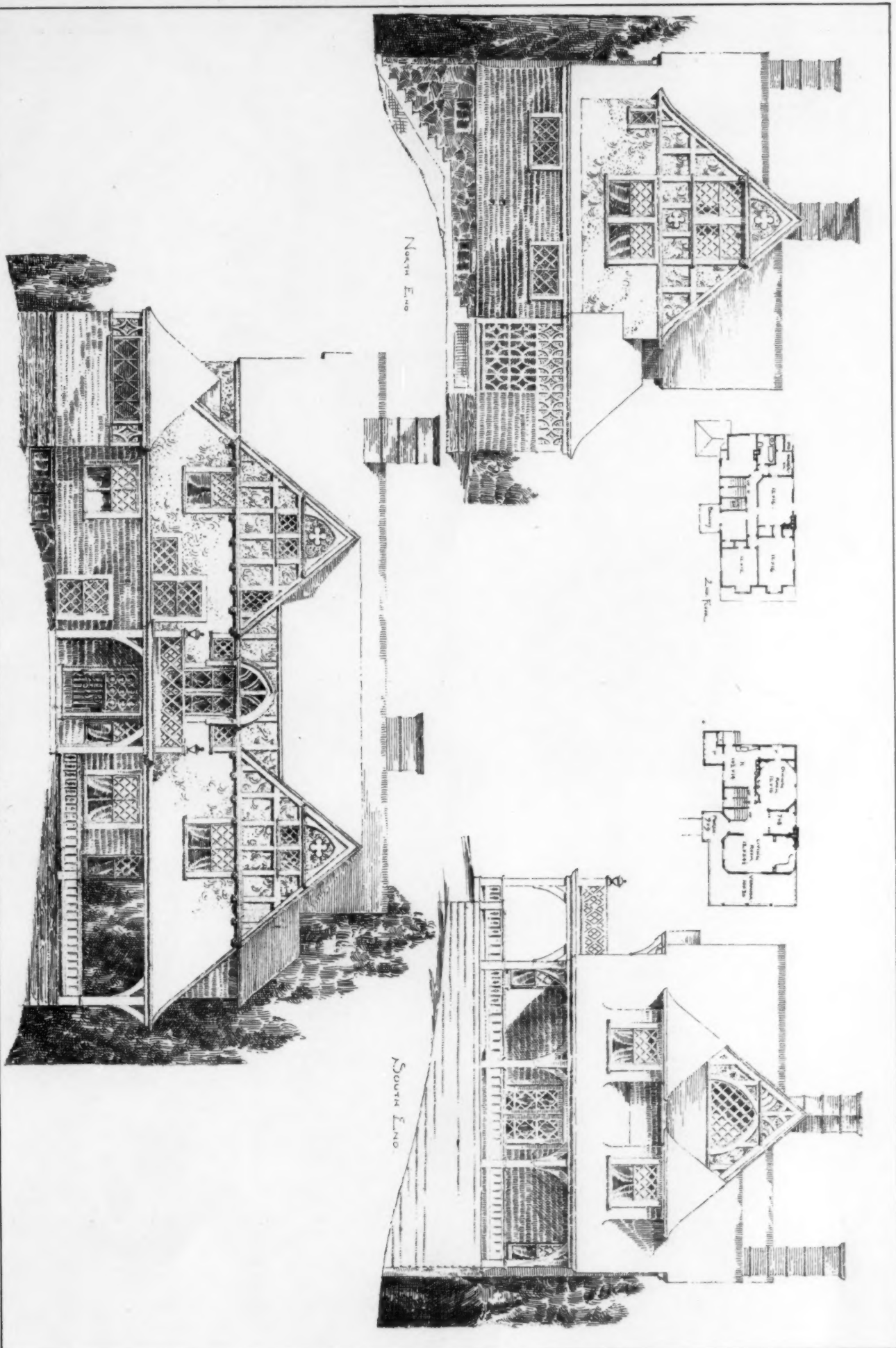
W. KRUG & SON, ARCHITECTS.

REPRODUCED BY THE AMERICAN ARCHITECT AND BUILDING NEWS CO.

Geological Survey of the United States
Washington, D.C. 20540



COPYRIGHT 1899 BY THE AMERICAN ARCHITECT AND BUILDING NEWS CO.



A HILLSIDE HOUSE FOR FRANK LORD, ESQ., UPPER MONTCLAIR, N. J.

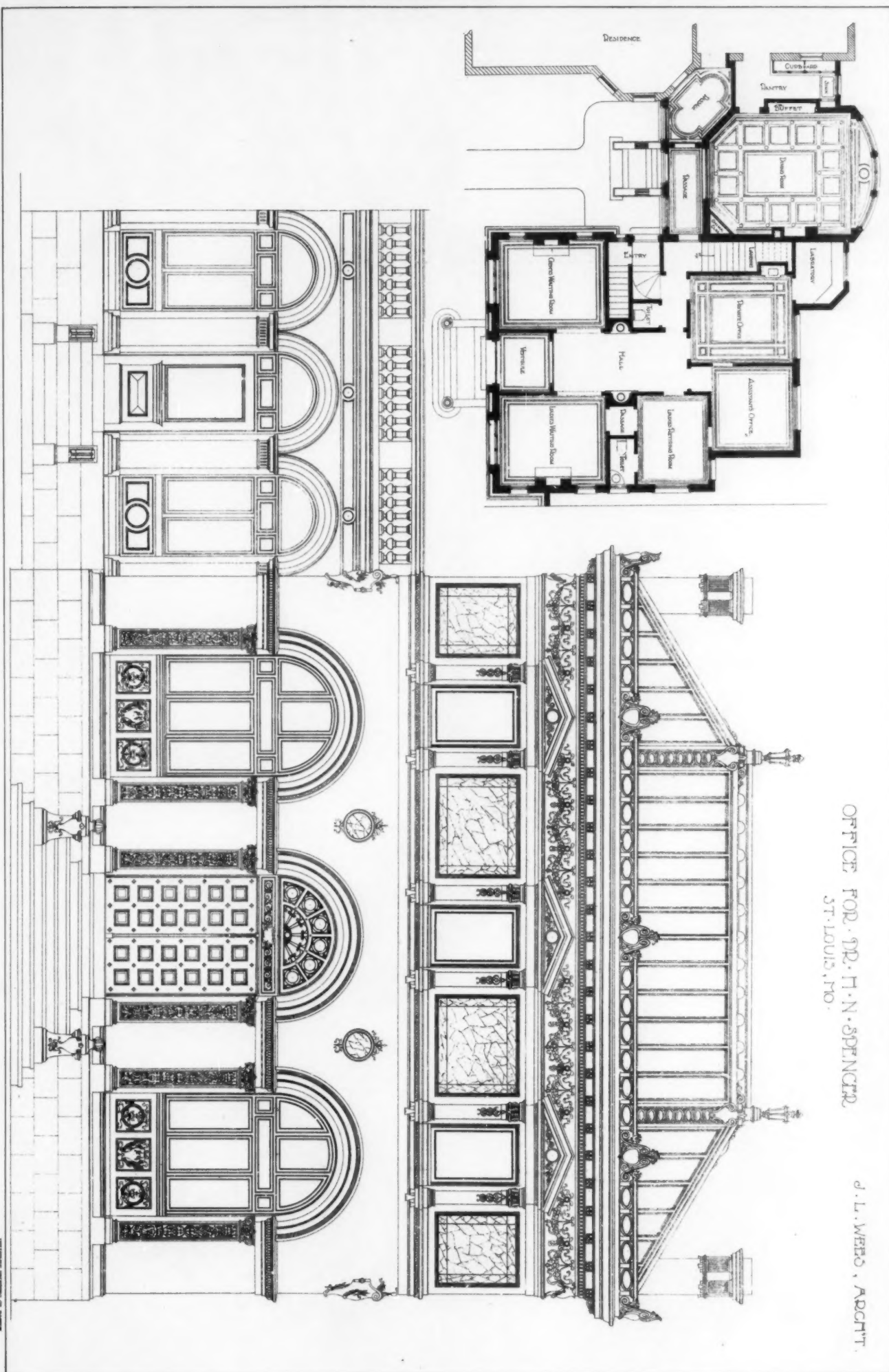
HARGOOD & HARGOOD, ARCHITECTS.

ILLUSTRATED BY THE AMERICAN ARCHITECT AND BUILDING NEWS CO.

Journal of the United States Fish Commission

Volume 1, Part 1, No. 1, 1882





THE HISTORY OF THE CITY OF BOSTON

FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
BY
JOHN HUTCHINGS
OF THE CITY OF BOSTON
IN TWO VOLUMES
VOL. I.
BOSTON: PUBLISHED BY
J. B. LEECH, 1857.

THE AMERICAN ARCHITECT AND BUILDING NEWS

A WEEKLY JOURNAL OF CONSTRUCTIVE AND DECORATIVE ART.

Vol. LXIII. — No. 1213.]

SATURDAY, MARCH 25, 1899.

PRICE, { REGULAR ISSUE, 15 CENTS.
IMPERIAL " 25 "

ARCHITECTURAL INSTRUCTION.

HARVARD UNIVERSITY.

LAWRENCE SCIENTIFIC SCHOOL.

ENGINEERING,
ARCHITECTURE, Etc., Etc.

For Descriptive Pamphlet apply to

M. CHAMBERLAIN, Secretary,
N. S. SHALER, Dean. Cambridge, Mass.

BOSTON, MASS.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

DEPARTMENT OF ARCHITECTURE.
Professor: F. W. Chandler.

BROOKLYN, N. Y.

PRATT INSTITUTE.

W. S. Perry.

CAMBRIDGE, MASS.

HARVARD UNIVERSITY.

LAWRENCE SCIENTIFIC SCHOOL.
Professor H. Langford Warren.

CHAMPAIGN, ILL.

UNIVERSITY OF ILLINOIS.

SCHOOL OF ARCHITECTURE.
Professor: N. Clifford Rieker.

ITHACA, N. Y.

CORNELL UNIVERSITY.

DEPARTMENT OF ARCHITECTURE.
Professor: Charles Babcock.

CHICAGO, ILL.

ART INSTITUTE.

SCHOOL OF ARCHITECTURE.
Louis J. Millet.

LA FAYETTE IND.

PURDUE UNIVERSITY.

ARCHITECTURAL DEPARTMENT.
Professor: Fred. Morley.

NEW ORLEANS, LA.

TULANE UNIVERSITY.

Professor: Wm. Woodward.

PROVIDENCE, R. I.

BROWN UNIVERSITY.

DEPARTMENT OF ARCHITECTURE.
N. M. Isham.

PHILADELPHIA, PA.

UNIVERSITY OF PENNSYLVANIA.

SCHOOL OF ARCHITECTURE.
Professor: Warren P. Laird.

SOUTH BETHLEHEM, PA.

LEHIGH UNIVERSITY.

WHITTIER MACHINE CO.,

PASSENGER AND FREIGHT
ELEVATORS.

53 STATE STREET - - - BOSTON.

LOOMIS FILTERS.

IMPROVED SYSTEM.

RESULTS GUARANTEED.

Main Office, 402 Chestnut St., PHILADELPHIA.

NEW YORK OFFICE,
33 Church St., Havemeyer Building.

NOW COMPLETE:

THE ARCHITECTURE OF

CLASSICAL ANTIQUITY

and the

RENAISSANCE,

By I. BUEHLMANN.

Seventy-five steel engravings and photo-lithographic plates in portfolio, with descriptive text translated by G. A. Greene, \$18.

The work is divided in three parts, which can be bought separate.

Part I. The Orders of Columns (Vignola)
28 plates with text, \$6.50.

Part II. Facades, Arches, Doors and
Windows, 25 plates with text,
\$6.

Part III. Development and Decoration of
Rooms, \$7.50.

To purchasers of two of the three parts the remaining part will be sold at a reduced figure, so that the total amount for the three parts will not exceed \$18—the price of the complete work—if purchased at once.

American Architect and Building News Co.

MAITLAND ARMSTRONG & CO.,

STAINED GLASS & DECORATIVE WORK.

