

PRICE 13 CENTS.

FEB 2 1891

51642

JANUARY 31, 1891.

THE AMERICAN ARCHITECT
AND BUILDING NEWS

VOL. XXXI.

* REGULAR EDITION *

NO. 788.

ARCHITECTURE

ENGINEERING

DECORATION

TICKNOR & COMPANY

CONSTRUCTION

BOSTON MASS.

J. Simpson

CONTENTS.

EDITORIAL SUMMARY.
AUSTRIAN ARCHITECTURE. — XVII.
VENETIAN WELLS. — I.
EMMANUEL FREMIET. — I.
A MILL-BUILT DWELLING-HOUSE.
SOCIETIES.
COMMUNICATIONS.
NOTES AND CLIPPINGS.
TRADE SURVEYS.

CAMP HAMMOND, YARMOUTH, ME.

Additional Illustrations in the International Edition.

THE SYNAGOGUE IN KAISERSLAUTERN, BAVARIA.
A RENAISSANCE GATEWAY, TOULOUSE, FRANCE.
RESTORATION OF THE ROOD-LOFT OF THE ABBEY CHURCH
OF FECAMP, FRANCE.
"ARACHNE," DECORATION IN THE DUCAL PALACE, VENICE.
QUEEN'S GATE, LONDON, ENG.: DINING-ROOM: DRAWING-
ROOM.
"ZENOBIA."
THE NORTH PORCH, CHARTRES CATHEDRAL.
DESIGN FOR A DINING-ROOM.
"A CHRISTMAS BREAKFAST."
"AUS DEM SIEBENBIRGEN."
A SWEDISH DOORWAY.
A HOUSE AT MUNICH.
FIREPLACE IN THE HOUSE OF R. NORMAN SHAW, R. A.

ILLUSTRATIONS.

ENTRANCE TO THE ART CLUB, PHILADELPHIA, PA.
[Hello-chrome, issued with the International and Imperial Editions only.]
FIRST BAPTIST PEDDIE MEMORIAL CHURCH, NEWARK, N. J.
INTERIOR OF SAME.

THE SANITAS CLOSET

Is the quietest in action of any made, and is practically noiseless. The closet trap is exposed, and cannot become clogged or lose its water seal, while in form it is extremely simple, combined with an attractiveness of design which renders unnecessary any wood work except the seat and cover. Its form is also a protection against freezing.

The Sanitas Basin does away with the troublesome plug and chain by having a recessed outlet fitted with the Sanitas Waste and Lift. The discharge from this fills the pipes full bore, always keeping them clean.

The Sanitas Trap is the ideal protection against Syphonage, Back Pressure or Evaporation. This trap is used on Wash Basins, Sinks, Bath Tubs, etc. It requires no venting, and its certainty and safety have led to its adoption by the leading Sanitarians, Architects and Plumbers, throughout the country.

The Sanitas Appliances embody *Science, Simplicity and Safety*, combined with the best material and workmanship, and are in accord with the most advanced professional opinions. Send for special Sanitas Catalogue.



SMITH & ANTHONY STOVE CO.,
Manufacturers and Proprietors of SANITAS Appliances.
48 to 54 Union St., BOSTON. 54 Gold St., cor. Fulton St., New York. 319 Lake St., Chicago.

JOHN H. PRAY, SONS & CO. Upholstery Department.

We are Making a Specialty of

...: INTERIOR FURNISHINGS :...

For Public Buildings, Churches, Halls, Cars, Club Houses,
As well as Private Residences,

And especially solicit correspondence in this direction. We have artists of merit
in the getting up of original designs, and unlimited resources to draw from.

JOHN H. PRAY, SONS & CO.,

558 & 560 Washington St., and 30-34 Harrison Ave. Extension,

BOSTON, - - - - MASS.

THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XXXI.

Copyright, 1891, by TICKNOR & COMPANY, Boston, Mass.

No. 788.

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

JANUARY 31, 1891.



