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OCTOBER 12, 1895.
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THE conscientiousness of the new head of the New York Building Bureau seems to have involved him in trouble with the architects, who are kept waiting for an unreasonable length of time before their plans are acted upon, or while a discussion is going on about trivial points. A story is told of an architect who submitted a plan for a one-story building, thirty-five feet high, with a wooden cornice, extending two feet above the roof. The New York law permits the erection, in some portions of the city, of wooden buildings not more than thirty-five feet high, but the clerk who examined the plans argued that the cornice must be included in the thirty-five feet; and it was four months before the architect was able to get a decision by which he was allowed to build according to his design. Meanwhile, plans submitted by him for a similar building, but with a cornice several feet higher, had been approved without difficulty. In another case, reported by the *Real Estate Record*, the architect is said to have been required to make affidavit that a floor, formed of concrete lying on rock, would sustain a load of a hundred and fifty pounds per square foot, before his plans were approved. It is evident that these absurdities are the result of too great pressure on the Department, in consequence of which the examination of plans must be confided to subordinates who know very little of the subject, and whose anxiety to do their duty takes the form of an unreasonable fussiness, from which building interests undoubtedly suffer greatly. As we have before suggested, the best remedy seems to consist in the appointment of a number of professional architects, in different portions of the city, to act as district surveyors, with the duty of examining plans for new buildings or alterations in their district. This system works well in London. As the examination of plans does not require all the surveyor's time, he can carry on his private practice, the consequence of which is that men of the highest attainments are secured for this important duty, in place of ignorant clerks. After the approval of the plans, the supervision of their execution would, of course, fall upon the regular inspectors.

WE print in another column a letter from Mr. Edward Atkinson, in reply to some observations of ours as to the influence of the Underwriters' Association upon building. Of course, Mr. Atkinson is right in the comments on the subject in general, but he thinks that our words cast upon the Underwriters the "imputation" of being "responsible for the neglect of owners to build safe buildings, and also for the neglect of owners to take proper measures for preventing them from being destroyed after they have been erected." In answer to this, we disclaim emphatically all intention of casting "imputations" on any one, but the absence of a wish to blame any one for the present state of things does not enable us to shut our eyes to the fact, which is familiar to every architect, that, in the great majority of cases, improved provision

against fire is made in new buildings in consequence of the saving in insurance premiums, for the owner of the building and his tenants, which will be secured thereby. Architects, it is needless to say, are not often admitted to view the workings of the consciences of their employers; and the question which is propounded to them in such cases is not, "Does duty require of us this sacrifice?" but always, "What will be the saving in insurance rates if we build as you propose?" When a reply to this inquiry is given, a process invariably follows of comparison between the saving in rates, and the interest on the extra cost of the safeguards suggested: and on the result of this comparison depends the decision whether they shall be adopted. Whether this is ethically wrong or not, is a matter which it is not within the province of architects to decide. The case is somewhat similar with the building-laws. As Mr. Atkinson says, owners are very apt to try to evade building acts and to grumble about them when they are enforced. He thinks that this is evidence of "incapacity," if not of a worse moral condition; but architects, who see their clients obliged to compete in rents with the owners of buildings erected under regulations much less rigorous, or, perhaps in open violation of all regulations, look with more indulgence upon their anxiety to make all possible economies, although, with regard to the building-laws, architects rarely countenance anything short of full compliance.

WE have often expressed our opinion that the best and simplest way out of the difficulty was not to lecture owners on their "incapacity" for promoting what they imagine to be the interests of the Underwriters who do the lecturing, but to impose on them a tangible portion of the responsibility toward their fellow-citizens which, under the present system, they incur only in the abstract. A man who, from a reckless and selfish pursuit of his own immediate interest, builds in such a way that his building endangers his neighbors, unquestionably incurs a moral responsibility; and, if his wretched fire-trap, in burning, sets fire to another building, and people are burned to death in the latter, he is accountable for their death, just as much as if they had been gored by a mad bull that he had allowed to run at large, or had died in consequence of any other neglect on his part of the reasonable regard for the safety of others which the common law imposes upon all persons. We have been so long accustomed to the idea that, while a man cannot build a pigsty, or stable, or other disagreeable but comparatively innocuous affair, beside his neighbor's house, without becoming liable in damages, he is at liberty to set up a shed of pine boards against the party-wall, and fill it with barrels of naphtha, and allow it to be burned down every six months, carrying his neighbor's building with it, that the impunity which he enjoys in the latter case seems to us to be in some mysterious way an inborn right, transcending all notions of moral obligation or common sense. As a matter of fact, however, it is purely a statute privilege, originally conferred upon our English ancestors by an Act of Parliament, which ordained that no man should be held responsible for the consequences of the spread of fire from his own building to that of his neighbor. This statute, like many others of the kind, which were in force in the English colonies at the time of our Revolution, was adopted into the common law of the States formed from those Colonies. No country, outside of the British family, knows any such rule, either in statute or common law, neglect of precaution in regard to fire being in France, or Italy, or Spain, or Germany, or Austria, just as grave an offence against a neighbor as neglect of proper precautions in regard to the straying of dangerous beasts, the escape of foul odors, or any other source of danger or annoyance to innocent people outside of one's own territory. It would be too much to expect our people, after centuries of exemption, to be willing to assume all at once such responsibility toward others in case of fire extending beyond their own premises, as is imposed upon a Continental householder; but the principle of such responsibility is unquestionably just, and would, as we think, in many of its applications meet with general approval. For example, it is a common occurrence to have the insurance policies on well-built structures cancelled, and new ones ordered, at treble or quadruple rates of premium, on account of the erection in the neighborhood of buildings considered to be bad risks. Of course, the Underwriters are justified in increasing the rates on the good risks,

in proportion to the new hazard introduced by the erection of the dangerous structures near by; but it is certainly hard for the owner of the good buildings to be obliged to pay, and pay dearly, for the doings of a neighbor over whom he has no control whatever. In France, or Spain, or Germany, or Italy, the owner of the fire-trap would have to pay the extra premiums imposed upon neighboring property as a consequence of the erection of his building; and it is obviously fair that he should do so. That he should be relieved in our States of this burden by the common law is an injustice, which should be, and probably might be, if the case were fairly presented, remedied by statute; and the Underwriters can say, better than any one else, how important would be the effect of such a statute, on the construction of buildings. That it would be very important, there can be no doubt, and the architects could be depended upon to coöperate with the owners in any efforts to reduce such external risk.

WHETHER anything can be done to improve a state of affairs in which owners, as a rule, build as cheaply and showily as they can, in order to make their buildings attractive to tenants as parsimonious and reckless as themselves, while the equally reckless Underwriters compete with each other in the price of the contracts of indemnity which it is their business to furnish, is a question which interests architects, in their capacity as intelligent citizens, quite as much as any one else. Although, as professional advisers, they may not think it wise to urge their clients too persistently to erect buildings which will pay only four per cent interest, instead of cheaper ones which will pay six per cent, they are by no means insensible to the burden which the erection of the latter sort lays upon the community at large; and most of them, we are convinced, present to their clients the higher consideration of the subject as frequently and forcibly as their tact shows to be judicious; and no one would welcome more gladly a reform in building methods, reasonable enough to commend itself to the public, more heartily than the members of our profession.

ANOTHER building accident took place in New York the other day. A reckless attempt was being made to hoist at once three steel girders, weighing three tons, by means of a derrick, to the sixth floor of the new Johnston Building, at the corner of Broad Street and Exchange Place, when the boom of the derrick broke, dropping the load on a stone cornice, and carrying away a part of it. The blocks of stone fell on a platform, on which a man was at work dressing the cornice, and broke it down. The workman fell to the street below, and one of the blocks fell upon him, inflicting injuries from which he died a few minutes afterward. Arrests were promptly made of the men in charge of the derrick, and of the bystanders who seemed likely to be useful as witnesses, and the task of fixing the responsibility for the accident will probably be easy.

THE eight-hour law made its appearance in court the other day in an instructive fashion. Every one knows that the labor magnates have procured the passage of a statute, by which eight hours constitutes a day's labor in Government work, and certain penalties are provided for attempts to extend the time during which a man is at liberty to labor for the public. Lately, an appropriation has been made for strengthening the Government Printing Office Building, which has been on the verge of collapse for a long time and the work has been begun. The engineer officer in charge of the alterations was discovered a few days ago, in the act of having his men work more than the statutory eight hours, and a complaint was promptly lodged against him by the defenders of the dignity of labor. On his appearance in court, to answer to this terrible charge, the officer, Lieutenant Sewell, created a sensation by explaining quietly that the building, in which twenty-seven hundred people are employed, might fall at any moment; and that he judged the emergency sufficient to warrant him in keeping the men, on whose labors the lives of thousands of their fellow-citizens might depend, at work for a longer time each day than the apostles of industrial slavery approve. Whether this defence prevailed, we cannot say; but it is probable that the public of Washington will support Lieutenant Sewell in his sinful course, whether the walking-delegates approve his conduct or not.

A REMARKABLE increase in the number of cases of typhoid fever in Chicago, where there have been recently eleven deaths from the disease in a single day, has attracted the attention of the citizens again toward the water-supply. Since the extension of the main water conduit two miles farther into the Lake, the water furnished to the older part of the town has been tolerably pure, and the mortality from fever is alarming only in the Lake View and Hyde Park districts. Here, as inquiry has shown, a special and dangerous source of contamination has been found in the filthy refuse which is now being dredged from the Chicago River, and which, by order of the United States engineer officer in charge of the work, has been dumped into Lake Michigan, less than two miles from the main four-mile crib, and in such a position that the current takes the lighter portions toward the Hyde Park intake. As a consequence of this judicious proceeding, the water-supply of the Hyde Park quarter is found to be horribly polluted, and the Board of Health has directed that all the water used for drinking or cooking must be boiled. After the discovery of the source of the pollution, the representations of the citizens led to a change in the dumping-ground, which has now been shifted to a point three miles from the main crib; but the fever does not seem to abate materially, and it probably will not until dumping of such vile matters into the Lake ceases altogether.

THE Sixth Annual Convention of the National Association of Commissioners and Inspectors of Buildings is to be held in Baltimore on Tuesday, October 15, and the two following days. This Association, though young, has already shown itself an important factor in the development of the art of building. As architects can well believe, the officers who administer and interpret the building-laws in our great and busy cities have an immense number of perplexing questions to answer, and difficult problems in construction to solve; and an annual comparison of notes between them must do much to correct misapprehensions, and promote uniformity of practice and interpretation.

A CURIOUS case came up in a New York court the other day. It seems that the New York Legislature passed, in 1888, a statute, giving the manufacturers of gravestones and monuments a lien on their goods, wherever placed, until they are fully paid for. A Mr. Brooks, some two years ago, ordered a monument to be set in his lot in Greenwood Cemetery, where his wife and daughter are buried, and certain other work to be done about the lot, the total bill amounting to eighteen hundred and fifty dollars. He paid five hundred and fifty dollars on account, in cash, and gave notes for the balance. Before the notes came due, his affairs became embarrassed, and he was unable to meet them, although he tried to borrow money from his friends for that purpose. Last January, the monument-dealers filed with the Superintendent of the cemetery a notice of lien, and subsequently threatened to dig up the monument and the smaller stones, and sell them at auction, to satisfy their lien; whereupon Mr. Brooks applied for and obtained, a temporary injunction, restraining them from making the sale; and brought suit to have the injunction made permanent. The latter suit was argued a few days ago. On behalf of the dealers, it was claimed that they had acted strictly within the statute of 1888; while, on Mr. Brooks's part, it was argued that the law was unconstitutional, not only as permitting the removal of what has become attached to the real estate, but as giving a certain class of citizens, namely, monument-makers, privileges denied to other citizens. The judge reserved his decision, but improved the opportunity to express his opinion that the statute of 1888 was "a most outrageous law." "It was almost inconceivable," he thought, "that the Legislature should give any person a lien on the place where the dead are buried." The counsel for the dealer suggested that such a law was necessary to prevent people from ordering large monuments which they do not intend to pay for; but the judge replied, with considerable force, that the dealers might have protected themselves by requiring immediate payment. "If the defendants knew," he said, "that they could not recover, they would not have sold this monument on credit"; and he added that, in his judgment, such laws did more harm than good, by encouraging people to sell goods on credit; and that, in such cases, the man who sold on credit was as much to blame as the one who bought.

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1 Conti

ART IN THE MODERN CHURCH.¹ — II.
RELIGIOUS AND IRRELIGIOUS ARCHITECTURE.



From the Building News.

It is well to distinguish between a building for religious purposes and religious architecture. Any sort of a building may be used for religious purposes. An upper room served for the institution of the Last Supper, and from that time on the faithful frequently had to worship in places whose origin was without religious significance, and which were never, from the outset, intended to be utilized in such a manner. Such structures need not concern the designer of religious buildings. They are governed by no rules, they submit to no laws, they have no peculiar properties or characteristics to distinguish them from other buildings.

The scope of religious architecture is wholly different and distinct. The student who will take the trouble to run through any history of architecture cannot but be struck by the great space consumed by the architecture of religion. Of many periods its buildings are alone those that survive to tell us what manner of architecture their builders produced. The very volume of the remains is impressive testimony to the importance of this phase of art. It shows how, in all time, religious architecture filled the thoughts of the builders, and how deeply rooted in the human mind is the necessity and the utility of religious architecture.