Interior Decorations and work in American Mosaic Glass from the designs of Mr. Armstrong. English Painted Glass from the designs of Messrs. Clayton & Bell.

Sole Agents for

CLAYTON & BELL, GLASS STAINERS, LONDON
61 Washington Square, South New York, N. Y.

FLYNT

BUILDING AND CONSTRUCTION CO.

GENERAL OFFICE, PALMER, MASS.

We contract to perform all labor and furnish all material of the different classes required to build complete

CHURCHES, HOTELS, MILLS, PUBLIC
BUILDINGS AND RESIDENCES.

Also for the construction of
RAILROADS, DAMS AND BRIDGES.

We solicit correspondence with those wishing to place the construction of any proposed new work under one contract, which shall include all branches connected with the work. To such parties we will furnish satisfactory references from those for whom we have performed similar work.



PUBLISHED JANUARY 28,

PART III.

"GEORGIAN PERIOD"

Containing Eight Gelatine Plates and Twenty-four Plates of Measured Drawings of Colonial Work.

PRICE \$8.00.

Subscribers to AMERICAN ARCHITECT who have settled for their current subscription can procure this part for \$1.50.

THE WINSLOW BROS. CO.,

CHICAGO,

Ornamental Iron and Bronze.



ROBERT C. FISHER & CO.

Successors to Fisher & Bird,

MARBLE AND GRANITE WORKS,

97, 99, 101 and 103 EAST HOUSTON STREET,
Established 1830. NEW YORK.

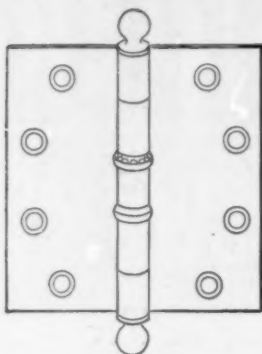
A WHITE DRAWING-ROOM

Must be finished with the very best enamel you can get. For a very white room specify **Whitest Interior Enamel**. We recommend this as the whitest, most elastic and durable interior enamel possible. It is free working, dries with a full and brilliant lustre, and can be rubbed to a dead finish in three or four days. It will dry free from injury from dust in three or four hours. Where absolute whiteness is not needed, call for **White Interior Enamel**.

Varnishes for all purposes. Booklet on request.

EDWARD SMITH & CO., Varnish Makers and Color Grinders, 45 Broadway, New York.

STANLEY'S BALL-BEARING BUTTS



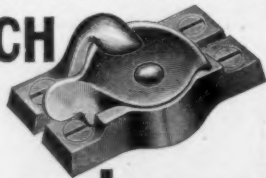
are heavily electro-plated and highly polished, and compare favorably in appearance and durability with solid metal butts.

It is impossible to wear them down, and they never creak.

Samples and literature free to architects.

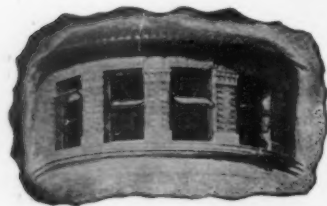
THE STANLEY WORKS, Dept. "C."
NEW BRITAIN, CONN.
79 CHAMBERS ST., N. Y.

FITCH



SASH LOCKS LOCK THE WINDOW.

RATTLE, GILD AND DUST OUT
SIMPLE, DURABLE, SAFE.
SOLD BY HARDWARE DEALERS EVERYWHERE
TRIAL SAMPLE FREE
THE W. & E. T. FITCH CO. NEW HAVEN, CONN.



THE "BOLLES"

THE MODERN SAFETY SASH.
Slide Easier,
Revolve Completely and Separately,
Ventilate to Perfection,
Simple and Practicable.

150 Nassau Street, New York City.

FOR INFORMATION ABOUT

U. S. MAIL CHUTES

WHICH ARE

A necessity in Office Buildings and Hotels,
write to the sole makers.

THE CUTLER MFG. CO., ROCHESTER, N. Y.
PATENTED. AUTHORIZED.



"MONARCH" IS THE BEST. SASH CHAIN

Write for prices and particulars.
Orders filled promptly.

The Bridgeport Chain Co.,
BRIDGEPORT, CONN.

CLINTON WIRE-CLOTH

Sole Proprietors and Manufacturers of

WIRE LATH DOUBLE TWIST WARP STIFFENED (Iron Furred) CLINTON CORRUGAT'D

Plain, Japanned or Galvanized.

The Most Perfect and Economic System of FIREPROOF Construction.

SEND FOR CIRCULAR.

BOSTON, NEW YORK, CHICAGO, FACTORY,
199 Washington St. 76 Beekman St. 137 Lake St. CLINTON, MASS.

HIGH GRADE

OAK, MAPLE AND OTHER HARDWOOD FLOORING

CEILINGS, HOUSE TRIMMINGS,
MOULDINGS, THIN LUMBER, ETC.

MANUFACTURED BY THE

DWIGHT LUMBER COMPANY,

DETROIT, MICH.

SPECIALTIES: Thorough Kiln Drying and Perfect Millwork.

BUILDING MATERIALS.

Reported for the American Architect and Building News.

BUILDING MATERIALS New York. Boston. Chicago. Philadelphia.

	(Wholesale Prices.)		(Prices to Builders and Contractors.)	
STONE. (P cubic foot, rough.)				
Foundation:				
Dimension.....	5 00	5 00	20 00	5 00
Block.....	4 60	4 60	10 00	4 50
Rubble.....	1 25	1 25	9 00	1 45
Sandstone:				
Longmeadow.....	80	80		95
Kibbe.....	90	90		1 05
Brown (Connecticut).....	1 00	1 00	1 50	1 05
Amherst Ohio.....	90	90	45	85
Berea.....	75	85	45	85
Berlin.....	75	80	45	85
Belleville.....	80	25		1 00
New Brunswick (Dorchester).....	1 25	75	Not sold.	1 05
Potsdam Red.....	1 30		1 50	1 05
Caen.....				1 10
Carlisle.....	1 05			1 15
Corse Hill (Scotch).....	1 05			1 25
Granite: (Maine)				
Limestone:				
Bedford.....	45	95	20	75
Jolliet.....	1 25	1 00	40	85
Lemont.....	1 00			
Serpentine.....				
Bluestone: (P sq. ft.)				
Sidewalk.....	30	40		
Planned.....	50	75		
Marble: (P cu. ft.)				
Leo, Mass.....		1 75		2 00
Rutland, white and blue.....		3 00		2 00
Sutherland Falls.....	1 25	2 00		1 70
Glens Falls, black.....				4 00
Italian, blue-veined.....				2 50
Sienna.....				4 40
Tennessee, red.....				4 00
Knowville.....				3 00
Pennsylvania, blue.....				2 00
Vermont, white.....				2 25
Slate: Roofing (P square)				
Green.....	5 00	4 75	3 75	2 90
" unfading.....	5 00	5 50	5 25	4 25
Purple.....	5 00	5 50	5 25	4 50
Red.....	10 00	10 00	10 50	11 50
Black, Lehigh.....	4 25	4 75	4 50	4 00
" Chapmans.....			5 30	4 50
Genuine Bangor.....	4 35	4 75	5 25	4 35
Unfading black.....	6 00	6 00	4 25	6 50
".....	5 50	5 50	5 50	6 50
Tiles, Am..... P M.....				
N. Peach Bottom, war. unfading				
Fire Clay Roof Tile on cars at fac.	8 00	8 00	6 00	8 60
LUMBER.—P M.				
Boards: (Ordinary dimensions.)				
Pine, 1st quality, clear.....	65 00	55 00	50 00	47 50
" 2d quality.....	55 00	42 00	42 00	38 00
" 3d quality.....	18 00	20 00	20 00	27 50
Spruce.....	25 00	14 00	14 00	15 00
Hemlock.....	14	12 50	10 00	11 50
Yellow pine.....	20	19 00	18 00	14 00
Cypress.....		26 00	30 00	30 00
Clapboards:				
Pine.....		35 00	25 00	14 00
Spruce.....		24 00	Not sold.	Not sold.
Framing Timber:				
Pine.....	14 00	14 00	15 00	25 00
Spruce.....	12 00	12 50	10 00	15 00
Hemlock.....	18 00	20 00	16 00	14 00
Yellow pine.....				22 50
Laths:				
Pine..... Round Wood		2 00	1 90	2 75
Spruce..... Slab.....	2 25	2 00	Not sold.	2 30
Shingles:				
Pine, shaved..... P M.....	5 00		Not sold.	
".....	4 00		2 60	2 75
Spruce, shaved.....	1 50	1 50	Not sold.	
Redwood..... P 125.	1 40	3 00	4 00	8 00
Cedar split..... P M.....		6 00	Not sold.	
Cedar sawed.....		2 50	2 50	3 00
Cypress Split..... P 24	18 00	5 00		2 30

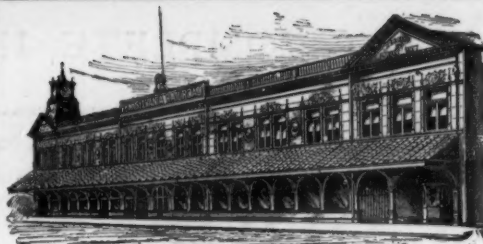
.. Merchant's ..
Combination Skylight

"STAR" VENTILATOR



The Principles of Hygiene demand Light as well as Ventilation. This device is adapted and Mechanically constructed to supply both. It is absolutely storm-proof, and allows for the greatest possible area of light for a given size.

We have the Ninth Edition of our illustrated booklet now ready, mailed free to any address upon application.



Pennsylvania R. R. Station, 23d Street, New York, where our Copper Tiles are in use.

MERCHANT'S
Metal "Spanish" Tiles

Copper, :: Terne Plates, :: Galvanized Steel.

These Tiles are endorsed by leading Architects and Engineers for first-class buildings.

ALSO "GOTHIC" SHINGLES 14" x 20" size
10" x 14" "
7" x 10" "
STORM-PROOF LOCK, EASILY LAID.

Send for illustrated book showing prominent buildings covered. Mailed free.

MERCHANT & CO., INCORPORATED,
... Sole Manufacturers ...
Philadelphia, New York, Brooklyn, Chicago.

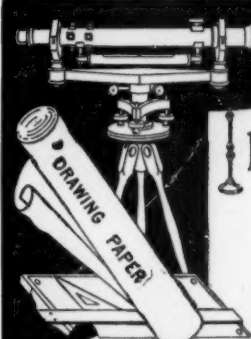
The "Star"
.... Ventilator.



For ventilating Hospitals, Churches, Theatres, Public Halls. Also Power Houses (Steam and Electric), Foundries, Machine Shops, Cotton, Woollen and Paper Mills, Factories of all kinds.

Down Draughts prevented in chimneys.

These ventilators are used largely for Government Hospitals, owing to superior merits.

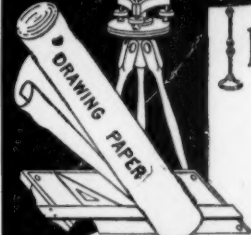




KEUFFEL & ESSER CO.
NEW YORK.
127 FULTON ST.
Branches { 111 Madison St., Chicago.
 { 708 Locust St., St. Louis.

Drawing Materials and Surveying Instruments.

We make and carry the most complete and best assorted stock in America. Our goods are recognized as the standard of quality. They all bear our trade-mark and are warranted by us. Our prices are reasonable. Our lavishly illustrated catalogue minutely and correctly describes our goods. It contains much valuable information. Sent gratis on application.



A Supplement



to Catalogue No. 16, devoted to the Hardware of Ornament, has been issued and will be sent, on request, to such Architects as may not already have received it.

The Yale & Towne Mfg. Co.

9-11-13 Murray Street, NEW YORK CITY.

"At the Fountain of
St. George."

A Copperplate photo-
gravure reproduction
of * * * * *

The Famous Etching by Axel H. Haig.

JAPAN PAPER 18" x 24"

SUITABLE FOR FRAMING.

* * Price, \$1.25 * *

American Architect and Building News Co., - Boston, Mass.