SUMMARY:—

The Result of the First Meeting of the Board of Architects for the World's Fair.—Assurance of Harmony of Purpose.—Distribution of Work.—Mausoleum for the Desiccated Bodies of the Dead.—The Proposed Cathedrals at Berlin and New York.—Preservation of Ancient Monuments in America.—The Rational Method of procuring Public Buildings.	65
AUSTRIAN ARCHITECTURE.—XVII.	67
VENETIAN WELLS.—I.	69
EMMANUEL FREMIET.—I.	72
A MILL-BUILT DWELLING-HOUSE.	74
ILLUSTRATIONS:—	
Entrance to the Art Club, Philadelphia, Pa.—First Baptist Peddie Memorial Church, Newark, N. J.—Interior of the Same.—Camp Hammond, Yarmouth, Me.	
Additional: The Synagogue in Kaiserlautern, Bavaria.—A Renaissance Gateway, Toulouse, France.—Design for a Dining-room.—"Zenobia."—Restoration of the Rood-loft of the Abbey Church of Fécamp, France.—"Arachne:" a Decoration in the Ducal Palace, Venice.—The North Porch, Chartres Cathedral.—"A Christmas Breakfast."—"Aus dem Siebengebirge."—A Swedish Doorway.—A House at Munich.—Fireplace in the House of R. Norman Shaw, R. A.—Queen's Gate, London, Eng.: Dining-room; Drawing-room.	76
SOCIETIES.	79
COMMUNICATIONS:—	
The Illicit-commission Evil.—Fire-stops.	79
NOTES AND CLIPPINGS.	79
TRADE SURVEYS.	80

THE accounts in the daily papers and professional journals of the progress making in preparation for the World's Fair at Chicago have created in most minds the very disagreeable impression that there was so much petty discord, conflict of authority, uncertainty as to ways and means and general obstructiveness on every side that there was a probability that the result of the ambitious undertaking would be only a gloomy failure. So it is extremely pleasing to learn that the Board of Architects have taken hold of their task with the strongest feeling of interest, enthusiasm and, best of all, mutual respect and confidence. This was to be expected in the case of the contingent from outside of the city of Chicago, because not only did these architects already have personal knowledge of one another as individuals and as architects, but they, having been trained in the traditions of the École des Beaux-Arts, are accustomed to look at things from essentially the same standpoint. Add to this the fact that of the Chicago members Messrs. Cobb and Sullivan have shared the same training, and it becomes plain that the element of possible friction and disagreement is by so much reduced, and the probability of harmonious action correspondingly increased. It was also to be borne in mind that the Board of Architects, whatever might be their relations with one another, still might not approve of the general scheme devised by Messrs. Olmstead, Burnham and Gottlieb with the advice of the Consulting Architect, Mr. Root. Happily this possible obstacle also proved evasive, and the men on whom now rests so much of the responsibility for success or failure were able to approve heartily the general scheme which was presented for their consideration as the ground-work upon which to base their own operations.

WE understand that the Board of Architects is in a certain sense autocratic and self-governing in all that regards the architectural preparation for the exhibition, though in some degree subject to Mr. Burnham, the Chief of Construction, and to whoever may be elected to fill the place of Consulting Architect, which Mr. Root's death has made vacant. It seems doubtful whether there is any need for a new appointment to this office, the preparatory work has already been done by Mr. Root, and his indications are probably all that so competent a board of co-laborers need, particularly as they have adopted as the key-note of their operations the harmonizing and unifying

into one common result of whatever work may be done by the individual architects entrusted with different buildings, for apparently, the Board is to sit as a committee of the whole upon each man's work, with a view of eliminating all possibility of any "go-as-you-please" element obtruding itself in any building or group. The repressing and taming of individual inspiration, because it interferes with the general harmony, may cause the rejection of much good and interesting work which it would be a pleasure to see in an isolated position, or amid other surroundings; but it is unquestionable that harmony and unity of effect should be considered before all else—except the necessity of having good structural work in place at the date fixed for opening the buildings to the invited exhibitors.

HOW the work is to be distributed is not yet fully decided, but it has been practically agreed, that of the two groups of architects which compose the Board, the one composed of the outside architects, as they represent a selection made from the entire profession, should be entrusted with the principal buildings—those surrounding the main court; while the other group, representing the selection made from local architects, should have the other buildings, a most judicious and just division of labor, since the main buildings will be temporary structures while some of the subsidiary buildings are intended to be permanent and, so, ought to be the work of Chicago architects. Farther than this it has only been decided that, for very obvious reasons, to Mr. Hunt should fall the designing of the central building, and that he should assign their work to other members of the outside group by having recourse to the Goddess of Chance and use a hat and bits of paper to assist in the act of divination. Upon the assignments thus reached, sketches are to be at once prepared by the appointed members and considered at a common meeting which will be held for the purpose.

