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CONTENTS

THE rise in the price of building-materials, which we have repeatedly predicted, as a probable consequence of the improvement in business conditions, and the tendency to confident speculation which has already shown itself in the stock-market, has begun in earnest. The great advance in the price of copper, which has nearly doubled within a short time, has necessarily raised that of brass and bronze; and, for some reason not easily explained, unless by the feeling of producers that the market warrants an advance, the prices of lead and zinc, in the forms used in building, have risen materially within a few days. The advance in prices of steel and iron, which is generally expected, has not, as yet, taken definite form, except that dealers and manufacturers, being overwhelmed with orders, do not care to make concessions; but the completion of the great combinations of manufacturers now forming will, in all probability, be signalized by the adoption of a new scale of prices. In plumbers' earthenware, higher prices are demanded, and are easily obtained, the manufacture being controlled by a strong combination; and the less important materials show at least a firm tendency, while glass, which ranks with these, has risen greatly in price within a few months. Lumber, while nominally unchanged, or nearly so, has really advanced to a considerable extent, dealers no longer making the concessions and discounts which have been the rule for some years past; while freights, which enter largely into the cost of lumber delivered at the site of a new building, even where mill prices are unchanged, are much higher than they were a year ago. As we have often said, rising prices for materials generally stimulate building-operations, and the prospect seems to be that the coming season will be one of great activity, unless some political or industrial convulsion should frighten capital into concealment, or into foreign investments, which are already beginning to absorb American funds.

IT is rather singular that the great industrial combinations lately formed, or in process of formation, relate, in most cases, to products which are made here more cheaply than anywhere else in the world. A few years ago, trade combinations were made to control the highly-protected manufactures, so that prices could be held, by preventing domestic competition, just at the point where foreign goods, loaded with an enormous duty, would be shut out. At that time, it was regarded as a matter of course that American goods must cost more to manufacture than foreign ones of the same sort, and both the high tariff and the manufacturers' trusts were excused on this ground. Now the circumstances are totally changed. American iron and steel are shipped four thousand miles across the ocean, and sold in England, Germany, Belgium and France at lower prices than the product of the local mills; and plumbers' earthenware, which, as we were told a few years ago, could be made here only in a limited variety of forms, and at an expense which made it difficult for the manufacturers to compete in price, in their own country, with English ware on which an extravagant tariff tax was levied, is now made in and about Trenton, with a perfection which English ware hardly approaches, in all the English forms, besides other, and difficult ones, peculiar to our potteries, and at prices so moderate that a large amount of Trenton ware is now regularly shipped to England, and sold in competition with the product of the potteries which, until recently, held the markets of almost the whole world. It is obvious that this position of our manufactures gives greater strength to combinations of producers than they have ever before possessed. The tariff still exists in all its pristine force, and if a general combination of manufacturers should choose to put up prices in the home market to the level of duty-paid foreign goods, it is difficult to see how consumers here could make any effectual resistance. Meanwhile, the American manufacturers, producing goods at a smaller cost than their foreign rivals, could always dispose of their surplus product at a profit abroad, leaving their American customers the choice between paying them one hundred per cent profit directly, or buying the same goods in Europe, and paying the same amount for two ocean freights, insurance and duties.

M. PLANAT, in *La Construction Moderne*, writes earnestly of the tendencies of municipal engineering, as shown in the plan, which has been adopted by the town of Nuremberg, of constructing a "boulevard" in that ancient city, going straight through the most interesting portion of it, from the S. Lorenz church to S. Sebaldus, on the other side of the river. Many of our readers undoubtedly know the delicious charm of Nuremberg, where the tourist, after he has passed through the modern suburbs, and entered the city gates, finds himself in a little world of historical interest, picturesque charm and artistic beauty. The streets, which are by no means narrow or dark, are lined with buildings which are often beautiful, and always interesting, nearly every one having at least a pretty oriel or dormer, or carved timbering, while the cellar-windows, and the fanlights over the doors, are filled with an infinite variety of delightful wrought-iron work; and the scene is animated by a sufficient number of people, who do not seem at all in a hurry, and make the most picturesque groups about a certain old fountain, provided with movable spouts, by means of which the water can be diverted from the basin, into pails, by the well-conducted members of the groups, or down each other's necks by the naughty ones. From the church of S. Lorenz, which is crowded with splendid specimens of mediæval work in wood and stone, the principal street descends slightly to the river Pegnitz, crosses it by an old bridge, in the midst of the most picturesque surroundings, and curves again gently upward, ascending irregularly to the Castle, which adjoins the highest portion of the city wall, and commands a magnificent view over the Bavarian country. Nothing more advantageous in the way of situation is enjoyed by any modern town; and, as the streets and houses are kept clean, and there is plenty of air and sunshine everywhere, it seems as if it might have been left unchanged. The municipal authorities, however, have decided otherwise. Apparently, they are tired of going up and down hill, although the grades, except in the highest part of the town, near the Castle, are not steep, and they have decreed that their new boulevard, which is to be something like a mile and a half long, shall not only be perfectly straight, but absolutely level from end to end. This ridiculous whim of course involves crossing the Pegnitz by a lofty viaduct, destroying the value of an immense amount of mercantile property in the centre of the city, which will be left far below grade, and practically inaccessible, and making the boulevard itself muddy, dusty and difficult to clean, from the lack of natural drainage; while it will sweep away the fountain, and, in general, disfigure one of the most attractive towns in Europe almost beyond recognition.

M. PLANAT is moved by this scheme to rebellion, not only against the disfigurement of a beautiful South German town, but against the system under which municipal improvements generally are carried on. In nearly all countries, a perfectly straight, wide street, regardless of natural topography, artistic monuments, or any other existing circumstance, is looked upon as the ideal, which should, if possible, be attained, and this ideal is pursued at enormous cost, not only in money, but in the sacrifice of pecuniary and artistic interests which might be protected without any sacrifice of convenience, and with great advantages in point of beauty of effect. M. Planat says that the ordinary argument is that if a street is curved, it will take perhaps some seconds longer to pass through it, and that if a certain number of thousand people a day take a certain number of seconds longer to pass between two points than they would if the street were straight, the total loss of time to the community, reckoning the value at average day-work wages, would be enough to pay the interest on a large sum. Apart from the fact that very few people, either on foot or in a conveyance, pursue a rectilinear and uninterrupted course through any city street, and that a circuitous route, in large towns, is very often a quicker way of reaching any point than the direct line through the crowded "boulevards," M. Planat does not believe that the aggregate income of the community is increased to an appreciable degree by straight streets. The argument that it is necessary to use straight lines instead of curved ones, in order to save the citizens' time and money, requires the assumption that the citizens can find remunerative employment for all their time, and that they can only spend a few seconds in passing through a beautiful and interesting street, instead of a dull and wearisome one, at a pecuniary sacrifice; but the facts are far from bearing out this assumption. M. Planat says that this argument was explained to him one day, in connection with the presumed advantages of the new Metropolitan Railway, as he was walking near the Seine. Glancing toward the river, in the course of the conversation, he noticed numerous anglers, fishing with admirable patience for the fishes that refused to come to their hooks. Around each angler was a group of spectators, watching his ineffectual efforts with a patience equal to his own. A little farther on was a steamboat from London, discharging a cargo of crockery, and the parapet of the neighboring bridge was lined with a double row of people, who found no difficulty in letting their business wait while they watched the operation. Reckoning the number of the patient idlers whom he had himself seen in the course of his short walk by the river, multiplying it by the average number of minutes that they would probably stay where they were, and multiplying this product by the average amount of wages per minute, he arrived at a result very nearly equal to the presumed value of the time which would be saved by the rapid transit of the Metropolitan Railway to its hundreds of thousands of passengers; so that, as a matter of financial economy, these few misguided persons were depriving their country of practically the whole pecuniary advantage which was to be attained by means of the underground road. Applying the same reasoning to the "boulevard" question, a few idlers or drunkards will waste more of their fellow-citizens' money in a week than would be saved by straightening streets in a thousand years; and if, as there is reason to think, civic beauty and picturesqueness have a beneficial influence on the morals of citizens, it is certainly the part of financial prudence to direct municipal engineering in such a way as to combine æsthetic with geometrical perfection.

THERE is, at last, a prospect that the Hudson River tunnel may be completed. The company owning the tunnel fell into financial difficulties some six years ago, defaulted interest on its bonds, and finally abandoned the work. The tunnel, which, it will be remembered, is nearly completed, was allowed to fill with water, to preserve it from the pressure of the river, and is probably in good condition, needing only to be pumped out. Naturally enough, the bondholders, who have paid a good price for their bonds, would like to see some one else advance the additional sum required to complete the work, and put it in shape for earning interest; and an arrangement is said to have been made, by which the bonds will be foreclosed, the stockholders assessed, and new stock and bonds issued. With the money obtained by assessment, and the sale of new securities it is hoped to carry out the work as originally intended, completing two tunnels between New York and New Jersey.

SOME one has begun, a little prematurely, to compose a retrospect of the history of art during the nineteenth century, and one cannot help wishing that a similar review might be written of the development of architecture during the same period. It would certainly be a curious story. Beginning with the simple-minded, but still captivating, Classic styles of the so-called Colonial period in this country, the Empire in France, and corresponding varieties in England and Germany, architecture pursued for about forty years an unpretending, but, on the whole, very satisfactory course. Then suddenly burst upon the architectural world a deluge of archæology, sentimentalism, inspiration, symbolism, conceit and cant, which has not yet subsided, and under the influence of which the century has been marked by a jumble of the most absurd and ugly monumental buildings that ever defaced the earth. The Greek Revival, which had been, so to speak, incubating since the publication of Stuart and Revett's "*Antiquities of Athens*," late in the last century, broke out with fury under the stimulus of the publications of the Society of Dilettanti, and those of Wood, Penrose and others, and, for a time, hyperbolic curves, low pediments, triglyphs and "honeysuckles" held possession of the field. Something might, perhaps, have come of this movement, but for the appearance of Pugin and Ruskin, who adopted the novel device of questioning the morality of every one whose taste differed from their own. This proved extremely successful, for nothing is more seductive to the average man than an excuse for feeling himself spiritually superior to other people. Pugin, who knew something about architecture, was discreet enough to confine his enthusiasm to English ecclesiastical buildings, which he taught architects and the public to admire; but Ruskin, who thought that comparing York Minster to an elephant, lying on his back, with his feet in the air, was architectural criticism, and who fortified himself at the outset against expert comment by casting continual sneers and ridicule at architects, gained an immense following of the persons who like to hear other people called bad names. As the Renaissance, according to the new oracle, was "the architecture of pride," it was obvious that no regenerate person could have anything more to do with it; and as English Gothic buildings looked like inverted elephants, and had "holes for surreptitious drainage" instead of doors, and were adorned with "carving-knives" instead of tracery, it was equally obvious that they should be abhorred; and as the only style of architecture which seemed to Mr. Ruskin to harmonize with virtue was the Italian Gothic or Romanesque, architects soon found it necessary, under pain of being classed with the scoffers, to provide for their clients objects suited to the spiritual elevation of their souls. In England, and in this country, the Classic styles were abandoned, together with the Puginesque English Gothic, and an epidemic of polychromatic Italian Gothic set in, the severity of which was only surpassed by the suddenness with which it died away. Street, who was a thorough architect, was, perhaps, the first to suggest that buildings had something else to do than suggest sunsets over lagoons, or the beauty of self-abnegation, namely, not to fall down; and his inclination toward the robust and constructional French Gothic, seconded by the works of Viollet-le-Duc, did much to restore sanity to architectural design. With a return to the practice of trying to adapt the forms of buildings to the purposes for which they were to be used came, naturally, a return to the square openings and horizontal lines of the Renaissance, and, in little more than fifty years, the cycle has been completed, and the models which our grandfathers consulted are now again the foundation of our architecture. Meanwhile, although the science of construction has made immense progress, hardly a single idea of permanent value has been added to the artistic side of architecture. The century has been filled with essays of all kinds. In addition to the Colonial, Greek, Puginesque, Polychromatic, Italian Gothic, French Gothic and Queen Anne styles, there have been excursions into the Richardsonian Romanesque, the Norman-Shaw — picturesque — domestic, and so on; but, although these have shown, for a time, great promise, they have all proved abortive, and the average architect of to-day, at least in this country, has put aside all his Prout and Kirby and Norman-Shaw sketches, and his photographs from Richardson buildings, and provided himself with Classical French, or Italian, or Colonial patterns, in readiness for his next commission. What this indicates for the twentieth century it is difficult to foresee. It is hardly possible that the cycle will be traversed again, but on what will be based a fashion which will last for a hundred years, and what form its development will take, no one can now say.

NATURE'S CATHEDRALS.[1] — II.

A FEW HISTORICAL FACTS.

Street-sign on the Mairie of the Tenth Arrondissement, Paris. M. Margotin, Sculptor.

BY focusing the date of the earliest dawn of Gothic architecture with that of the use of caverns and caves by the persecuted Christians driven from Rome a fuller, stronger light will be thrown on the theory here presented.

It was in the depths of the Dark Ages when the whole savage world from the Baltic to the Black Sea was poured down upon Italy, when the barbaric, the Roman and the Christian elements were mingled in a chaotic struggle for predominance, when art was dead and literature stifled, that the first glimmering indication of a change from the style of building that then prevailed became apparent.

So faintly at first did it gleam through the mists of ignorance and superstition that enshrouded its dawn, so dim and uncertain indeed is everything connected with its advent, that it has even become a question what title belonged to this remarkable style of church-building. And whatever clue as to its origin may have been furnished in this way is, perhaps, forever lost. But by whatever name it may have been known prior to the sixteenth century, that of Gothic, whether given in derision or not, is now universally accepted.

The tenacity with which this title has maintained its hold, regardless of the many attempts of different nations to claim it as their own national style, and of the strongly combined efforts to give it a more general title (such as Ecclesiastical, or Christian, or Pointed Style — anything but Gothic), shows such strong vitality as to argue a certain fitness. And though the title may imply roughness, coarseness, barbaric rudeness, and the style, on the contrary, convey an idea of delicacy, purity, grace, the fact of its still holding is a strong proof, strengthened, perhaps, by this very seeming want of fitness, that it belongs there by some inherent right.

From the meagre notes of historians we gather little on the subject. To say that "the Gothic style of building, indicated chiefly by the Pointed arch, arose with the dawn of the Christian Era and spread with the spread of Christianity," is rather a vague way of putting it.

It is to the Roman branch of Christianity that the Pointed arch strictly belongs, the Greek branch of the Christian Church having always shown, and still showing, a marked preference for the rounded Byzantine style, and no traces having been found east of Italy of the Gothic *principles* of building.

That it arose with the Church of Rome, the cradle of Christianity, and followed its course, advancing at first with painful steps and slow; that it culminated in an outburst of glory when the Holy Roman Empire, enthroned upon the gathered riches of the world, had attained its highest earthly power; that as the one became corrupt, the other, from a like embarrassment of riches, grew to be "debased"; that the Reformation, in suppressing the power of the Church, abolished at the same time the use of this extravagant style of church-building, grotesque, as it had become — prohibiting it in England by law, as an unholy thing — looking as the Protestants did upon every bell, bowl and vest of the Romish service as a hidden device menacing the liberty and welfare of mankind, and that, as the ceremonial form of worship was denounced by them, it fell into disfavor; and that now it is only used where the Roman Catholic form of worship prevails, or where the tendency in that direction is obvious. These are all historical facts too well established to dwell upon here.

It was not until after the removal of the Imperial Court to Constantinople that Rome became really — as she had long been nominally — the head of the visible Church of Christ. Up to this time the persecutions of the Christians had interfered with any attempts that might have been made toward the building of churches. The Roman converts were often forced, we are told, to resort for safety to the Catacombs, and for many years these grewsome abodes of the dead were used by them for the performance of other sacred rites besides those of burial. However this may be, there can be no question that many Christians were "driven to the fastnesses of the mountains and found in the caves which abound throughout that region of country a place where they might hold those meetings so dear, so vital to every Christian heart."

[1] Continued from No. 1207, page 45.

It was this assembling themselves together which distinguished the Christians so markedly from the pagans round about them and gave them their wonderful strength and vitality.

With a statesman's eye Constantine had perceived the strength of this hunted sect. "He saw in it a cohesion, a corporate character unlike anything else in the Empire. It was impossible to touch the Church anywhere without the whole body being thrilled throughout from end to end, so thoroughly was it one."