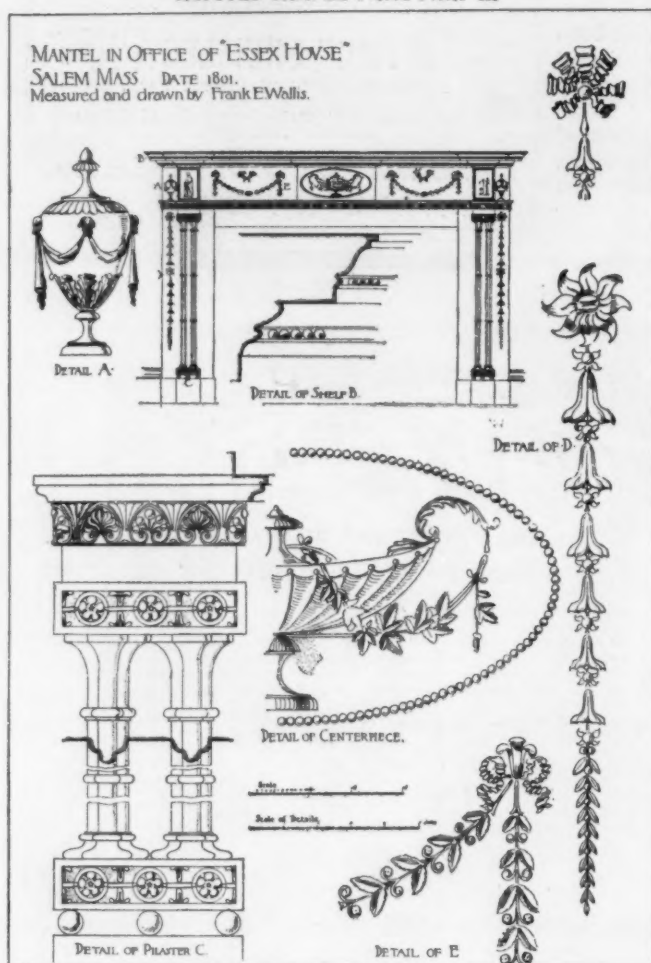
[EACH PART COMPLETE IN ITSELF.]

PART III

"THE GEORGIAN PERIOD"

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

REDUCED SAMPLE FROM PART III



WE RECOGNIZE the rights and interests of our subscribers by adopting the following sliding scale of prices for this new Part and the others already issued:—

PART IV [in preparation.]

Retail price per single copy	\$3.00
Price to non-subscribers to the <i>American Architect</i> who have already subscribed for Parts I and II	2.00
Price to subscribers to the <i>American Architect</i> for 1899	1.50

: :: PARTS I, II and III :: :
[121 plates, 10 x 14½ inches.]

Price per set to non-subscribers to the <i>American Architect</i>	\$9.00
Price per set to subscribers to the <i>American Architect</i>	6.50

FURTHER PARTS IN CONTEMPLATION.

American Architect and Building News Co.,
211 Tremont Street, Boston, Mass.



CABOT'S CREOSOTE SHINGLE STAINS ❁

The Pioneer and Standard Shingle-stains and the only Creosote (wood-preserving) Stains. Any color made on request.

CABOT'S INSULATING ❁ **and DEAFENING "QUILT"**

The most efficient sound-deadener and heat insulator made. A perfect scientific non-conductor.

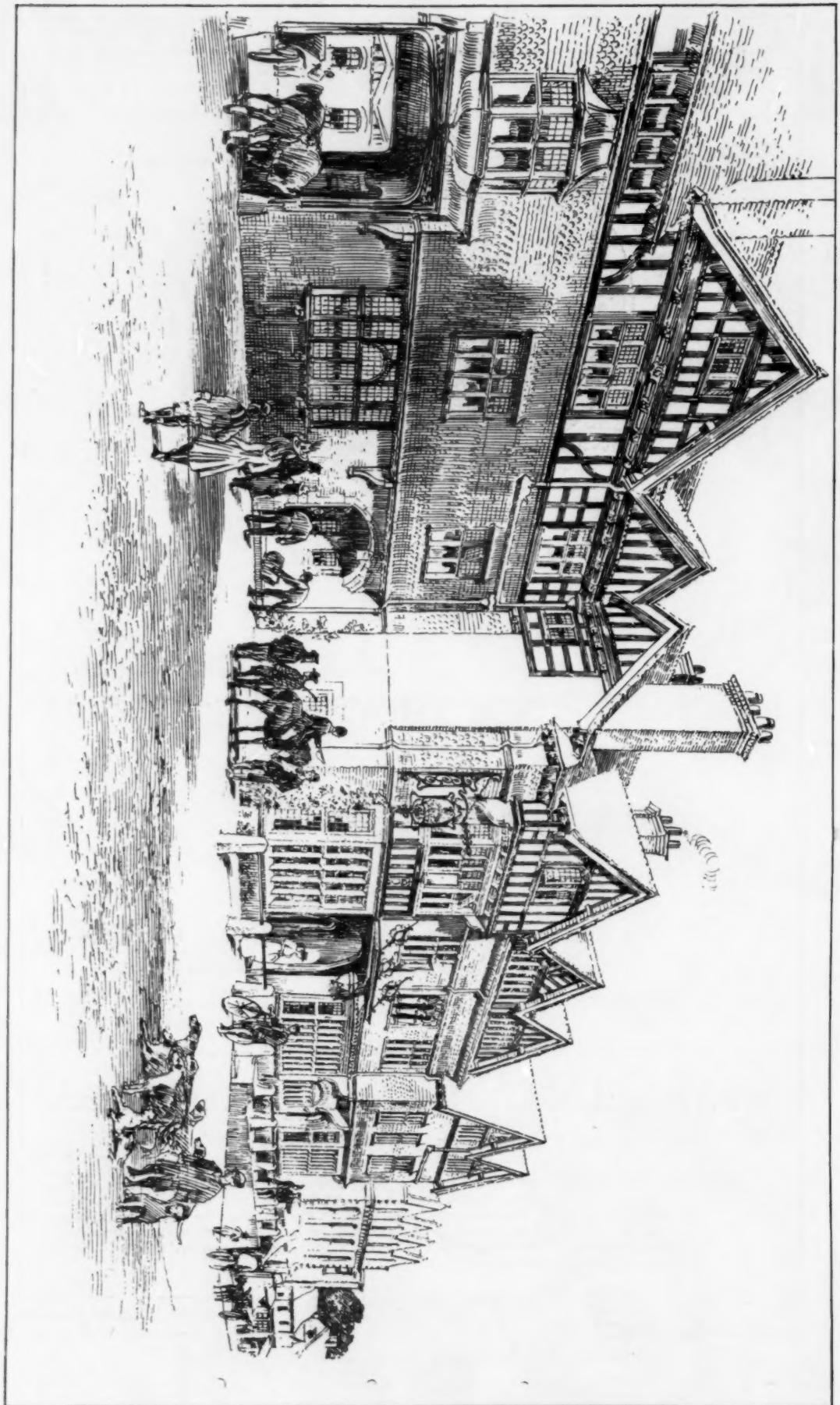
Full information and samples of both materials sent on application.

SAMUEL CABOT, ^{Sole} ^{Manufacturer,} **BOSTON, MASS.**
315 Dearborn Street, Chicago, Ill.

AGENTS: V. H. Schneider, 12 Wooster St., New York; Samuel H. French & Co., Philadelphia, Pa.; Charles J. Waterhouse, San Francisco, Cal.; P. H. Mathews, Los Angeles, Cal.; Whitelaw Brothers, St. Louis, Mo.; George H. Lawes & Co., St. Paul, Minn.; John H. Corning, Washington, D. C.; Brady & Co., Detroit, Mich.; The National Building Supply Co., Baltimore, Md.; C. H. Brown & Co., Portland, Oreg., and Seattle, Wash.; Cleveland Builders' Supply Co., Cleveland, O., and all other central points.

From the British Architect.

THE CROWN HOTEL, LYNDDURST, NEW FOREST, ENGLAND.
W. H. MITCHELL, SON & CUTTERIDGE, ARCHITECTS.



WALDORF-ASTORIA HOTEL, Fifth Avenue, New York City.

H. I. HARDENBERGH, Architect.

ALFRED R. WOLF, Consulting Engineer.

Attention is Called to the Fact that a Large Number of

"Pancoast (Copper) Ventilators"

Were used on this handsome hotel, and on other prominent New York Buildings.

Write us for Catalogue.

OFFICE, 316 BOURSE BUILDING .. PHILADELPHIA, PA.



DIXON'S AMERICAN GRAPHITE No. 219½

Is the Ideal Draughting Pencil that Architects have longed for. Make the finest black lines without feather edges. Ask your stationer, or send 10 cents for a sample.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J



PNEUMATIC TUBES

For Rapid Transmission of Cash, Orders, Papers, Documents.

USED IN Prominent Department Stores, Dry Goods Houses, Wholesale Establishments, Newspaper Offices, Banks, etc. Write for Estimates.

BOSTEDO PACKAGE AND CASH CARRIER CO.,

CHICAGO, 156 Lake Street.

NEW YORK, 156 Fifth Avenue.

WORLD'S FAIR VIEWS.

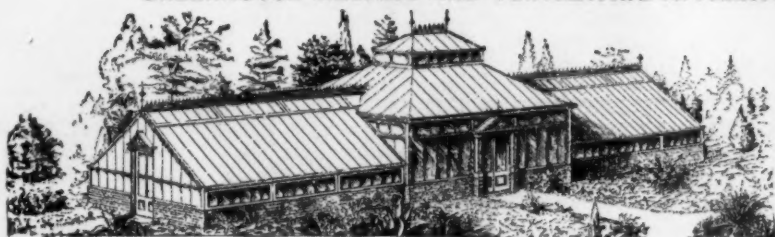
HALF PRICE.

We have left a few sets (20) of these the best views of the Columbian Exhibition which, during the continuance of our REMOVAL SALE, we will sell for

\$1.50.

HITCHINGS & CO., Established 50 years
HORTICULTURAL ARCHITECTS AND BUILDERS

and largest Manufacturers of
GREENHOUSE HEATING AND VENTILATING APPARATUS.



The highest awards received at the World's Fair for Horticultural Architecture, Greenhouse Construction and Heating Apparatus. Conservatories, Greenhouses, Palmhouses, etc., erected complete with our Patent Iron Frame Construction.

Send four cents for Illustrated Catalogue.

233 MERCER STREET, N. Y. CITY.



NEW ENGLAND FELT ROOFING WORKS.

13 Post Office Sq., BOSTON.

Originators of Felt Roofing in New England.

Inventors and only Manufacturers of the Celebrated

"BEEHIVE BRAND"

Heliotype Printing Co.,

211 Tremont Street, Boston.

ESTABLISHED 1872.

- PHOTO-LITHOGRAPH.
- PHOTO-COLOR-LITHOGRAPH.
- PHOTO-GELATINE.
- PHOTO-GRAVURE.
- PHOTO-ENGRAVING.

COPIES OF ARCHITECTURAL, MECHANICAL AND OTHER DRAWINGS, MAPS, PLANS, ETC., PORTRAITS, VIEWS AND ALL BOOK ILLUSTRATIONS.

Heliotype Printing Co.

"Cohesive Construction."

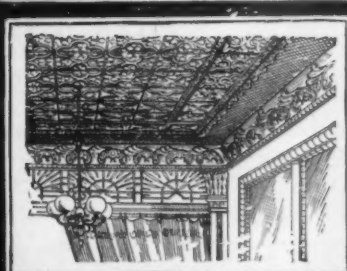
An Essay on the

Theory and History of Cohesive Construction.

By RAFAEL GUASTAVINO - - - Architect.

Price, \$1.25.

For Sale by the AMERICAN ARCHITECT.



BERGER'S METAL CEILINGS

NEW DESIGNS

In the past year we have brought out more than twice as many new and artistic designs as have all other metal-ceiling manufacturers combined. We are the only ones prepared to furnish complete Classified Designs. Write for details.

THE BERGER MFG. CO.,
Canton, O.

SAMUEL FARQUHAR.

ESTABLISHED 1836.