But history tells us more than this. In every great period of architectural activity we have never to ask which building is set apart for religious or which is put to ordinary domestic or civic purposes. Religious architecture has always been distinctive and individual. Often its forms have differed from those employed in other structures, and if we cannot always trace in Pagan architecture that feeling for religion that distinguishes Christian architecture in its highest form, the buildings have always had a character of their own distinct from secular structures. Architectural history tells us farther that religious architecture has commanded the best talents of all architects of all times. It is true there have been epochs, as that of the Renaissance in France, in which the civic and domestic buildings were larger and more splendid than the churches built at the same time, save in one or two exceptional instances, of which St. Peter's at Rome is the most conspicuous example. Certainly the châteaux of the French Renaissance period surpass in beauty and in thoughtful expression, in elaborateness and in splendor, their contemporary churches. But the churches had already been built. Scarce a town in France that did not boast one or more and often many wonderful monuments of the earlier period of pure Christian art. There was no need for newer churches in the new style, and so the genius of the architects found expression in a new class of buildings that surpassed the older in the magnificence of their appointments and in the beauty of their art.

This was a time in which extraordinary conditions prevailed, and

the general law did not hold; but save in such circumstances, and in our own day it may be asserted that religious architecture has always commanded the best thought of builders, brought out their finest creations, absorbed their most brilliant imagination, made use of their utmost powers—not always in an identical manner nor to the same degree, for religious architecture has had many and varied forms, just as it has served the need of many and varied forms of religion.

I am not now concerned with the history of religious architecture as a whole, but with Christian architecture, which is what we naturally have in mind when speaking in this way. Frequently we use these words most irregularly and without thought of their true meaning. We speak of a church as an example, a type, of religious architecture, because we know it is used by some religious body for sacred worship. We use the word "religious" in this connection in a generic sense and not because we pause to consider just what the combination "religious architecture" may really mean. It is true enough that any sort of a building may, if we choose, or if circumstances compel it, be put to religious uses, or may be temporarily modified to suit the exigencies of worship or of ritual; but when we start to build a church we must be more logical and circumspect. Because any sort of a building can be used as a church does not give us the privilege nor the right to build any sort of a structure when we set about building a church.

Various religious bodies require certain things in their church buildings. Those with an elaborate ritual need a stately edifice to set off the solemnity and the majesty of the ceremonies. Those in which the preaching service is the chief feature make use of what is almost a lecture-hall, if it is not absolutely such. Others require chapels; some ask for meeting-rooms, places of recreation, parlors, kitchens and gymnasiums. The modern church, even in the non-liturgic communions, is rapidly becoming as varied and as complex, in its way as a mediæval cathedral, with its great church, its many chapels, its cloisters, its chapter-house, its hall of records, its palace for the bishop and dwellings for his clergy. Into the specific architectural requirements of these structures we need not inquire, no more than we have need to search out the truth of the various creeds they represent. But, however varied these buildings may be in their uses, they have this in common—that the church, the house of God, is the central idea of the whole. However complicated a group a modern church may be, this fact is never forgotten, or rather is intended never to be forgotten; it is the end and aim of the work.

We shall find, as we proceed in the study of modern church designs, that sundry devices are employed by architects of every sort as so much stock-in-trade, the symbols, the language, so to speak, of church architecture. Such are high sloping roofs, towers, pinnacles, doors, windows and the like. We are accustomed to see certain architectural forms employed in a more or less technical manner to form what we at once recognize as a church without having to be told it is one. These forms may be bad, they may have no relation to each other or to the special purpose for which they are employed, but we readily recognize them, knowing the building to be a church, because it corresponds to our mental conception—which we have learned and differentiated by seeing other similar examples—of what a church should be like.

There is nothing sacred in a high and sloping roof. One of the finest examples is that of the great hall of William Rufus in Westminster Palace; a hundred châteaux in France have roofs of similar form; and it would be a task of no mean order to catalogue all the civic and lay buildings in Europe which are covered in this manner. Surely the form of a roof is not sacred, nor can it of itself suggest sacred ideas. A tower is another feature frequently employed to distinguish our modern churches from other buildings. Towers were first used as a means of defence, and are so employed to this day. It is true many types of towers have been devised that are only employed in conjunction with church buildings, but the idea of a tower is not sacred, nor is the form. And so with other parts. Doors, windows, arches, walls, which we employ in the church designs are freely available for all other sorts of structure. We might, in truth, as well maintain that only brick or stone should be employed in the church building, as to say that any of these things is the peculiar property of the architect of the church.

As has already been said, it is not *what* we use in the church that has a sacred significance, but *the way* in which it is used. Religious architecture is religious from the religious spirit put into it. That, and nothing more.

But how often do we ask our architect, when we go to him for a design for a church, if he has thought of this in preparing his sketch? How often do we ask him if he has felt it was a consecrated task he has set himself? How often do we inquire if the religious phase of architecture has been considered as well as the utilitarian and the artistic? How often do we ourselves realize that this must be the fundamental element in our church building?

We talk glibly of styles, we state our preferences in aisles and columns and arches; we pick out towers that strike our eyes; we recall convenient features we have noted in other churches; we insist on requirements already carried out in other buildings that seem peculiarly adapted to our needs. And when we have discoursed on these things, and when our architect has met our wishes, or pointed out some other tower that would look better than ours, or shown that a certain form of windows was better than that we had chosen; when, in a word, the two high contracting parties have

¹ Continued from No. 1032, page 5.

reached a common agreement as to materials, all has been said and done that seems needful, and the result, with this as a basis, is forthwith awaited. It is the same process we would employ in getting a design for an hotel, or for a business building, or for a dwelling. The distinctively churchly aspect of the matter, its religious aspect, is, in the very great majority of cases, omitted altogether; forgotten, neglected, unknown.

It is proper, in this utilitarian age, that every question of practical utility in a church building should be carefully considered. The financial element comes first, sorrowful as it may seem, for we cannot build our church beyond our means, though we mortgage it heavily and incur large indebtedness. We need, too, to consider the requirements of our congregations, the seating capacity, the purpose of the church, whether liturgic or not, the accessory buildings and rooms, the amount of space at our disposal, the conveniences of modern worship, doors, stairs, access, distribution, heating, ventilation, lighting—the thousand exigencies that enter into the building of every building, and which must be properly considered and settled in every well-ordered architectural work. But these things enter into every architectural enterprise, though in other ways, and with all the care in the world would not produce a church that would be a religious building in the highest sense. They refer to nothing which is essentially churchly or religious, but are pure matters of business, without any religious significance.

We have started to build a church; therefore, we must have more than pure matters of business with our architect. The building should have as great a religious significance, in its way, as the ceremonies that are practised there or the sermons that may be preached within it. Surely this is a plain and straightforward proposition, yet how often is it violated! Instead of religious feeling and sympathy, we have picturesqueness and variety; instead of religious art we have forms that may be employed in all sorts of buildings, and which only seem to belong to a church because our previous experience shows them to have been sometimes employed in such buildings.

BARR JERRKE.

[To be continued.]

A SYLLABUS OF EARLY CHRISTIAN, ROMANESQUE AND GOTHIC ARCHITECTURE.¹—V.

WHERE is one structure which—although concentric—stands at the beginning of the whole period, namely, the imperial chapel Charlemagne built at his palace at Aix (Aachen). As the first structure of this sort and one of the oldest belonging to the early period of Romanesque architecture, it deserves to be mentioned separately here without regard to the later concentric structures which by no means exercise an equal influence. (See below.)

A. II.—THE NON-BASILICAL STRUCTURE.

The attempt to vault aims either (a) at a perfection of the basilical type, or (b) at the creation of a type that could be substituted for the basilica.

The former belongs to the Occident in general, but suffers from great interruptions and advances only slowly.

The latter is mostly limited to Southern France and realizes its aim at once.

The single-aisled tunnel-vaulted structures are probably the older.

PROVENCE.

- St. Gabriel at Arles, 1100.
- Church at Cavaillon, eleventh century.
- Cathedral at Orange, twelfth century. [Neither has transept. Inside buttresses. Dome over square.]
- Church at Le Thor, twelfth century. [No transept. Cross-vaulted nave. Dome.]
- St. Martin at Londres, eleventh century. [Triapsal choir.]
- Ste. Maguelonne, twelfth century. [Transept. Subsidiary choirs.]
- Church at Montmajour, twelfth century.

LANGUEDOC.

- St. Jacques at Beziers, eleventh and twelfth centuries. [Inside buttresses pierced so as to produce aisles.]

AQUITANIA.

- Church at Layrac, end of eleventh century.
- Church at Montmoreau, twelfth century.

ANJOU.

- Church at Saumur, end of eleventh century.

The following single-aisled structures are vaulted with domes:

AQUITANIA.

- Cathedral at Cahors, 1100. [Hemispherical dome. Apsidicles.]
- Abbey Church at Solignac, consecrated 1143. [Pointed dome.]
- Abbey Church at Souillac, twelfth century. [Pointed dome.]
- Cathedral at Angouleme, 1101-1119. [Hemispherical dome. Cupolas over arms of transept.]
- St. Front at Perigueux. [Exceptional. Greek cross. Pointed dome. History: Oldest structure erected during 976-991; consecrated, 1047, 1077; fire, 1122. New structure. Restored, 1865.]

POITOU.

- Abbey Church at Fontevault, twelfth century. [Choir with passage and chapels. Cupola elliptical.]

¹ Continued from No. 1031, page 136.

Dome combined with ribs:

ANJOU.

- St. Trinite at Angers, twelfth century. [Peculiar shape of transept.]
- Cathedral at Angers, 1030. 1150. [Latin cross.]

Basilica (exceptional).

LANGUEDOC.

- Notre Dame at Le Puy, eleventh century. [Row of domes over nave. Aisles cross-vaulted.]

POITOU.

- St. Hilaire at Poitiers. [Vaulted during end of eleventh or beginning of twelfth centuries. Seven aisles. Double-aisled transept. Choir with passage and chapels.]

The following churches have aisles of the same height and tunnel-vaults.

I. Without galleries.

a. Parallel tunnel-vaults:

- St. Martin d'Ainay (Lyonnais), 954. [Restoration. Consecrated 1106-1113. No vertical memberment.]
- St. Nazaire at Carcassonne (Languedoc), eleventh century, western part only. [Pointed vault in nave.]

b. Semi-tunnels over aisles:

- Church at Preuilly, twelfth century.
- Church at Parthenay-Vieux, twelfth century.
- Church at Fontfroide, twelfth century. [Pointed tunnels in nave.]
- Church at Silvaccane, twelfth century.

c. Cross-vaulted aisles:

- Abbey Church St. Savin at Poitiers, eleventh century.
- Notre Dame la Grande at Poitiers, beg. of eleventh century.
- Church at Moirax, end of eleventh century. [Pointed vault in nave.]
- Exception: Cathedral at Poitiers, 1161. [Angevin dome.]

II. With galleries (semi-tunnels). Aisles cross-vaulted:

AUVERGNE.

- Notre Dame du Port at Clermont-Ferrand, eleventh and twelfth centuries.
- St. Paul at Issoire, twelfth century.
- Abbey Church at Conques, eleventh century.
- St. Sernin at Toulouse, eleventh and twelfth centuries. [Five aisles.]

All the churches have choirs with passage and radial chapels.

Churches of this kind outside of France:

SPAIN.

- S. Jago de Compostella, twelfth century. [Usually considered an imitation of S. Sernin.]

ITALY.

- S. Ambrogio at Milan. [Oldest structure ninth century. Vaulted during eleventh century.]

GERMANY.

- Chapel of St. Bartholomew at Paderborn, 1017.

THE TUNNEL-VAULTED BASILICA.

Group I.

- St. Etienne at Nevers, 1063-1099. [Radial chapels.]
- St. Guilhem en desert, eleventh century.
- Cathedral at Valson, beginning of twelfth century.
- St. Trophime at Arles, eleventh and twelfth centuries.
- St. Paul trois Chateaux, twelfth century.
- Church La Garde Adhemar, twelfth century (?). [Peculiar form.]
- All with subsidiary choirs.

Group II.—The home of this is chiefly Burgundy; its chief monument is:

- The Abbey Church at Cluny. Founded 910. [Second structure, basilica with horizontal ceiling, columns and subsidiary choirs, consecrated 981. See *American Architect* for Sept. 28, '95. Third structure, 1089-1131. Five aisles, two transepts. Radial chapels. Apsidicles.]
- St. Philibert at Tournus, first half of eleventh century. [Radial chapels.]
- Church Paray le Monial, twelfth century.
- La Charite sur Loire, twelfth century. [Subsidiary choirs.]
- Cathedral at Autun, consecrated 1148. [Subsidiary choirs.]
- Notre Dame at Beaune, twelfth century. [Radial chapels.]

A. III.—THE CROSS-VAULTED BASILICA.

This vaulting occurs almost simultaneously in the provinces of Central and Western France, Normandy, Lombardy, and the Rhenish provinces.

Two groups of buildings: one with alternation of supports (the division of the nave into full squares not always adhered to), and often sexpartite vaulting; the other with no alternation, rectangular compartments and quadripartite vaults.