The first wants the old Roman after his conversion endeavored to supply to the Christians whose favor he desired to propitiate were suitable buildings in which to assemble and hold their religious services. The pagan basilicas were transformed to meet this want and many new and spacious edifices were erected. The building of churches became the all-absorbing occupation of the time.

To trace the Church through all its phases — from its merging into monasticism, when voluntary martyrdom took the place of the persecution it had so long endured — through the Crusades and their influence, through the various inroads of the northern barbarians, etc., would not be required to reach the point here aimed at. But the invasion of Italy by the Goths, their possession of Rome for a time, their conversion to Christianity, their subsequent persecution, and their spreading afterwards throughout Germany the ideas, architectural as well as religious, gained from the Romans, may be noted as bearing on the subject; since a perceptible change in the style [2] of building became thereafter apparent.

Driven from Rome to the fastnesses of the mountains, the barbaric converts not only found in the caves a refuge from their foes, but, still more, they found ready for their service spacious halls in which they could assemble and worship together, — halls not only spacious but graced with forms that challenged comparison with the pillared temples of the Romans, which had, of late, so filled their souls with admiration and delight. Their hymns of praise were echoed back from lofty vaulted domes supported as it were by slender clustered columns. There were arcades and cloisters, rosaces and ogees, pendants and pinnacles, all dazzling in their whiteness and gleaming weirdly in the faint light.

A newly awakened taste for the beautiful had served already to open their eyes to a recognition of beauty in forms long familiar, no doubt, but till now overlooked, unrecognized.

We can but fancy the effect upon the minds of the hunted Christians such temples as these would produce, — temples well fitted for the stately form of worship, the elaborate ceremonial, demanded by the Church of Rome, temples a comparison with which would cause at least the interiors of the Classic structures of the Italians to seem bald and monotonous. For faultlessly symmetrical as might have been the elegant façades of the Roman builders, no attempt at decoration within had been made at that early date. They were closely modelled in accordance with the Greek school, which took little note of anything but the exteriors of their churches; though later, and before the Gothic influence had, perhaps, had time to affect them, a more ornate fashion was adopted from the Byzantines and Saracens, among whom mosaics, arabesques and geometric designs prevailed.[3]

For at the same time that certain constructive principles are essential to make a building Gothic, it should be borne in mind that a structure could be Gothic without ornamentation of any kind. To the great majority anything with a Pointed arch is Gothic; but something more than the Pointed arch, the discovery of the source of which we have so often been assured would elucidate the whole mystery, is needed in the case. The buttress contributes more in bringing the whole of a mighty structure into one splendid mass, concentrating the separate parts into one grand whole, than any other single factor. Neither the Greek nor the Oriental has been able to reach this highest effort in art. To the Norman builders, who are believed to have first used the central tower in their churches, the buttress was unknown. The limited height they reached with their towers was attained by clumsy masses of masonry devoid of grace and, unlike the Egyptian, wanting even in stability. The Gothic, by soaring to an elevation undreamed of before, by a method not deducible from any previously known process of building, lifts itself to a plane where it ranks not only with the Greek and the Moslem but the Egyptian. And this elevation is attained with an easy grace, a delicacy and lightness not suggestive of durability, and yet strength is one of its main characteristics. It is, therefore, in the combination of these two factors, the arch and the buttress, that the constructive principle lies — the great principle which has established the Gothic as one of the two great schools of architecture. "There are but two schools of architecture, the Greek and Gothic. All others are but imitations, amplifications, transformations, disfigurements." — *Taine.*

The principle of the pure Gothic should be borne in mind — that

[2] This change met with strong and bitter opposition from the trained Italian architects, who had no tolerance for any style but their own composite Roman, the national style admired and copied, as it was, all over the civilized world. An innovation so pronounced, originating from such a source, invented by a race of people ignorant of all the laws of architecture, and who, besides, had made themselves odious by spreading havoc and desolation all over their fair land, could only arouse scorn and aversion. For this reason few specimens of the Pointed style — and none that can be ranked as pure Gothic — are found in Italy, being always more or less mingled with other and conflicting styles.

[3] Certain decorations of a cave-like origin are likewise found among the Orientals; even an order called "the stalactite." But it should be noted that the Moslems only used a few of the merely decorative features of the Gothic. The principles upon which their structures were based were evidently unknown to the Orientals.

every part, including what might, at first sight, seem as mere ornament, should have a constructive value.

In what way this principle was worked out, even with the models in view, must always remain an enigma. The inventor himself might have found it difficult to describe in what manner the inspiration — for inspiration it must have been — came to him; whether it flashed upon him all at once, or whether slowly and gradually it dawned upon his mind how these separte forms could be best located in the construction of a church in such a manner as to fit themselves not merely for the interiors but at the same time to give an ornate effect without.

With this object in view and following, as we can see, for the most part, their natural order, the vaulting, formed by the interlacing arches — or forming them, rather — he places above for a ceiling; the columns, instead of arranging them without, merely for ornament, as his predecessors the Greeks had done, he uses within, supporting the roof; the buttresses and pinnacles or stalagmites, he finds, are needed not merely to adorn but to strengthen the outer walls by bracing the inside pressure.

In thus substituting the buttress for the Greek column as an exterior ornament, he finds much can be accomplished — something more than mere ornamental effect, something which, if his name were known, should cover him with glory.

He makes no effort to look elsewhere for designs, nor to imitate another's work. This is apparent from the unity of purpose exhibited. His models are all before him. Unfettered by custom, unbiassed by rule or tradition, he uses them with freedom. He is no trained architect hampered by discipline, he is a savage, with nothing to blind him to the beauty of the natural forms around about him or check his impulse to appropriate them to his own uses — for the adornment of a temple such as he hopes some day to build. He sees this temple in his mind's eye — not so lofty perhaps as Cologne or Peterborough, nor so ornate as Milan, but chaste in its simplicity, a thing of beauty to charm the world forever, modelled, as it is, from one of Nature's own cathedrals.

Here under these high pillared domes

> "With stars and flowers all fretted
> Like the halls of Oriental monarchs"

we can fancy him, our architect, safe from his pursuers, with his loved ones around him, all newly awakened to the highest emotions of which the soul is susceptible. What wonder that he is stirred, that his faculties are aroused!

Gleaming amid the melancholy gloom are a few dim lights, ready to be extinguished at the first danger signal. Unconsciously they enter into his design.

Another proof, if other were needed, that the prototypes for the Gothic architecture were found in the depths of some dark cavern, is apparent in the artificial lights, inseparable as they are from all Gothic churches — not of mediæval times only but of the present day, and showing that they belong to the *germ* from whence the whole conception sprung. Candles, now no longer needed, are never omitted from a cathedral. Their use has spread indeed to other churches. However elaborate the carvings, the gold-grounded mosaics, the paintings, the gems, may be, though the richest embroideries and most costly laces, though all of gorgeousness that ingenuity can devise, be there, "the gay light of gladsome day" must needs be excluded, or only allowed to filter through darkly-stained glass. A mystical twilight reigns at noonday, and far away, clustered about the altar, are candles, or what seem to be candles. Often nowadays a metal tube takes the place of the old-time wick; but its glimmering gaslight conveys the needed impression; the type is complete. Though a slender wire with a tiny incandescent lamp should be substituted, as in time it no doubt will, the semblance of the candle will still be there.

Candles, we are told, were invented by the early Christians, driven by persecution into caves and catacombs, where the want of artificial light was experienced, "and the first use of modern candles was referred to their time." And yet so lost is all recollection, all connection with the past, if you should meet in some foreign city a funeral procession wending its way under the glare of the midday sun, solemnly carrying long lighted tapers in their hands, not one of the mourners, not perhaps the priest himself who leads them, could explain to you that long years ago, when burials took place in the vaults and catacombs underground, candles were a necessity. Most likely you would be informed that they were used to keep off evil spirits.

Some light may possibly be brought to bear upon the *location* of this invention by trying to trace to its origin the one, the only, form distinctively Gothic *not* found in the caves — the trefoil.

An almost inseparable feature of Gothic art, the trefoil is sometimes found in vegetation and in other natural forms, notably in crystallization, but not in caves, or, if so, accidentally, and too rarely, to justify claiming it as a product of, or even as conventionalized from, limestone transition.

The trefoil, which in stone is merely decorative and without any decided structural value, is important in wood, adapting itself as a brace to the wooden arch and conducing to its strength even more than to its ornamentation. We may well, for this reason, lean to the theory advanced by Governor Pownall and others, that the earliest Gothic structures were of timber and were afterwards reproduced in stone. Not that the origin of the Gothic School of Architecture could be explained by an explanation that went no farther, but it seems at least a step in the right direction.

The scarcity of stone in Germany — none fit for building purposes being found from the north bank of the Danube to the Baltic — would account for the scarcity of any authentic remains of this style in the land where we have other reason to suppose the earliest Gothic churches were built; while at the same time the abundance of antique carved-wood furniture throughout Germany in this "ecclesiastical style" — the choir-screens, the altar-shrines, etc. — still remaining, would all indicate the mediæval taste for Gothic forms in that region of country. In the absence of all authentic remains of very early date (for we must receive with caution what purports to be Gothic remains: the ravages of incessant warfare, the no less barbaric efforts of restorers, so called, having, if any such existed, destroyed their value), this suggestion is important.

The rapid spread of this ecclesiastical style of building, which has also given rise to endless speculation, is thought by many to have been brought about by the Freemasons or church-building guilds which arose shortly before that time. This has been often asserted and is still upheld by some at the present day as a satisfactory explanation. The Freemasons have ever been credited by some with being the originators as well. But so wonderful was the rapidity with which other peculiarities of the Pointed style, as well as its mechanical principles, were diffused throughout Western Europe, in the utter absence of all scientific aids, and when we consider the turbulence of the times, the want of travelling facilities, etc., so closely is this outburst, as it were, connected with the invention itself, that any theory which claims to account for the one, to be entirely acceptable, must give some explanation of the other.

It seems a more plausible opinion that the guilds and Masons should have multiplied and spread, as they did, over all Europe, because they were needed to carry on the great work of church-building, the demand for which had become a passion. Their appearance on the scene at this opportune time seems rather to have been the effect instead of the cause of the furor for building churches.

Whether the spontaneous outburst of cathedral building in the eleventh and twelfth centuries, and its rapid spread all over civilized Europe, indicated merely that the times were ripe for it or that the Christians, who universally believed that the year 1000 was to be the limit of all earthly things, and that, therefore, to attempt to carry out permanently in stone the gigantic plans, which no doubt existed long before in all their magnificent perfection, and had been admired and copied in every monastery in Europe, would be absurd in the face of such a prospect, such a certainty, we can only surmise.

We do know, however, that after the dreaded year had passed and fears of the Last Judgment, or anticipations of the glories of the New Jerusalem, as the case might be, had alike proved unfounded, a revulsion of feeling took place. A transport of enthusiam thrilled all classes high and low. "The old wooden churches were rebuilt in stone." The mania for building cathedrals spread wherever the Church of Rome held sway, and for over three centuries may be said to have been the ruling passion of the times.

We are told the people began in a spirit of humility to drag carts and wagons to help forward the building of the church, and "their humility is made resplendent with miracles." Through the use of relics "miracles are often wrought and song and thanksgiving are offered continually to God." Indulgences were granted to all who engaged in the work. "Lords and princes and the rich and powerful and noble, both men and women," the chronicler tells us, "submit their necks to the yoke and, like brute beasts, drag to the asylum of Christ carts laden with wine, grain, oil, lime, stone, wood and whatever else is needed for the support of life or the structure of the church; and in the dragging it is wonderful to see that, when sometimes a thousand or even more men and women are attached to a wagon, so great is its size and so heavy the weight put upon it, they advance in such silence that no voice, not even a murmur, can be heard, and unless his eye beheld it no one would suppose himself in the presence of so great a multitude. . . . And there, at the prayers of the faithful you may see the sick and the infirm rise up in health from the wagons on which they had been lain, and the dumb open their mouths for the praises of the Lord, and those afflicted by devils recover a sound mind. . . .

"But when the faithful people, at the blare of the trumpets and the raising of banners at the front, set forth again, nothing hinders them on the way, neither high mountains nor deep waters, etc."

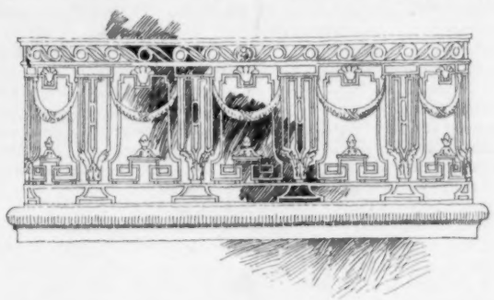
When this is the spirit in which these temples were built we cannot wonder — whether we regret it or rejoice over it — that the efforts in this age to revive Gothic architecture should be found to lack "spontaneity."

The effort has been made, however, and successfully. The Houses of Parliament built in 1861, as well as several beautiful churches and halls in England, Germany and France (in spite of this deficiency), are looked upon now with open favor.

The largest cathedral extant, over and above anything on the Continent, is now in course of construction in the very heart of London. Many reasons might be given for this nineteenth-century awakening, such as, the dogmas of Pope Pius IX, the revival of energy in Catholic missions, the fascinating ritualism of the Puseyites, the beautiful life and character of Cardinal Newman; or it may be that the conservative forces of society are rallying to the "Church of Rome as the most conservative of all institutions, and the one most likely to withstand the storm of socialism which has long been

booming ominously over Christendom"; most likely of all, however, it may be through its own innate vitality, for, according to the laws of art, being founded on an exact and complete imitation of nature, Gothic architecture must be enduring. M. H. McDOWELL.

THE ACOUSTIC PROPERTIES OF BUILDINGS.



THE Rev. Felix Shadwell, of Finningham, Stowmarket, Suffolk, contributes the following notes on the Acoustic Properties of Buildings from a speaker's point-of-view: —

It is well known that many churches are easier to speak in when full than when empty. The reason of this is that the congregation absorbs the sound — and often nothing more than the sound — of the preacher's voice, and checks the vibration of the main structure. Conversely, in buildings which are easy to fill with sound when empty, more effort is required when the seats are occupied — in a physical as well as in a moral sense. The resistance of the congregation has, then, to be overcome — and often more difficulty is encountered in making them responsive than the walls.

In a large building the resonance can be effectively lessened by the introduction of curtains or canopies, especially if hung well up in the air. When the Albert Hall was first used the resonance was so great that the sounds from the platform were confused. But when a canopy was stretched under the dome, so as to prevent any echo from it, a marked improvement was made; so that now it is one of the finest buildings in existence for the enlargement and conveyance of musical sounds.

The recitatives in oratorios are usually accompanied by a grand piano. As there are seats for some 7,000 persons, the instrument might seem inadequate. But it is not so. The tones are clear without being feeble. It is well known also that comparatively weak voices sound much fuller and louder there than in smaller concert-rooms, while the volume of sound from a full orchestra or the huge organ is not too great for the ample space. The best place to hear is the gallery, both for solos and choruses. This is true of most large halls where music is performed. There is little doubt that a canopy under the dome of St. Paul's would greatly assist a preacher in the nave.

The custom of stretching wires, either singly or in a net-work, across the interior of resonant buildings is of little use. And the reason is plain: wires offer very little obstruction to the sound-waves, and do not check the vibration of the main fabric at all — if anything, they tend to increase it. At any rate, if increased in number and size, so as appreciably to obstruct sound, they would themselves vibrate in the ratio of their own tension, and produce the same sort of effect as telegraph wires, or an æolian harp, that famous but very inferior instrument of music.

Probably the worst building in the world for confusion of sound is the chapel at Keble College, Oxford. The resonance there is so excessive that the mere movement of the foot on the floor causes a loud vibration, while the fall of a book produces a prolonged roar. It is quite impossible to conduct a service with proper effect. The organ makes multitudinous dissonance; the singing is mostly tumultuous discord, while the majority of preachers and readers merely cause the building to rebellow to their indistinguishable utterances. Only one man was ever well heard there in the early days of the college, and he had such a harsh voice by nature that it could hardly be said to contain a musical sound. Wires have been put up, but without effect, because wires are wholly inadequate to check vibration. What is required is tapestry on the walls and thick curtains before the doors, as well as banners in the roof. If the building was composed entirely of brick or mosaic work, it would be even more resonant than it now is. The seats and wooden roof, and the pulpit and the mosaics check vibration; but the whole structure is so compact, so excellently put together, that it responds very readily to every musical sound, and in a lesser degree to every sound. The brick-work is exceedingly good, the cement is of very fine quality, and, moreover, there is a very large wall-space compared with the cubical contents of the building. The best part of 80,000*l.* was spent, according to report, on this edifice, and, although the decorations are lavish and there is much beauty of detail and combination of colors, the result as a place of worship is lamentable.[1]

St. Paul's Cathedral in London is a difficult place for a single voice to fill. It may well be doubted whether any man could be heard from the pulpit to the west door. Canon Liddon, a master of elocution, could probably make his voice travel farther in it than any one, but he certainly could not be heard by every one in the nave if the church was full. He spoke with great deliberation, in almost a disjointed and fragmentary way, and on a very high note. But the interest of his ideas filled up the pauses between the different parts of his melodious and polished sentences, and the charm of his style kept those silent and eager who might not have been constrained by his earnestness and piety to give their whole attention to his discourses.