DAVID W. FARQUHAR.

JOHN FARQUHAR'S SONS.

Slate, Copper, Tin and Gravel Roofing.

Nos. 20 and 22 EAST STREET, BOSTON.

Order Box at Master Builders Association,
164 Devonshire Street.Special attention given to Repairs
of all kinds.

Inventors and owners of Farquhar's Patent Slate Fasteners, for securing slates to iron roofs, acknowledged to be the strongest method in use, and has been applied to many of the best constructed and largest buildings in this country.

Contracts made for Work wherever desired.

ASPHALT ROOFING AND PAVING MATERIALS.

WARREN'S "ANCHOR BRAND" NATURAL ASPHALT ROOFING. WARREN'S NATURAL ASPHALT READY ROOFING.

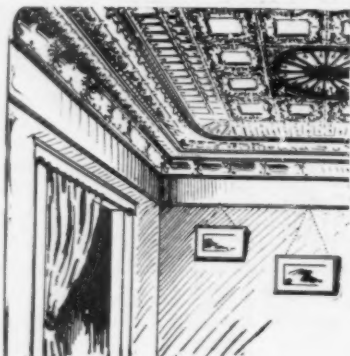
Send for circulars, samples and specification forms to

WARREN CHEMICAL & MFG. CO. 81 & 83 Fulton Street, NEW YORK, U.S.A.

JENKINS' AUTOMATIC AIR VALVES



with Drip-pipe Connections insure perfect circulation. You are not annoyed with escaping steam or dripping of water. They are stamped with our Trade-Mark.

JENKINS BROTHERS, NEW YORK, BOSTON,
CHICAGO, PHILADELPHIA.

STEEL CEILING,

Metal Rolling Shutters, etc.
(KINNEAR PATENTS)

NEW CATALOGUE NOW READY.

Write for prices before specifying
or contracting. :: :: :: ::THE KINNEAR & GAGER CO.
Manufacturers,
COLUMBUS, OHIO.

BOMMER
SPRING HINGES
ARE THE BEST
"PRACTICALLY UNBREAKABLE"
SAYS THE WORLD'S FAIR AWARD.
MADE OF WROUGHT STEEL, BRONZE & BRASS.
For sale by Dealers in Builders Hardware.

ELEVATORS

Morse, Williams & Co.,

BUILDERS OF

:: High Grade ::

PASSENGER and FREIGHT ELEVATORS.

(Over 11,000 in operation.)

PHILADELPHIA, PA.

Write for full information.

ASBESTOS ROOFING

FIREPROOF,
STRONG,
LIGHT,PERMANENTLY FLEXIBLE,
EASILY APPLIED,
ECONOMICAL.These words describe briefly our line of ROOFING and FELTS. We have a variety of styles and prices.
Full particulars at your request.H. W. JOHNS M'FG CO., 100 WILLIAM STREET, NEW YORK.
CHICAGO. COLUMBUS. PHILADELPHIA. PITTSBURGH. BOSTON.ASPHALT FLOORS,
ROOFS,
SIDEWALKS AND CARRIAGE-WAYSOf Public Buildings, Hospitals,
Warehouses, Stables, Cellars, etc.

Laid with VAL de TRAVERS ROCK ASPHALT,

DURABLE, FIREPROOF AND IMPERVIOUS.

For estimates and list of works executed, apply to

THE NEUCHATEL ASPHALT CO., Limited,

265 BROADWAY - - - NEW YORK.

PARQUET FLOORS.

The National Wood Manufacturing Co.,

129 5th Avenue, New York.

WAINSCOTINGS and CEILINGS.

Inlaid Wood Floors 3-16 and
7-8 inch thick.Solid work, Tongued and Grooved
in each piece.Designs & Estimates on applica-
tion. Established 1867.

F. W. DEVOE & CO.

(Established 1852.)

Fulton St., cor. William, New York.

No. 176 Randolph St., Chicago.

Pure Ready-mixed Paints.

We desire to call attention of consumers to the fact that we guarantee our ready-mixed paints to be made only of pure linseed oil and the most permanent pigments. They are not "Chemical," "Rubber," "Patent," or "Fireproof." We use no secret or patent method in manufacturing them by which benzine and water are made to serve the purpose of pure linseed-oil.

Sample cards, containing fifty desirable shades sent on application.

FINE VARNISHES.

Hard Oil-Finish & Wood-Stains

Illustrated Catalogue of Engineers' and
Architects' Supplies, 250 pages, 700
Illustrations, on request.

White-Lead Colors in Oil and Japan.

ABOUT.....

ACETYLENE

GAS GENERATORS.

... We Manufacture ...

THE "KOPF"—IT'S THE BEST.

Approved by the National Board of Underwriters.

Write for information.

M. B. Wheeler Electric Co., GRAND RAPIDS,
MICH.
Agents Wanted.....

CANDELABRA

and DECORATIVE

INCANDESCENT LAMPS

and RECEPTACLES.



Adapted for decorative illumination of interiors of fine residences and hotels, and extensively used for that purpose (Catalogue No. 9044).

X-RAY TUBES
FLUOROSCOPES
(Catalogue No. 9050).

• EDISON •

Decorative and
Miniature Lamp Dept.
(GENERAL ELECTRIC CO.),

HARRISON, N. J.

E. ELTON DEANE,

Architectural Colorist and Draughtsman.
63 Seymour Building, Fifth Ave., cor. 42d St.
New York City.

PERSPECTIVES RENDERED

IN PEN-AND-INK AND WATER-COLOR.

WALTER M. CAMPBELL,

54 Devonshire St., Boston, Mass.

OSCAR LOWINSON,

Consulting Architectural Engineer

39 & 41 CORTLANDT ST., NEW YORK.

J. W. TAYLOR'S PHOTOGRAPH SERIES

121 MONROE ST. CHICAGO. OF AMERICAN ARCHITECTURE.

Removed to Owings Building.

Send two 5 cent stamps for Catalogue.

EVERYBODY .. GO TO ..

SPAULDING PRINT PAPER CO. for Blue Prints — the best place in the city. We take them while you wait. 1105 Exchange Bldg.

BUILDING PATENTS.

621,192. SPRING-HINGE. — Rollin P. Whipple, Greenfield, Mass.

621,209. METALLIC WINDOW FRAME AND SASH. — Edwin F. Bertollet, Philadelphia, Pa.

Boston Society of Architects.**ROTCH TRAVELLING-SCHOLARSHIP.**

Sixteenth Annual Competition.

The examination for the Rotch Travelling-Scholarship will be held at the Boston Architectural Club, 5 Tremont Place, Boston, on Monday and Tuesday, April 10th and 11th, at nine o'clock A. M.

Candidates must be under thirty years of age, must have worked during two years in the employ of an architect resident in Massachusetts, and will be required to pass preliminary examinations upon the following subjects:

I. Construction, Theory and Practice. (Written examination.)

II. An Elementary Knowledge of the French Language. (Written examination.)

III. History of Architecture. (Written examination.)

IV. Freehand Drawing from the Cast.

Candidates who pass in these preliminary examinations will be asked to present themselves on the third Saturday following, for the competition in Design.

Candidates who passed in the preliminary examinations last year are eligible for admission to the competition in Design without re-examination.

The successful candidate in each yearly examination receives from the Trustees of the Scholarship annually, for two years, \$1,000, to be expended in foreign travel and study; provided always that the beneficiary shows such fitness and diligence as may be required of him.

The Boston Society of Architects has offered the sum of \$75 as a second prize.

Candidates are required to register their names with the Secretary of the Committee three days before the opening of the examinations.

Any further information concerning the Scholarship can be obtained upon application to

C. H. BLACKALL, Secretary,
Music Hall Building, Boston, Mass.

BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

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

ADVANCE RUMORS.

Allentown, Pa. — It is stated that Jacoby & Weisbampel, architects, have prepared plans for a \$25,000 residence, to be erected by E. M. Young on Hamilton and 15th Sts.; also for an \$18,000 brick residence, to be built by Jas. K. Mosser on Hamilton St., near Penn St.

Battle Creek, Mich. — It is reported that the will of the late Charles Willard provides \$40,000 for a Y. M. C. A. Building. No site has yet been selected.

Birmingham, Ala. — A. Stockmar has been awarded the contract for the erection of a four-story brick mercantile house for Loveman, Joseph & Loeb; D. A. Helmich, architect; cost, \$75,000.

Boston, Mass. — The erection of an eight-story apartment hotel exclusively for women, on the corner of Warren Ave. and Clarendon St., is contemplated. It is to be called Homestead Court, and the plan calls for a building covering, with the



Boston Office: 48 Congress St., Room 23.

MASON SAFETY TREAD.

UNWEARABLE. NON-SLIPPING.

The approved stair covering. Refer to Brooklyn Bridge and Boston Subway. For information address

American Mason Safety Tread Co., 40 Water Street, BOSTON.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Interior court, about 12,500 square feet of land; owner, Homestead Building Trust, H. D. Van Norden, E. C. Merrill and B. F. Moore, trustees.

Brooklyn, N. Y. — St. Augustine's Catholic Church is to erect a new chapel, rectory and parochial school at the corner of 6th Ave. and Prospect Pl. It is estimated that the buildings will cost \$150,000.

Brownsville, Tenn. — Adolph Eberhart, of Memphis, has received the contract for erecting the Methodist Church at \$20,000.

Cambridge, Mass. — A. W. Strauss is to erect a \$75,000 brick and stone apartment-house on Massachusetts Ave., after plans by Arthur Vinal, Boston.

A six-tenement apartment-house, to cost \$12,000, is to be erected at 238 Prospect St., by Flamm & Lynch. Another one of similar character will be built in Pacific St., near Brookline St., by John Gustafson.

Central City, W. Va. — The Huntington Brewery & Ice Company will enlarge their plant, at a cost of \$40,000.

Chicago, Ill. — Hesse-mueller & Meldahl, 103 State St., have drawn plans for a \$24,000 four-story factory building, 50' x 170', to be built for the American Tag Company on Clark St., near 17th St.

H. L. Ottenheimer, 1201 Ft. Dearborn Building, has designed a \$25,000 residence, 25' x 90', to be built for H. E. Greenbaum, at 3337 Michigan Ave. The premises are now occupied by a two-story brick house.

Concordia, Kan. — Wm. P. Feth, Leavenworth, has prepared plans for a \$50,000 building for the Nazareth Academy.

Dartford, Wis. — J. E. Mallory, of Oshkosh, has received the contract for a Court-house, Jail and sheriff's residence at \$21,619.

Des Moines, Ia. — Hallett & Rawson have been selected to prepare plans for the auditorium, to cost about \$35,000.

Detroit, Mich. — Harry B. Rill has prepared plans for a building for the Lewis School for Stammerers, N. Adelaide St., near Woodward Ave.; cost, about \$10,000.

Nettelton & Kahn have prepared plans for a double residence for S. D. Miller and Mrs. Ella S. Thayer, south side Jefferson Ave., near Russell St.; cost, about \$20,000.

Malcomson & Higginbotham are preparing plans for two new city school-buildings, to cost about \$30,000 each.

The Metropole Hotel will take in the adjoining 60 feet on the south side, which will add about 45 rooms; cost of improvements, about \$12,000.

Frederick Stearns & Co. will erect a new laboratory on Jefferson Ave. The investment for land and buildings will be about \$100,000; Stratton & Baldwin, architects.

A cigar-factory is to be built by Brown Bros. on State St. and Park Pl.; cost, \$60,000.

Fargo, N. D. — It is stated that a \$30,000 Masonic Temple will be erected here.

Hinsdale, Ill. — George W. Maher, 218 La Salle St., Chicago, has drawn plans for a \$20,000 residence, 45' x 63', to be erected here for Wm. Coffeen.

Houghton, Mich. — H. L. Ottenheimer, Ft. Dearborn Building, Chicago, Ill., has designed a \$50,000 four-story brick and stone office-building, 60' x 75', to be erected here for James Dee.

Indianapolis, Ind. — It is stated that the First Baptist Society will erect an \$85,000 church. S. M. Iyer, Chmn. Fin. Com.