Burgundy:

- Cathedral at Langres, last third of twelfth century. [Quadripartite vaults.]
- Abbey Church at Vezelay. Nave, after 1120. Choir, thirteenth century.
- Vestibule of the same, after 1132.
- Vestibule of Cluny, 1220.

Western France:

- St. Aignan near Blois. Choir, eleventh century. Nave, twelfth century. [Quadripartite vaults.]
- Cathedral at Le Mans, 1085-1077. Second structure consecrated 1158. [Quadripartite vaulting, but with grouping of supports.]

Influenced by these Western Provinces is:

Spain (the monuments influenced by Angevin vaulting. Peculiar

arrangement of choir, situated in the nave while the congregation gathers in the aisles).

Old Cathedral at Salamanca, twelfth century.

Palestine:

Church of Holy Sepulchre at Jerusalem, 1149. [Transept and choir added to original building.]

Normandy:

St. Trinite at Caen, vaulted twelfth century.
St. Etienne, twelfth century.

England:

Cathedral of Durham, vaulted thirteenth century.

DOMAIN ROYAL AND PICARDIE.

The peculiar position of this province. The rapid change of the whole architecture into a new system: Gothic.

Collegiate Church at Poissy. [Only the choir and one bay of the nave, 1130-1135.]

PERIOD OF TRANSITION.

St. Martin des Champs at Paris. Choir, twelfth century.
St. Germer at Beauvais, begun 1132.

St. Maclou at Pontoise. Lower part of choir and transept, twelfth century.

St. Julien le Pauvre at Paris. Choir twelfth century, and a number of smaller edifices.

Northern Italy. — With galleries:

S. Michele at Pavia, about 1100. [Alternation.]

Cathedral at Parma, consecrated 1106.

Cathedral at Piacenza, begun 1123.

Cathedral at Cremona. Nave, twelfth century. Transept, thirteenth century.

Without galleries:

Chiaravalle near Milan, consecrated second half of twelfth century.

S. Savino at Piacenza, end of twelfth century.

Cathedral at Trident, begun after 1212.

Alpine Provinces:

Minster at Zurich, 1104-1289. [Irregular plan. Alternation.]
Minster at Basle. Nave begun 1185.

Germany:

Cathedral at Mainz. [History: 778-1056, horizontal ceiling; 1081 (?) - 1137 (?), vaulted; re-vaulted shortly before 1200; 1200-1243, double apses.]

Cathedral at Speyer. [History: 1030-1060, horizontal nave, perhaps vaulted aisles; 1080-1109, the whole building vaulted; some addition, and the building finished 1200.]

Abbey Church at Laach, 1093-1156. [Double apses.]

Abbey Church at Eberbach, 1150-1156.

Cathedral at Worms. [Horizontally ceiled, 996-1016 (?); vaulted, 1171-81; double apses.]

B. — CONCENTRIC BUILDINGS.

Group I. — Circular or polygonal shape.

In Germany:

Imperial Chapel at Aix (Aachen), 793-804.

Imitated in:

Western choir of Minster at Essen. [Founded, 874. Rebuilt after fire in 947.]

Church at Ottmarshelm, eleventh century.

St. Michael at Fulda, 820-822. [Chapel.]

Another copy of more general order in France:

St. Germigny des Pres, 806.

Sepulchral chapels are not used after the end of eleventh century.

In Italy, Baptisteries at:

Florence, eleventh century.

Cremona, twelfth century.

Parma, twelfth century.

Pisa, twelfth century.

In France:

St. Benigne at Dijon, begun 1001.

and Templar-Churches.

Group II. — Greek Cross.

Italy:

S. Marco at Venice. [Oldest structure a basilica, ninth century. New building, 1043.]

Exceptional:

S. Antonio at Padua, 1232-1307. [Latin cross. Choir with radial chapels.]

Germany:

Chapel at Schwarz-Rheindorf, 1151.

THE HIGHER DEVELOPMENT OF THE ROMANESQUE STYLE IN GERMANY. — THE SO-CALLED "PERIOD OF TRANSITION."

The name transition is not adequate. Elements of Gothic, such as a system of ribs, the pointed arch and buttresses, are infused but not to the transformation, only to the enrichment of the style. The decorative purpose of these parts is generally more predominant than the constructive. The Romanesque features: the predominance of wall-space, the thickness of the walls, the squareness and quadripartition of the bays remain the same. The use of the pointed arch is merely a change that has no important consequences and the system of buttresses is used as little as possible. Instead of the visible flying-buttress, the German builders prefer the interior galleries, the roof of which performs the service of a continuous buttress, but unperceived. Thus the main lines of the building remain unchanged.

MONUMENTS.

Group I. — Three conchs consisting of the apse and the arms of the transept. Combination of concentric plan with the basilica.

St. Mary in Capitol at Cologne. [Old concentric structure (?).]

Church of the Apostles at Cologne.

Great St. Martin at Cologne.

Both twelfth century.

This triapsal system imitated in numerous edifices, e. g.

The Western Choir in Cathedral at Mainz, 1300.

Group II. — French influence.

Choir in Cathedral at Magdeburg, thirteenth century. [Soissons?]

Cathedral at Halberstadt, thirteenth century.

Collegiate Church at Limburg on the Lahn, 1235.

[Ground-plan, German. Elevation, French. Laon.]

and others.

Parts of:

Cathedral at Strassburg, 1015-1028, thirteenth century.

[Choir and transept.]

Minster at Freiburg in Breisgau, thirteenth century.

[Nave and transept.]

Cathedral at Bamberg, 1004-1012, reconstruction, thirteenth century.

Cathedral at Naumburg, 1242. [Nave and transept.]

St. Sebaldus at Nuremberg, thirteenth century,

and others.

CISTERCIAN ARCHITECTURE.

[The cloister Citeaux, founded 1098, flourished especially during the twelfth century: 1800 filial cloisters founded in the course of 150 years.]

The cloisters of the Cistercian order are most remarkable for their application of Gothic principles in their churches, even before the Gothic *i. e.*, as it comes to be established by the architects of the Domain Royal.

The peculiarity of the order is the great simplicity of their churches, no towers, no decoration. The choir has a square ending with chapels along the aisles and on the east side of the transept. Great extension of naves.

The famous cloisters were destroyed during eighteenth century.

In France remain only:

Cloister Vaux de Cernay, near Paris, begun 1128.

Cloister Fontenay, in Burgundy, twelfth century.

In Italy:

Cloister Chiaravalle, near Milan, 1134.

Cloister Fossanova, 1135.

In Germany:

Cloister at Maulbronn, 1178.

Cloister at Heisterbach, 1202-1233.

Cloister at Riddagshausen, thirteenth century.

ÆSTHETIC ASPECT OF ROMANESQUE ARCHITECTURE.

While the Early Christian ideal was the decoration of the interior, Romanesque style pays attention to the exterior as well. The memberment of the vaulted structure is to a certain extent decorative in itself, and in some cases even the harmonious proportions of the structure possess a solemnity and beauty unnecessary to heighten by any decorative details. In most instances, however, only the ornament offers the means of softening the severity of the architectural lines and drawing the eye to pleasing effects.

A point of great æsthetic interest is the effective grouping of the main parts of the building. In this respect the vaulted structure is far superior — one of the main laws of the stability being the subordination of each part into order and regularity. The ideas of the concentric structure have been influential not only in suggesting the use of the vaulting, but have also powerfully affected the sense for composition and the centralization of effect that makes itself felt in the Romanesque church (not merely the basilica) in its most perfect form.

Even in early Romanesque architecture, the establishment of a central square from which all parts radiate and the greater regularity of the cross may be characterized as an attempt to reach a higher orderliness such as is so admirably displayed in the concentric form. As the style advanced this principle was worked out with clearer conception of its æsthetic advantages, and that grouping of parts and members in the interior and exterior which makes the Romanesque structure such an improvement upon the horizontally ceiled Christian basilica can be said to be only the conclusion necessarily brought about as soon as the leading thought has revealed itself.

In regard to the nave, the different methods of vaulting change its appearance according as the tunnel-vault, the cross-vault or the dome is used. The first produces a singular impression of continuity, while the groined vault makes the building more an organism composed of units. The idea of organism is least prominent and the separate units more pronounced in the structures where each compartment is covered by a dome. Even in the exterior this row of separate cupolas gives an idea of separateness rather than entity. Otherwise the system of vaulting in the exterior nowhere interferes with the impression of totality, the transept, the naves as well as the choir group themselves on the sides of the central square, which is in some cases even pointed out in the exterior by a more or less conspicuous tower. On the outside the main outlines of the building impress themselves distinctly upon the mind, and the verticalness of

towers and domes contrasts pleasantly with the horizontality of the roof and the walls.

The choir is mostly treated so as to increase the conspicuousness of this sacred part and the transept often partakes of the significance applied to the choir. In the exterior—especially in large structures—it is sometimes marked out by special entrances and towers as having almost rank with the nave, while the latter is distinguished by a much more impressive façade, massive towers, a sumptuous entrance, rose-window and other decorative features.

The columns are still in use. The capital and base are heavy and the shaft generally short and even stout. The pier is by far the more common support because of its greater efficiency; it is either square or round and much improved by different modes of memberment added to increase its constructive and artistic value.

The variety and richness of Romanesque style is no less peculiar in its use of decoration. The freedom of invention and personal and national preference causes it to be one of the most original and interesting styles on earth. The presence of previous architecture, such as the Roman, is not without influence, however, and in the provinces of Southern France and Central Italy the reminiscences, coupled with the natural inclination of the people, created a style that is not inadequately termed Proto-Renaissance. In the North the lack of such models favors a strong expression of individuality, in which power and heaviness of proportion unite with picturesqueness and richness of design. In provinces where the old Celtic population still had some importance a fantastic and imaginary element is added.

Carvings of capitals, mouldings, frames of doorways and windows are abundant. The whole shaft of a column will sometimes be covered with sculptured ornaments, and yet in a whole row of supports of the same height no two capitals will bear the same design.

As for other kinds of decoration, the walls are often to a certain height coated with slabs of different color. In Italy this method is preferred to any other. The marmorarii. Another mode is that of painting. The capitals, mouldings, even the statuary, as well as the walls and the ceiling, are heightened in their effect by color. In the windows colored glass is not uncommon, especially in the choir and in the rose-window of the façade.

M. WERGELAND.

(To be continued.)

LEONARDO DA VINCI¹



After a Drawing in the Louvre, by Leonardo da Vinci.

IN 1495 there were, if accounts may be believed, many beautiful girls in Florence. Two especially were talked about, one being Ginevra Benici and the other Mona Lisa Gherardini. The latter is known to all the world from her portrait entitled "La Joconde," which hangs in the Louvre, at Paris. It is a mysterious face, full of beauty, the eyes being deep and piercing, the mouth delicate but mocking, the skin clear and natural, the hands perfect, the bust ample, beneath a garment severely plain, the hair simply caught back and smoothed down over the temples, while on the ivory brow there is a secret morbidez, a troubling voluptuousness that attracts, spurs and holds in thrall. Mona Lisa became the Florentine banker's third wife. When he married her he was no longer a young man.

About the year 1499, the most famous painter of the day was a certain Leonardo, the bastard son of a notary of the Signory at Florence and a peasant girl from the neighborhood of Empoli, named Catarina. Of this daughter of the soil we know nothing more. She must have been a superb creature, a descendant of the old Etruscan race—that is to say, a people whose Pelasgic blood had become intermingled with Gallic blood, and who built great walls which archæologists have styled Cyclopean to give an idea of their strength. We may suppose that this girl held some humble position in the notary's house, for her son was born in the da Vinci mansion itself. If the word "mansion" appears too grand, one can substitute that of *casa*, which is still used in those parts to convey the notion of a large and sumptuous dwelling. Not much is said of

¹ Extracts from a paper in the *Nineteenth Century*, by M. Alphonse de Calonne.

the father, yet it must not be imagined that the office of notary, or, to use a better word, secretary of the "Signoria," was as modest as has been stated. Ser Piero da Vinci was not a person of no importance. He belonged to the upper middle-class, if not to the aristocracy. The land which he owned near Empoli, in the most fertile part of Tuscany, the way in which he had his son educated, and the care he took to keep Leonardo near him in his town-house, show that his style of living was not at all poor, and that he was in easy circumstances. Nor could he have been a fool; for, in order to maintain his position amid the struggles of parties and the frequent upheavals in the city, he must have displayed considerable suppleness and ability. The facts that he knew how to bring up his son, and that his son was a man of genius, render it all the easier for us to rehabilitate his memory, which has been kept somewhat in the shade by Vasari. Admitting that Leonardo inherited from his mother that physical strength which was the admiration of his contemporaries, and of which historians have told us, nothing forbids us to think that he owed to his father at least a part of that ingenious spirit, that gentleness of character, and that gaiety which gave a stamp of originality to this incomparable artist, this clever and fruitful inventor.