Ulm Cathedral, though more than 500 feet long, is easy to speak in, because the interior is diversified by beautiful carved-work, and the roof is comparatively low.

The mere height of many churches interferes with their usefulness as places of public worship. St. Paul's would be better if the dome was not so lofty. Cologne Cathedral and York Minster probably exhibit the same defect.

We know historically that Savonarola preached with marvellous effect in the Duomo at Florence, but we do not know that he could be heard all over the building; and, even if so, a man can often find out how to overcome the defects of a responsive fabric such as marble, of which material most churches in Italy are built.

With regard to St. Paul's a curious result of the shape of the building may be noticed when any one is preaching in the nave. At the circumference of the dome the voice may be inaudible to any one standing there, but on advancing down the building towards the west door it can be heard again. This is no doubt due to the fact that the sound escapes up into the dome and is dissipated there, but being confined somewhat by the roof of the nave, it becomes appreciable to the ear, though at a greater distance from the preacher.

Another large church in which sound is easily conveyed is that of St. Mary, at Bury St. Edmunds. The distance from the lectern to the west door is more than 120 feet, something more than half the entire length, but little effort is required to render words distinctly audible at the far end. The reason why the church is satisfactory in this respect is that there is a very large number of windows in it. They adjoin one another the whole way up the body of the church on both sides, so as almost to substitute mullions and glass for solid masonry. The clerestory exhibits the same peculiarity.

When builders of the "Perpendicular" period put in their broad and lofty lights in place of the narrow Norman windows, in such buildings as Southwell Minster, besides admitting more of God's first creation, they unconsciously reduced the vibration of the structure, and rendered it more available for intelligible worship.

Paradoxical as it may appear, a building ought to be a bad conductor of sound in order to be successful in acoustics. If it is a good conductor it approaches the nature of a bell, and therefore responds readily to any musical sound.

It is a well-known fact that the pitch of a bell may be ascertained, without percussion, by sounding near it the note on which it is cast. It hums responsive to the moving air. By analogy every building will respond more readily to some particular note than any other. If this note can be ascertained, the work of the preacher is easy. It is his wisest plan to avoid this note, because his business is to make the air carry his voice without causing the building to vibrate in sympathy. A man of experience will often be able to tell at a glance what amount of sound a church can convey without being itself roused, and on what note he ought to pitch his voice. The Church of St. Mary Redcliffe, in Bristol, is large and responsive, and loud tones are not heard distinctly. But if a man pitches his voice low and speaks slowly he can be heard easily to a considerable distance.

Instruments of percussion to be effective in concerted pieces must be damped after each note is played, or one sound runs into the next, and the result is confusion of harmony. Thus the notes of a piano are stopped by the dampers, and a drum-player checks the vibration with his hand, to prevent the sound continuing longer than it ought.

A speaker can use no damper — unless his own arguments supply the deficiency — and the only substitute he can apply is a frequent pause, to prevent one of his words tripping up another. It would be well for every preacher and reader to know the acoustic properties of the building which he uses, and one of the simplest and most effective experiments is to speak from end to end of it when empty and then full, and note the difference of style or volume required.

It will be found that many large buildings can be easily penetrated by a high note, and, as a rule, that a woman's voice reaches farther than a man's, because it is higher as well as clearer. Most people who have heard children speak in a theatre will have noticed with surprise with what ease little things of four and five can make themselves heard all over a building by merely using their natural tones.

The vocal pitch of a building is not easily discovered exactly, and in general the best way to arrive at it is to station a friend as far from the speaker as possible, who will give a sign whether the latter is audible or not. — *Journal of the Royal Institute of British Architects.*

[1] Keble College Chapel is much improved by the curtains introduced at the suggestion of the late warden.

SIBERIA'S GREAT BRIDGE. — One of the grandest engineering works in the net-work of railways in Central and Western Siberia is undoubtedly the bridge over the Yenisei. It will cost 2,279,950 rubles, and will be the largest railway bridge in the world. It will be opened for traffic next May, a year before the date originally fixed. The material employed in the construction is stone and iron. — *Tomsk Vestnik.*

SOCIETIES

SKETCH-CLUB OF NEW YORK.

THE regular monthly meeting of the Sketch-Club of New York was held at the club-rooms Saturday, February 4th.

The guest of the evening was Mr. A. L. Webster, sanitary engineer, who gave a very interesting talk, illustrated by many of his drawings, showing the methods adopted to solve some of the problems intrusted to him.

Messrs. Eaton, Mayer, Seymore, and others entertained the club with song and story until a late hour.

N. Hausman, *Recording Secretary.*

ILLUSTRATIONS

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

NEW ADDITION TO STORE OF HOUGHTON & DUTTON, TREMONT ST., BOSTON, MASS. MESSRS. BURR & SISE, ARCHITECTS, BOSTON, MASS.

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

A COMPETITIVE DESIGN FOR THE "SHATTUCK PRIZE" FOR ARTISANS' HOMES [LIMITED COMPETITION.] SUBMITTED BY MR. WM. GIBBONS PRESTON, ARCHITECT, BOSTON, MASS.

THE lot, 200′ x 800′, is utilized for the erection of six buildings, all of four stories and basement.

Light and Air. — The shapes of the buildings are so managed as to give to every room a maximum of light and air and a good outlook. There are no dark rooms or back rooms, and the smallest are of fair living size.

Suites. — Most of the suites are of four rooms, but some of only two and three rooms are planned. Many of them are so arranged, however, that single rooms can be detached to be sublet singly, or, where the composition of the family is such as to demand it, some adjoining rooms can be taken on so as to give a five or even a six room flat where necessary. Some elasticity seems necessary where some 298 families are to be provided for.

Stores. — Such a population seemed to make it desirable to have means of purchasing necessities within easy reach. Consequently at each corner of each end block four stores of modern size are shown, 16 in all. They are placed near the corners so that they may be prominent, and enjoy outside and independent patronage as well as that of the tenants. Goods can be taken in at the rear from the courts, where is also an entrance for purchasing tenants, who can cross the courts without going into the streets.

After goods are bought they can be sent directly up on the hand-lifts from the basements of end buildings without even going out of doors.

Laundries, etc. — Flat roofs for clothes-drying. Each building has a laundry on its roof, with hot water and drying-frames for use in wet weather. This position minimizes labor, as clothes are taken to the roof, washed and dried (in any weather) and lowered to the owners' suites. If laundry is in the basement the journey has to be made twice, once down to the basement, once from basement to roof, then from roof down again to tenements. Each building has a shelter of light construction on the roof for use in fair weather as a "roof-garden," or "piazza."

Service-stairs — Every suite of more than three rooms has direct access to a back staircase, with outside windows, enclosed in brick walls, with a hand-hoist for coal, ice, ashes, supplies, and for removing waste.

Water-closets, etc. — Each suite, except the small ones, has independent ventilated swill-closet and a private water-closet with outside window. Each living-room has a sink with hot and cold water. Each floor of each building is provided with separate *public* toilet and bath-rooms for men and for women. A toilet and sink are placed in each for the use of the small suites of two and three rooms, which have no water-closets, and in which little, if any, cooking would be done.

Loggia. — Each floor of each building has a "loggia," or outside balcony over the front entrances, for the use of invalids and others in warm weather. Glass doors and partitions allow light to enter through the loggias to the corridors. The main corridors are frequently opened upon by outside windows and there is abundant light and air everywhere.

Flues. — Rooms are provided with flues for stoves.

Heating and Ventilating. — Steam-risers will go up in the back stair-halls and distribute under the roof. It is intended to provide steam-heat for the public corridors, laundries and public bath-rooms, stores and, incidentally, by uncovered risers, for the rear stair-halls. The private water-closets are all next the back stairs (but made private by a door). By leaving these open on cold nights freezing can be avoided. Ventilating-flues run from all swill-closets, made active by a steam-riser, and into these flues "local" vents from all water-closet bowls are carried. No steam will be provided for any rooms. Hot-water will be provided to laundries and sinks in living-rooms from coil pressure-tanks in basement. Boilers to be located in a central building in basement.

Basements. — The basements are to be at least half out of ground, the court-level being about the same as that of streets. They are to be for the use of the 300 families for store-rooms, fuel-rooms, a public play-room in each block for its children, janitor's store-rooms, rooms for bicycles and baby-carriages, ice-room, and, as before said, a central boiler with distributing, steam and return pipes passing through insulated covering across the courts to the other five buildings.

Ice house. — An adjunct which would be appreciated by the many tenants would be an ice store-room. By an extra 4 feet of excavation an ice-room could be easily made in one of the basement wings, 12 feet high and 25′ x 40′ in size, which could be filled in winter with ice at wholesale price, say $2.00 per ton, and which could be sold to the tenants for their ice-chests at a price sufficient to cover the cost plus the wasteage. Such a room would contain about 500 tons, and would provide 10 pounds per day to the families requiring it the year round. Insulating the ice-room sufficiently with ground cork and asphalt, as in cold-storage houses, would be a comparatively inexpensive addition to the cost and would add much to the popularity of the tenements.

Courts. — It was thought best not to make any building more than 200 feet long, and to leave three 30-foot passages subdividing the block and passing entirely across it from street to street. At right angles to these a court 700 feet long, enlarged at each end of the block to 66′ x 96′, giving every chance for through and cross ventilation, and sunlight in every direction. No building or wing is nearer than 30 feet and 40 feet to any other. It may seem at first sight that so much air-space is wasteful of valuable building ground, but the attempt is made to devise a scheme of sanitary, healthful and cheerful homes without producing the maximum of possible floor-room on the given ground plat, and anything less than the proportion of ground covered shown appears to miss the above-declared aim.

Paving. — The courts should be of noiseless wood-paving, antiseptic and smooth, with walks raised only 3 inches above them, and of granolithic. Snow can be easily and quickly removed through the six entrances.

Gates. — The six entrances to the inner court can be closed by gates, in case of need.

Gardening. — No attempt at gardening is made except at the two more retired ends, which are 66′ x 96′, where are shrubbery, grass, and two drinking-fountains. Recesses are made on the street-fronts which provide grass-plats. *Unsuccessful* gardening casts its shadow on the surroundings. Interior courts, where horticulture is attempted, and which are looked upon as a lawful playground by the children of 300 families, are the janitors' bane. Hence the simplicity of the design in that respect. It is believed that the same general view holds good in regard to "roof-gardens." My plan only proposes simple iron-framed shelters, to shield from the sun, and having board floors like the clothes-drying yards. In summer these shelters would add materially to the popularity and comfort of these homes, and would be much used to get the breezes by day, and for refreshing coolness during sultry nights.

Materials. — Buildings are to be almost entirely of common Eastern brick laid in cement, with air-spaces in outside walls and with terra-cotta sills and belts. Brick cornices and battlements. Roof water all pitches to rear gutters. A site having solid ground is assumed, and concrete foundations for walls and piers.

Fire-walls, etc. — Eight-inch fire-walls are to divide the building into sections of small extent. Outside fire-escapes are centrally located and, in addition, the buildings are connected by fire-bridges. Tinned fire-doors in the brick wall are provided to cut off each suite or group of suites, and the walls are imperforate except for those doors. The back staircases also serve as fire-escapes. This seems to give all possible protection and safety to families in so large a building in case of fire, being comparable to the bulkheads in a modern iron ship. Financial considerations would preclude "fire-proof" construction.

Income. — The showing of gross income is rather small for a profitable commercial enterprise, but the arbitrary rate named, based on $10 per month for four-room suites, seems less than what artisans of the *better class*, at least, could and would be inclined to pay for a home having the advantages offered by so large and comprehensive a scheme, and the gross income as estimated could be easily increased by 50 per cent and still be *well within* the price paid to-day for far less available and inviting homes. An extra story could be added, making five above the basement, and the rate of income could be increased thereby, but a fifth-story tenant is apt to be more or less undesirable, and the buildings have been planned for the best use of their kind, and a very moderate return on the capital.

The two end buildings contain 88 suites of 4 rooms, 28 suites of 3 rooms and 6 suites of 2 rooms.

The four middle buildings contain 144 suites of 4 rooms and 32 suites of 2 rooms.

DISTRIBUTION OF PLAN.

The lot as built upon would provide shelter for about 1,200 persons, at 4 persons per suite.

Suites of 4 rooms	232
" " 3 "	28
" " 2 "	38
Suites in all	298

16 Stores: apothecary, barber, grocery, etc.
6 Janitor's apartments.
Boiler-room.
6 Bicycle-rooms.
6 Children's basement play-rooms.
6 Laundries.
48 Public bath-rooms and toilets.
10 Roof shelters.
24 Open loggias.
Store-rooms, coal-bins, ice-house, etc.

Following are the items of area used by walls, partitions, stairs, public toilet and baths, loggias, corridors and rentable spaces: —

NON-RENTABLE AND RENTABLE AREAS PER TYPICAL FLOOR.

One end building: —

Partitions	736 square feet.
Walls	1,768 " "
Corridors, stairs, public toilets, loggia	3,880 " "
	6,384 " "
Total area of one end building	19,816 square feet.
Non-rentable	6,384 " "
Net rentable area of one floor of one end building	13,432 " "

One middle building: —

Partitions	341 square feet.
Walls	832 " "
Stairs, corridors, public toilets, loggia	2,698 " "
	3,871 " "
Total area of one middle building	13,360 square feet.
Non-rentable	3,871 " "
Net rentable area of one floor of one middle building.	9,489 " "

TOTAL SPACE OCCUPIED IN VARIOUS WAYS. — WALLS.

End building, 1,768′ x 2, is	3,536 square feet.
Middle building, 832′ x 4, is	3,328 " "
	6,864 " "

PARTITIONS.

End building, 736′ x 2, is	1,472 square feet.
Middle building, 341′ x 4, is	1,364 " "
	2,836 " "

CORRIDORS, ETC.

End building, 3,880′ x 2, is	7,760 square feet.
Middle building, 2,698′ x 4, is	10,792 " "
	18,552 " "

RENTABLE AREAS.

1 end building, 13,432′ x 2	26,864 square feet.
1 middle building, 9,489′ x 4	37,956 " "
Total rentable area, second floor	64,820 " "
Walls	6,864 " "
Partitions	2,836 " "
Corridors, stairs, etc	18,552 " "
Outside areas, passageways, etc	66,928 " "
Total area of lot, 200′ x 800′	160,000 " "

RENTALS.

Space to rent in one typical floor, as follows: —

End building, 12 suites, 4 rooms, $2.50	$30 per week.
" " 4 " 3 " 2.00	8 " "
" " 2 " 2 " 1.50	3 " "
	$41 " "
	52
	$2,132 per year.
Middle building, 2 suites, 2 rooms, $1.50	$3.00 per week.
" " 9 " 4 " 2.50	22.50 " "
	$25.50 " "
	52
	$1,326 per year.

TOTAL RENTABLE SPACE.

1 floor, 1 year, each end building, $2,132 x 2, is	$4,264
1 " 1 " " middle building, $1,326 x 4, is	5,304
Rental of 1 floor in 6 buildings for 1 year.	$9,568
Floors 1, 2, 3, 4	4
Gross income from 4 floors of 6 buildings for 1 year.	$38,272
Add for extra rental of store-rooms and for rent of stores, over rent of tenements displaced	1,728
	$40,000
Area of 6 buildings, 93,072 sq. ft. at $7, covered	$651,504
Land, 160,000 ft. at $1.50	240,000
	$891,504

Gross income $40,000, say 4½ per cent on total cost of land and buildings. Estimating height of buildings at 51 feet, the cost per cubic foot would be about 14 cents.

PLANS OF THE SAME.

HOUSE OF MRS. P. C. BAKER, PASADENA, CAL. MR. F. L. ROERIG, ARCHITECT, PASADENA, CAL.

HOUSE OF FRANK EMERY, ESQ., PASADENA, CAL. MESSRS. BLICK & MOORE, ARCHITECTS, LOS ANGELES, CAL.