THE interest which humanity at large takes in the rites and ceremonies attending the disposal of their own and their fellows' mortal remains is not a morbid one, but is most natural, as it concerns a matter of importance to every individual as such, and to every community as an aggregate with whom questions of public health should have consideration before all others. The tide of public opinion, hampered as it is by precedent and sentiment, is turning against inhumation and is setting steadily, though slowly, towards a return to a modern adaptation of the ancient method of incineration. There are a few practical and more sentimental reasons which oppose themselves to the almost total annihilation and dissipation of the human body that follows incineration, and as a half-way step between the methods of inhumation and incineration it has been suggested that a process of desiccation should be adopted. The details of the method of storing the unchanging corpses of passed generations has been explained at length in the *American Architect* for January 11, 1890. It now appears, according to the *New York Times*, that Messrs. Carrère & Hastings, architects of New York, have been entrusted by the New Mausoleum Company with the erection in Greenwood Cemetery of a mausoleum in which the bodies of thirty-thousand persons can be slowly mummified and, it is hoped, stored in desiccated state through the quiet of succeeding centuries. How many experiments have been made with this desiccation of human bodies, and what proof has been acquired that no climatic or atmospheric changes will affect them, we do not know; but as the new structure is to cost three-quarters of a million of dollars, it may be assumed that evidence has been secured that a result can be achieved that will be satisfactory in the majority of cases. It is open to doubt, however, whether bodies affected with the more corrupting elements of disease will yield themselves readily to the supposedly benignant influence of desiccation.

THE mausoleum is to be built of concrete and marble, the cells or tombs being cast in place and lined and covered with marble, and is to show three or more stories above the ground while the substructure of three stories will be below the surface. The cells are to be leased, in the rough, in

perpetuity and the lessee will be allowed to finish off the interior according to his fancy; but we imagine the entrances upon the common corridors and galleries will either form part of the original structure or else will be subject as to their design to the approval of the architects of the mausoleum and their successors. Ground has also been broken for a similar mausoleum at Kensico, near White Plains, which is to cost two hundred thousand dollars, and if these undertakings seem to promise success, similar structures are to be built at New Orleans, St. Paul, Detroit, Rochester and elsewhere.

IT will be curiously instructive to watch the methods, as well as to compare the results, which the would-be autocratic emperor at Berlin and the republican ecclesiastical committee in New York will employ in the erection of the proposed cathedrals in these two modern cities. We will suggest that the New York powers could hardly do better than watch, and largely follow, the example of the Berlines architects and builders, for there is small ground for having any misgivings as to which of the two buildings will keep in the van during construction. The Emperor William, whose individual idea it is that a cathedral should be built in Berlin, sets out with the entirely practicable programme that it shall be built at once and finished within a few years, as would be any other government or commercial building of equivalent magnitude. The Trustees of the Cathedral of St. John the Divine, on the other hand, who seem to be overawed by their own undertaking and oppressed with the deductions they have drawn from the history of cathedral-building in the Middle Ages, set out with the assertions that it is not possible to build a cathedral in one generation; that all they can do is to make some primary preparations and bequeath the work, according to mediæval precedent, to the next two or three generations to carry on and finish. The American architect and builder, with steam, electricity and the hundreds of building appliances at their command which were unknown to the freemasons of the thirteenth century, can only passively endure the restiveness which the attitude of the trustees forces upon them. The trustees assert that in addition to the practical impossibility of completing their building speedily, there is the impossibility of securing the needful money; that though they have secured a certain large sum they intend to use only its interest together with the annual contribution of a large number of perfectly solvent contributors, who have pledged themselves to pay a certain yearly sum until the building is finished. It seems to us that it would be a very simple thing to capitalize these assessments and procure all money needed for rapid, efficient and consecutive work from one or more of the many money-lending corporations, who would consider a mortgage on a cathedral with the endorsements of such a list of solvent citizens a collateral security with heavily-gilded edges.