Perhaps to him, also, Leonardo owed his taste for and his sense of art. Ser Piero da Vinci occupied an important position in a city which, more than a century before, had, by a vigorous effort, broken its Byzantine bonds. A new sap, prepared by the incubation of Christian ideas amid antique surroundings, had ascended and thrown forth new foliage and new fruits. Since the day when the Florentines had carried Cimabue's "Madonna" in triumph, Giotto had cut the last threads that bound the Middle Ages to the Greek Decline. A powerful school had arisen. People were living in an atmosphere that allowed no form of intelligence to remain inactive. Piero da Vinci would have been an extraordinary man if he had not, like all his compatriots, felt the influence of his environment. Little as is the notice taken of him by historians, they have recorded his associations with the great artists of his time, and especially with Andrea Verrocchio, painter, sculptor and architect, who, at that moment, held a foremost place in Florentine art. Michael Angelo was only just born. Botticelli alone could have equalled him in renown, but his whole thoughts were concentrated upon painting at a period when every artist worthy of the name made a point of cultivating all the fine arts. Although a possessor of broad and lofty ideas, Sandro Botticelli was not a producer of great works, most of his paintings being easel-pieces. A fervid disciple of Savonarola, he incurred the disfavor of the Athenians of Florence. The praise accorded to him in recent times comes very late in the day. In spite of a graceful style, his art, elegant as it is, has not that incontestable merit which makes a school. Verrocchio, then, reigned supreme, and he had the knowledge, the energy and the tact necessary to insure the retention of a position once gained.

Verrocchio, as stated, was a friend of Ser Piero da Vinci. The latter, justly appreciating his son's precocious inclination for science and art, had not left his faculties uncultivated. Leonardo was already a mathematician of great skill, a clever musician and a graceful horseman. Drawing, however, attracted him more than aught else. He dropped science and took up the pencil. He delighted in the most peculiar combinations, with eccentric figures and faces. His father was struck by them and showed these early efforts to his friend, Verrocchio, who saw at once in these strange images the signs of budding talent, and at his request the boy was confided to his care.

At Verrocchio's, all sorts of work was done—jewelry, gold and silversmith's work, and, above all, painting. Leonardo applied himself to all these crafts. He made rapid progress in every branch of art, so much so that one day, having painted an angel in one of his master's pictures, the "Baptism of Christ," which is now in the Academy of Florence, he proved himself so superior to his teacher that the latter cast aside his brushes and abandoned painting forever. Art lost nothing thereby; for Verrocchio, without rising to the height of his rivals Ghiberti and Donatello, has produced sculptures of the first order, one of the most remarkable being his equestrian statue of the condottiere Coleone, which so admirably adorns the Piazza San Zaniolo, at Venice. . . .

In order to form a just and definite idea of the versatility of this powerful genius, one must read the letter which he wrote to the bastard Sforza, Ludovic the Moor, ruler of Milan. In this curious epistle, the original of which is religiously preserved in the Ambrosian Library, and which was published by Amoretti, Leonardo, who had, it is true, attained a great reputation by his "Madonna among the Rocks," of which both the Louvre and the House of Suffolk claim the original, and by his "Adoration of the Magi," now in the Uffizi Gallery, does not shine by his modesty. According to his account, he has invented all kinds of things, and painting is only one of his minor occupations. He has, says he, a way of making very light bridges, easy to transport, and by means of which a general can either pursue or avoid the enemy. He is able to render them incombustible, and undertakes to burn those of the rival army. He knows how to cut off the water-supply of a besieged city, and to place ladders in such a manner as to make it possible to enter a fortress which bombs could not reach. He possesses the secret of making portable siege-guns for showering a tempest of shot and frightening the enemy by their smoke. He has a scheme for opening parallels, so as to approach the walls by covered roads. He is prepared to construct armored chariots, proof against shot and

shell, to convey infantry right into the opposing ranks. His artillery is of a new type, comprising *ballistas* and catapults of prodigious power. He has even invented an iron-clad ship. "In case of sea fighting, I can employ many means of offence and defence, among others, bomb-proof ships; and I can manufacture powder and smoke." Here, if I mistake not, we have the modern ironclad and the melinite shell.

The great painter is not less expert in the arts of peace. Without fear of comparison with anybody, he can fill the office of architect and engineer, erect buildings, public and private, excavate canals and distribute water. We have a proof of this in the Martesana Canal. As to sculpture, he is able to model in clay, chisel marble and make casts in bronze. "I am ready" — this is the capital point — "to execute the bronze equestrian statue that is to be erected to the immortal glory and happy memory of your honorable father and the noble Sforza family." Of his profession of painter he makes scarcely any mention. "In regard to painting, I can do whatever may be required quite as well as anybody." After which, he adds: "and if anything stated above appears impossible of execution, I undertake to make the attempt in your park, or in such other place as may please your Excellency, at whose disposal I place myself."

This letter was written about 1480 or 1482, and its author must then have been between twenty-eight and thirty years of age. . . .

Leonardo's letter was apparently not displeasing to Ludovic the Moor, for the writer was at once summoned to the ducal Court to give a proof of his talents. He presented himself there in an original manner, as a poet and musician, carrying in his hand a lyre with the figure of a horse's head chiselled in silver by himself. This strange sight put Duke Sforza in a good humor, and conquered the sympathies of the ladies, towards whom Leonardo ever showed himself faithful and gallant. His wit, the vivacity of his conversation, the elegance of his manners, and the loyalty and tact displayed in his intercourse with the best society of Milan, gained for him during his stay in that city a great reputation as a man of the world while his works placed him in the front rank of famous Italian artists.

He produced some masterpieces, among them being the large fresco in the refectory of Santa Maria delle Grazie, portraits, easel-pieces, studies for the Martesana Canal, and the statue of Francis Sforza. His opinion was asked for in the conflict which arose between the German architects and their Italian colleagues touching the completion of Milan Cathedral. He was the arbiter of taste, and

is not known whether it was ever cast in bronze. Leonardo's friend, Luca Pacioli, the mathematician, declares that it was, and even gives its weight (200,000 lbs.) and height (12 Milanese fathoms, or nearly 23 ft.); but no other writer of the time mentions it, which is a matter of astonishment to recent historians of Leonardo. On the other hand, tradition has it that the second model, the one which was to have been perpetuated in bronze, was destroyed by the Gascon cross-bowmen when Louis the Twelfth captured Milan. This tradition must be erroneous, as a letter of Hercule d'Este states that it still existed there in 1501. It is, at all events, unlikely that a mass of bronze weighing 200,000 lbs. could have fallen to pieces without causing some stir in the world.

During his nine years' sojourn at Milan, Leonardo da Vinci executed many other works of various kinds. He painted the Duke of Milan's legitimate family, as well as the pretty women of his left-handed *liaisons*, and he painted them with his left hand, with which he also wrote. He founded there an Academy of Fine Arts, of which he seems to have been the sole professor. He wrote a treatise on "Lights and Shades," which latter-day artists might consult with profit. There is even ground to believe that it was at Milan that he painted the "Madonna among the Rocks." For two years he directed the work on the Cathedral. Finally, he took in hand the decoration of the refectory of Santa Maria delle Grazie, of which he only executed, however, the "Last Supper." The vestiges of this fresco are now scarcely visible.

This marvellous amount of labor, while leaving Leonardo's love of pleasure unweakened, failed to furnish him with the means to indulge it to the extent he wished, for the Duke was a poor payer and a slow one. Affairs at Milan became unsettled. Louis the Twelfth, arms in hand, claimed the succession of Valentine. So Leonardo, who was spending much and earning very little, returned to Florence, the wealthiest city of Italy after Venice. Here, orders flowed in rapidly. He acquired the habit of executing them when he felt inclined, or not executing them at all.

One day, Francesco Giocondo went to see Leonardo, and asked him to paint his wife's portrait. The artist stated his terms. "We shall want a dozen violin players to keep the sitter in a bright humor. If you like, we will add some singers and a few buffoons, so as to vary the monotony of the instruments. As there is not room for so many people in my modest quarters, we will hold our sittings at the Giocondo palace, where the apartments are spacious and richly decorated."

Signor Giocondo, who was generous, as every Florentine had to be in those days, readily accepted these conditions, and, after a preliminary study of the model, Leonardo began his task. . . .

But it did not happen thus, for the portrait had hardly been begun when the sittings were suspended. It might be supposed that Leonardo's restless genius, ever in search of a new inspiration, and eager for great enterprises, had fathomed the mystery before him and had found it an empty mockery — that, instead of the ardent spirit whose existence he had suspected, he had discovered merely a heart of ice. This supposition, however, is contradicted by the facts. The inventor of the architonitro-cannon retired for a time, but soon returned.

History does not say who made the first step towards resuming the painting of the portrait. I incline to the opinion that it was Mona Lisa. Leonardo was absorbed in his maritime canal from Florence to Pisa. He had an important work to execute at the old palace in conjunction with Michael Angelo. He was also putting the finishing touches to the portrait of the beautiful Ginevra Benzi. His journeys in Umbria and Romagna interfered with his painting, and many works in progress were left unfinished. If he took four years, as is asserted by Vasari, to paint the portrait of the woman dear to his palette and to his heart, it must be admitted that the sittings were often suspended. Knowing the character of the man, we think it unlikely that he ever went to the Casa Giocondo to inquire about their resumption.

The fair Mona Lisa wanted to have her portrait painted by the hand of the great artist, but must have desired still more ardently to possess the artist himself. She seems to have taken the right road to go down to posterity. Dominate the painter, so penetrate his thoughts as to make them hers, engrave her image ineffaceably upon his memory — such, undoubtedly, was the object of this mysterious creature. Here are proofs of this. In spite of the fact that it was in hand for four years, the portrait is unfinished. It can be seen in the Louvre. Certain parts — accessories, it is true — are merely outlined. Yet the painter had abundant time to finish it, for he made several copies of it, which are done in such a manner that it is difficult to believe that they were painted to the sound of music and in Signor Giocondo's house.

From the time when he had the singularly typical visage of Mona Lisa for a subject, he never introduced any other face in his pictures for any feminine figure of importance. The "St. Anne" in the Louvre is a "Joconde" satisfied and without mystery. The "St. John the Baptist," also in the Louvre, is not a saint at all, either male or female, but a graceful image of Voluptuousness — a "Joconde" *sans arrière-pensée*.

There are "Jocondes" all over Europe, at London, Munich, Madrid, Rome and Florence, and — if it has not passed the frontier recently — another can be seen at the Villa Sommariva, Como. Finally, there exist two other portraits (half-length) of the beautiful Florentine. One of these was contained in Cardinal Fesch's collection, while the other is in the Hermitage Museum at St. Petersburg. Both are nude



Studies of Leonardo da Vinci for the Statue of Francesco Sforza: from the Collection of the Queen of England.

the organizer of festivities. Had the Olympian games been still in existence, he would have figured as an athlete; for with his hands he could twist the clapper of a bell, and, like Hercules, would have strangled the Nemean lion. He labored for nine years at the equestrian statue of Francis Sforza. He made two models thereof, but it

figures and it is scarcely probable that they were painted under the eyes of the husband; that they were executed with the lady's consent is a question open to examination. . . .

When Leonardo da Vinci came to France, he brought with him two portraits, of which he speaks in his letter to Charles d'Amboise, governor of Milan for King François Premier. One of these portraits is that of the "Joconde," and the other that of Lucrezia Crivelli, one of Duke Ludovic's mistresses. "I shall take with me," he says in his letter, "two portraits of different sizes, representing two of our ladies which I have painted for the king." . . . Until now, in fact, it has certainly been thought that Leonardo da Vinci painted Mona Lisa's portrait at the request of Ser Giocondo, her wealthy spouse. Everything confirms Vasari's statements as to the conditions imposed by Leonardo for the execution of his task—the choice of an apartment in the conjugal palace in which the fair model should sit to him, the musicians and buffoons to keep her in a good humor, and so forth. . . .

There is, however, another interpretation; but it might draw tempests upon the head of the rash person who dared to advance it. I, therefore, venture cautiously, and say in advance that I prefer to leave the little fiction upon Leonardo's conscience rather than encounter the disapprobation of the curators of the Louvre and the wrath of the whole body of French critics. If Leonardo painted the "Joconde" with a view of enriching the Royal collection, as he professes in his letter to De Chaumont (Charles d'Amboise), governor of Milan for the King of France, and negotiator of the master's visit to Fontainebleau, then we are at once forced to admit that the picture in the Louvre is not the original, but one of the copies made by the painter himself of the beloved visage. More than one critic inclines to this view.

Well, if it is a copy, it is worth the original, and there is no need, in my opinion, to squabble about its value, or about the painter's intention, or about the date of its execution: it deserves all that Vasari has said of the original. . . .

The "Joconde" in the Louvre is "a marvel, a work more divine than human." François Premier bought it of the painter for 45,000 livres, Tours currency—a sum exceeding 10,000*l.* sterling in these days—and it would be an ill-advised person who would assert that the French king, whose finances were at that moment very involved, showed too much generosity in the matter. Although the question of money is of little importance in determining the intrinsic value of a work of art, especially at a period when speculation has made art one of its sources of profit, it is worthy of remark that, if the "Joconde" were now for sale, the price would easily reach 50,000*l.* or higher.

We do not know whether the portrait of the beautiful Lucrezia Crivelli was paid for apart, or whether it was thrown in. There is no evidence upon the point. We only know that for a long time it passed in France as the portrait of the wife of the advocate, Féron, and was for that reason designated, even in catalogues, by the name of "la belle Féronnière." . . .