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

DOORWAY OF THE LEYS, WEOBLEY, HEREFORDSHIRE, ENG.

WEST COURT.

[Additional Illustrations in the International Edition.]

LOWER STORIES OF HOUGHTON & DUTTON'S NEW STORE, TREMONT STREET, BOSTON, MASS. MESSRS. BURR & SISE, ARCHITECTS, BOSTON, MASS.

[Gelatine Print.]

HOUSE OF M. S. SEVERANCE, ESQ., LOS ANGELES, CAL. MESSRS. EISEN & HUNT, ARCHITECTS, LOS ANGELES, CAL.

THIS house is said to have cost about $16,000.

HOUSE OF MRS. E. B. KELLOGG, PASADENA, CAL. MESSRS. LOCKE & MUNSELL, ARCHITECTS, LOS ANGELES, CAL.

THIS house is said to have cost about $6,000.

HOUSE OF FRANK P. FLINT, ESQ., LOS ANGELES, CAL. MESSRS. BLICK & MOORE, ARCHITECTS, LOS ANGELES, CAL.

THIS house is said to have cost about $3,500.

HOUSE OF H. B. SHERMAN, ESQ., PASADENA, CAL. MESSRS. BLICK & MOORE, ARCHITECTS, LOS ANGELES, CAL.

THIS house is said to have cost about $8,000.

HOUSE OF D. R. CAMERON, ESQ., ALTADENA, CAL. MR. F. L. ROERIG, ARCHITECT, PASADENA, CAL.

THIS house is said to have cost about $12,000.

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.*]

A QUESTION OF COMMISSION.

EAST LIVERPOOL, OHIO, February 7, 1899.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — Will you kindly answer for me the following questions: —

First. — An architect prepares plans and specifications for a dwelling; no mention is made of mantels or light fixtures. After the building is completed the owner, without consultation, advice or knowledge of architect or builder, purchases according to his taste and has placed in building certain mantels and electric fixtures. Is architect entitled to commission on same?

Second. — Which is the proper height, 6 feet 10 inches, or 8 feet, for a door 6 feet wide between library and hall, the ceiling being 9 feet 6 inches and the heigth of windows of library and transom of hall-door being 8 feet?

Third. — Is the question of height *in question two* solely within the discretion of the architect?

Yours very truly, WALTER B. HILL.

[*First.* — By the Schedule of Charges of the American Institute of Architects, as well as by the general practice of the profession, the architect's commission is based on the entire cost of the building, complete, "including all fixtures necessary to render it fit for occupation," which would certainly cover ordinary mantels and electric fixtures.

Second. — The height of doors is a matter of taste. It is not generally favorable to the effect of a room to carry the doors, even double doors, as high as the top of the windows. What would be the proper height less than this would depend on other horizontal lines, or on various circumstances.

Third. — What matters are in the discretion of the architect depend entirely on the arrangement between him and the owner, but the architect

would be justified in assuming, where no other instructions had been given him, that it was left to him to decide the heights of the doors. — Eds. American Architect].

NOTES AND CLIPPINGS

Picts' Houses. — There are stone remains in Scotland of a dreary and mysterious darkness — the Picts' houses, or Eird houses of the north, belonging to an age who shall say how many centuries older than that of the old square keeps? You enter crawling along a cavernous drain-like passage, which descends and widens into a chamber. This chamber may be from 3 to 6 feet high and 20 or 30 feet long. Its sides are made of rough huge stones, laid on each other so that the walls converge upwards, where great blocks of granite are laid across them. You pass through a lateral narrow opening, and enter another chamber of a like character. Some of these houses have three or more chambers. They are met with in fields, where the husbandman has for centuries passed the plough over them, unconscious of their existence, or of any further peculiarity than a slight ascent, with a projecting stone or two dangerous to the plough. Nor are these cavernous edifices mere rare anomalies. In some places, and chiefly in the upper basin of the Don, there are complete villages of them. Professor Stuart, in a paper read to the Antiquarian Society of Scotland, mentioned between forty and fifty as the number opened in one parish. It is in the Orkney Isles, however, that they are found on the largest scale, and most elaborately built. The tradition of the country, not unnaturally, associates these and other mysterious antiquities with a race which, according to the popular but now superseded history of Scotland, was extinguished in conflict with the nation now occupying the soil. Hence they are deemed the dwelling-places of the Picts, or Pechts, being endowed with elvish faculties and malign propensities. They are supposed to have been of superhuman strength, but diminutive and dark — and no wonder, when such were their habitations. With the Orcadians, the possible existence of a lingering remnant of the Pechts, dwelling in the recesses of the earth, is still a matter of substantial apprehension. Mr. Stevenson, the engineer, the father of the author of "Treasure Island," when passing through Orkney on lighthouse business, was called upon by the people of a small tavern to decide for them a very important point. A being was then asleep in one of their beds whom they verily believed to be a remnant of the accursed and not quite extinguished race — so diminutive was he and so black withal. Now, if their suspicions were well founded, they would be under the disagreeable necessity of putting him to death, and this was just the question which Mr. Stevenson, being a lighthouse engineer, should decide for them. On entering the chamber, Mr. Stevenson, with curious sensations, beheld, in unconscious and peaceful repose, the familiar face of an old schoolfellow. He was a being of slender proportions and not very comely visage, but of a restless, enterprising, enthusiastic character, being no other than the Rev. John Campbell, subsequently renowned in African missionary history. Did, then, human beings live here in chambers not much wider than graves, in contact with the slimy walls, and with the company of a few snails and toads? No rats, for the rat would not inhabit such a place. That houses of this laborious structure should have been built for the people at large is out of the question, so that we must suppose them to have been, in a manner, the mansions of the aristocracy. — *The Architect.*

The Simplon Tunnel. — Although it is only five months since work was begun on the new Simplon Tunnel, which will be the longest in the world (twelve and one-half miles), already inns, houses, and roads have sprung up in what before was a wilderness, and there is a continuous going up and down of horses, carts, workmen, machinery, etc. A colossal cart, weighing five tons, has been constructed for the conveyance of the boilers for working the boring-machine. For the first of these boilers, weighing thirteen tons, four days were occupied in the ascent to the opening of the tunnel. On the first day twenty-five oxen were used, but these were substituted afterwards by horses, which seem to do mountain work better. In fact, only three days were taken with the second boiler, with the use, however, of thirty-three of the heavy cart-horses employed in the Alps. The chief difference between the Simplon and its two great rivals, the St. Gothard and the Mont Cenis, will be the double tunnel. Each is designed to be 17 feet wide, 26 feet high, and 55 feet between the two, communicating by openings every 615 feet, and having a half-way underground station. But at present only one tunnel will be cut, which, it is expected, will be finished in five years, while the other will only be constructed at those points required for the ventilation of the first, etc., reserving the complete opening until such a time as the increased traffic shall require it. The workmen employed in this gigantic operation number 1,906, all Italians. Putting together the work done on the Swiss and Italian sides in these five months, it makes a cutting of 1,610 feet at 2,320 feet above the level of the sea. Telegraphic and telephonic communication advances with the work, so that in case of need help or medical aid can be quickly obtained. Three hundred and fifteen thousand pounds sterling has already been expended out of the £3,000,000 which it is estimated the whole will absorb. — *Pall Mall Gazette.*

A Well-meant Warning. — One morning Emperor William, who has a great penchant for building churches, was riding in his carriage on Unter den Linden, when an old gentleman espied him from a distance, and immediately bared his head, which was as bald as a billiard-ball. Suddenly the old gentleman felt somebody touching his shoulder, and heard a voice behind him saying: "Say, old man, you had better cover your head, for wherever the Emperor notices a bald spot he 'll surely build a church." — *San Francisco Argonaut.*

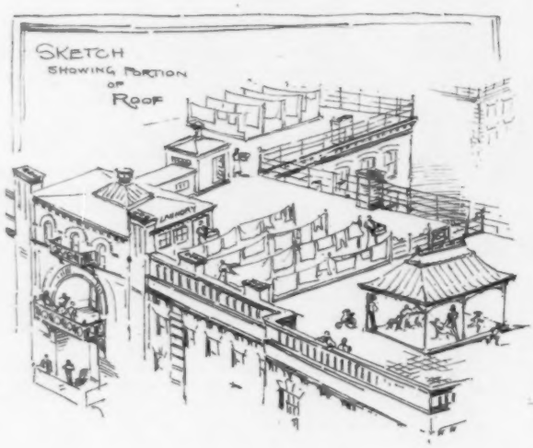
Peale's Portraits of Washington. — The offer made by the American Art Association, to sell to the City of Philadelphia for $9,000 a portrait of Washington painted in 1780 by Charles Wilson Peale, brings out the fact that another of Peale's famous Washington pictures belongs in West Chester, Pa. This was painted in 1778, at Valley Forge, and subsequently became the property of John Neagle. Later it was presented by him to the Chester County Cabinet of Natural Science, and in 1872, together with other treasures included in the collection, it passed into the hands of the West Chester State Normal School. This painting of the great Washington, by Peale, is considered one of the finest specimens from his brush. — *Boston Transcript.*

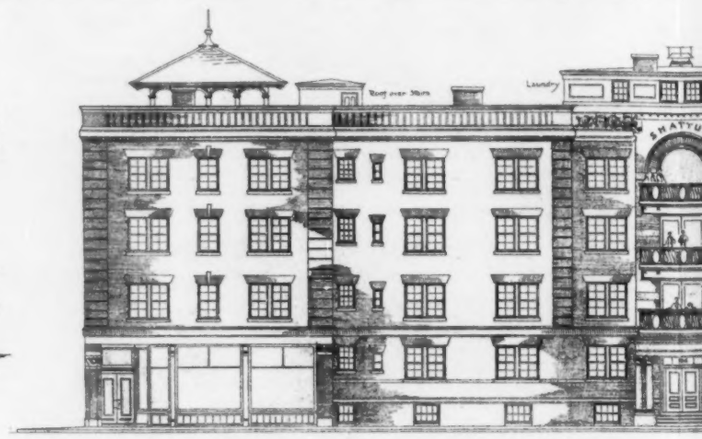
The Recent Discoveries in the Roman Forum. — Our Rome correspondent writes under date January 16th: "The excavations now being carried on in the Roman Forum have resulted in a number of interesting discoveries, the most important of which, including that of the supposed pedestal of an honorary column to Julius Cæsar, were enumerated and explained by Mr. Richard Norton in his letter published in the *Times* of the 9th inst. Since then another interesting site has been discovered hard by the Via Sacra, and not far from the arch of Septimus Severus. With some precipitation, the site was immediately baptized the 'Tomb of Romulus,' although, according to the legend, Romulus had no tomb, having escaped the fate of ordinary mortals by being 'translated' by his father, Mars. Some of the archæological authorities in Rome, however, prefer to suppose the site to be that of the tomb of Faustulus, foster-father of Romulus, basing their judgment upon certain passages in the works of Festus's '*Commentaries on the Classics.*' The site is as nearly as possible three metres by four in size, and is paved with blocks of 'precious black stone.' Its sacred character is evident from the attempts made to preserve it during the transformation of the pavement of the Forum." With regard to the value of the discoveries, the well-known English historian and archæologist, Mr. St. Clair Baddeley, has kindly furnished me with the following notes: "It may be of use to suggest that statements made concerning both the most important recent discoveries in the Forum should be accepted with considerable caution. The octagonal pedestal of the column erected to Julius Cæsar, in the one case, is made of tufa concrete, a material not employed for such purposes until days very long after his date, while in the case of the so-called 'Tomb of Romulus,' in front of the 'Curia,' the material uncovered consists of quadrangular blocks of *nero venato*, or marble, from Cape Tænarus, sufficiently irregular in size to suggest work of the third century A. D. They have, it is true, suffered by exposure in ancient times, and still more by the superposition of still later pavement of *selce*, or lava blocks, but they can never have been precisely uniform in size. They measure, on an average, 60 centimetres by 75 centimetres, and are 19 centimetres to 25 centimetres in depth. That some object of great historical importance will be found beneath we may rest assured, but whether it will prove to be related to Faustulus or to the story of Attus Navius and the Whetstone none may yet say. As the whole of this portion of the Forum was swept by the fire of Carinus, the pavement probably dates at earliest from A. D. 260. It may originally have been square; it is now about 4 metres by 3 metres 7 centimetres; orientation, S. E.–N. W." — *London Times.*

Real Antique Oak under Chicago. — White oak logs that have been buried under the site of Chicago for seven thousand years have just been put to use. Prof. Ossian Guthrie, the Chicago geologist who has studied the local strata and helped to unearth the remnants of some of these prehistoric trees, has just come into possession of two toilet-brushes, made from this ancient oak, that have surprised the manufacturer of imitation "antique" woods by the wonderful polish and color of which the genuine antique oak is capable. No precious woods that have ever been imported into Chicago are so marvellously beautiful as these specimens with which Professor Guthrie has just been presented. Most of these prehistoric logs have been resurrected from their seven-thousand-year-old graves to be divided up among the museums and universities of the country. Walnut, willow, beech and most of the modern native woods have been dug up under these glacial deposits and alluvium of seventy centuries, but the white oak, the same tree evidently that flourishes in the parks to-day, has been preserved best of all. Some frightful cyclone appears to have bent and laid low the trees at first. The iron fibre is bent and twisted in nearly all of them at one particular spot in the trunk, and it is evident that this was the cause that first buried the giant forests under the sands and alluvium. Some of these trunks have been followed by Professor Guthrie in the excavations for streets and houses for many feet. One trunk, in Sheffield Avenue, was unearthed for 70 feet. Evidently this forest was the first growth after the glacial period. It lies close to the glacial clay, under the alluvial drift, at a general depth of 14 feet. The cyclone apparently laid the forest low, and the sand and drift were blown up from the lake and covered it. The water formed an air-tight capsule about the trunk and kept it from decaying. Of late years, however, the surface sewers have drained the water away from the trunks, and the bark and outer layers of wood have gone to decay. The iron fibre of the inner wood is still intact in most of them, however. The wood from which Professor Guthrie's souvenirs are made was dug up near the corner of Calumet Avenue and Thirty-ninth Street, where many of the trunks are being chopped away in sewer excavating. No imitation antique wood has ever attained the singular beauty of this old oak. It is dark, almost a greenish-black, the result of hundreds of years' discoloration by the surrounding water. The polish which it has attained is unlike anything ever seen by wood importers. The fibre of the wood was found almost as tough as fine wire in working it up. The usual process of "antiquing" is to steam and rub the dark color into the wood with bayberry wax, the latter imparting the greenish tint. This tint in Professor Guthrie's specimens has never been attained in the imitation antique, however. — *Chicago Inter-Ocean.*

S. J. Parkhill & Co., Printers, Boston, U. S. A.

Shattuck Competition





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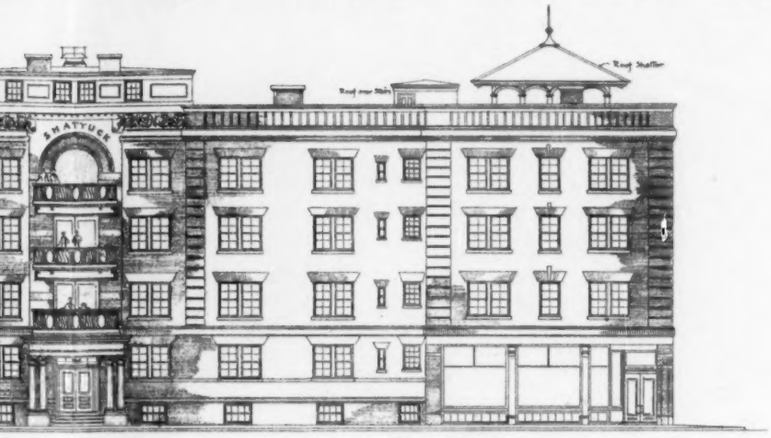
SHATTUCK PRIZE FOR COMPETITIVE DESIGNS FOR

WILLIAM G. PRESTON

MERICAN ARCHITECT AND BUILDING NEWS CO.

ON FOR ARTISANS' HOMES.