WE are beginning to hear a good deal in this country about the preservation of the precious monuments of American antiquity, and several societies have already been formed to prevent the destruction of buildings which, having come down from the colonial period, are supposed to have an interest which should be sufficient to protect them from being swept away by improvement. In regard to a large part of these buildings, there are historical or sentimental considerations which make them worthy of preservation, but the number that can claim an artistic value superior to that of the buildings which would probably be erected in their places is much smaller than most people think. We hear a great deal said about the beauty of colonial detail, which is true enough, but even architects, who are more likely than others to appreciate justly the delicate classical work of our ancestors, do not always remember that the buildings of the colonial period, almost without exception, were designed and built by carpenters who, intelligent as they undoubtedly were, exercised very little artistic talent beyond that required to copy door and window dressings out of Batty Langley, or some other stock pattern-book, or to send an order to Paris or London for some creation of pine wood and stucco which needed to be particularly fine. The only difference between these builders and their successors of the present day is that the latter, when they wish to produce a detail, either design it themselves, taking for inspiration the general principle that if only it is different from anything that has ever been seen before, it must be good, or copy it from some modern

pattern-book, the author of which was probably possessed with the same idea, in a more aggravated form. The consequence is that, instead of the scrupulously classic, and therefore always graceful and beautiful detail which Langley and Nicholson copied with scrupulous care from the best Italian and antique originals, our modern buildings are, unless designed by a trained architect, generally adorned in frightful profusion with what Mr. Gardner calls the "seven-horned dragons" of the jig-saw-man's exuberant fancy, and the taste and study of a thousand years, which were at the service of our grandfathers, have been, for the most part, thrown aside by their descendants. It does not follow, however, that the moderns, if they directed their efforts in the same channel as their predecessors of the last century, would not arrive at equally happy results; on the contrary, the average of architectural taste is much higher than it was a hundred years ago, and if people were as willing now as they were then to follow a single architectural fashion, and to obey strictly the directions of the approved leaders of that fashion, the result, we think, would be even more happy.

IT seems to us that a better use to make of public enthusiasm in regard to architecture, would be to unite people who like beautiful buildings in the effort to save the most important and permanent public structures from the pitiable design, and worse construction, to which they seem now condemned. To one who has been accustomed to notice the scientific planning and solid construction of a modern French, or German or English school-house, or police-station, or town-hall, and to look for the delicate proportion and well-placed decoration, with which a first-rate architect can give interest to the simplest building, the transition to the tawdry or brutal school-houses, and similar structures, designed, apparently, without the slightest acquaintance with modern knowledge on such subjects, is something of a shock. Architects know well enough how this result is brought about. Instead of the interesting competitions, with liberal terms, and an expert jury, by which architects of reputation are persuaded, in foreign towns, to exert themselves for the benefit of the community, the design of an American town-hall, or public-library, or school-building is, as a rule, shrouded in mystery. If the structure is not to be of great importance, it is generally the most pushing and overbearing of the selectmen or aldermen who presents a plan, which, as he says, he has had "drawed out" by some pupil of the evening schools, and which embodies "about the kind of thing we want." Any attempt at criticism on the part of his colleagues is repressed by the great man's stern reproof, and as none of them know or care enough about the subject to resist, the plan is adopted and carried into execution by some ingenious carpenter. If, as occasionally happens, a rival magnate has also had a plan "drawed out," a contest ensues, ending in a compromise; and, if the building is of considerable importance, a committee may even be chosen, whose duty is to "dicker" with the architects who clamor most obtrusively for the job. Once in a while, especially in very important work, it is the architects who do the dickering, either by the exercise of personal or political influence, or, as in a recent case, by hiring the janitor of the hall of legislation, for a round sum, to exert his authority over the legislators in favor of a certain plan; but of any straightforward, honorable dealings between American public bodies and architects of skill and reputation, we rarely hear. The result is, inevitably, that the Americans spend more money, on worse public buildings, than any other people in the world. Of course, we shall be told, like other people who meddle in these affairs, that the public functionaries in question get what they want, and that it is nobody's business how they get it; but we venture to think that it is very much the business of the public whether it gets proper architectural service or not, and that it might well arouse itself, to insist upon its rights. Naturally, isolated citizens cannot do much, but a great deal might be done, which would be of the highest value to the community, by a permanent organization in each city, devoted to the inspection of the methods by which the public art is obtained. Every one knows the way to get good architectural work;—by going to architects of first-rate reputation, or, if preferred, by employing experts to judge of the works of aspirants, perhaps of equal ability, but less reputation; and there is no reason why a single public building should ever hereafter be erected in this country which will not do credit, for all time, to the town in which it stands, if the citizens will only resolve to have it so.