The Indianapolis Cold-storage Co. is to erect a \$350,000 building on Penn St.; Samuel H. Brubaker & Co., architects.

Johnstown, Pa. — It is stated that the Swank Hardware Co. will erect a \$40,000 brick and stone building on Main and Bedford Sts.; Wild & Reiche, architects.

Kalamazoo, Mich. — The Kalamazoo Hotel Co. will erect a new \$60,000 hotel.

Kansas City, Mo. — It is reported that J. R. Denison has had plans prepared for a new opera-house, to be built at 11th and McGee Sts. It will be 100' x 153', and will cost about \$80,000.

It is reported that Swiford Bros. will erect a six-story brick business block this spring, to cost \$150,000.

Leavenworth, Kan. — Plans have been prepared by C. Johns for a \$30,000 opera-house.

Manchester, N. H. — The Knights of Pythias will erect this spring a \$25,000 block, containing lodge-rooms. Gen. Franklin W. McKinley is interested in the project.

Massena, N. Y. — It is stated that a Town-hall will be erected here costing \$20,000.

Milwaukee, Wis. — The John Schroeder Lumber

PROTECTIVE PAINTS

FOR IRON OR WOOD

Ensuring Durability and Beauty

HARRISON BROS. & CO.

Incorporated

PHILADELPHIA CHICAGO NEW YORK

Pamphlets and information on application.

"La Construction Moderne,"

A journal of whose merits our readers have had opportunity to judge because of our frequent reference to it and our occasional republication of designs that are published in it, is the most complete and most interesting of the French architectural journals.

The thirtieth annual volume is now in course of publication.

Subscription, including postage, 35 francs.

Each weekly issue contains, besides the illustrations included in the text, two full-page plates, which by themselves are worth double the amount of the annual subscription.

PRICE OF BACK ANNUAL VOLUMES,

:: 40 Francs. ::

Address for subscriptions and catalogues,

LIBRAIRIE DE LA CONSTRUCTION MODERNE,

13 Rue Bonaparte, Paris, France.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Co. will erect a two-story brick planing-mill, to cost \$25,000.

Nashville, Tenn. — A \$10,000 store and office-building is to be built on Sumner and Union Sts., by Norman Kirkman; R. H. Hunt, architect, Chattanooga.

New York, N. Y. — Cable & Lucas, architects, 1183 Broadway, have designed a \$125,000 club-house for the Army and Navy Club, J. F. Pierson, president, 16 W. 31st St.

Plans have been prepared by J. Stewart Barney and Henry Otis Chapman, 1286 Broadway, for a ten-story hotel, to be built at 7th Ave. and 38th St., by the White Estate, W. M. V. Hoffman, agent, 4 Warren St. The building will cost approximately \$350,000.

The Post-graduate Hospital is to have a new training-school for nurses; cost, \$100,000.

William Waldorf Astor is to have a new art-gallery in the dwelling owned by him at 323 Fifth Ave., nearly opposite the Waldorf-Astoria. The gallery will be built of stone and iron, 34' x 34', in dimensions; cost, \$15,000.

Oshkosh, Wis. — A County Jail is to be erected to cost about \$25,000.

Philadelphia, Pa. — Press reports state that Geo. C. Boldt intends building a \$3,000,000 hotel on the site of the Stratford Hotel. It is to be patterned after the Waldorf-Astoria in New York.

Press reports state that at a meeting of the Board of Trustees of the Philadelphia Commercial Museums the Board accepted the report of the Building Committee, and ratified the contract awarded to the lowest bidder, Allen B. Rorke, for \$298,000. He contracts to complete the work by August 15.

Pittsburgh, Pa. — Ellsworth Dean, architect, is preparing plans for an eight-story brick warehouse and store building, to cost \$75,000.

Report states that Architects Sawyers & Fingland, New York City, have prepared plans for a stone residence for Dr. Ogden M. Edwards, Jr., to cost \$100,000.

Richmond, Va. — N. Land & Baskerville, Chamber of Commerce Building, have prepared plans for a hospital to be erected for Dr. Hunter McGuire, at 6th and Grace Sts.; cost, \$30,000.

St. Louis, Mo. — W. Albert Swasey, 707 Olive St., has prepared plans for a \$300,000 Masonic Hall. Capt. Robert McCulloch, pres.

Report states that the Board of Directors of Washington University will soon begin the erection of four new buildings, as follows: The Hall of Languages, costing \$200,000, donated by Robert S. Brookings; Engineering Hall, to cost \$150,000, the gift of Samuel Cupples; a Chemical Building, costing \$100,000, donated by Adolphus Busch; a \$100,000 Library Building, the funds for the erection of which are provided for in the will of the late Stephen Ridgely.

Tallulah Falls, Ga. — Fred Wagner, of Atlanta, has secured the contract for the \$35,000 hotel, to be erected in this city; Bleckley & Tyler, architects, Fitten Building, Atlanta.

Topeka, Kan. — The Senate has passed a bill providing for the appropriation of \$65,000 for a museum and \$55,000 for a chemistry building for the State University.

Wabash, Ind. — The Knights of Pythias have decided to erect a \$20,000 opera-house.

Washington, D. C. — It is stated that Geo. A. Fuller & Co., 160 Fifth Ave., New York City, have received the contract for the building of the Evening Star Newspaper Co., at a contract price of \$377,340.

APARTMENT-HOUSES.

New York, N. Y. — Jackson St., Nos. 14-16, & Madi-

Removal Sale!



As our landlords' lease of these premises expires on MAY 1 next and is not to be renewed, we, as sub-tenants, find ourselves called on to vacate the offices we have occupied since 1880.

We shall take advantage of this opportunity to reduce the bulk of our

Surplus Stock of Back Issues,

and until the day of removal orders for FIFTY COPIES or more, if in stock, can be filled at

HALF PRICE.*

During the period of this clearance sale, orders for a lesser number of copies will be filled from our reserve stock at the usual rates.

This sale offers a good opportunity not only to students and draughtsmen, but should cause all subscribers to collate their files and attempt to secure, before it may be too late, any numbers that have been lost or destroyed.

If there be any former subscriber who would like to take up his subscription at the point where he dropped it, it might be worth his while to communicate with us, as the opportunity is such as to allow us the unusual enjoyment of taking part in a "dicker."

American Architect and Building News Co.,
211 TREMONT STREET, BOSTON.

*It having been pointed out that this phrase is capable of two interpretations we attempt to reconcile the difficulty by substituting the following sliding sale:

	International.	Imperial.	Regular.
On orders for 50 copies.	28 cents each.	11 cents each.	6 cents each.
" " " 40 "	33 " "	13 " "	7 " "
" " " 30 "	38 " "	15 " "	8 " "
" " " 20 "	43 " "	17 " "	9 " "

BUILDING INTELLIGENCE.	BUILDING INTELLIGENCE.	BUILDING INTELLIGENCE.
(Apartment-houses Continued.) son St., Nos. 386-388, 2 six-st'y bk. flats with stores, 24' 9" x 88' 4" x 95' 1"; \$104,000; o., Geo. Dellon, 62 Ridge St.; a., Horenburger & Straub, 122 Bowery. E. Ninth St., Nos. 635-639, 2 six-st'y bk. flats with stores, 30' x 81' 11"; \$50,000; o., Jacob Sommer, 170 E. 90th St.; a., Samuel Sass, 23 Park Row. Columbus Ave., cor. 107th St., five-st'y bk. flat with stores, 25' 2" x 95'; \$27,000; o., Felix Phillips, 281 Dean St., Brooklyn, a., Samuel Sass, 23 Park Row. E. One Hundred and Sixth St., Nos. 303-305, 2 six-st'y & base. bk. stores & flats, 25' x 87' 9"; \$57,000; o., Celia Haft, 165 E. 73d St.; a., G. F. Pelham, 503 Fifth Ave. Second Ave., cor. 3d St., six-st'y bk. flat, 40' x 45'; \$35,000; o., Abram Silverson, 235 Henry St.; a., Schneider & Herter, 46 Bible House.	(Apartment-Houses Continued.) One Hundred and Sixteenth St., nr. 117th St., 2 five-st'y bk. & st. flats & stores, 28' x 85'; \$80,000; o., M. C. Hall, 154th St. & St. Nicholas Ave.; a., Neville & Bagge, 217 W. 125th St. St. Nicholas Ave., cor. 114th St., seven-st'y bk. flat, 50' 5" x 86' 11"; \$80,000; o., Leith & Glenn, 217 W. 125th St.; a., Neville & Bagge, 217 W. 125th St. Clinton St., Nos. 244-248, 2 six-st'y bk. & st. stores & aparts., 31' x 61'; \$60,000; o. & b., Ronginsky & Perelman, 55 Willett St.; a., M. Bernstein, 245 Broadway. W. Central Park and Ninetieth St., seven-st'y bk. & st. apart., 50' x 95'; \$100,000; o., Nathan A. Clark, 126 E. 83d St.; a., George F. Pelham, 503 Fifth Ave. St. Nicholas Ave., cor. 119th St., seven-st'y bk. flat, 50' 9" x 107'; \$100,000; o., W. C. Hunter, Madison Ave., cor. 123d St.; a., Neville & Bagge, 217 W. 125th St.	(Apartment-Houses Continued.) St. Nicholas Ave., nr. 118th St., seven-st'y bk. bachelor apart., 55' 8" x 92' 9"; \$100,000; o., W. C. Hunter, Madison Ave., cor. 123d St.; a., Neville & Bagge, 217 W. 125th St. St. Louis, Mo. — Morgan and Pendleton Aves., two-st'y bk. flats, 83' x 128', comp. roof, steam; \$25,000; o., Edward Joy; a., Matthews & Clark, Union Trust Building. EDUCATIONAL. Jersey City, N. J. — Danforth Ave., bk. & st. public school; \$100,000; o., Board of Education; a., C. Fred Long. New York, N. Y. — First Ave., nr. 28th St., Eve- t'y st. medical college, 37' 9" x 187' 6" & 191' 9"; \$50,000; o., Col. Oliver H. Payne, 882 Fifth Ave.; a., McKim, Mead & White, 160 Fifth Ave.

Iron-Work.

JACKSON ARCHITECTURAL IRON WORKS,
ESTABLISHED 1840.

IRON

Fronts for Buildings, Cornices, Lintels and Sills, Doors and Shutters, Girders and Beams, Fire-escape
Balconies and Ladders, Columns and Roofs, Sky and Floor Lights, Stable Fittings and Fixtures,
Sidewalk Lights. Artistic work in Wrought and Cast Iron, Brass and Bronze.
Designs and Estimates of Cost Furnished for Work in any Department.

Foundry and Shops, East 28th and East 29th Sts. Office, 315 East 28th St., New York.



J. H. ELLER & CO.,

...MANUFACTURERS OF...

Stamped Metal Ceilings, • • •
Ornamental Crestings, Finials, etc.,

GALVANIZED CORNICE, • • • •

• • • GALVANIZED IRON SKYLIGHTS.

Pressed Steel Brick and Rock Face Siding. Galvanized Steel Eaves Trough
and Conductor Pipe.

Office: 1200 E. FIFTH STREET.

CANTON, OHIO.

CHAS. M. JARVIS, President.

GEO. H. SAGE, Secretary.

F. L. WILCOX, Treasurer.

The Berlin Iron Bridge Company

Design and Build All Classes of Steel Structures.



The above illustration is taken direct from a photograph, and shows Iron Fireproof Construction in connection with old wooden construction. This Iron Roof was built as an addition to the main rolling-mill of the Waterbury Brass Co., at Waterbury, Conn. About two years after this was built fire destroyed the main mill, leaving the addition standing without injury, so that the iron-work was afterward used in the construction of the new mill. This result shows that iron-work when properly constructed may be subjected to the most severe heat without injury.

NOTICE TO ARCHITECTS, CONTRACTORS AND BUILDERS:

We carry constantly in stock 8,000 to 10,000 tons of beams, channels,
girders and angles, and can supply this material promptly.

BOSTON OFFICE:
200 Equitable Building.

NEW YORK OFFICE:
Room 718 Bennett Building, Cor. Fulton and
Nassau Streets.