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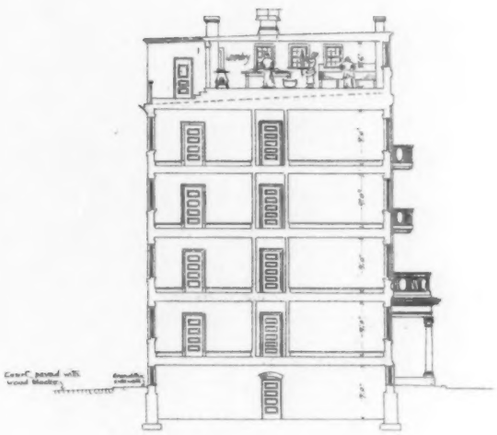

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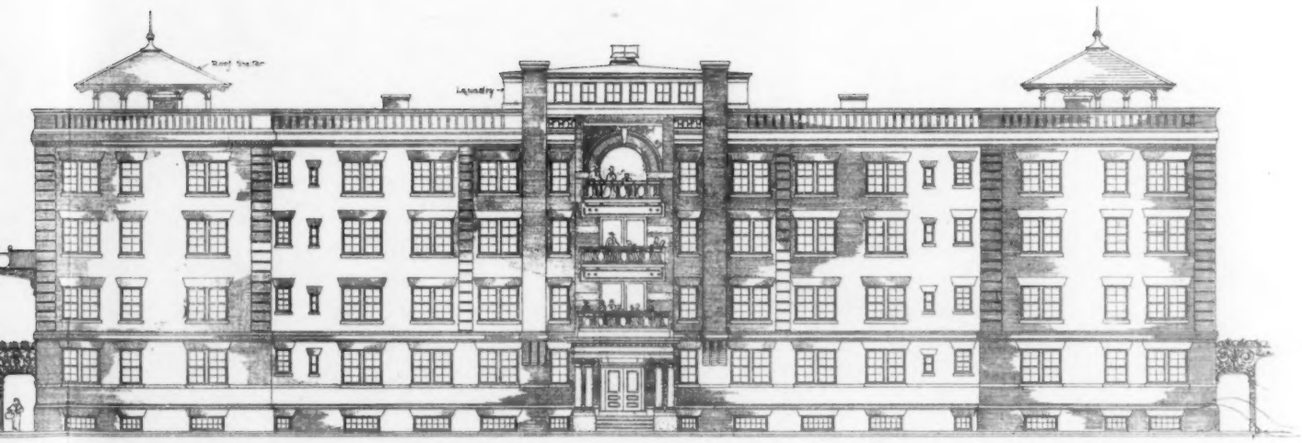
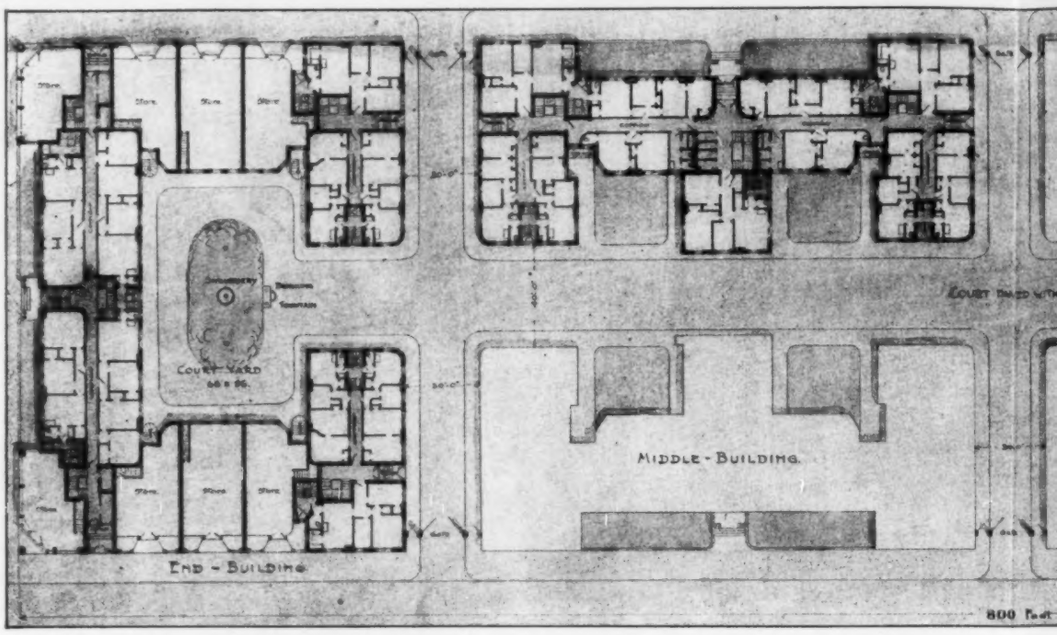


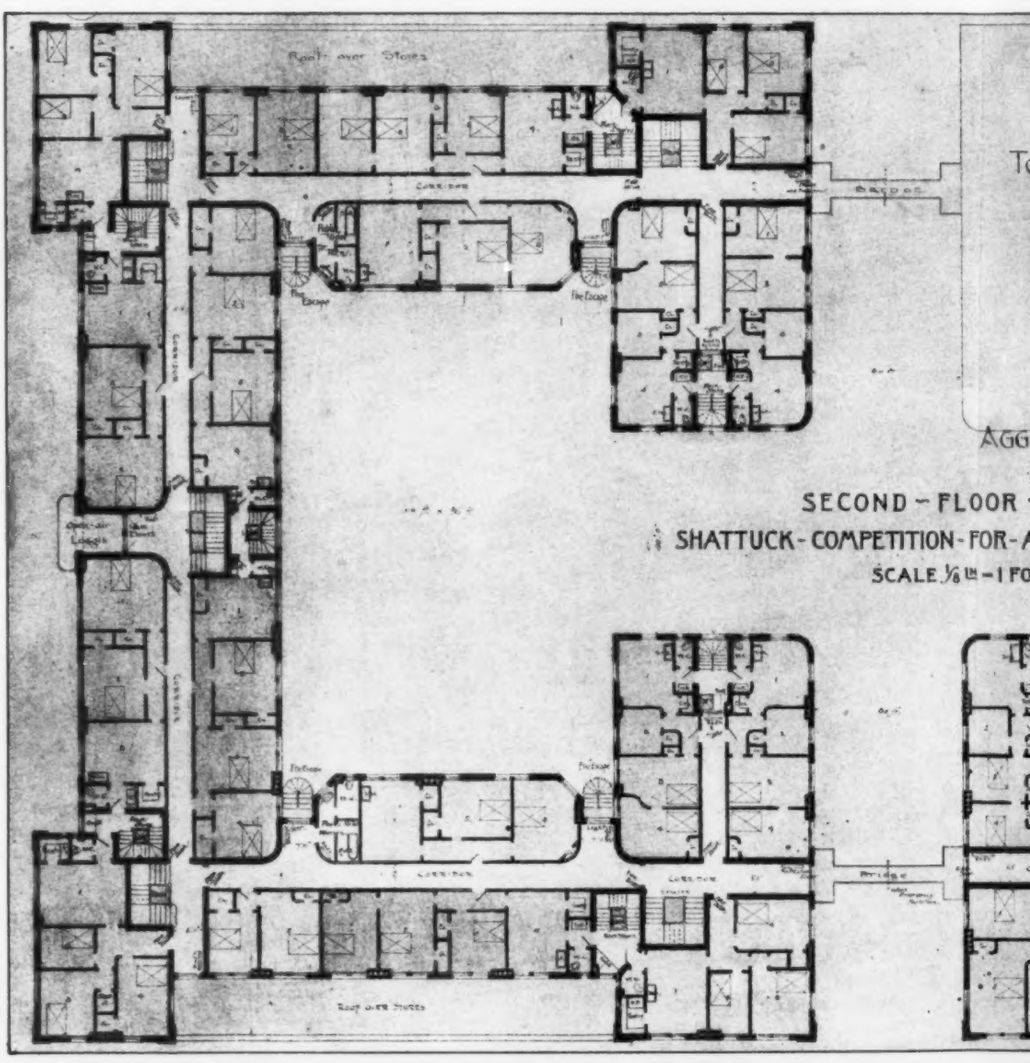
– ELEVATION

SIGNS FOR ARTISANS' HOMES (LIMITED COMPETITION).

G. PRESTON, ARCHITECT.



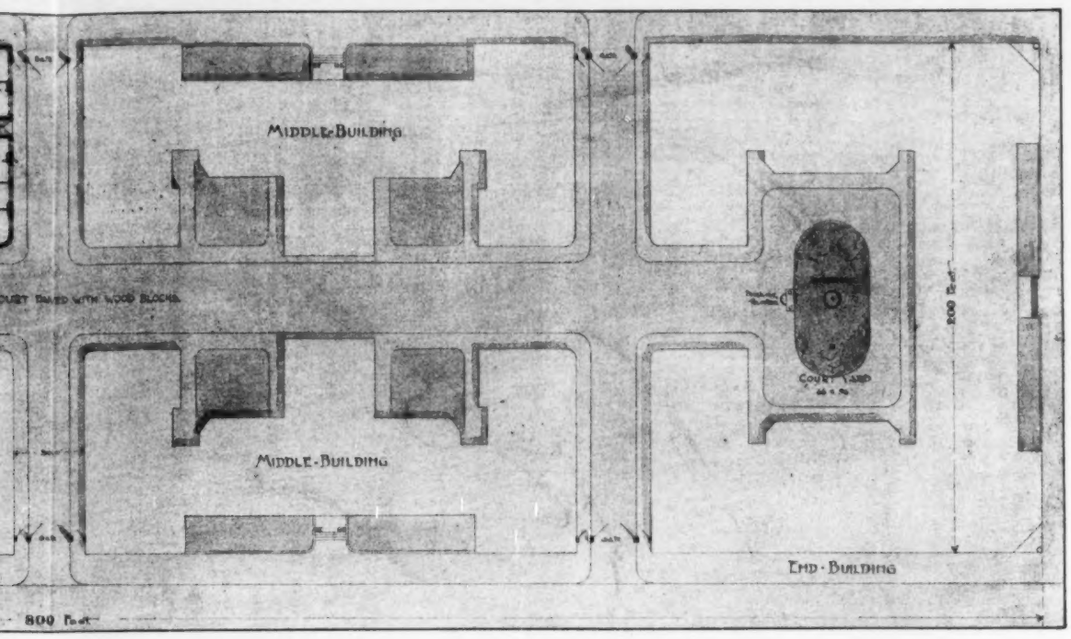
FIRST FLOOR



SECOND-FLOOR
SHATTUCK-COMPETITION-FOR-A
SCALE 1/8 in. = 1 FO

SHATTUCK PRIZE FOR COMPETITIVE DESIGNS FOR

WILLIAM G. PRESTON

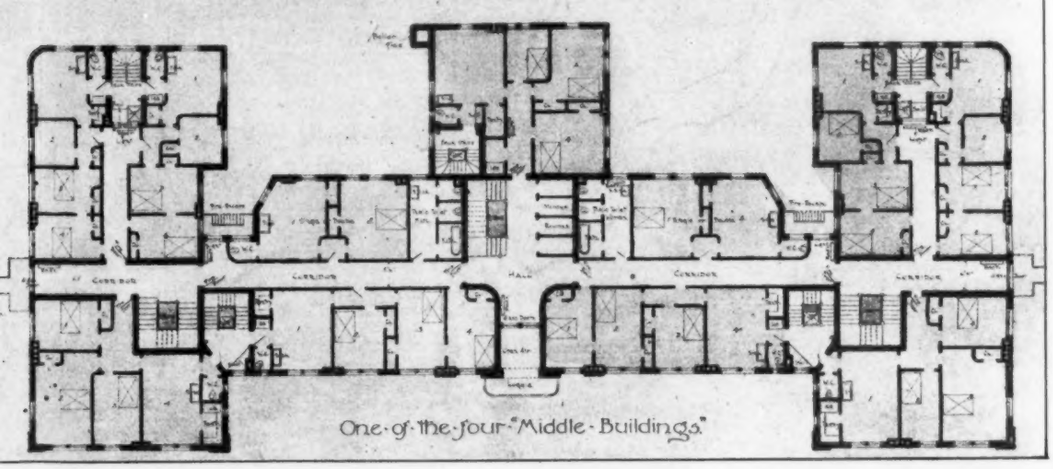


RST FLOOR PLAN.

AREAS OF ONE "TYPICAL FLOOR."

TOTAL RENTABLE AREA, ONE FLOOR, 6 BUILDINGS	64,820	SQ. FT.
AREA BRICK WALLS	6,820	
PLASTERED PARTITIONS	2,836	
CORRIDORS, STAIRS AND PUBLIC PORTIONS	18,552	
OUTSIDE GRASS PLOTS COURTS, PASSAGES, ETC.	66,928	
AGGREGATING TOTAL AREA OF LOT 200 FT. × 800 FT.	160,000	SQ. FT.

FLOOR - PLAN
ON-FOR-ARTISANS'-HOMES. WM. G. PRESTON, ARCH'T.
1/8 IN. = 1 FOOT.

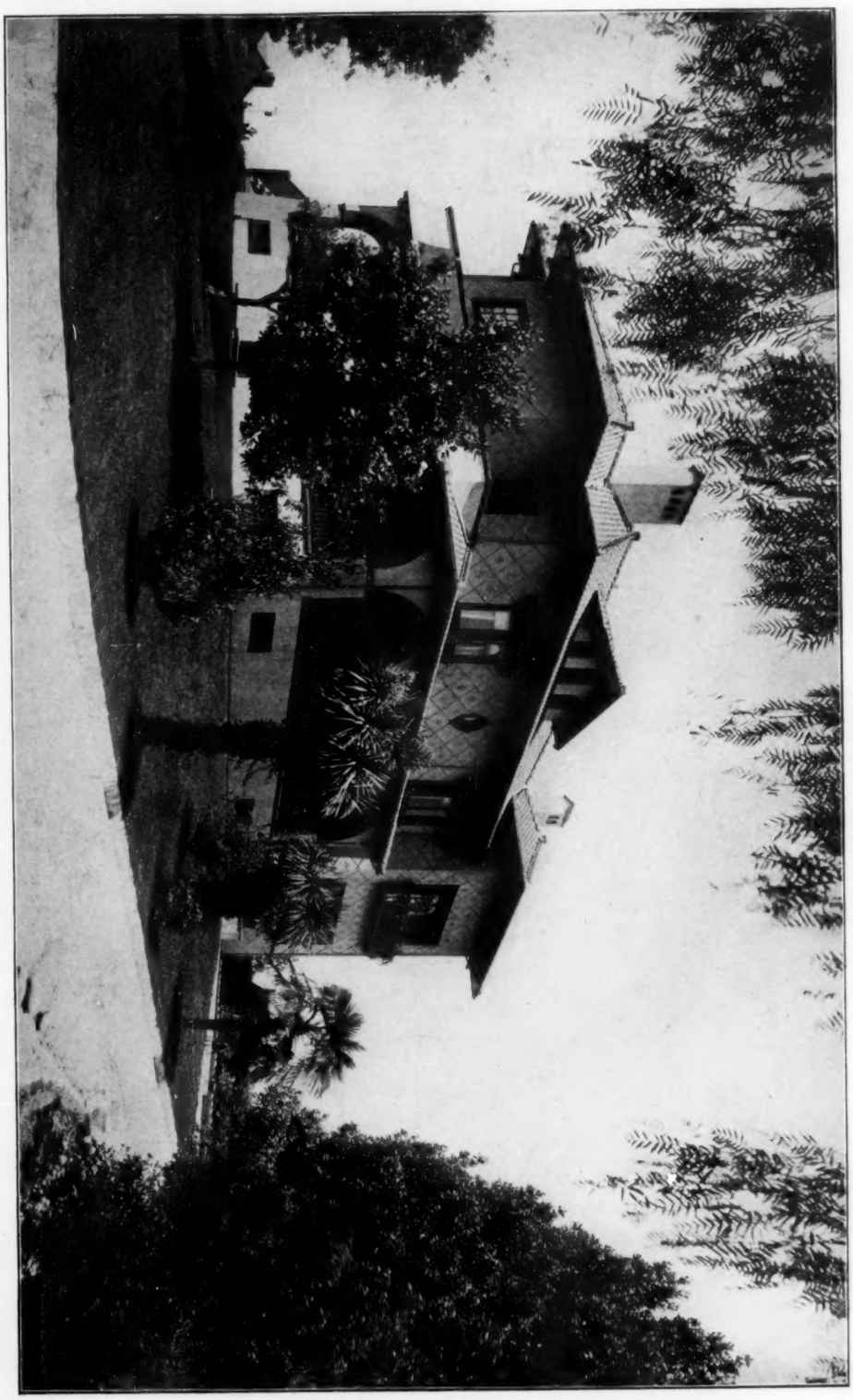


One of the four "Middle Buildings"

IGNS FOR ARTISANS' HOMES (LIMITED COMPETITION).
G. PRESTON, ARCHITECT.