Leonardo had come to France to pass the rest of his days, bringing with him two portraits painted by him in his elaborate style. He always painted elaborately, without, however, losing any decorative effects. The reception which he met with at the French Court is familiar to everybody. At that period all eyes were turned towards Italy, where François I was disputing the German domination, and where the arts and sciences shone forth with such splendor as to dazzle the world. Leonardo was considered the greatest artist of his time, while his inventions, if they failed fully to realize his dreams, brought him, at all events, a brilliant reputation. Everything combined to make him a satisfied and happy man. Whence came, then, the melancholy that oppressed him, and which gave such a tone of sadness and regret to that letter of September 15, 1518? That letter was addressed to a friend—doubtless a pupil—who was setting out for Italy. The identity of this friend is a matter of small importance: we have the letter, which is all we want. "My friend," wrote Leonardo, "you are starting for a country the memory of which is dear to me, and which art has made illustrious. Travel over it, and converse with the friends who have not yet forgotten me. You have letters for all of them, and they will not fail to aid you. They will make it their duty to assist you in your studies. Do not fear that you will weary them by your requests." Then the artist's thoughts, after having dwelt upon persons, turn to his works. He invites his friend to go and see them. Lastly, he speaks of himself. His heart is full of sadness; the recollection of his disappointments re-opens old wounds. "Pay no heed to the statements of a few ill-disposed men; form your own opinion of things, and you will be convinced of their injustice. You are aware, my friend, of what rivalry between artists can do. How many great men have been the butt of envious shafts? Enough, however; I am constantly reverting to my troubles. I wish to forget the injustices that have been done me."

Was it simply the injustice of which he had been the victim that drew from Leonardo this cry of pain? To believe so, we should have to overlook the fact that, of all the artists of his day, Leonardo was the most fortunate, the most lionized, and the one who gained renown the most quickly and with the least effort. He was also the richest, although he spent his money recklessly! And if he had cause to complain of Ludovic the Moor's tardiness in settling his accounts, it was because the duke was himself often short of funds before his treasury could be replenished. It must be remembered,

too, that if certain persons were envious of the favors received by Leonardo, many of his contemporaries, both among artists and among the leading citizens of Florence and Milan, were, on the other hand, his warm friends. Take as an example that poor Sandro Botticelli, a charming painter, whose talent, infinitely graceful and refined as it was, never sufficed to support him. He died (1515) in poverty—a thing which our brilliant Leonardo never knew. . . .

Leonardo da Vinci died in France, at the Château de Clou, near Amboise, in the year 1519. As to what became of Mona Lisa nothing is known. But her name, like her beauty, remains immortal.

Numerous legends surround the name of Leonardo da Vinci. To dissipate all of them would require a volume; but there is one which I should like to dispel. It is to the effect that Leonardo died in the arms of King François Premier, and it has met with such acceptance in France as to be incorporated in certain histories, and even to be the subject of a painting. A large picture by Jean Gijoux, which was unwisely placed on view in the Paris Universal Exhibition of 1889, represents the king seated beside the bed on which the great master lies at the point of death. This picture has caused the legend to receive a still greater amount of credence. A few words, however, will suffice to disprove the story. As a matter of fact, at the moment when the painter of Mona Lisa passed away, François Premier was at the Château of Saint-Germain, near Paris, as is shown by the court journal. No document of the period makes any mention of the king having journeyed to Amboise at that particular time, and Melzi, Leonardo's friend and companion, does not allude thereto in his letters. The legend, therefore, is apocryphal, and historians would do well to treat it as such.



ARCHITECTURAL LEAGUE OF NEW YORK.

THE October meeting of the Architectural League was held at its rooms, 215 West 57th St., on Tuesday evening, October 1.

President Post, through an error in date, found it impossible to be present and, Vice-President Low being in Europe, Treasurer Warren R. Briggs acted as Chairman of the meeting.

There was a small attendance on account of its being the early autumn meeting, thirty-seven members being present and four guests, and after a dinner that all seemed to enjoy, Mr. Alfred R. Schlessinger read an admirable paper on "The Castles and Personal Qualities of King Ludwig II of Bavaria," which was very generously illustrated with stereopticon views. The paper was a very enjoyable one. Mr. Schlessinger discussed some very interesting points, both in regard to the architecture and extravagant expenditure of money, as well as the personal qualities of the character of the King himself.

Mr. Schlessinger seemed to be thoroughly acquainted with the history of the King and of many personages around him, as well as very familiar with the architecture and its many good qualities.

After the paper, Mr. J. Arthur Brand, a well-known English architect, of London, Eng., who has been a guest of the Seawan-haka Yacht Club, and the owner of the half-rater "Spruce IV," he himself personally directing the racing of his boat with the "Ethelwynn," was a guest, and, at the invitation of the League to address the Society, gave a good many interesting details of the progress of architecture in London, as well as many interesting details of the principal architectural buildings erected in London of late years.

Mr. Dankmar Adler, of Chicago, was present and gave a talk on the present building interests of Chicago, giving some idea of the effect the World's Fair had upon the city's buildings, and on request of Mr. Gibson, as to what effect the new law in Chicago, limiting the height of new buildings, had had upon property, he spoke quite at length of the various changes the law had effected in property interests. He seemed to be thoroughly impressed that it had much reduced the income from the business property and believed that a great many old buildings of four stories or more, which, although in somewhat bad condition and much wanting the later improvements in equipment, would stand for years, if the laws stood, as they are. He found it impossible in estimating the values of such property to be able to show much of an increase on the investment by improving the property. After reports from the various officers and committees, the meeting adjourned.

GEO. KEISTER, Secretary.

SOCIETY OF BEAUX-ARTS ARCHITECTS.—YEAR 1895-1896.

THE Committee on Education of the Society of Beaux-Arts Architects has decided to hold four competitions for advance students (Class A), and four competitions for beginners (Class B), during the coming season. Each competition will last three months, and the programmes, Classes A and B, will be issued on October 1, 1895, January 1, April 1 and July 1, 1896.

Competition Class A will be open to all students having obtained a medal, or a First, Second or Third Mention in any of the competitions held during the past season, and to all students who shall have obtained one First Mention or two Second Mentions in the competitions held under programmes, Class B, during the coming season and all college students.

Competition Class B will be open to all students of architecture who may apply for admission, provided that their application is endorsed by their professor.

The students in the Colleges of Architecture are specially invited to enter these competitions.

The competitions will be held under the direction of the Committee on Education, who will issue the programmes. The drawings submitted by the competitors will be exhibited publicly in this city at least two days before the judgment and at least three days after the judgment. The judgment will be rendered by a committee of not less than eight, nor more than ten, which will consist of the five members of the Committee on Education, and five other members specially invited to serve as a jury of award. The jury will classify the drawings in the order of merit, and will award First, Second and Third Mentions, respectively, to such drawings as may seem to them to deserve recognition. The jury will award for each competition under Class A one medal to the most meritorious drawing; it being, however, left to their discretion not to award a medal should none of the drawings prove deserving of such recognition.

Each student receiving a mention will be entitled to receive from the Society a certificate of award. The programmes for the different competitions, and any other information relating to the competitions, can be obtained from Mr. Albert L. Brockway, Secretary of the Committee on Education.

COMPETITION NO. 1.—PROGRAMME A.

The Committee on Education proposes as the subject for competition, "A Monumental Fountain."

The citizens of New York propose to erect a Monumental Fountain as a memorial to Peter Stuyvesant. The fountain is to form the end wall of a building to be erected on the land facing Madison Square, at the intersection of Broadway and Fifth Avenue with Twenty-third Street.

A statue of Peter Stuyvesant will form the central motive of the composition.

The building is to be six stories high, fifty feet wide. The angle of Fifth Avenue with Broadway is supposed to be forty-five degrees. The elevation to be on a plane at right angles to the bisectrix of the angle.

A sketch on tracing-paper of the plan and elevation at a scale of one-thirtieth of an inch to the foot will be required of all students intending to compete, and should be addressed on or before October 25th, to Mr. Albert L. Brockway, Secretary, 55 Broadway, New York City.

For the finished drawings there will be required a plan which will include the immediate surroundings, an elevation on Twenty-third Street, and a section; all at a scale of one-fourth of an inch to the foot, and a detail at a quarter the size of execution.

These drawings are to be rendered in water-color, mounted on stretchers, and forwarded on or before December 30, 1895, to W. S. Budworth & Son, 424 West 52d Street, New York City.

NEW YORK, N. Y., October 1, 1895.

NOTE.—This competition is restricted to students having obtained a medal, or First, Second or Third Mention in the competitions held during year 1894-1895, and to college students.

COMPETITION NO. 1.—PROGRAMME B.

The Committee on Education proposes as the subject for competition, "The Entrance to a Park."

A wealthy gentleman wishes to erect an imposing entrance to his country-seat. The composition is to include a small Gate Lodge to be occupied by the gardener and his family, and to be placed at one side of the entrance. A Covered Refuge for pedestrians will be placed at the other side.

The entrance proper will consist of a central drive and two entrances for pedestrians.

The buildings, gate posts and property enclosures to be of masonry. The gates to be of iron.

The distance between buildings will be fifty feet. The Lodge will not exceed 1,600 square feet of area under roof.

A sketch on tracing-paper of the plan and elevation at a scale of one-thirtieth of an inch to the foot will be required of all students intending to compete, and should be addressed on or before October 25th, to Mr. Albert L. Brockway, Secretary, 55 Broadway, New York City.

For the finished drawings there will be required a plan showing the entrance and buildings, and also the main road, drives, walls and a part of the property enclosures, at a scale of one-sixteenth of an inch to the foot; an elevation of the road-side of the entrance at a scale of one-fourth of an inch to the foot.

These drawings are to be rendered in water-color, mounted on stretchers, and forwarded on or before December 30, 1895, to W. S. Budworth & Son, 424 West 52d Street, New York City.

NEW YORK, N. Y., October 1, 1895.

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

JOHN M. CARRÈRE, <i>Chairman</i> ,	} Committee on Education.
ALBERT L. BROCKWAY, <i>Secretary</i> ,	
JOHN G. HOWARD,	
WHITNEY WARREN,	
E. L. MASQUERAY,	

AMERICAN INSTITUTE OF ARCHITECTS.

The Twenty-ninth Annual Convention will be held at the St. Nicholas Hotel, St. Louis, on Tuesday, Wednesday and Thursday, October 15, 16 and 17, 1895.

ORDER OF PROCEEDINGS.

TUESDAY OCTOBER 15TH.—MORNING AND AFTERNOON SESSIONS.

MORNING, 10 A. M.

The members of the Institute will assemble in the banquet-hall of the hotel promptly at 10 o'clock; will register their names, and at

11, the President of the Institute, Mr. Daniel H. Burnham, of Chicago, will deliver the Annual Address, after which the Convention will be declared open for business.

ORDER OF BUSINESS.

1. Report of the Board of Directors.
2. Report of the Treasurer and appointment of the Auditing Committee.
3. Reports of Chapters, a synopsis of which will be read by the Secretary.
4. Reports of the Standing Committees—Committee on Foreign Correspondence, W. L. B. Jenney, *Chairman*; Committee on Education, Henry Van Brunt, *Chairman*; Committee on Publication and Library, W. L. B. Jenney, *Chairman*; Committee on Uniform Contract, S. A. Treat, *Chairman*; Committee on Conservation of Public Buildings, R. M. Upjohn, *Chairman*; Committee on Fire Protection, T. M. Clark, *Chairman*.
5. Consideration of the Annual Address of the President, of the report of the Board of Directors, and of the reports of the Chapters and Standing Committees, followed by the appointment of Special Committees to which recommendations contained therein shall be referred.
6. Report of Special Committee on the Proportionate Representation of Chapters in the Board of Directors, and consideration of the same, and of proposed amendments to the By-Laws.

It is proposed that the morning and afternoon sessions shall be continuous with the exception of a recess, during which the Convention will lunch at the St. Nicholas Hotel, as guests of the St. Louis Chapter.

EVENING, 8 P. M.

There will be a formal reception at the Museum of Fine-Arts to the Fellows of the Institute and their friends, as guests of the St. Louis Chapter, on the occasion of the opening of the Exhibition of the St. Louis Architectural Club, and an Address of Welcome by His Honor, Cyrus P. Walbridge, Mayor of St. Louis.

WEDNESDAY, OCTOBER 16.—MORNING SESSION, 10 A. M.

1. Reports of Special Committees and Committees appointed at the opening session.
2. Unfinished business of previous day.
3. Papers:
 - (a) "Professional Relations between Architects and Clients," N. C. Ricker, F. A. I. A., Professor of Architecture in the University of Illinois.
 - (b) "Cooperation versus Competition," Norman S. Patton, F. A. I. A., Chicago.
 - (c) "Suggestions for Increasing the Influence of the Institute among the Architects of the Southwest, and at the same time the Elevating of the Profession before the Public," James B. Cook, Ph. D., F. A. I. A., Memphis, Tenn.
4. Appointing of committees to nominate officers of the Institute for the ensuing year, and to suggest a place in which to hold the next annual convention.

The morning session will be followed, by invitation of the St. Louis Chapter, by a luncheon at the St. Nicholas Hotel, a carriage-drive in the afternoon through the residence portion of the city and the parks, and on the return drive a luncheon at the Columbian Club, or a steamboat excursion on the river.

EVENING SESSION, 8 P. M.

A Memorial Meeting to the memory of Ex-President Richard Morris Hunt, LL. D., F. A. I. A., Honorary Member R. I. B. A., etc., with an eulogy by Henry Van Brunt, F. A. I. A., of Kansas City, followed by George B. Post, Vice-President A. I. A., and others.