PHILADELPHIA OFFICE:
1215 Stephen Girard Building.

Main Office and Works: EAST BERLIN, CONN.

BUILDING INTELLIGENCE.

(Educational Continued.)

One Hundred and Fifty-sixth St., nr. Amsterdam
Ave., five-st'y bk. & st. school, 61' x 84'; \$70,000; o.,
City of New York, City-hall; a., C. B. J. Snyder,
585 Broadway.

One Hundred and First St., cor. Amsterdam Ave.,
five-st'y bk., st. & terra-cotta school, 150' x 201' 10";
\$260,000; o., City of New York, City-hall; a., C. B.
J. Snyder, 585 Broadway.

FACTORIES.

Milwaukee, Wis.—Fourth St., six-st'y st. & bk.
building, 60' x 70'; \$30,000; o., Romadka Bros.; a.,
Crane & Barkhausen.

HOTELS.

Lancaster, Ky.—Three-st'y bk. & st. hotel & opera-
house, 100' x 128', flat roof, hot air; \$22,000; o., Lan-
caster Hotel Co.; c. & a., Jas. R. & Richard Ryan.

HOUSES.

Boston, Mass.—Zamora St., No. 4, Ward 22, two-
st'y fr. dwell., 34' x 41', furnace; \$6,000; o., E. N. &
Nelson Curtis; b., Wm. Tobin, 32 Perkins St.
N. Beacon St., No. 194, three-st'y fr. dwell. &
store, 40' x 58', flat roof, stoves; \$8,000; o., John
Reardon, 192 N. Beacon St.
Elmhurst St., nr. Norfolk St., Ward 24, 2½-st'y fr.
dwell., 28' x 55', pitch roof, furnace; \$5,000; o.,
Roxbury R. E. Association; b., J. C. Spillane, 8
Cobden St.
Malbon Pl., nr. Roxbury St., Ward 19, 2 three-

BUILDING INTELLIGENCE.

(Houses Continued.)

st'y fr. dwells., 23' x 38', pitch roofs, furnaces;
\$7,000; o., Sarah B. Parker, Wellesley; a., S. D.
Kelley.

Fairbanks St., nr. Washington St., Ward 25, two-
st'y fr. dwell., 24' x 27' x 47', pitch roof, furnace;
\$4,500; o., John Ahern; b., C. L. Lawson, on
premises.

Abbottford St., nr. Harold St., Ward 21, 2½-st'y
fr. dwell., 30' x 34' x 38', pitch roof, furnace; \$6,500;
o., Horace A. Lucas, 27 State St.; b., F. A. Scofield.
A St., cor. Athens St., Ward 13, 3 three-st'y bk.
dwells., 24' x 42', flat roofs, stoves; \$20,000; o., B.
J. Devine; b., James Fagan, 27 School St.

Unity Ct., No. 10, Ward 6, three-st'y bk. dwell.,
13' x 20' x 34', flat roof, stoves; \$4,000; o., Perriotti
& Badaracco; b., J. Piotti.

Bellevue St., nr. Hamilton St., Ward 20, 4 three-
st'y fr. dwells., 24' x 40', flat roofs, stoves; \$15,000;
o. & b., C. F. Brown, 514 Broadway.

Wellesley Park, nr. Park St., Ward 25, two-st'y
fr. dwell., 27' x 41', pitch roof, hot water; \$4,500;
o., Gasilla Anbach; b., Haddock & Allen, 12 Vinson
St.

Magazine St., nr. Blue Hill Ave., Ward 21, two-
st'y fr. dwell., 24' x 43' x 49', pitch roof, hot water;
\$5,000; o., Hannah Curtis; b., Fouhs & Wangler.
Greenwood St., cor. York St., Ward 20, two 2½-
st'y fr. dwells., 34' x 43', pitch roofs, furnaces; \$11-
000; o. & b., J. S. McLearn, Bowdoin Sq., Dor-
chester.

Structural and Ornamental.....

IRON WORK, CASTINGS, :: ::
STEEL BEAMS, Etc.

..... WRITE US

DAVENPORT FOUNDRY and MACHINE CO.,

1678 W. 4th St., Davenport, Iowa.

Contracts executed anywhere.

PASSAIC ROLLING MILL CO.,
PATERSON, N. J.

Steel Beams

4 inches
to
20 inches
deep.

ALL STRUCTURAL SHAPES.

NEW YORK OFFICE . . . 45 BROADWAY.

G. BICKELHOPT,
PATENT

METALLIC

SKY-LIGHT

WORKS.

242 and 245 West 47th Street, New York.

Telephone: 675 39th St. a few doors west of Broadway.
Send for Catalogue.

J. S. THORN CO.,

Architectural Sheet-Metal Works.

Metal Building Trimmings, Ventilating Skylights
Metallic Roofing Tiles, Building Specialties, Builders'
Light Iron Work of every description.

Nos. 1325 to 1329 Callewhill Street,
PHILADELPHIA, PA.

BUILDING INTELLIGENCE.

(Houses Continued.)

Bloomfield St., nr. Greenbriar St., Ward 20, 2½-
st'y fr. dwell., 32' x 47', pitch roof, furnace; \$6,100;
o., Matilda Belyea; b., Lewis A. Belyea, 138 Green-
wood St., Dorchester.

Dakota St., nr. Geneva Ave., Ward 20, two-st'y
fr. dwell., 15' x 29' x 50', pitch roof, furnace; \$4,500;
o., Honora Seanson, 13 School St.; b., Wm. Riley.

Devon St., Nos. 71-73, Ward 20, 2 two-st'y fr.
dwells., 28' x 50', pitch roofs, furnaces; \$8,000; o. &
b., George W. Johnson, 53 Devon St.

Coolidge St., nr. N. Harvard St., Ward 25, 2½-st'y
fr. dwell., 33' x 39', pitch roof, hot water; \$5,500;
o., W. I. Mable, 17 Milk St.

Waldeck St., nr. Melville Ave., Ward 20, two-st'y
fr. dwell., 24' x 41', hip roof, furnace; \$5,500; o.,
Geo. W. Russell; b., A. B. Gould, 19 Longfellow
St.

Ballou Ave., nr. Lauriat Ave., Ward 24, 2 two-st'y
fr. dwells., 23' x 38'; \$7,000; o. & b., Benj. J. Cross-
cup, 62 Ballou Ave.

Longwood Ave., nr. Binney St., Ward 19, 2½-st'y
bk. dwell., 20' x 40', pitch roof, furnace; \$4,000; o.,
Chas. F. Freedy, 28 School St.; b., Boston Bldg. Co.

Greenough Lane, Nos. 6-10, Ward 6, 3 three-st'y
bk. dwells., 23' x 51', flat roofs, stoves; \$20,000; o.,
H. & L. Rosenbaum; a., A. C. Fernald.

Richmond St., nr. North St., Ward 6, 4 three-st'y
bk. dwells., 19' x 35'; \$20,000; o., H. & L. Rosen-
baum; a., A. C. Fernald.

Myrtle St., No. 100, Ward 1, three-st'y bk. dwell.,
20' x 50', flat roof, stoves; \$5,000; o. & b., White &
Dobkin, 32 Wall St.

Bay State Road, No. 71, Ward 11, three-st'y bk.
dwell., 23' x 28' x 70', flat roof, hot water; \$30,000;
o., Chas. F. Lyman; b., Connery & Wentworth, 22
Pemberton Sq.; a., Chapman & Frazer.

Bradley Beach, N. J.—2½-st'y fr. dwell., 30' x 60';
\$8,000; o., F. F. Somers, 349 Broadway, New York
City; a., Cleverdon & Putzel, 41 Union Sq., New
York City.

Cauldwell, N. J.—Hillside Ave., 2½-st'y fr. dwell.;
\$6,000; o., Mary E. Jacobus; a., Joseph E. Beach.

Eddytown, N. Y.—2½-st'y fr. dwell., 41' x 48'; \$10-
000; o. & b., Rev. Martin Somerville; a., F. A.
Rooke, 247 W. 125th St., New York City.

Evansville, Ind.—Two-st'y bk., st. & fr. dwell.;
\$8,000; o., Oscar Botticher; a., Harris & Shopbell.

Two two-st'y bk., st. & fr. dwells., slate roofs,
furnaces; \$10,000; o., Mrs. T. C. Bredwell; a.,
Harris & Shopbell.

Overbrook, Pa.—Drexel Road, nr. 64th St., 2 three-
st'y bk. & st. dwells., 25' 6" x 49' 2", pitch roofs,
steam; \$10,000; o., Herman Wendell; c., Milton W.
Young.

Passaic, N. J.—Three-st'y bk. & st. dwell., 40' x 63';
\$27,000; o., William A. Bailey; a., Ackerman &
Ross, 156 Fifth Ave., New York City.

Rochelle Park, N. Y.—2½-st'y fr. dwell., 33' x
41'; \$8,000; o., F. W. Livermore, 33 E. 125th St.,
New York City; a., F. A. Roche, 247 W. 125th
St., New York City.

Saddle River, N. J.—2½-st'y fr. dwell., 37' x 48';
\$5,000; o., H. F. Durbur, 206 Broadway, New York
City; a., Wm. Dewasap, 150 Nassau St., New
York City.

Flushing, L. I., N. Y.—2½-st'y fr. Colonial dwell.,
24' x 40'; \$5,000; o., Isaac Van Riper; a., Higgs &
Gavigan, 1123 Broadway, New York City.

2½-st'y fr. dwell., 22' x 50'; \$5,000; o., Frank R.
Bent; a., Higgs & Gavigan, 1123 Broadway, New
York City.

THE KENNEY FLUSHOMETER...

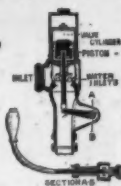


An ingenious device for flushing water-closets. Takes the place of noisy and dirty overhead flush-tanks with troublesome chain, ball-cock, etc.

SIMPLE, SURE AND SANITARY.

ENDORSED AND SPECIFIED BY LEADING ARCHITECTS ALL OVER THE COUNTRY.

The Kenney Flushometer is patented, and manufactured only by The Kenney Co., who guarantee the successful operation of the system.



Catalogue?

THE KENNEY COMPANY, 72-74 TRINITY PLACE, NEW YORK.



BOWER TRAP

Is the standard sewer-gas trap of the world. It has stood every kind of practical usage for years successfully.

Simple Construction. Sure in Action. Perfect Water and Valve Seal.

WRITE FOR DESCRIPTIVE CIRCULAR.

The B. P. Bower Trap & Specialty Co.
19-21 Leonard Street, CLEVELAND, OHIO.

ENORMOUS. Over 1,000,000

.. CLEAN SWEEP TRAPS ..

In use in the public buildings and residences in this country, Canada, England and Scotland.

Never a complaint as to their Sanitary Worth. Strictly up-to-date.

They never foul or become clogged by use.



Send for new catalogue.

DETROIT SANITARY SUPPLY CO., Detroit, Mich.

Office: 27 and 29 Jefferson Ave.

Works: 35 to 39 First St.

BUILDING INTELLIGENCE.

(Houses Continued.)

Jersey City, N. J.—Summit Ave., 2 three-st'y fr. dwells., 30' x 75'; \$15,000; o., William Hunt; a., Blau & Qualfe.

Passaic, N. J.—President St., nr. Lexington Ave., 23-st'y fr. dwell., 38' x 40'; \$5,000; o., Mrs. J. A. McCarry; a., Wm. M. Meeker.

Reading, Pa.—Franklin and Perkiomer Sts., 4 three-st'y st. dwells.; \$26,000; o., A. L. Kretz; a., Smith Bros.

Roseville, N. J.—23-st'y fr. dwell., 30' x 50'; \$6,000; o., Horace Freeman; a., Warrington G. Lawrence, 111 Fifth Ave., New York City.

St. Louis, Mo.—Cleveland Ave., nr. Vandeventer St., two-st'y bk. dwell., 22' x 50', slate roof, furnace; \$5,000; a., Theo. J. Stille, Laclede Building.