House of Frank Emery, Esq., Pasadena, Cal.

Blick & Moore, Architects.



House of Mrs. P. C. Baker, Pasadena, Cal.

F. L. Roerig, Architect.

The American Architect and Building News

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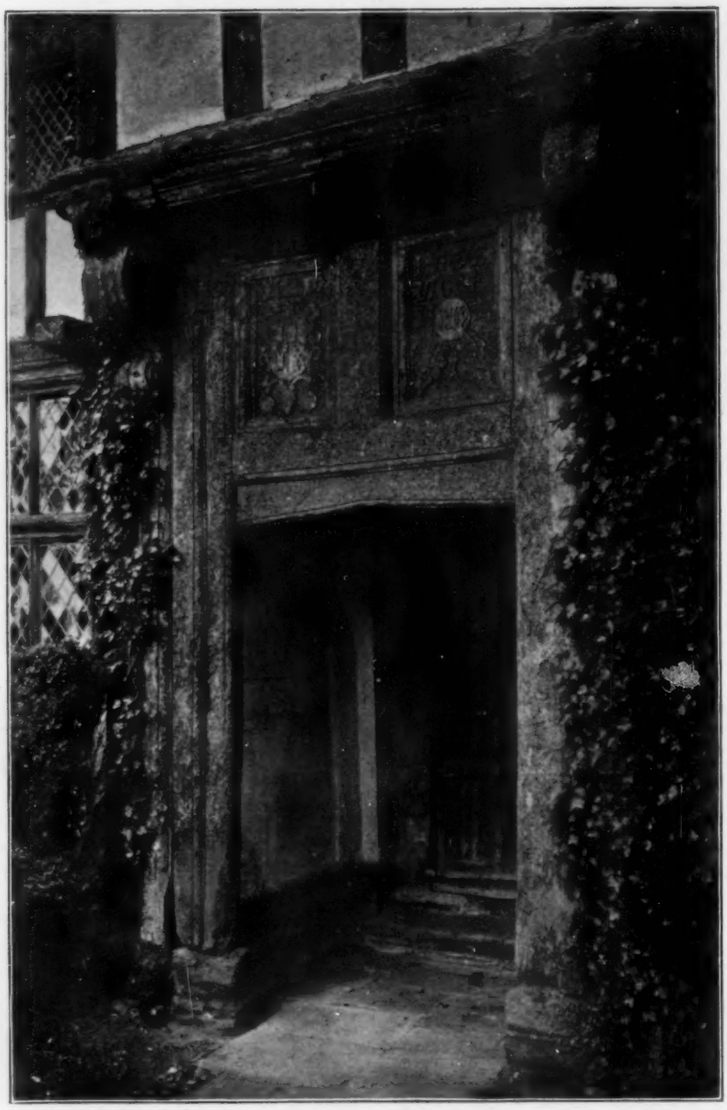
VOL. LXIII. — No. 1208.] SATURDAY, FEBRUARY 18, 1899. PRICE, { REGULAR ISSUE, 15 CENTS. IMPERIAL " 25 "

BUILDING MATERIALS.

Reported for the American Architect and Building News.

BUILDING MATERIALS	New York.	Boston.	Chicago.	Philadelphia.
STONE. (℔ *cubic foot, rough.*)	*(Wholesale Prices.)*		*(Prices to Builders and Contractors.)*	
Foundation:				
Dimension	@	5 00 ℔ ton.	20 @ foot	@ 5 00
Block	@	4 60 ℔ perch.	10 00 @ cord	Conshocken
Rubble	@	1 25 @ 1 50	9 00 @ "	1 45 @ 2 50
Sandstone:				
Longmeadow	@ 80	80 @ 90	@	} 95 @ 1 05
Kibbe	@ 90	90 @ 1 10	@	
Brown (Connecticut)	1 00 @	1 00 @ 1 30	1 50 ℔ cub. ft.	1 05 @ 1 25
Amherst Ohio	90 @ 95	90 @ 1 00	45 @ 55	85 @ 95
Berea "	75 @ 1 00	85 @ 90	45 @ 55	55 @ 75
Berlin "	75 @ 1 00	80 @ 90	45 @ 55	85 @ 95
Belleville	80 @ 1 25	25 @ 1 35	@ 1 25	1 00 @ 1 10
New Brunswick (Dorchester)	75 @ 1 00	75 @ 90	*Not sold.*	1 05 @ 1 15
Potsdam Red	@ 1 30	@ 1 40	@ 1 55	@ 1 40
Caen	@	@ 2 00	@	1 25 @ 1 35
Carlisle, English	@ 1 05	@ 1 05	@	95 @ 1 05
Corse Hill (Scotch)	@ 1 05	@ 1 05	@	95 @ 1 05
Granite: (*Maine*)		@ 60	80 @ 1 50	55 @ 65
Limestone:				
Bedford	45 @ 1 25	95 @ 1 00	20 @ 40	75 @ 85
Joliet	1 00		@	Richmond
Lemont			@	℔ 75 @ 1 50
Serpentine		10 50 per ton.	cub. ft.	Perch 4 50 @ 5 50
Bluestone: (℔ *sq. ft.*)				
Sidewalk	30 @ 5 00	40 @ 1 75	1 00 @ 1 25	1 in. th. 10 @ 25
Planed	50 @ 6 00	@ 75	1 00 @ 1 25	37 @ 50
Marble: (℔ *cu. ft.*)				
Lee, Mass	@	1 75 @ 2 50	*Not sold.*	2 00 @ 2 50
Rutland, white and blue	@	@ 3 00	3 50 @ 6 00	2 00 @ 3 00
Sutherland Falls	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	1 70 @ 3 00
Glens Falls, black	@	@	*Not sold.*	4 00 @ 4 50
Italian, blue-veined	@	@	@ 4 40	2 50 @ 2 75
" Sienna	@	@	*Not sold.*	@ 5 00
Tennessee, red	@	@	@ 4 40	4 00 @ 6 00
" Knoxville	@	@	@ 4 40	3 00 @ 4 00
Pennsylvania, blue	@	@	*Not sold.*	2 00 @ 3 00
Vermont, white	@	@	3 50 @ 6 00	2 25 @ 3 00
Slate: Roofing (℔ *square*)				
Green	5 00 @ 6 00	4 75 @ 5 25	3 75 @ 5 00	2 90 @ 3 60
" unfading	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 25 @ 5 00
Purple	5 00 @ 6 00	5 50 @ 6 50	5 25 @ 6 00	4 50 @ 5 50
Red	@ 10 00	10 00 @ 11 00	10 50 @ 12 50	11 50 @ 13 00
Black, Lehigh	4 25 @ 4 75	@	4 50 @ 5 50	4 00 @ 4 35
" Chapmans	@	@	5 30 @ 6 15	4 50 @ 5 00
Genuine Bangor	4 35 @ 5 50	4 75 @ 5 90	5 25 @ 6 50	4 35 @ 5 50
Unfading black	6 00 @ 8 50	6 00 @ 8 50	4 25 @ 8 95	6 50 @ 9 00
" "	5 50 @ 8 00	5 50 @ 8 00	5 50 @ 9 20	6 50 @ 9 00
Tiles, Am. ... ℔ M.	@	@	Salt-glazed tiles	@ 28 00
N. Peach Bottom, war. unfading	@	@	℔ 8c. per ft.	5 76 @ 6 25
Fire Clay Roof Tile on cars at fac.	8 00 @	8 00 @	6 00 @ 6 50	8 00 @
LUMBER.—℔ M.				
Boards: (*Ordinary dimensions.*)				
Pine, 1st quality, clear	65 00 @ 75 00	55 00 @ 70 00	50 00 @ 60 00	47 50 @ 60 00
" 2d quality	55 00 @ 60 00	42 00 @ 50 00	42 00 @ 50 00	38 00 @ 48 50
" 3d quality	18 00 @ 22 00	30 00 @ 40 00	20 00 @ 28 00	27 50 @ 36 50
Spruce	@ 25 00	12 00 @ 18 00	*Not sold.*	15 00 @ 21 50
Hemlock	eal3½ @ 14	12 50 @ 14 00	10 00 @ 12 00	11 50 @ 13 75
Yellow pine	20 @ 40	19 00 @ 35 00	18 00 @ 25 00	14 00 @ 29 00
Cypress	@	26 00 @ 40 00	30 00 @ 35 00	30 00 @ 38 00
Clapboards:				
Pine	@	35 00 @ 55 00	25 00 @ 30 00	14 00 @ 25 00
Spruce	@	24 00 @ 35 00	*Not sold.*	*Not sold.*
Framing Timber:				
Pine	14 00 @ 16 00	14 00 @ 16 00	15 00 @ 25 00	25 00 @ 37 30
Spruce	12 00 @ 16 00	12 00 @ 15 00	*Not sold.*	15 00 @ 21 50
Hemlock	18 00 @ 21 00	19 00 @ 25 00	10 00 @ 15 00	14 00 @ 20 00
Yellow pine	@		16 00 @ 25 00	22 50 @ 30 00
Laths:	@	2 00 @ 2 50	1 90 @ 2 00	2 75 @ 3 00
Pine ..... Round Wood	2 00 @ 2 10	1 80 @ 2 25	*Not sold.*	2 30 @ 2 35
Spruce ..... Slab				
Shingles:	5 00 @ 6 00	@	*Not sold.*	
Pine, shaved ..... ℔ M.	4 00 @ 5 00	@ 4 50	2 60 @ 2 75	
Pine, sawed ..... " "	1 50 @ 2 00	1 50 @ 1 75	*Not sold.*	
Spruce, sawed ..... " "	1 40 @ 1 60	3 00 @ 3 75	4 00 @ 6 00	{30" $35 @ 40
Redwood ..... ℔ 125.	@	@ 6 00	*Not sold.*	{24" 8 @ 21
Cedar split ..... ℔ M.	@	2 00 @ 3 25	2 50 @ 2 90	{20" 35 @ 14
Cedar sawed ..... " "	18 00 @ 20 00	5 00 @ 6 00	@	11 00 @ 14
Cypress. Split.....7 x 24 " "				



Doorway of the Leys, Weobley, Herefordshire, Eng.


WEST COURT

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New Advertisements.

ADAMS SEWAGE LIFT (Philadelphia, Pa.), Lift. Page xiii.
PANCOAST VENTILATOR CO. (Philadelphia, Pa.), Ventilators. Page vii.
DETROIT SANITARY SUPPLY CO. (Detroit, Mich.), Sanitary Supplies. Page xiii.
HARRISON BROS. & CO., Incorporated (Philadelphia, Pa.), Protective Paint. Page x.

See last or next issue for the following advertisements: —

Bower Trap and Specialty Co., The
Cudell, F. E.
Dwight Lumber Co.
Flexible Door & Shutter Co.
General Electric Co.
Keasby & Mattison Co.
Merchant & Co.
Morse, Williams & Co.
Taylor, N. & G. Co.
Spaulding Print Paper Co.
Thorn Co., J. S.

See the first issue of the month for the following advertisements: —

Alsen's Portland Cement Works.
Atlas Cement Co.
Brooks & Co., T. H.
Folsom Snow Guard Co.
Grand Rapids Moulding Co.
Ludlow Saylor Wire Co.
Moore & Co., Benjamin.
Nelson, C. T., & Co.
New Jersey Zinc Co.
Northrop, Henry S.
Oriel Glass Co.
Pitt, Wm. R.
Thiele, E.
Tyler Wire Works Co., The

WANTED.

WANTED. — A man acquainted with architects and contractors, in large cities, to represent a granite company of unlimited capacity, on commission. Address, with references and experience, "Granite," 19-20 Wiggins Block, Cincinnati, O. 1209

WANTED.

POSITION. — As draughtsman with prominent architect, having in view the formation of partnership, by man 33 years of age, having had 15 years' experience in all details of construction, especially steel and iron. Address "Construction," *The American Architect and Building News.* 1209

WANTED.

DRAUGHTSMAN. — Wanted, a thoroughly competent draughtsman, experienced in furniture, woodwork and decoration sketches, and to take charge of our entire designing department. Liberal terms to the right party. "D. S. Hess & Co.," 421 Fifth Ave., New York City. 1208

WANTED.

POSITION. — First-class draughtsman, at present in charge of a New York office, desires position in vicinity of Boston. Twelve years' experience. Moderate salary with chance for advancement. "J. B. G.," care H. M. Carleton, 606 Temple Court, New York. 1208

FOR SALE.

AMERICAN ARCHITECT (Imperial Edition), two years ('97-'98). Perfect condition. Price $7.00. E. F. Hayes, Springfield, Mass. 1208

FOR SALE.

FOUNDRY AND MACHINE SHOP. — I offer for sale a well-equipped foundry and machine-shop at Poughkeepsie, N. Y., together with the lease, and will be pleased to hear from any one desirous of purchasing such a plant. Chas. F. Cossum, 35 Market St., Poughkeepsie, N. Y. 1208

WANTED.

CATALOGUES WANTED.—Mr. Charles M. Boon, care Deli Co., Medan, Deli, Sumatra, Dutch East Indies, an architect, there in practice, would like to receive price-lists and trade-catalogues of building-materials. 1210

BUILDING PATENTS.

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

618,609. Water-Closet Flushing-Valve.—Timothy J. McHugh, Boston, Mass.

618,615. Air Moistener and Attemperator.—William H. Prinz, Austin, Ill.

618,617. Sliding Door.—William K. Ratrigh, Kittanning, Pa.

618,664. Elevator-Door.—Daniel J. Harding, St. Louis, Mo.

618,668. Hinge.—William H. Hart, New Britain, Conn.

618,701. Shutter Bower and Fastener.—Randolph N. Martz, Frederick, Md.

618,708. Latch.—Burton P. Merwin, Aspetuck, Conn.

618,711. Heating Apparatus.—James McBride, Greenfield, Ia.

618,733. Weather-Strip.—Alexander Rose, Lynn, Mass.

618,770. Boiler.—George Baumann, Chicago, Ill.

618,792. Stop and Waste Cock.—James Flockhart and Dennis F. Keogh, Denver, Col.

618,794. Spring-Hinge.—Harold Hyde, Ashton-under-Lyne, Eng.

618,797. Combined Roof Cornice and Gutter.—Charles A. Manlow, Goshen, Ind.

618,818. Door-Holder.—William T. Adams, Reading, Pa.

618,822. Window-Screen and Controlling Apparatus.—Thomas E. Barr, Kalamazoo, Mich.

618,823. Roller Window-Screen.—Thomas E. Barr, Kalamazoo, Mich.

618,825. Insect-Excluder for Window-Sashes.—Thos. E. Barr, Kalamazoo, Mich.

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.

Albany, N. Y.—The plans of Egerton Swartwout, 160 Fifth Ave., New York City, have been accepted for a public bath-house; probable cost, $21,500.

Atlanta, Ga.—Press reports state that Andrew Carnegie has offered the city $100,000 for a free library building, providing the city will maintain the library at a cost of not less than $5,000 per year.

Austin, Ill.—The First Methodist Church has under consideration the erection of a $45,000 brick and stone church, after plans by F. R. Badgley, 1273 Euclid Ave., Cleveland, O.

Baltimore, Md.—The bill appropriating $100,000 for a site for a public building has been favorably acted upon by the House at Washington, D. C.

Battle Creek, Mich.—Report states that a $50,000 addition will be erected to the M. E. Church.

Bluefield, W. Va.—The bill before the House at Washington, D. C., appropriating $50,000 for a Public Building has been favorably acted upon.

Boone, Ia.—The plans of the Champion Iron Works, of Canton, O., are stated to have been accepted for the Jail; probable cost, $10,000.

Boston, Mass.—Plans have been made by Lavalle & Churchill for a brick and stone building to be erected in North Sq., North End, corner of Sun Ct., for the Italian Roman Catholic Church Society. The building will be one story high with a sloping roof, 57′ x 82′; Rev. J. J. Williams, archbishop of Boston, owner.

Congressman Fitzgerald has introduced a bill in Congress, at Washington, D. C., providing for the construction of an appraisers' warehouse at this place, and appropriating $1,000,000 for purchase of a site and the erection of the building.

Clarence H. Blackall has prepared plans for the office and theatre building for the Ames Estate, to be erected on the site of the old Public Library.

Brockton, Mass.—It is reported that a $50,000 Y. M. C. A. Building is to be erected here.

Brooklyn, N. Y.—The Committee of the whole House at Washington has favorably acted upon the bill appropriating $30,000 toward a public building.

BUILDING INTELLIGENCE.