After this meeting is adjourned, the Fellows of the Institute are invited to a "Smoker," at the Mercantile Club, as guests of the St. Louis Chapter.

THURSDAY, OCTOBER 17.—MORNING SESSION.

1. Reports of Committees and their consideration.
2. Unfinished business.
3. Papers:
 - (a) "Prevention of Discoloration on Plaster applied to Fire-proof Work and Damp Walls," L. de Coppet Berg, F. A. I. A., New York.
 - (b) "Woods of Washington Territory," George W. Bulard, F. A. I. A., Tacoma, Wash.
4. Election of officers, and selection of a place for the next annual convention.
5. Miscellaneous business.

The morning session will be followed, by invitation of the St. Louis Chapter, by a luncheon at the St. Nicholas Hotel.

AFTERNOON.

The afternoon will be reserved for a visit to the Anheuser-Busch Brewery; and the residue of the day, if any, or part of the following day, will be devoted by resident architects to showing visiting architects such buildings under construction and prominent buildings already erected, as the latter may desire to see.

EVENING.

Visiting architects will be taken to the theatre or Exposition. Prompt attendance on the successive sessions, at the hours indicated, is very particularly requested; otherwise, the business of the Convention cannot be fully accomplished.

Committee of Arrangements:

GEORGE B. POST,	} From the		
CASS GILBERT,		} A. I. A.	
W. W. CLAY,			
A. F. ROSENHEIM,	} From the		
CHARLES K. RAMSEY,		} St. Louis	
THOMAS C. YOUNG,			} Chapter.
W. B. ITTNER,			
E. A. MANNY.			

Per order of the Committee,
ALFRED STONE, Secretary A. I. A.

THE SKETCH-CLUB OF NEW YORK.

The regular monthly meeting and dinner of the Sketch-Club of New York was held on Saturday evening, October 5th, at Lanteline's restaurant, West 33d Street, over forty members being present; Mr. Field, the President, presided.

After dinner the Club was addressed by Mr. Carl Bitter, the well-known sculptor, who gave some very interesting personal reminiscences of the late Richard M. Hunt. Mr. Bitter's very eloquent and sympathetic talk called forth much applause and he was unanimously voted the thanks of the Club.

Prof. A. D. F. Hamlin of Columbia College was also present as a guest of the Club, and he supplemented Mr. Bitter's remarks with other recollections of Mr. Hunt from his own experience.

Professor Hamlin was also voted the thanks of the Club and promised at some future date to entertain the Club with some account of his recent tour in Europe.

On behalf of Messrs. Klee Bros., Mr. Bitter presented the Club with a medallion portrait of Mr. Hunt.

A proposed amendment to the Constitution, raising the initiation fee to five dollars and the quarterly dues to three dollars, was passed by an almost unanimous vote. The object of this increase is to meet the expense of the new rooms on East 16th Street, between Broadway and Fifth Avenue, which the Club is about to take in connection with the Kit Kat Club.

ALFRED F. EVANS, Recording Secretary.

BOSTON ARCHITECTURAL CLUB.

The meeting and dinner of the Architectural Club on Monday last was, in a measure, complimentary to Mr. E. M. Wheelwright, the latest and last incumbent of the office of City Architect.

Mr. Wheelwright's response to the introduction by the President, Mr. Andrews, was an informal consideration of the subject under discussion.

He believes in the abolition of the City Architect's Department, since, under existing civic conditions, there was little possibility that a salary proportionate to the responsibility of the work or security of tenure would be given the City Architect.

If an architect resisted the interference of members of the Board of Aldermen in the business of the office, the aldermen would vote against his confirmation for a second yearly term. It was hardly to be expected that every mayor would, as Mayor Matthews did, retain such an unconfirmed official in office.

In many cases the City would benefit financially, now that the responsibility for building appropriations is thrown upon the departments for whose use the buildings are built, but the average mayor, while able to inform himself as to the character and professional standing of the architects nominated to him by the several departments, could not be expected to pass understandingly without professional advice upon the designs he was called upon to approve.

The mayor should, therefore, have the assistance of an official salaried architect as professional adviser, or better, that the approval of the Fine Arts Commission should be required for all designs for city buildings, this commission now controlling the design of all public fountains, statues, etc.

The speaker thought that in such matters the public needed "Representation of Cultivation."



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

HOUSE OF E. L. SHEPPARD, ESQ., WISSAHICKON HEIGHTS, PHILADELPHIA, PA. MESSRS. HAZELHURST & HUCKEL, ARCHITECTS, PHILADELPHIA, PA.

[Heliochrome issued with the International and Imperial Editions only.]

UNION TRUST BUILDING, OLIVE AND 7TH STS., ST. LOUIS, MO. MESSRS. ADLER & SULLIVAN, ARCHITECTS, CHICAGO, ILL.

THE WAINWRIGHT BUILDING, CHESTNUT AND 7TH STS., ST. LOUIS, MO. MESSRS. ADLER & SULLIVAN, ARCHITECTS, CHICAGO, ILL.

DESIGN FOR A HOSPITAL. MR. JAMES BROWN LORD, ARCHITECT, NEW YORK, N. Y.

[Additional Illustrations in the International Edition.]

MONUMENT TO EMILE AUGIER, VALENCE, FRANCE. MME. LA DUCHESSE D'UZES, SCULPTOR; M. LOUIS PARENT, ARCHITECT. [Copper-plate Etching.]

WHEN, some time ago, the town of Valence decided to erect a monument to its distinguished son, Emile Augier, among the competitors who submitted designs was the Duchesse d'Uzes, a lady who had contributed various sculptures to the Salon under the name of "Manuela," and who had won a *Mention Honorable* in 1887 with a figure of "St. Hubert," intended for the Church of the Sacré Cœur on Montmartre. The municipality selected the design of the Duchess, who is as generous as she is wealthy, and whose gratification at this honor was such that she offered to present the town with the monument and also to defray the cost of its pedestal and pay for the laying-out of a public square, with gardens and fountains, around the site of the monument.

She then sent the model of the work to the Salon of the Champs Elysées, whereupon the committee of selection promptly declined it, on the ground of its size (which was enormous), its alleged lack of merit, and the fact that though avowedly completed by the Duchess in six months, even a professional sculptor could not have modelled the figures, single-handed, in a year, and it was impossible, therefore, that the work could be entirely hers. This action of the jury caused quite a sensation, evoking many comments from the press and insinuations of professional jealousy and political motives, and a vigorous protest from the Duchess and the municipality of Valence, which had the effect of extorting permission from the authorities to exhibit the monument outside of the Palais de l'Industrie, which was accordingly done.

The noble author of this work is now said to be engaged on a colossal statue of the "Virgin," to be placed on a rocky mountain-peak on her estate.

FOUR COMPETITIVE DESIGNS FOR THE TOWN-HALL AT STUTTGART, WURTEMBERG. HERREN GEORG FRENTZEN; O. W. WARENBACH; BEISBARTH & FRÜH AND VOLLMER & JASSOY, ARCHITECTS.

THESE plates are copied from *Architektonische Rundschau*.

UNIVERSITY LIBRARY, LEIPSI, SAXONY. PROF. ARNOLD ROSSBACH, ARCHITECT.

This plate is copied from *Zeitschrift für Bauwesen*.

SELECTED DESIGN FOR THE NORTH BRITISH RAILWAY HOTEL, EDINBURGH, SCOTLAND. MR. W. HAMILTON BEATTIE, ARCHITECT.

We reproduce after the *Building News* some of the drawings of this building which were exhibited at the Royal Academy last spring and subjoin a portion of the author's description.

In describing the design I shall deal first with the exterior. This is the simplest portion of the problem, but is the one in which the inhabitants of Edinburgh and the general public are most interested. The exterior may, I think, be designed in half-a-dozen different ways, and yet each of these be well suited to the situation, and command the approval of men of taste. I am of opinion, however, that any building to be a success here must be designed in one of the Classic styles. The whole surroundings demand this; the spirit of the architecture of the new town of Edinburgh, and of Princes Street in particular, being distinctly Classic, and, with the single exception of Sir Walter Scott's monument, departures from this Classic feeling have not been successes. At the same time I think that a commercial building like the present requires a freer and more picturesque treatment than the regular Classic of the Register House and of the General Post-office. I have, therefore, designed the exterior of the new building in a free treatment of the Renaissance style, and, by the angle pavilions and in the Princes Street tower, a Scotch feeling has been given to the leading details with a view of distinguishing this as a national building to be erected upon the most important site in the ancient capital in Scotland. This street and first-floor stories of the new building are designed with recessed arcades and projecting balconies. The upper stories are treated in a lighter and less powerful manner. The roofs and sky-line have been most carefully considered, and the picturesque and varied sky-line which such a building and site demand has been obtained by the artistic grouping of the dormer windows, chimney-stacks, gables and towers.

The six shops to North Bridge have been given the usual amount of plate-glass demanded by the modern shopkeeper, without detracting from the balanced and monumental character of the eastern elevation. The ceiling of the highest habitable room in the hotel is 90 feet above the level of Princes Street, being 5 feet lower than provided in the Act of Parliament. It may be noted here that the height of the street floor is 26 feet 6 inches, and of the first floors,

above and below Princes Street respectively, 16 feet and 16 feet 6 inches. None of the bedroom floors are under 12 feet high.

The designing of a first-class hotel is a complicated problem. No hotel is well planned which does not thoughtfully provide for the comfort of its varied guests from the time they arrive until they depart. This, however, is but half the problem, as unless the building is also so planned that it is easy of management and supervision, and can be economically worked with the minimum staff, it is not likely to be commercially successful, and, without this, success in other departments is of little value. There is little difficulty in designing handsome public rooms, halls and staircases, but these are the mere A B C of hotel planning. The other matters of which I speak are vitally essential to the comfort of the guests, and to the commercial and administrative success of the hotel. The following are a few of the more important:

(1) The plan must be simple, with straight, well-lighted corridors, and easily and readily-found staircases and elevators. (2) The guest on arrival must be able at once to reach the office to procure his room, and to proceed there direct, without delay or detour, which are most aggravating to a tired traveller. (3) The hotel offices should command the principal entrances. (4) The public rooms should have the best views, and should be in such positions as are most convenient for the special class of guests who chiefly use them, and so as to cause the least interference with the other guests who do not use them. (5) The kitchen should be large, well-lighted and ventilated, and in a central position, from which rapid services may be made to every part of the hotel. (6) All the administrative apartments should cluster round the kitchen. (7) The working arrangements should be planned so that the hotel may be run with the minimum staff of servants. (8) The bedrooms should be of fair size, and varied in dimensions, so as to accommodate both married couples and single visitors. (9) On the principal floors there should be suites of sitting-rooms, bedrooms, dressing-rooms and bath-rooms, to meet the requirements and purses of wealthy travellers. (10) Careful provisions should be made for the rapid and efficient service upon each floor. (11) The measure of the earning power of a hotel is the bedroom accommodation, and the more numerous they are the better it will pay. (12) Everything connected with a hotel should, as far as possible, be done on the premises. (13) Every first-class railway hotel should do an extensive restaurant and bar business. (14) Every first-class hotel should do a wine and spirit merchant's business, and should have a special shop or office for conducting it. (15) The arrangements for the housing of the hotel servants should be carefully considered.

The site is nearly square, and the new building is designed along the four frontages, leaving an open court in the centre, size 74 feet by 70 feet. This will secure the ample lighting and ventilation of the internal rooms and staircases, a matter of great importance and which is most defective in the principal London hotels and clubs. The walls to the internal court will be faced with white enamelled brickwork.

The keynote of the design is the kitchen department, which has been placed exactly in the centre in the second flat below Princes Street, and occupies the floor of the internal court. This position gives equally quick and direct service to every part of the hotel and to the public restaurants. The kitchen department will have a close glass roof, and will be ventilated by extracting flues.

The principal public rooms occupy the west and north fronts on the level of Princes Street, and upon the first floors above and below that street. The public bars and restaurants occupy the north-east corner of the building upon the Princes-Street level, and also upon the first floor below. The North Bridge frontage is chiefly occupied by shops and by the principal entrance to the railway offices. The southern front is occupied by the railway offices, except on the fourth and fifth floors above North Bridge Street, and the third floor below that level, which are occupied as hotel bedrooms.

The following is an abstract of the accommodation of the building, sub-dividing it into public apartments, private parlors for visitors, visitors' bedrooms and dressing-rooms, hotel officers' and servants' sitting-rooms and bedrooms, stock-rooms and administrative apartments, which last will include every apartment not embraced under any of the previous heads:—

(1) Public apartments.....	21
(2) Private parlors for visitors.....	14
(3) Bedrooms and dressing-rooms for visitors and their servants....	295
(4) Sitting-rooms and bedrooms for hotel officers and servants....	146
(5) Stock-rooms.....	10
(6) Administrative apartments.....	262
Total.....	748

The lettable apartments, including private parlors, bedrooms and stock-rooms, number 319, and, as mentioned before, this is the measure of the earning power of the hotel, apart from the public bars and restaurants. A hotel with this accommodation will, when full, draw at least £2,000 per week, apart from the public bars and restaurants and the wine business. I have provided six shops fronting North Bridge Street, of which one will be occupied as the hotel wine shop. My opinion is that the whole building can be completed for occupation for the sum of £221,000.