Town of Union, N. J.—Three-st'y fr. dwell., 35' x 40'; \$5,500; o., Louis Moos; a., P. H. Diemer, 128 Humboldt St., West Hoboken.

Weehawken Heights, N. J.—Second St., 23-st'y fr. dwell.; \$5,500; o., H. Unterreiner, Union Hill; a., Fred. Hessel, cor. Summit Ave. & John St., West Hoboken.

Westfield, N. J.—23-st'y fr. dwell., 44' x 55'; \$7,000; a., D. B. Provost, 78 Broad St., Elizabeth.

OFFICE-BUILDINGS.

Anderson, Ind.—Tenth and Meridian Sts., three-st'y bk., st. and iron store & office-building, 44' x 144', flat roof, steam; \$10,000; o., Phil. S. Decker; a., Peter La Belle.

Milwaukee, Wis.—Broadway and Wisconsin Sts., twelve-st'y st. & bk. steel-fr. office-building, 40' x 100'; \$175,000; o., Henry Herman; a., W. A. Holbrook & Co.

Hanover and Washington Sts., bk. telephone-building; \$10,000; o., Wisconsin Telephone Co.; a., H. J. Esser.

MERCANTILE BUILDINGS.

Calumet, Mich.—Two-st'y bk. & st. bank building, 51' x 70', comp. roof, steam; \$12,000; o., First Nat'l Bank; a., C. K. Shand.

PUBLIC BUILDINGS.

Louisville, Ky.—Court Pl., three-st'y bk. court-house, 47' x 85', metal roof, steam; \$40,000; o., Jefferson Co.; a., Kenneth McDonald.

STABLES.

New York, N. Y.—Amsterdam Ave., nr. Lawrence St., two-st'y bk. stable, 48' 9" x 79'; \$10,000; o., E. M. & J. J. Deering, Yonkers; a., James W. Cole, 403 W. 51st St.

N. One Hundred and Twenty-ninth St., No. 162, five-st'y bk. stable & lofts, 25' 5" x 95' 11" x 99' 11"; \$15,000; o., G. A. & A. M. Feld, 599 W. 187th St.; a., Henry Hassell, 665 Sixth Ave.

Toms River, N. J.—Two-st'y fr. stable & sheds, 55' x 70'; \$10,000; o., George Wiedenmauer, 558 Market St., Newark; a., Alfred Peter, Metropolitan Building, Newark.

STORES.

Akron, O.—S. Main St., two-st'y & base. bk. store, 63' x 70', gravel roof, hot air; \$8,000; o., John Grether; a., Wm. Redding.

S. Main St., three-st'y & base. bk. stores & hall, 65' x 100', gravel roof, hot air; \$40,000; o., Wm. Clerk; a., Wm. Redding.

Charlottesville, Va.—First St., cor. Main St., two-st'y bk. store, 82' x 103', tin roof, steam; \$25,000; o., The Leterman Co.; a., W. T. Vandergrift, Room 8, P. O. Building.

Columbus, O.—Six-st'y bk. store, 100' x 100', gravel roof, steam; \$35,000; a., Richards & McCarty, The Ruggery.

New Hampton, Ia.—Two-st'y bk. store, 22' x 111', gravel roof, hot water; \$5,000; o., M. C. Bailey & Son; a., C. E. Eastman Co., Des Moines.

BUILDING INTELLIGENCE.

THEATRES AND HALLS.

Charlotte, N. C.—One-st'y bk. opera-house, 90' x 120', slate & tin roof, steam; \$25,000; o., Charlotte Opera-house Co.; a., Frank P. Milburn.

Cleveland, O.—Erie St., nr. Euclid St., four-st'y theatre-building, 54' x 132', asphaltum roof, steam; \$50,000; a., F. C. Bate, 401 New England Building.

WAREHOUSES.

Kansas City, Mo.—Broadway, Nos. 2319-21, three-st'y bk. warehouse, 118' x 121'; \$18,000; o., Marsh Oil Co.

Milwaukee, Wis.—Milwaukee St., six-st'y bk. store-building, 60' x 120', comp. roof, steam; \$35,000; o., Bortin Ground Rent Trust; a., Ferry & Clas.

St. Louis, Mo.—Eleventh St. and Washington Ave., seven-st'y bk. store-building, 60' x 150', comp. roof, steam; \$75,000; o., Eleventh St. Realty Co.; a., Isaac S. Taylor, Columbia Building.

MISCELLANEOUS.

Brooklyn, N. Y.—Steuben St., nr. De Kalb Ave., four-st'y bk. publishing-house, 60' x 90', gravel roof; \$25,000; o., Morris Building Co., 26 Broadway, New York; a., W. B. Tubby, 81 Fulton St.

Calumet, Mich.—Four-st'y bk. & st. City-hall & opera-house, 93' x 116', comp. roof, steam; \$50,000; o., City; a., C. K. Shand.

New York, N. Y.—Fifty-ninth St., nr. Grand Circle, one-st'y bk. hall & café, 45' 10" x 100'; \$33,000; o., August H. Ruck, 910 Ninth Ave.; a., Henry Anderson, 1180 Broadway.

Philadelphia, Pa.—Noble St. and Delaware Ave., eight-st'y bk., st. & iron cold-storage warehouse, 62' 6" x 150'; \$80,000; o., Philadelphia Warehousing & Cold Storage Co.; a., J. E. & A. L. Pennock.

COMPETITIONS.

JAIL.

Plans, specifications and bids will be received by the County Commissioners until April 20 for the erection of a new Jail by Onachita County, to cost about \$12,000. W. F. AVERS and C. R. BENSON, Commissioners. 1214

CHANGE OF SCALE.—Society of Beaux-Arts, Class B, Order Programme No. 9, Competition No. 34. The scale of finished plan has been reduced from 1-8" to the foot to 1-16" to the foot. ERNEST FLAGG, Chairman.

PROPOSALS.

ADDITION TO COURT-HOUSE.

[At Louisville, Ky.] Bids are wanted April 1 for an addition to the Court-house; cost \$40,000. KENNETH McDONALD, architect, Louisville. 1213

SCHOOL.

[At Omamee, N. D.] Bids are wanted April 2 for a school. AUGUST SPRINGER, Pres. Bd. Dirs. of Willow Vale School Dist. 1213

HOT-WATER HEATING.

[At Clifton Heights, Pa.] Bids are wanted April 3 for hot-water heating in the Clifton Heights Borough School. J. H. WISE, Secy. School Bd. 1213

LIBRARY.

[At Jersey City, N. J.] Bids are wanted April 3 for a Public Library. L. J. GORDON, Pres. Trus. Free Public Library. 1213

THE J. L. MOTT IRON WORKS,

88 Beekman St., NEW YORK, N. Y.

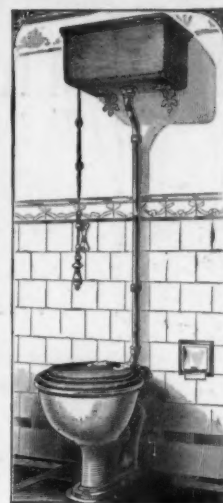
The Primo Improved Vitro-Adamant.

PLATE 495 R.

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

Copyrighted, 1897.

Copy of Circular furnished on application.



Put into the White House by the U. S.



For venting, use vent-top. For venting, use vented outlet.

F. E. CUDELL'S PATENT SEWER-GAS AND BACK-WATER TRAP, For Wash-Bowls, Sinks, Bath and Wash-Tub West Cleveland, O.

References in New York:

Commercial Cable Building,
R. G. Dunn Building,
Bowling Green Office Building.

For information and printed matter

Adams Sewage Lift,

DREXEL BLDG, PHILADELPHIA, PA.

PROPOSALS.

REFRIGERATING AND ICE PLANTS. [At Manila, Philippine Islands.] Chief Quartermaster's Office, 415 Pullman Building, Chicago, Ill. Sealed proposals will be received at this office until March 30, 1899, for furnishing and erecting a complete refrigerating and ice-making plant at Manila, Philippine Islands. J. G. C. LEE, Colonel and Chief Quartermaster. 1213

CHURCH.

[At Houghton, Mich.] Bids are wanted April 1 for a church. REV. A. J. REZEK, pastor. 1213

MATERIALS AND WORK.

[At Texarkana, Ark.] Proposals will be received at Miller County Court-house on April 3, 1899, for all necessary additional materials and work on the new Court-house of said County. J. M. MONTGOMERY, commissioner. 1213

Treasury Department, Office Supervising Architect, Washington, D. C., March 16, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 13th day of April, 1899, and then opened, for the low-pressure and exhaust steam-heating mechanical ventilating apparatus, etc., for the United States Post-office, Court-house and Custom-house building at St. Paul, Minnesota, in accordance with drawings and specification, copies of which may be had at this office or the office of the Superintendent at St. Paul, Minn. JAMES KNOX TAYLOR, Supervising Architect. 1214

JAIL AND SHERIFF'S RESIDENCE.

[At Peru, Ind.] Sealed proposals will be received by the Board of Commissioners of Miami County until April 22 for the erection of the new Jail and sheriff's residence. JESSE W. MILLER, president. 1214

COURT-HOUSE.

[At Yates Center, Kan.] Sealed bids will be received until April 10, by W. O. EADES, County Clerk, for the erection of the Woodson County Court-house. 1214

FREE PUBLIC LIBRARY BUILDING.

[At Jersey City, N. J.] Bids are wanted April 3d for the new Free Public Library Building. L. J. GORDON, President, Jersey City, N. J. 1213

SCHOOL-HOUSE.

[At Lakota, N. D.] Sealed bids will be received until April 2d, 1899, for the erection and completion of a seven-roomed brick school-house for Kane School District, after plans by J. W. Ross, architect, Grand Forks, N. D. A. E. SHEETS, Clerk of Board of Education, Lakota, N. D. 1213



:: SPECIFY ::

GLIDDEN'S SURFACENE

In place of "SHELLAC," for the following reasons - - - - -

1. Resists moisture better.	4. Makes a smoother surface.
2. Requires less sandpapering.	5. Varnish adheres to it better.
3. Holds up varnish better.	6. Far more durable.

For particulars address.....

THE GLIDDEN VARNISH CO.,
CLEVELAND, OHIO.

What is Your Work?

If you are dissatisfied with your situation, your salary, your chances of complete success, write to The International Correspondence Schools, Scranton, Pa., and learn how others so situated are getting

An Education by Mail

Students in the courses of Mechanical or Electrical Engineering, Architecture, or any of the Civil Engineering Courses are soon qualified for salaried drafting room positions. Write for pamphlets.

The International Correspondence Schools,
Box 986
Scranton,
Pa.

The Heliotype Printing Co.

LITHOGRAPHERS, ETC.

211 Tremont Street
Boston

FAC-SIMILE REPRODUCTIONS IN COLOR
OR MONOCHROME A SPECIALTY



Lithography
Heliotype
Color Printing
Photogravure
Maps, Plans, etc.

BEST WORK ONLY
PROMPT DELIVERY
REASONABLE PRICES

WRITE FOR ESTIMATES

Professional Ethics.

The following . . .

. . . CODE OF ETHICS . . .

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 15. The assumption of the title of "Architect" should be held to mean that the bearer has the professional knowledge and natural ability needed for the proper invention, illustration and supervision of all building operations which he may undertake.

SECTION 16. A Member should so conduct his practice as to forward the cause of professional education and render all possible help to juniors, draughtsmen and students.

Fire-proof Building.

TRADE
RARITAN

**FRONT BRICK.
HEARTH TILE.
FIREPROOFING.**

MARK. MANUFACTURED BY
RARITAN HOLLOW AND POROUS BRICK CO.
Henry M. Keasbey, Vice-Prest. Office, 874 Broadway. Rowland P. Keasbey, Sec. and Treas.

CENTRAL FIREPROOFING COMPANY,

Manufacturers and Contractors for the Erection of

**HOLLOW TILE and POROUS
TERRA-COTTA**

FIREPROOFING

HENRY M. KEASBEY, President.

874 Broadway, New York.

CONTRACTS TAKEN IN ALL PARTS OF THE UNITED STATES OR CANADA.