(*Advance Rumors Continued.*)

Cambridge, Mass.—Henry G. Raymond is to erect a six-tenement frame apartment-block at 73 Dana St., near the corner of Broadway; cost about $18,000.

Cambridge, Minn.—It is stated that a stock company will erect a $25,000 flour-mill here.

Chicago, Ill.—Report states that C. A. Londelius and Peter C. Bruhn will erect a row of three-story brick and stone apartment-houses at Calumet Ave. and 58th St., after plans of J. F. & J. P. Doerr; cost, about $100,000.

A $100,000, seven-story fireproof building is to be added to the plant of the Chicago Telephone Co., 203 Washington St. The company will also erect an exchange building on Sangamen St. D. H. Burnham & Co., 1142 The Rookery, architects.

John H. Wagner, 107 Dearborn St., is preparing plans for a factory and office-building, 100′ x 140′, six stories, steel frame, with brick walls, mill-construction, and to be erected on 22d St., in addition to the present plant, for the Chicago Cottage Organ Co., at a cost of $80,000.

Davenport, Ia.—The Knights of Pythias contemplate erecting a temple to cost about $30,000.

Des Moines, Ia.—The Home for the Aged has selected plans by Foster & Liebbe, architects, of this city, for the new building; cost, $30,000.

It is stated that Norman Lichty will erect a $100,000 business block.

The Foster-Liebbe Co., architects, are preparing plans for a five-story department-store building for Younker Bros., to be erected at 7th and Walnut Sts.; cost, $100,000.

Detroit, Mich.—C. H. Colwell will build a four-story apartment-building, 46′ x 90′, pressed brick and stone, on Charlotte Ave., near Cass St., from designs by N. Wardrop; cost, $30,0000.

The Wolverine Mfg. Co. will erect a large brick factory on Stanley and 13th Sts.

John W. Case has prepared plans for a building for the Edward Armitage Mfg. Co, 50′ x 180′, and four stories high.

A. C. Varney has prepared plans for a six-story factory building for Boydell Bros, corner Champlain and Beaubian Sts; cost, $50,000.

A. T. Fisher is at the head of an incorporated company to build and operate a large beet-sugar plant to be located on the Gratiot Road, near Mt. Clemens; capital stock, $350,000.

The Michigan Telephone Co. will add a seventh story and make other improvements to their building, corner Clifford St. and Washington Ave.; Gordon W. Lloyd, architect.

The Supervisors of Wayne Co. will submit to a vote of the people a proposition to bond the county for $800,000, the amount required to complete the new County Court-house.

The Public School Inspectors ask for $340,000 to build six or seven new schools and improve several of the old ones during the coming season. Address the Secretary.

Dubuque, Ia.—It is reported the Catholic parish is to be divided and a new church, to cost about $20,000, erected.

Ephraim, Utah.—Reports state that R. C. Watkins, of Provo, has prepared plans for a $25,000 building to be erected for the Sanpete State Academy.

Florence, Mass.—A new school-house is contemplated.

Ft. Madison, Ia.—Martin Heer, architect, of Dubuque, has completed plans for a brick school; estimated cost, $25,000.

BUILDING INTELLIGENCE.

(*Advance Rumors Continued.*)

Greensburg, Ind.—It is reported that the Southern Indiana R. R. Co. will erect new passenger and freight depots at this place.

Harrisburg, Pa.—The Board of Trustees for the State Insane Hospital submitted their report February 6, and in it ask for appropriations for the following purposes: chapel, $30,000; two nurses' homes, $60,000; kitchens, $30,000; and additional land, $15,000.

Ithaca, N. Y.—J. Cleveland Cady, Jackson Building, New York, has prepared plans for a $100,000 church, to be erected by the Presbyterian Society.

Janesville, Wis.—The Pauley Jail Building & Mfg. Co., of St. Louis, Mo., has been awarded contract for the erection of the Jail, at $20,950.

Kansas City, Kan.—The Portsmouth Investment Co. will expend $50,000 in converting the Chamber of Commerce Building into an opera-house.

Kansas City, Mo.—The Missouri Dairy Co. have had plans prepared for the erection of a dairy, to be erected at 1209-1211 Locust St.; cost, $25,000.

Lancaster, Ky.—Report states that plans have been prepared by J. R. Ryan, Cleveland, O., for the hotel and opera-house to be built in this city, at a cost of about $20,000.

Madison, Wis.—It is reported the C. M. & St. P. will erect a large freight-depot here this season; will cost $50,000.

Marshall, Minn.—A $35,000 school-house is to be erected here. W. B. Dunnell, 616 Bank of Commerce Building, architect.

Milton, Ore.—The citizens have voted to issue $12,000 bonds for a school.

Milwaukee, Wis.—It is stated that the Carpenter & Underwood Co. will erect a four-story brick addition to the present cracker factory on Grand Ave., near 5th St. It will be 50′ x 170′, and will cost with machinery, $70,000; Crane & Barkhausen, architects.

Crane & Barkhausen, architects, have prepared plans for a five-story factory building to be erected at Reed and S. Water Sts., for Mr. Walsche; cost, $50,000.

Montevallo, Ala.—The House has passed a bill appropriating $15,000 for additional buildings for the Girls' Industrial School.

New Brunswick, N. J.—The House at Washington, D. C., has acted favorably upon the bill appropriating $100,000 for a public building.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Newport News, Va. — The bill for a $75,000 public building has been favorably acted upon by the House at Washington, D. C.

New Wilmington, Pa.—The plans of C. C. Thayer, New Castle, have been accepted for a $30,000 school.

New York, N. Y. — A Women's Hotel is contemplated. Charles D. Kellogg, Secretary of the Preliminary Committee, expects that three-fourths of the proposed capital stock of $400,000 will soon be subscribed for, and the company will then be incorporated and proceed toward the erection of the structure.

The bill appropriating $750,000 for the new Custom-house site and $1,000,000 toward the erection of the building has been acted upon favorably by the House at Washington, D. C.

Northfield, Vt. — A hall will be built for Norwich University, costing $100,000. It will be known as Dewey Hall.

Owatonna, Minn. — Hammell Bros. are stated to have received the contract for the Public Library, at $18,157.

Palo Alto, Cal. — The plans of Clinton Day, of San Francisco, have been accepted for the interior of the $125,000 memorial chapel which is to be erected by Stanford University. The plans for the exterior were drawn by Charles Edward Hodges, who has also prepared plans for the Natural Science Building which the University is to erect. This latter building will cost $200,000.

Peoria, Ill. — The Chicago, Rock Island & Pacific Ry. Co. will erect new freight-houses and a new depot at this place in the spring.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Philadelphia, Pa. — Baily & Truscott, 421 Chestnut St., have been selected to prepare plans and specifications for the new church and clergy-house for the Protestant Episcopal Mission to be built at 2d and Ritner Sts.

Plans have been prepared by James D. Allen, 1017 Chestnut St., for a hotel and apartment-house, to be built at 23d and Walnut Sts., by the Clarendon Apartment House Co. It will be constructed of brick and stone, and cost approximately $250,000.

Pittsburgh, Pa. — E. M. Butz & Co., Park Building, have prepared plans for a ten-story apartment-building, 90′ x 110′, to be erected on Centre Ave.; cost, $100,000.

Pontiac, Mich. — It is reported that Fred C. Toelle, 287 E. High St., Detroit, is organizing a joint stock company for the purpose of building a brewery at this place, at an estimated cost of $20,000.

Rutland, Vt. — The City hall is to be enlarged and improved at a cost of about $20,000.

Sandersville, Ga. — J. H. McKenzie & Co., of Augusta, have received the contract for enlarging the Court-house at $20,000.

San Francisco, Cal. — It is stated that plans have been prepared by Wm. F. Smith, 206 Sansome St., for new buildings for St. Luke's hospital. They will be of fireproof construction, and cost about $150,000.

Gottlob, Marx & Co. contemplate erecting an opera-house at Ellis and Mason Sts., costing about $170,000.

Scranton, Pa. — A $200,000 Y. M. C. A. Building is to be erected.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Sioux City, Ia. — It is stated that the Brewery Co. here, which owns a plant at Latrobe, Pa., will erect a new malt-house here, at a cost of $100,000.

Spokane, Wash. — Mr. Jas. Clark is to erect a $20,000 residence, from plans by Held & Permain, architects.

St. Paul, Minn. — The City Market House property has been transferred to the Public Library Board. It is understood that a proposition is on foot to transfer the property to a syndicate which will erect thereon a large business-block, and also erect and equip a magnificent Public Library in another part of the city. The expenditure will be about $500,000.

Syracuse, N. Y. — It is reported that the First M. E. Society has decided to build a $60,000 church, Rev. C. H. Sims, pastor.

Victor, Col. — Press reports state that the Gold Coin Club will erect a $15,000 club-house on Diamond and 4th Sts.

Wells, Minn. — The citizens have voted to erect a 14-room school, to cost about $23,00 .

Wheaton, Ill. — It has been stated that the plans prepared by M. E. Beil, 76, 84 Adams St., Chicago, have been accepted for the new buildings to be erected at the county farm; cost, about $25,000.

ALTERATIONS AND ADDITIONS.

Chicopee, Mass. — Brick addition to the plant of the Olmsted & Tuttle Co.; contract not let.

St. Louis, Mo. — *Broadway*, bet. Palm & Branch Sts., three-st'y bk. addition to cold-storage building, 73′ x 140′, comp. roof; $30,000; o., Mound City Ice & Cold Storage Co.; a., Widman, Walsh & Boisselier, Wainwright Building.

BUILDING INTELLIGENCE.

APARTMENT-HOUSES.

New York, N. Y.—*Central Park*, w cor. 70th St., ten-st'y steel fr., bk., st. & terra-cotta apart., 100′ 5″ x 125′, slate roof, steam; $700,000; o. & a., Stein, Cohen & Roth, 41 Union Sq.

One Hundred and Thirtieth St., cor. Lenox Ave., eight-st'y bk. & st. apart., 85′ x 100′; $200,000; o., John Jacob Astor Estate, 23 W. 26th St.; c., The Tidewater Building Co.; a., Lord, Hewlett & Hull, 16 E. 23d St.

Seventh Ave., bet. 140th & 141st Sts., 7 five-st'y bk. & st. flats, 31′ x 95′ & 27′ 6″ x 86′; $300,000; o. & b., Joseph, John & George Schreiner, 104 W. 121st St.; a., John Hauser.

Boulevard, cor. 81st St., seven-st'y bk. & st. apart., 72′ x 113′; $200,000; o., Alexander Walker, 892 West End Ave.; a., Geo. F. Pelham.

Park Ave., cor. 132d St., 4 five-st'y bk. & st. flats, 25′ x 95′ & 25′ x 80′; $120,000; o., Louis Wirth, 1010 E. 162d St.; a., John Hauser.

Manhattan Ave., 117th to 118th Sts., 3 seven-st'y bk. & st. aparts.; 75′ x 95′ 11″, 50′ x 100′ 11″, 50′ 11″ x 115′; $325,000; o., Salvator La Grassa, 743 E. 137th St.; a., Neville & Bagge.

Columbus Ave., cor. 103th St., 4 five-st'y flats & stores, 25′ x 86′; $100,000; o., Abraham Rosenbaum, 1804 Madison Ave.; a., Michael Bernstein, 245 Broadway.

One Hundred and Forty-fourth St., nr. Brook Ave., five-st'y bk. & st. flats, 25′ x 80′; $20,000; o. & b., Adolph Wexler, 537 E. 152d St.; a., Harry T. Howell.

Columbus Ave., nr. 103th St., 3 five-st'y flats with stores, 25′ x 86′; $80,000; o., Mrs. Heiman & Volletsky; a., M. Bernstein, 245 Broadway.

Clinton St., Nos. 244-246, six-st'y bk. & st. flats & stores, 40′ x 71′; $30,000; o., Roginsky & Perdman, a., Horenburger & Straub, 122 Bowery.

Montgomery St., No. 28, six-st'y bk. & st. flat, 20′ x 56′; $20,000; o., Goldberg & Schancupp, 359 E. 72d St.; a., Schneider & Herter.

Philadelphia, Pa.—*Tenth and Clinton Sts.*, ten-st'y bk., st. & terra-cotta flats, 100′ x 115′; o., Chas. B. Prettyman; c., Doyle & Doak.

Springfield, Mass.—*Main St. and Hubbard Ave.*, four-st'y bk. stores & flats, 50′ x 60′; $20,000; o., Frank E. Owen.

CHURCHES.

Albany, Minn.—Two-st'y bk. church, 80′ x 148′, shingle roof, steam; $15,000; o., Catholic Society; a., E. Brielmaer & Sons, 602 Second St., Milwaukee, Wis.

EDUCATIONAL.

Bellefontaine, O.—Three-st'y bk. & st. school, 80′ x 80′, slate roof, hot air; $12,000; o., School Board; a., W. R. Brown, 222 W. 4th St., Cincinnati.

West Hoboken, N. J.—*Malone St.*, nr. Summit Ave., three-st'y bk. & st. public school, 87′ x 89′; $38,000; o., Board of Education; a., O'Brien & McDermott.

Wheaton, Minn.—Two-st'y bk. high school, 84′ x 100′, shingle roof, steam; $15,000; o., School District No. 32; a., Buchner & Jacobson, St. Paul.

Worcester, Mass.—*Millbury St.*, three-st'y bk. school, 67′ x 74′; $20,000; o., City of Worcester; a., Barker & Nourse; contracts not let.

HOSPITALS.

Battle Creek, Mich.—Five-st'y & base. st. sanitarium, 200′ x 222′, tile roof, steam; $200,000; o., Phelps Medical and Surgical Sanitarium; a., Rob't T. Newberry, New York Life Building, Chicago, Ill.

HOTELS.

Colorado Springs, Col.—Four-st'y bk. & st. hotel, 50′ x 190′, comp. roof, steam; $80,000; o., J. A. Himbaugh; a., T. P. Barber, 74 Bank Building.

HOUSES.

Boston, Mass.—*Barry St.*, nr. Quincy St., Ward 20, two-st'y fr. dwell., 26′ x 30′ x 51′, pitch roof, furnace; $4,000; o., Annie Chisholm; a. & b., Hugh Chisholm.

Hillcrest St., nr. Temple St., Ward 23, and *Temple St.*, nr. Hillcrest St., Ward 23, 2 two-st'y fr. dwells., 25′ x 32′ x 36′, pitch roofs, furnaces; $8,000; o., Mary B. McDonald and W. E. Perry; a. & b., J. W. McDonald, 290 Harrison Ave.

Kemp St., Ward 16, two-st'y fr. dwell., 24′ x 51′, flat roof, stoves; $5,000; o., a. & b., Boyd & Berry, Pond St., Dorchester District.

Moultrie Ave., nr. Seaborn St., Ward 20, two-st'y fr. dwell., 26′ x 44′, pitch roof, furnace; $4,500; o., Elizabeth J. Caverly; a. & b., E. J. MacIlroy, Lauriat Ave., Dorchester District.

Claybourne St., nr. Dakota St., Ward 20, two-st'y fr. dwell., 29′ x 48′, pitch roof, furnace; $4,500; o., Mary J. Boden; b., H. J. Boden, 22 Evelyn St.

Plainfield St., cor. Williams St., Ward 23, two-st'y fr. dwell., 24′ x 52′, pitch roof, stoves; $4,500; o., Patrick McDermott; a. & b., J. P. Campbell, 26 Boylston St., Jamaica Plain.

Tonawanda St., nr. Greenbriar St., Ward 20, 2½-st'y fr. dwell., 28′ x 50′, pitch roof, furnace; $5,000; o., Flora J. Rice; b., Henry J. Rice, 118 Tonawanda St.

Barry St., nr. Hamilton St., Ward 20, two-st'y fr. dwell., 28′ x 46′, flat roof, stoves; $4,000; o. & a., Logue & Grady, 17 Otis St.; not let.

Longwood Ave., nr. Binney St., Ward 19, two-st'y fr. dwell., 24′ x 50′, flat roof, stoves; $4,500; o., Sophia Sprissler; b., Fouhs & Wangler, 17 Mansur St.

Ward St., nr. Prentiss St., Ward 19, three-st'y fr. dwell., 23′ x 30′, flat roof, stoves; $5,000; o., Ellen Lynch; a. & b., A. Cruickshank, 1 Carlos St.

Tileston Pl., No. 4, Ward 6, three-st'y bk. dwell., 22′ x 22′, flat roof, stoves; $6,000; o., Vincenzo Di Zelormo, 4 Tileston Pl.; a., W. E. Clarke; not let.