BILLIARD-ROOM, "HALTON," HERTS, ENG.

COMMUNICATIONS

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

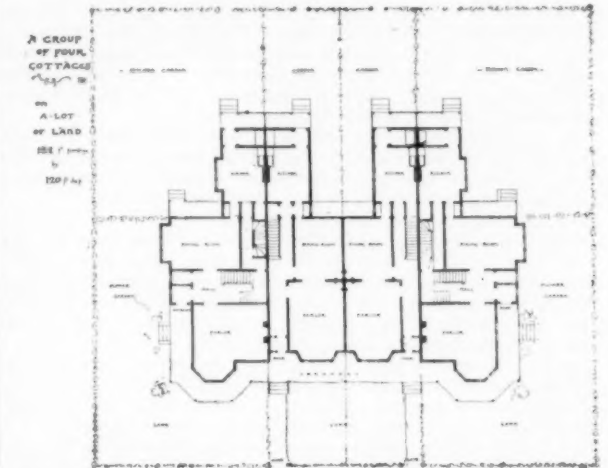
A GROUP OF FOUR COTTAGES.

BOSTON, MASS.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—The other day, some one, writing from Roxbury in a letter to the *Transcript*, was lamenting the erection of tenement-houses in that neighborhood on land which was formerly old estates with pleasant surroundings.

Unfortunately, this kind of building is not confined to Roxbury district, for most of our suburban places are undergoing the same



change. The writer finishes by asking if nothing can be done. Well, the only thing that can be done at present is to try and create a distaste for these tenement-houses amongst the class of people who desire to live in them, and to create a taste for something more beautiful. As long as people moving from the city to the suburbs like to live in flats, the speculative builder will supply them. On



the outskirts of Dorchester, in some parts which are yet pure country, these hideous blocks, with flat tops and invisible roofs, are going up. They are blots on the landscape and rob us of what beauty Nature gives, as well as depreciate the value of the surrounding land, for no persons of wealth, with any taste or refinement, will want to live in such districts.

One argument brought forward in favor of these tenement-blocks is that by getting people to live in this way, one on the top of the other, much space is saved, where land is valuable. But what kind of living is it for any one in the country? There is little privacy for each family. Imagine, too, the inconvenience to a family with children, on the third or fourth floor, of getting the baby-carriage up



and down, or the family washing. All the garden these houses have consists of a few flower-boxes at the window: the rear yard is generally large enough to hold a clothes drying reel.

The single or double cottage on its bit of garden land, however small, is infinitely preferable to such flats. This arrangement can be carried out so as to form groups of four, five, or more cottages,

each with its own strip of garden ground divided by hedges from the others—for division lines are necessary, but need not be ugly.

As far as the plans go, this group of four cottages is not given as a finality, but only to indicate how they may be grouped, to look picturesquely on the exterior.

The treatment of the exteriors is devoid of ornamentation, such as swags, festoons, and "compo" ornament, which we find on "high class" tenement-houses in the so-called "Colonial" style, gotten up to tempt the poor house-hunter. Yet, if the design of these cottages were still simpler on the exterior, I contend that with the aid of garden and grounds tastefully arranged, they would be pleasant places to live in, and in harmony with rural surroundings.

R. BROWN, JR.

STAND-PIPES AND ROOF HYDRANTS.

BOSTON, MASS., October 7, 1895.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—I note the remarks which you have made upon stand-pipes, roof-hydrants, etc., I also observe that property-owners and others in New York began to put up these appliances in consideration of a concession in the rates of premium granted by Underwriters. I also observe that when the Underwriters ceased to grant concessions the owners ceased to protect their property against loss by fire, so far as it might have been protected by this simple system of outside appliances at a very moderate cost.

The implication from your article is that the Underwriters are responsible for the neglect of owners to build safe buildings and also for the neglect of owners to take proper measures for preventing them from being destroyed after they have been erected.

The very plain reply to this imputation is that Underwriters have no control over the property—they cannot lay down rules of construction, or prescribe methods of protection. The owners and occupants are the only persons who can insure property against loss by fire in any true sense. In the nature of the case the sole function of the Underwriter is to enter into a contract to indemnify the owner or occupant for any loss that may occur.

I venture to put this plain question—Is the owner or occupant of a building who takes the question of safety from fire into consideration only with a view to securing a lower rate of premium on a contract of indemnity, in total disregard of his own responsibility for the protection of that property, a safe person with whom to enter into a contract of indemnity for loss at any rate of premium that can be named? I think not.

Heavy losses and destructive conflagration can neither be prevented by the Underwriters nor by City Fire Departments, so long as owners continue to put up fire-traps and neglect to protect them after they are put up—trying to evade building acts and grumbling about them when they are enforced.

High rates of premium on contracts of indemnity and heavy taxes for the support of Water Works and Fire Department must in the nature of things continue so long as the art of combustible architecture continues to be the common practice, and the neglect of simple safeguards the common rule.

The longer the owners of real estate in Boston wait for the Underwriters, the Water Board and the Fire Department to protect them from the consequences of their own neglect, the oftener will be the heavy losses and surer will be the recurrence of destructive conflagrations.

I deal with this question wholly as an observer and not as a party in interest. The Underwriters with whom I am associated take no risks in the crowded parts of cities. One reason is that there are very few buildings in any of the great cities which, if moved into the suburbs and there offered for insurance, would be safe for a Mutual Insurance Company to take at any rate of premium even as high as those now charged upon them in the midst of their dangerous surroundings, until fitted-up by the owners with suitable pumps, pipes, hydrants and other appliances.

The fault with the Underwriters is not in their rates, which they are now attempting to adjust so as not to be compelled to give up their business, either in bankruptcy or by withdrawal. The fault lies with the owners who look to the Underwriters, the Water Board and the Fire Department to protect them from the consequences of their own incapacity to build safely and to guard properly against the hazard of fire.

EDWARD ATKINSON.



BOSTON, MASS.—Summer Loan Exhibition; Gobelin Tapestries; Japanese Paintings; Line Engravings, Mezzotints, and Etchings by Rembrandt; at the Museum of Fine Arts.

Triennial Exhibition of the Massachusetts Charitable Mechanic Association, including Art Exhibition and Special Poster Show: October 2 to November 30.

Paintings from the Paris Salons of 1895: at the Jordan Art Gallery, 450 Washington St., opens October 14.

NEW YORK, N. Y.—Twenty-eighth Semi-annual Exhibition: at the Metropolitan Museum of Art.

Turner's "St. Mark's Place, Venice," also, Paintings by other English Artists: at the Avery Galleries, 368 Fifth Ave.

ST. LOUIS, MO.—Art Exhibition at the Exposition, including Special Collection of "Pictures of the Glasgow School."

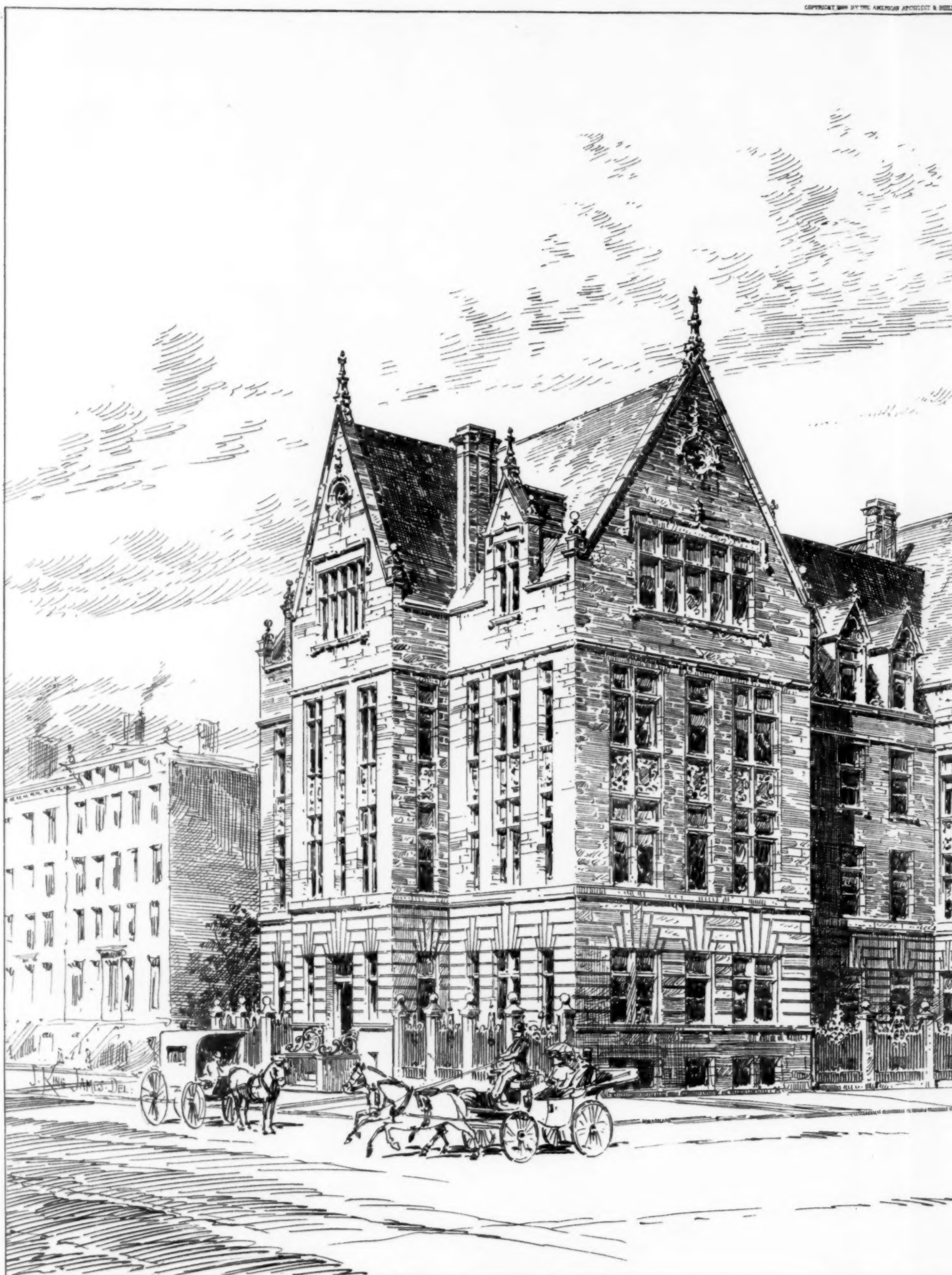


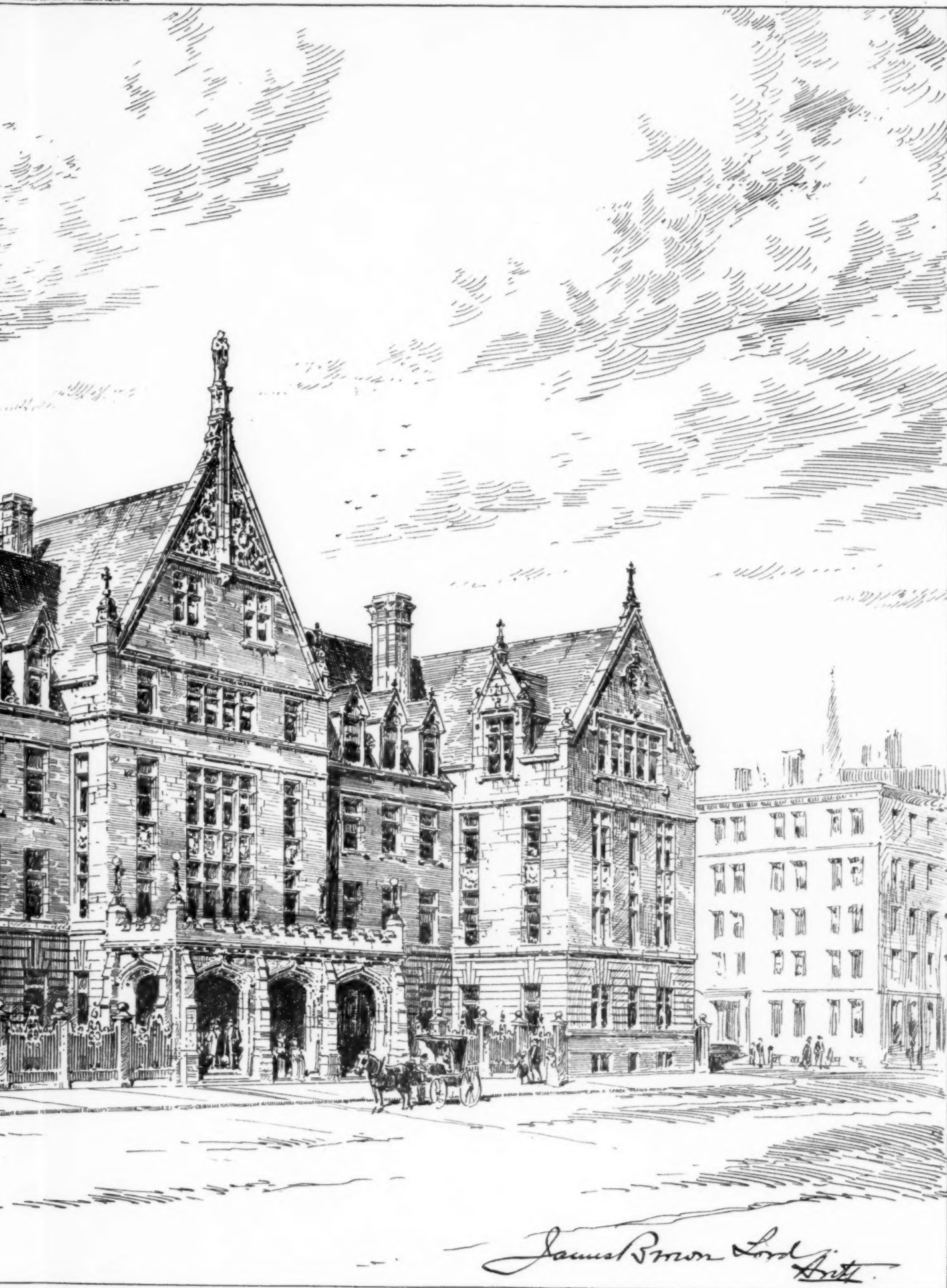
NEW USES FOR PEAT.—German chemists have been experimenting with Irish peat, and have secured such remarkable results that a syndicate has been formed for the manufacture, on a commercial scale, of the various products that may be obtained from Ireland's boglands. One of these products is an antiseptic "wool" for dressing wounds. It possesses absorbent qualities so great that it will soak up nine times its weight of moisture. The medical department of the French army has adopted this substitute for lint and 12,000 kilogrammes of it were sent with the expeditionary force to Madagascar. By a different process of chemical treatment the peat is formed into a material from which any article requiring hardness and durability can be produced. The German syndicate has now on exhibition in London, insulators, axle boxes, machinery bearings, gun stocks, piano-forte legs and numerous other things to illustrate the possibilities of this new material. Peat has been used in this country for lining refrigerators and cold-storage rooms, and to some extent as a covering for steam pipes, because of its value as a non-conductor of heat. But by these new German processes a wide field appears to have been opened, in which capital and labor may be profitably employed, and the Irish peat bogs acquire a value hitherto unknown. One of the largest beds of fine peat in this country underlies the Great Dismal Swamp of Virginia. If the experiments of the German chemists should ultimately result in a large utilization of Ireland's peat deposits, it will not be long before some American chemist determines whether Virginia peat can be treated in like manner and the same products be obtained.—*Worcester Spy*.