AUSTRIAN ARCHITECTURE.¹—XVII.

THE NINETEENTH CENTURY. — IV.



Fig. 19. View of the Votive-Kirche, Vienna.

TURNING now to the second period of this modern era of Viennese architecture, we find its representative structures far more imposing in character than are those of the preceding period. To it belong the great public buildings on the Ringstrasse. In order to preserve the continuity of our sketch, we will first notice a few other Gothic edifices, all of which were erected during the period which we are now to consider.

The Votive Church, by Henry von Ferstel, is unquestionably the finest nineteenth-century Gothic church in German-speaking countries (Figures 19, 20). In 1854, Ferstel, at the age of twenty-seven years, won the first prize in a public competition for furnishing a plan for the church. The work was begun in 1855 and completed in 1879. After a lapse of more than a century, this was the first Viennese monument to be constructed, like the ancient cathedrals, almost exclusively of stone. The roofing and the pyramidal tops of the towers, the only parts not in stone, are of iron. Due credit must be ascribed to Herren Kranner and Riewel, who directed the construction and the stone-work with marvellous precision and skill. To insure entire accord between the constructive system and the style, the architect adopted secondary Gothic types, in which the fusion of the two elements had been most satisfactorily effected. The church is in the form of a cross with three aisles of equal height—divided by twelve pillars—and a single aisled transept; the side-aisle is carried around the choir, with radiating chapels. There are chapels also along the sides and the transepts, so that the latter has the appearance of being three-aisled. A *fleche* rises above the crossing of nave and transept, and flanking the main portal are two large towers, the open basements of which form the lateral entrances. The interior is tastefully enriched with paintings and stained-glass.

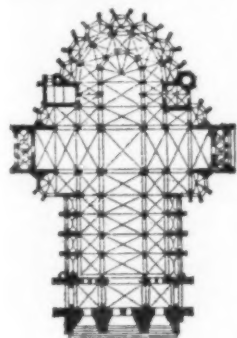


Fig. 20. Plan of the Votive-Kirche.

and a single aisled transept; the side-aisle is carried around the choir, with radiating chapels. There are chapels also along the sides and the transepts, so that the latter has the appearance of being three-aisled. A *fleche* rises above the crossing of nave and transept, and flanking the main portal are two large towers, the open basements of which form the lateral entrances. The interior is tastefully enriched with paintings and stained-glass.

¹ From the French of H. Sempier, in Planat's "Encyclopédie de l'Architecture et de la Construction." Continued from page 53, No. 787.

The church, as a whole, within and without, charms us by the wealth and grace of its forms, its elegant proportions, the happy disposition of the lines and principal masses, and the perfect balance existing between the constructive and decorative elements, the latter appearing everywhere as a natural and necessary outgrowth of the organism. While basing his work on such models as the cathedrals of Amiens and Cologne, Ferstel was able to simplify their systems without at the same time rendering his production paltry.

The Rathhaus, by Schmidt, is another Gothic edifice belonging to this second period. But, notwithstanding its massiveness, the richness of the materials employed, and the vastness



Fig. 21. View of the New Rathhaus.

of the works, notwithstanding the immense sums of money (nearly eleven million florins) expended upon it, the structure by no means compels unqualified praise (Figures 21, 22). The architect, it is true, prepared his plan for a different site, and one better suited to produce the desired impression; it was originally intended that the Rathhaus should stand on the eastern side of the Ringstrasse facing the spacious public gardens, from which it could have been viewed at an advantageous distance, and where its own silhouette would have been set off by that of St. Stephen's tower in the background. In its present position, the sombre mediæval pile, surrounded by