Mercer St., Nos. 81-83, Ward 15, 2 two-st'y fr. dwells., 25′ x 43′, flat roofs, stoves; $4,000; o., Elizabeth J. Daly; a. & b., Daly Bros., 271 Eighth St.

Howland St., nr. Elm Hill Ave., Ward 21, 2½-st'y fr. dwell., 40′ x 43′, pitch roof, hot water; $9,000; o., E. F. Gaskin, 474 Columbus Ave.; a., Greenleaf & Cobb; not let.

Worcester, Mass.—*Perry Ave.*, three st'y fr. dwell., 28′ x 50′; $3,800; o., Patrick McKeon; a., E. T. Chapin; b., F. J. Yates.

(*Houses Continued.*)

Grand View Ave., two-st'y fr. dwell., 29′ x 51′; $4,000; o. & b., W. F. Spring.

Fairwell St., three-st'y fr. dwell., 27′ x 52′; $5,000; o., Geo. Lake; c., Nicholas Nilson.

Vernon St., two-st'y fr. dwell., 24′ x 36′; $4,000; o., Peter Baker; c., J. J. Higgins.

MERCANTILE BUILDINGS.

Boston, Mass.—*Washington St., Norfolk Pl., Bedford St. and Harrison Ave.*, Ward 7, five-st'y bk. mercantile block, 86′ x 144′, flat roof, steam; lessees, R. H. White Co.; a., Peabody & Stearns.

St. Louis, Mo.—*Easton Ave.*, nr. Vandeventer St., two-st'y bk. building, 32′ x 66′, comp. roof; $20,000; o., W. J. Lemp Brewing Co.; a., Widman, Walsh & Boisselier, Wainwright Building.

OFFICE BUILDINGS.

Northampton, Mass.—*Pleasant St.*, three st'y bk. block of stores & offices, light bk. & brownst. trim., 60′ x 75′; $15,000; o., John T. Dewey; a., B. Hammett Seabury, Springfield; contract not let.

Philadelphia, Pa.—*Filbert St., Nos.* 1302-1304, seven-st'y bk. & st. store & office building, 27′ x 106′; o., Horn & Hardart; b., Thomas McCarthy.

STABLES.

New York, N. Y.—*Lawrence St. and Amsterdam Ave.*, two-st'y & cellar bk. stable, 46′ x 80′; $12,000; o., Manhattan Dairy Co.; a., Jas. W. Cole, 301 W. 51st St.

STORES.

Boston, Mass.—*A St.*, cor. Baldwin St., Ward 13, two-st'y fr. store, 29′ x 38′, flat roof, stoves; $1,500; o., Jas. A. Plunkett; b., J. J. Bixby, 320 First St.

TENEMENT-HOUSES.

New York, N. Y.—*Putnam Ave.*, nr. Bushwick Ave., four-st'y st. flat, 30′ x 80′; $15,000; o. & b., Ph. Steingotter, 1359 Bushwick Ave; a., W. B. B. Wills, 17 Troutman St.

Fifth St., cor. Ave. D, 2 six-st'y & base. bk. & st. flat, 21′ 6″ x 82′; $52,000; o., Morris Jacobson; a., Fred Eberling, 354 Grand St.

WAREHOUSES.

Chicago, Ill.—*N. State St.*, nr. Chestnut St., three-st'y & base. bk. & st. warehouse, 44′ x 120′, comp. roof, steam; $20,000; o., John G. Heinig; a., Fred Foehringer, 166 Randolph St.

Worcester, Mass.—*Cherry St.*, two-st'y bk. storebuilding, 60′ x 140′; $10,000; o., W. H. Inman; c., J. E. Fuller, Jr.; a., Geo. H. Clemence.

MISCELLANEOUS.

Northfield, Minn.—Two-st'y & base. bk. Odd Fellows' Home, 60′ x 130′, slate roof, hot water; $25,000; o., State Odd Fellows; a., Harry W. Jones, Minneapolis.

COMPETITIONS.

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.

COURT-HOUSE. [At Wilkesbarre, Pa.]
Competitive plans and specifications are wanted **March 15** for a Court-house. A. D. HAY, Chmn. Co. Commrs. 1207

JAIL. [At Alexandria, La.]
Plans, specifications and bids are wanted **February 22** for a Jail to cost between $15,000 and $25,000. W. C. JAMES, Pres. Police Jury, Boyce, La. 1208

PROPOSALS.

CEMENT. [At Forts Schuyler and Totten, N. Y.]
U. S. Engineer Office, Army Building, New York. Sealed proposals for furnishing American Portland cement at Forts Schuyler and Totten, N. Y., will be received here **until March 10, 1899.** H. M. ADAMS, Major, Engineers. 1209

PROPOSALS.

SCHOOL-BUILDING. [At Eau Claire, Wis.]
Sealed proposals will be received by the Board of Education **until March 5** for the erection of a two-story eight-room school-building. GEORGE JOHNSON, Chairman, Committee on Real Estate. 1209

SCHOOL. [At Columbus, O.]
Bids are wanted **February 21** for erecting the South High School. C. E. MORRIS, Chmn. Com. on Bldgs. 1208

CEMENT, ETC. [At Baltimore, Md.]
U. S. Engineer Office, 812 St. Paul St., Baltimore, Md. Proposals for furnishing and delivering at Hawkins Point, North Point, Rock Point and Fort Carroll, cement, stone, brick, iron beams and lumber will be received **until March 10, 1899.** PETER C. HAINS, Col., Engrs. 1209

CITY-HALL. [At Newport, R. I.]
Bids are wanted **February 21** for building a City-hall, ventilating, heating, plumbing, electric-wiring and gas-piping for the same. LOUIS SHANTELER, Chmn. pro tem City-hall Com. 1208

MATERIALS. [At Cleveland, O.]
Sealed proposals will be received by the Board of Education, 190 Euclid Ave., **until February 25** for the following work on the 8 room addition to the Union School-building: masonwork, cut-stonework, carpentry, lathing and plastering, blackboards (natural slate), galvanized iron and tin work, iron and steel, painting and glazing, slate roofing, heating and ventilating, plumbing and gas-fitting and speaking-tubes, sewers, cement floors. H. Q. SARGENT, School Director. 1208

CHURCH. [At Ottawa, O.]
Proposals will be received **until March 7** for construction of the new brick church to be erected by the Methodist Episcopal Society of Ottawa. 1208

PROPOSALS.

SCHOOL-BUILDING. [At Wheaton, Minn.]
Sealed bids for the construction of a public school building will be received **until March 11, 1899,** by T. K. Mork, Clerk of Board of Education. 1209

SCHOOL-BUILDING. [At Ponca, Neb.]
Sealed bids will be received by the Board of Education of the School District No. 1, Dixon County, Nebraska, **until February 28, 1899,** for the erection and completion of a school-building on the schoolhouse grounds in the City of Ponca, Neb. Bids for heating and plumbing of same will be received **until February 27, 1899.** SAM. BITTENBENDER, Clerk, Board Education. 1208

Treasury Department, Office Supervising Architect, Washington, D. C., February 11, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 10th day of March, 1899, and then opened, for all the labor and material required for the ornamental ironwork of the main buildings at the United States Immigrant Station, Ellis Island, New York Harbor, in accordance with drawings and specification, copies of which may be had at this office or the office of Boring & Tilton, architects, 32 Broadway, New York City. JAMES KNOX TAYLOR, Supervising Architect. 1209

Treasury Department, Office of the Supervising Architect, Washington, D. C., February 7, 1899. Sealed proposals will be received at this office until 2 o'clock P. M. on the 7th day of March, 1899, and then opened, for the heating and ventilating apparatus, complete in place, for the United States Post-office, Custom-house, etc., building at Camden, N. J., in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent at Camden, N. J. JAMES KNOX TAYLOR, Supervising Architect. 1209

PAVING. [At Washington, D. C.]
Office of the Commissioners of the District of Columbia. Sealed proposals will be received at this office **until 12 o'clock noon Saturday, March 4, 1899,** for paving B Street, northwest, from 9th to 12th Streets, with vitrified blocks. Form of proposal, specifications and all necessary information can be

PROPOSALS.

obtained at the office of the Engineer Commissioner, D. C. JOHN B. WIGHT, JOHN W. ROSS, LANSING H. BEACH, Commissioners. 1208

QUARRYING AND CRUSHING STONE. [At Washington, D. C.]
Office of the Commissioners, District of Columbia, Washington. Sealed proposals will be received at this office **until 12 o'clock noon on Saturday, March 4, 1899,** for quarrying and crushing stone. Blank form of proposal, specifications and all necessary information may be obtained at the office of the Engineer Commissioner, D. C. JOHN B. WIGHT, JOHN W. ROSS, LANSING H. BEACH, Commissioners, D. C. 1208

COUNTY BUILDING. [At Detroit, Mich.]
Sealed proposals will be received at the office of County Clerk of Wayne County, in the City-hall, Detroit, Mich., **until eleven (11) o'clock A. M., local time, Thursday, February 23, 1899,** for the marble and scagliola work, iron, steel, metal and mason work, furring and plastering, carpenter-work, painting and glazing of the new Wayne County Building, Detroit, Mich., in accordance with plans and specifications prepared by John Scott & Co., architects, and on file only at the office of the architects, 67 Moffat Block, Detroit, Mich., and the office of the Building Committee, corner of Randolph and East Congress Streets.

Proposals will be made on blanks furnished, and addressed to the Committee on Site and Buildings and Board of County Auditors, Wayne County, Mich. A certified check of five (5) per cent of the amount of the proposal submitted, made payable to the order of Walter H. Coots, Chairman, must accompany each proposal, to guarantee that the successful bidder will enter into contract with the County, and furnish the necessary bonds. The right to reject any or all proposals, or to accept any proposal deemed for the best interests of the county reserved. Committeee on Site and Buildings, by WALTER H. COOTS, Chairman. Board of County Auditors by LOU BURT, Chairman. 1208

COURT-HOUSE. [At Leesville, La.]
Plans and specifications will be received **until March 27** by the police jury of Vernon parish for the erection of a Court-house to cost $15,000. E. E. SMART, President. 1208

ADDITION TO COURT-HOUSE. [At Aberdeen, S. D.]
Bids will be received **until March 8** by the County Auditor for building an addition to the Court-house. 1208

BARRACKS AND BOILER-HOUSE. [At San Francisco, Cal.]
Proposals will be received at the Bureau of Navigation, Navy Department, **until the 15th day of March, 1899,** for the construction of a barracks and boiler-house for the U. S. Naval Training-station, on Yerba Buena Island, San Francisco, Cal. A. S. CROWNINSHIELD, Chief of Bureau of Navigation, Navy Department. 1208

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.

BUILDING MATERIALS.

Reported for the American Architect and Building News.

	New York. (*Wholesale Prices.*)	Boston. (*Wholesale Prices.*)	Chicago. (*Prices to Builders and Contractors.*)	Philadelphia. (*Prices to Builders and Contractors.*)
BRICK.—₱ M.				
Common: *Cargo afloat.*				
Pale	3 75 @ 4 00	Domestic Com.	Building 4 50	In Yard.
Jersey	5 50 @ 6 00	8 50 @ 9 50	sewer add 1.00	Sq. Hard 8 00 @ 9 00
Long Island	5 62½ @ 5 75	Domestic Face	hollow, add 1.25	" @ 7 00
Up River	@ 6 50	18 00 @ 25 00	Enam. Imp. Bk.	Salmon @ 5 50
Haverstraw Bay 2d	6 00 @ 6 50	Philadelphia	125 00 @ 145 00	Sq. " @ 5 50
" 1st	@	35 00 @ 40 00	Enam. Domes.	Light Stretchers
Hollow	@ 7 00	10 00 @ 11 00	70 00 @ 85 00	9 00 @ 11 00
	@		Select Red Sand-Mold...10 00	Medium "
Fronts:		Phila. mould	St. Louis Hyd'lic Press..27 00	@ 12 00
Croton, Brown	@ 12 00	50 00 @ 80 00	Collinsville, do 22 00	Red "
" dark	@ 12 00		Findlay, do 22 00	@ 12 00
" red	@ 12 00	Enamelled B'k. Imported	Chicago, do assorted shades 16 00 @ 20 00	Dark "
Chicago pressed		Enam. (edge)	Chicago, do Brown..24 00	@ 12 00
" Moulded		105 00 @ 120 00	Chicago, do Red Roman..24 00	Pressed
Baltimore	37 00 @ 41 00	" (edge & end.)	Chicago, do Br'n Roman..27 00	@ 17 00
Philadelphia	19 00 @ 21 00	120 00 @ 135 00	Bushnell Buff 25 00	Paving
Trenton	17 50 @ 18 50	Domestic.		11 00 @ 13 0
Milwaukee		Enam. (edge)		Second " @ 12 00
Moulded:		90 00 @ 100 00		Third " @ 10 00
Red Pressed	@ 29 00	" (edge & end.)		
Buff "	@ 27 00	110 00 @ 115 00		Dom. { @ 65 / @ 85
Moulded Red & Buff	45 00 @ 70 00			
Enamelled: *Imp.*				
Enamelled (edge)	85 00 @ 100 00			
Enamelled (edge and end)	90 00 @ 110 00			
CEMENT, LIME, etc. (₱ *cask.*)				
Rosendale Cement	65 @ 75	5 00 @ 1 00	*Not sold.*	1 30 @ 1 50
Louisville "		@	75 @ 1 00	S.H.Fs'l 20 @ 1 50
Utica, Akron, Buffalo, Milw'kee.	*Not sold.*	@	75 @ 1 00	@
Portland, Eng. (Gibbs)	2 25 @ 2 50		2 50 @ 2 60	2 85 @ 3 15
" " (K. B. & S.)	2 50 @ 3 00		2 50 @ 2 60	2 30 @ 2 60
" " (Black Cross)	2 25 @ 2 50	@	2 50 @ 2 60	2 85 @ 3 15
" " (Burnham)	2 50 @ 2 50	2 20 @ 2 50	2 50 @ 2 60	2 75 @ 2 85
" " (White's)	2 65 @ 3 00	@	2 50 @ 2 60	Belg'n 2 10 @ 2 40
" French (Lafarge)	3 60 @ 3 75	@ 5 00	3 75 @ 4 25	Hemmoor
" Ger. (Alsen)	2 90 @ 3 25	2 75 @ 3 00	2 90 @ 3 20	2 50 @ 2 75
" " (Fewer)	2 25 @ 2 40	B'ks, Shoobridge & Co.,	@	2 75 @ 2 85
" " (Vorwohler)	2 50 @ 2 90	English 2 30	@	Josson
" " (Lagerdiofer)	@	2 75 @ 3 00	2 60 @ 2 90	2 60 @ 2 75
" " (Dyckerhoff)	2 75 @ 3 00	@	3 10 @ 3 30	3 00 @ 3 25
" " (Hanover)	2 50 @ 3 00	3 50 @ 4 00	2 75 @ 2 90	2 75 @ 2 85
" " Stettin, (Anchor)	2 35 @ 2 45	@ 7 00	2 85 @ 3 00	B. Egl. 2 50 @ 2 75
Roman	2 75 @ 3 00	8 00 @ 9 00	2 75 @ 3 25	3 00 @ 3 50
Keene's coarse	4 25 @ 4 75		6 00 @ 7 00	6 50 @ 7 00
" superfine	@ 6 50		9 00 @ 10 00	8 00 @ 9 00
Lime:				
Lime of Teil	@ 4 00	@	*Not sold.*	White Lime ₱ bush 25 @ 30
Hydraulic Lime	@ 1 45		45 @ 55	White Mash 1 25 @ 1 50
Chicago Lime in bulk	St. John @		45 @ 55	1 00 @ 1 00
Wisconsin Lime	@	@ 90	*Not sold.*	
Rockland and Rockport, (Com.)	@	@ 95	1 00 bulk, 75c.	*Not sold.*
Rockland, finish	@	@	*Not sold.*	*Not sold.*
Kelley Island Lime, finish	@	*Not sold.*	*Not sold.*	1 50 @ 2 25
State, Com. cargo rates	@ 65	*Not sold.*	1 65 @ 1 75	1 75 @ 2 50
State, finishing	@ 75	1 85 @ 2 00	1 75 @ 1 90	20 @
Plaster-of-Paris (calcined)	1 30 @ 1 40	@ 2 25	12 @ 20	30 @
" (casting)	@ 1 60	25 @ 30	20 @ 25	
Hair (cattle) ₱ bush	14 @ 16	@ 30	1 00 00 1 25	
" (Goat)	17 @ 19	1 00 @ 1 75		
Sand, ₱ load	1 00 @ 1 25			