PIONEER FIREPROOF CONSTRUCTION CO.,

1515 Marquette Building, Chicago.

Manufacturers and Contractors for every description of

**Tile for Fireproofing
ALL KINDS OF BUILDINGS.**

Our Goods embody all the latest Scientific ideas for rendering buildings Thoroughly Fireproof.
CONTRACTS TAKEN IN ALL PARTS OF THE UNITED STATES. Send for Illustrated Catalogue and Price List.

PITTSBURGH TERRA COTTA LUMBER CO.,

Manufacturers and Contractors for the Erection of

**POROUS AND DENSE
TERRA-COTTA.**

FIRE PROOFING

Works: PITTSBURGH, PA.
WASHINGTON, N. J.
E. PALESTINE, O

General Offices: Carnegie Building, Pittsburgh, Pa.

Eastern Offices: Townsend Bldg, New York, 411 John Hancock Bldg, Boston, Mass.

The Roebling System of Fireproofing.



Highest efficiency in fire and water tests of the New York Building Department and now the recognized standard of fireproof construction. Send for catalogue.

The Roebling Construction Company,
121 Liberty Street, New York.

MINERAL WOOL

FIRE, SOUND and VERMIN PROOF INSULATOR.

Samples and Circulars Free.

WESTERN MINERAL WOOL CO.,
Cleveland, Ohio.

U. S. MINERAL WOOL CO.,
1 Cortlandt St., New York.

THE ATLAS CLAY MATERIAL CO.

DENSE AND . . .
POROUS
HOLLOW TILE .

Fireproof Construction.

Contracts taken in any part of the United States or Canada. . . .

GERMAN NATIONAL BANK BUILDING, Cor. Wood St. and Sixth Ave. PITTSBURGH, PA.

S. J. PARKHILL & CO.

PRINTERS

226 FRANKLIN STREET, BOSTON, MASS.

Book and Miscellaneous Printing.

Illustrated Trade Catalogues.

Town Histories and Genealogies.

Electrotyping and Stereotyping.

Mercantile and Commercial Printing.

With all the most approved modern machinery and material in each department, the excellence of the work, at fair prices, is assured.

Works on Architecture a specialty.

Information regarding work, in any department, will at all times be cheerfully and promptly furnished, either personally, or by correspondence.

PERTH AMBOY TERRA-COTTA COMPANY,

—OF—
PERTH AMBOY, NEW JERSEY.
OFFICE, 160 Fifth Ave., NEW YORK.

BOSTON AGENTS:
WALDO BROS., 102 MILK STREET.

THE Northwestern Terra-Cotta Co. Manufacturers of Architectural Terra-Cotta.

WORKS & MAIN OFFICE: CITY OFFICES:
Cor. Olybourn & Wright- Room 1118 Rookery Bldg.
wood Avenues. cor. La Salle & Adams St.

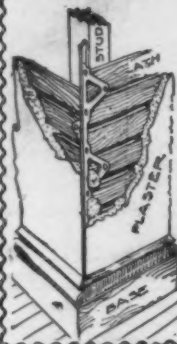
CHICAGO.
Estimates given on application. Send for
Catalogue and Samples.

SEYSEL ROCK ASPHALT

and Bitumen Damp Course,
NEW YORK MASTIC WORKS,
32 Broadway, New York.

A Small Steel Device....

that sets into the plaster of projecting corners and prevents them chipping is the Woods' Steel Corner (Galvanized). For wood or fireproof construction. It displaces the old wooden bead and adds strength and attractiveness to a corner. It produces a neat mitre at wainscoting and can readily be papered over. It guides the trowel and renders corner-making easy and rapid.



WOODS' STEEL Corner

For Plaster Walls

saves for everybody that uses it, and makes a better job. It is the cheapest and most satisfactory metal corner in the market. Write for printed matter, prices, etc., to

Gara, McGinley & Co.,
Sole Manufacturers,
23 S. 17th St. Philadelphia.

NEW ENGLAND

MATERIAL-MEN & CONTRACTORS.

BLUE PRINTING.

CHAS. E. MOSS,
Rapid Printing Papers.
14 Broad Street, Boston.
Telephone: Boston, 2751-2.

GRAVITY CONCRETE MIXERS.

CONTRACTORS PLANT CO.,
85 Water St., Boston, Mass.

PERSPECTIVE DRAWINGS.

AMERICAN ARCHITECT AND
BUILDING NEWS CO.
211 Tremont St.
Boston, Mass.

SASH CORD.

SILVER LAKE CO.
78 Chauncy St.
Boston, Mass.

WATERPROOF CELLARS.

FRANK B. GILBRETH,
160 Fifth Ave.,
55 Water St., Boston, New York.

SEAM-FACE GRANITE.

GILBRETH SEAM-FACE GRANITE
CO.
160 Fifth Ave.,
55 Water St., Boston, New York.



THE HEAD OF THE PRESIDENT

is protected by the best brand of roofing tin that is made. This is the "TAYLOR OLD STYLE" brand made only by us. Contracts for such work are awarded only after the strictest tests and examinations. The "TAYLOR OLD STYLE" tin was used to replace another brand which had been put on the White House only a short time before. What is good enough for the first citizen of the first country in the world, ought to be good enough for your customers.

N. & G. TAYLOR CO.,
Manufacturers, Philadelphia.

BUILDING MATERIALS.

Reported for the American Architect and Building News.

New York. Boston. Chicago. Philadelphia.

BRICK.—P. M.

(Wholesale Prices.) (Prices to Builders and Contractors.)

Common: Cargo float.

Pale.....	3 25 @	3 75
Jersey.....	5 75 @	6 00
Long Island.....	@	5 75
Up River.....	@	6 12 1/2
Haverstraw Bay 2d.....	@	6 50
" 1st.....	@	7 00
Hollow.....	@	7 00
Fronts.....	@	12 00
Croton, Brown.....	@	12 00
" dark.....	@	12 00
" red.....	@	12 00
Chicago pressed.....	@	12 00
" Moulded.....	@	12 00
Baltimore.....	37 00 @	41 00
Philadelphia.....	19 00 @	21 00
Trenton.....	17 50 @	18 50
Milwaukee.....	@	29 00
Moulded.....	@	29 00
Red Pressed.....	@	27 00
Buff.....	45 00 @	70 00
Moulded Red & Buff.....	@	70 00
Enamelled: Imp.....	85 00 @	100 00
Enamelled (edge and end).....	90 00 @	110 00

CEMENT, LIME, etc. (Per cask.)

Rosendale Cement.....	65 @	75
Louisville.....	Not sold.	
Utica, Akron, Buffalo, Milw'ke.	2 25 @	2 50
Portland, Eng. (Gibbs).....	2 50 @	3 00
" " (K. B. & S.).....	2 25 @	2 50
" " (Black Cross).....	2 50 @	2 50
" " (Burnham).....	2 50 @	3 00
" " (White's).....	3 00 @	3 75
" French (Lafarge).....	2 90 @	3 25
" Ger. (Alsen).....	2 25 @	2 40
" " (Vorehler).....	2 50 @	2 90
" " (Lagerlofer).....	2 75 @	3 00
" " (Dyckerhoff).....	2 50 @	3 00
" " (Hanover).....	2 35 @	2 45
" " Stettin, (Anchor).....	2 75 @	3 00
Roman.....	4 25 @	4 75
Keene's coarse.....	@	6 50
" superfine.....	@	6 50

Lime:

Lime of Tell.....	@	4 00
Hydraulic Lime.....	@	1 45
Chicago Lime in bulk.....	{ St. John	@
Wisconsin Lime.....	@	85
Rockland and Rockport, (Com.).....	@	95
Rockland, finish.....	@	75
Kelley Island Lime, finish.....	@	75
State, Com. cargo rates.....	@	65
State, finishing.....	@	75
Plaster-of-Paris (calcined).....	1 30 @	1 40
" (casting).....	@	1 00
Hair (cattle) & bush.....	14 @	16
" (Goat).....	17 @	19
Sand, & load.....	1 00 @	1 25

Domestic Com.

Domestic Com.....	8 50 @	9 50
Domestic Face.....	18 00 @	25 00
Philadelphia.....	35 00 @	40 00
" 1st.....	10 00 @	11 00

Phila. mould

Phila. mould.....	50 00 @	80 00
-------------------	---------	-------

Enamelled B'k.

Enamelled B'k.....	105 00 @	120 00
Imported.....	120 00 @	135 00
Domestic.....	110 00 @	115 00

Enam. (edge)

Enam. (edge).....	80 00 @	100 00
" (edge & end).....	110 00 @	115 00

B'ks, Shoobridge & Co.

B'ks, Shoobridge & Co.....	2 75 @	3 00
English 2 30.....	2 75 @	3 00
2 75 @ 3 00.....	3 50 @	4 00
8 00 @ 9 00.....		

Building 4 50

Building 4 50.....	75 @	1 00
sewer add 1.00.....	75 @	1 00
hollow, add 1.25.....	2 50 @	2 80
Enam. Imp. Bk.....	2 50 @	2 80
125 00 @ 145 00.....	2 50 @	2 80
Enam. Domes.....	2 50 @	2 80
70 00 @ 85 00.....	3 75 @	4 25
Select Red Sand.....	2 90 @	3 20
Mold.....	2 60 @	2 90
St. Louis Hyd'le.....	3 10 @	3 30
Press.....	2 75 @	2 90
Collinsville, do.....	2 85 @	3 00
Findlay, do 22 00.....	2 85 @	3 00
Chicago, do.....	2 75 @	3 00
assorted shades.....	2 75 @	3 00
16 00 @ 20 00.....	2 75 @	3 00
Chicago, do.....	2 75 @	3 00
Brown.....	2 75 @	3 00
Chicago, do Red.....	2 75 @	3 00
Roman.....	2 75 @	3 00
Chicago, do Br'n.....	2 75 @	3 00
Roman.....	2 75 @	3 00
Bushnell Buff.....	2 75 @	3 00
.....	25 00	

In Yard.

In Yard.....	1 30 @	1 50
Sq. Hard \$80 @ 9 00.....	1 30 @	1 50
" @ 7 00.....	2 85 @	3 15
Salmon @ 5 50.....	2 30 @	2 60
Sq. " @ 5 50.....	2 85 @	3 15
Light Stretchers.....	2 75 @	2 85
9 00 @ 11 00.....	2 50 @	2 75
Medium.....	2 75 @	2 85
Red.....	2 60 @	2 75
" @ 12 00.....	3 00 @	3 25
Dark.....	2 75 @	2 85
" @ 12 00.....	2 75 @	2 85
Pressed.....	2 50 @	2 75
" @ 17 00.....	2 50 @	2 75
Paving.....	2 50 @	2 75
11 00 @ 13 00.....	2 50 @	2 75
Second " @ 12 ".....	2 50 @	2 75
Third " @ 10 00.....	2 50 @	2 75

Dom. {

Dom. {.....	@	65
".....	@	85

Not sold.

Not sold.....	75 @	1 00
".....	75 @	1 00
".....	2 50 @	2 80
".....	2 50 @	2 80
".....	2 50 @	2 80
".....	2 50 @	2 80
".....	3 75 @	4 25
".....	2 90 @	3 20
".....	2 60 @	2 90
".....	3 10 @	3 30
".....	2 75 @	2 90
".....	2 85 @	3 00
".....	2 75 @	3 00
".....	6 00 @	7 00
".....	9 00 @	10 00

Not sold.

Not sold.....	45 @	55
".....	45 @	55
".....	Not sold.	
".....	Not sold.	
".....	1 00 bulk, 75c.	
".....	Not sold.	
".....	1 65 @	1 75
".....	1 75 @	1 90
".....	15 @	20
".....	20 @	25
".....	1 00 @	1 25

Not sold.

Not sold.....	1 50 @	2 25
".....	1 75 @	2 50
".....	20 @	
".....	30 @	

White Lime & bush

White Lime & bush.....	25 @	30
".....	1 25 @	1 50
".....	1 00 @	1 00

Not sold.

Not sold.....	1 50 @	2 25
".....	1 75 @	2 50
".....	20 @	
".....	30 @	

NOV - 0 1914