LONG ISLAND NAMES.—There seems good reason to believe that the barbarous proposition to change the name of Speonk to Remsenberg, because a wealthy person named Remsen was willing to contribute to the erection of a new church if the village should be rechristened in his honor, has fallen through. It is high time to call a halt to this practice. The topographical names of Long Island are not always euphonious, but they are racy of the soil. Many of them still have the echo of the memories of the Indian tribes that enjoyed a peaceful life on the beautiful Island of Shells before the resistless overflow of Europe disturbed their dreams. Many bear the names of the grim pioneers who settled down there to make homes for themselves and to link their plebeian names to the soil. Some have the Scriptural flavor that tells of early Puritan settlers, and some are imported from well-remembered homes across the sea. But they all have the quality of the kind of men the Long Islanders were and are—men in grim earnest, to whom the refinements and delicacies of life were nothing to its grim realities: men who loved the smell of the sea and of the piny woods better than the stifling odors of the ball-room. Speonk and Smithtown and Jericho and Patchogue are names that carry memories and associations of their own; they bring back the beaches and the woods and the bays of Long Island to the wanderer wherever he may be, and they should not be relinquished to suit the whim of every summer boarder, nor should they be sold to gratify the vanity of every Croesus who happens to stroll in the neighborhood.—*Brooklyn Times*.

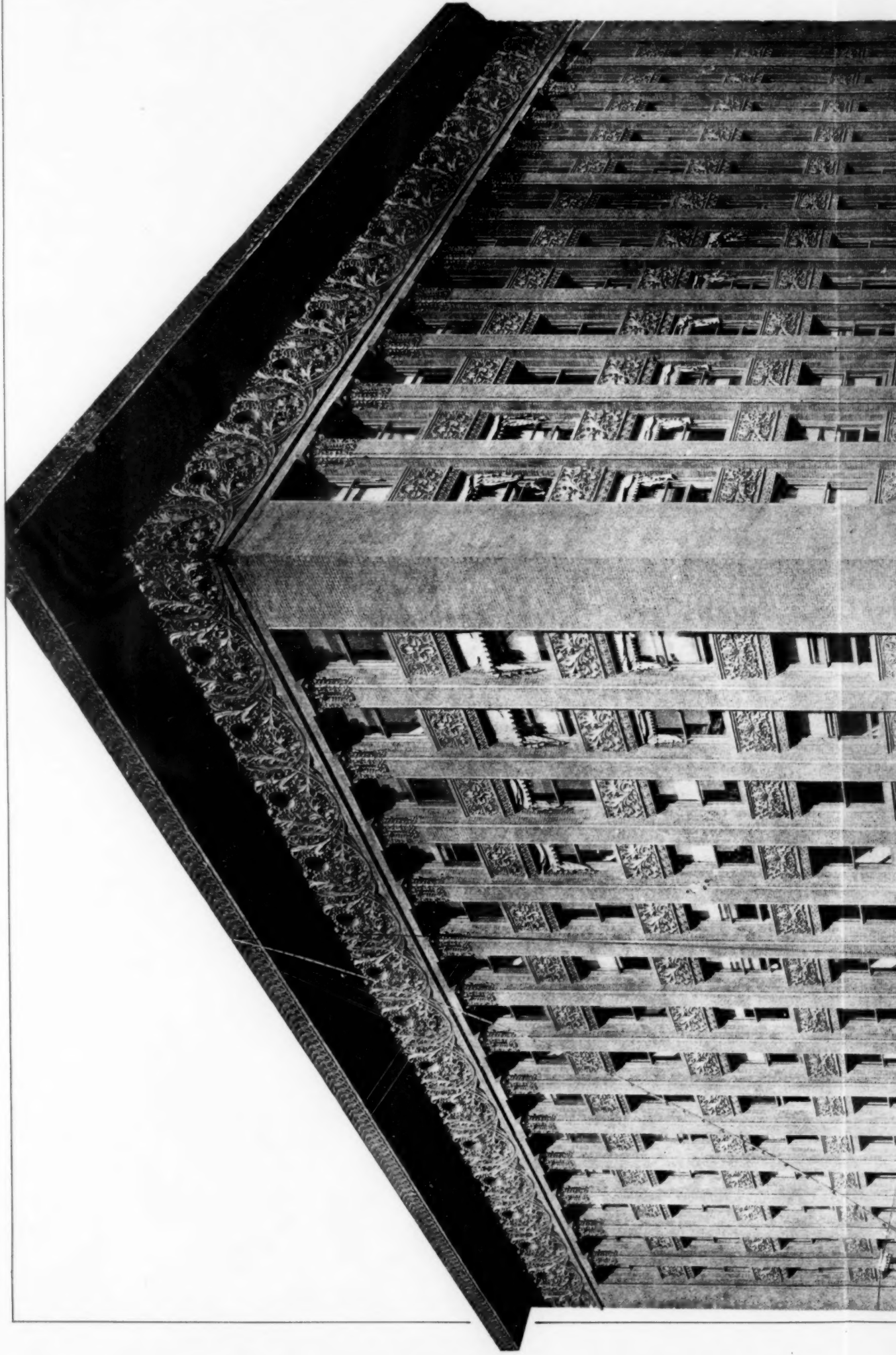
THE OLD MEETING-HOUSE, LOWER MERION, PA.—There is a little old stone meeting-house in Lower Merion, Montgomery County, Pa., which is the object of peculiar interest to members of the Society of Friends. On October 4, 5 and 6 occurred the celebration of the structure's two-hundredth anniversary. The meeting-house measures but fourteen feet from floor to roof, and is more than thirty-six feet long and twenty feet wide. The walls, constructed of pointed stone, and in later years plastered in imitation of cut stone, are the walls of two centuries ago. The window panes are the small leaded diamonds of that old day, and the stone mounting-block still holds its place. In the building yet remains the heavy carved oaken table on which it was the custom to lay the marriage-certificate of newly wedded couples. The last couple whose certificate lay there were Benjamin Hunt and Hester Price, threescore years ago. The structure has also the distinction arising from the circumstance that William Penn attended many meetings there.—*Boston Transcript*.

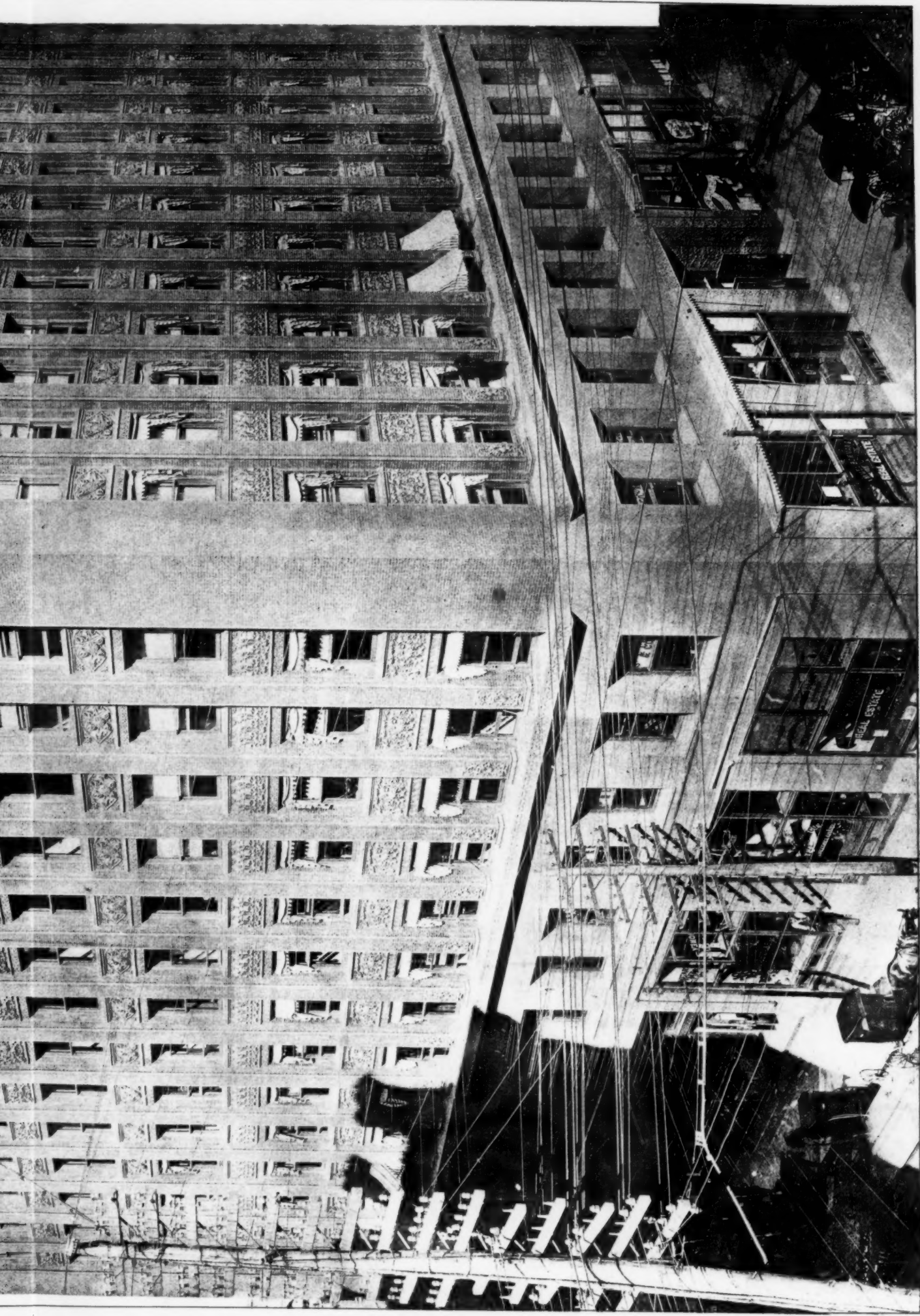
CHIMNEY-FELLING.—This is an art little known in the south of England, but, according to the *Bradford Observer*, it has its devotees in the textile districts. Mr. Smith, the Lancashire steeplejack, recently disposed of his forty-sixth tall chimney with ease and dispatch, thereby forestalling the laws of bricks and mortar, which threatened a descent without Mr. Smith's assistance. It seems to be the easiest thing in the world. The stack has lumps cut out of it at the base, one side being left alone, and props are then introduced into the gaps, shavings, paraffine and tar being liberally added, as the cookery-books have it. When all is ready, a match is applied, the smoke of its own burning rushes up the chimney, and in a few minutes the whole thing collapses. The chimney, which was 135 feet high, came down twenty-five minutes after the match was applied in the most docile fashion, and, what is more, it disposed its remains exactly as Mr. Smith, who stood close by, had arranged.—*Illustrated Carpenter and Builder*.





n for a Hospital.





REUTERS PRINCE OF WALES

WAINWRIGHT BUILDING, ST. LOUIS, MO.
ADLER & SULLIVAN, ARCHITECTS.