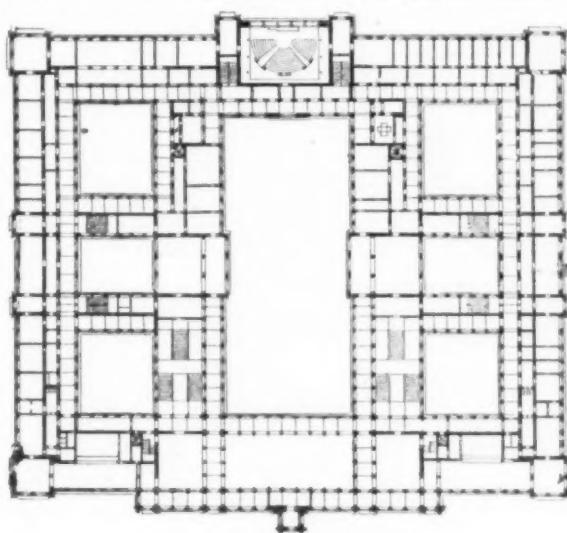


Fig. 22. Plan of the New Rathhaus.

gayer and more grandiose Classic monuments, produces merely the effect of an anachronism: the discordancy is all the more marked because of the coldness and arbitrariness with which the forms are copied. The German Gothic appears side by side with the Italian Gothic and even with the Romanesque, and we find here channelled pilasters, palmette friezes, statues in eighteenth-century costumes set in Gothic niches, roofs in Mansard's style, and so on. The public was far from satisfied when, as the result of a competition in 1869, Schmidt's plan was selected for execution; and, certainly, the general alarm was justified when the expenditures exceeded the original estimates by more than two million florins. This rather unfitting

abode of the city fathers was formally opened in 1883. It is on a rectangular plan, with four corner pavilions running up twenty feet above the central mass, and covered with French roofs! The two fronts are accentuated by projecting bodies with powerful buttresses. A heavy tower rises in regularly

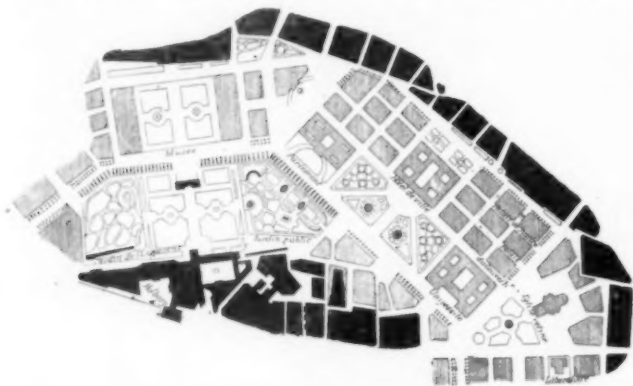


Fig. 23. Site of the Old Parade Ground, Vienna.

receding stories over the centre of the main façade. Happily, this is the only edifice not in harmony with the rest of the architecture in the western part of the Ringstrasse, that is, on the site of the old Parade Ground (Figure 23).

Ferstel's church not only stands on a more isolated spot but the purity and perfection of its style command the same absolute respect that we are forced to accord to the old cathedrals. Farther on is a more recent Gothic construction, namely, the Stiftungshaus, a charitable institution erected by Schmidt on the site of the deadly Ringtheater (Figure 24).

Even during the preceding period, the Renaissance, which, notwithstanding its numberless variations, is the sole style suited to modern civilization and modern needs, had been gradually gaining the supremacy over the dominant Romantic eclecticism of which we have already spoken. This movement in favor of Renaissance types declared itself at the outset in private architecture; its progress was so resistless that even such architects as Hansen, Ferstel and Förster, who had formerly employed Romantic or Mediæval forms, at the beginning of the new era adopted Renaissance



Fig. 24. View of the Stiftungshaus, Vienna.

sance principles, although their modes of treatment varied greatly. Siccardsburg & Van der Nüll had likewise made important concessions to this style in the decoration of the Opera House.

When Hansen abandoned Byzantine types he returned, it is true, in his private mansions and in some of his later monumental edifices, to his early predilections for the Classic Greek, but at the same time he made use of dispositions and principles peculiar to Renaissance palaces; nor did he rigorously exclude even Renaissance motives and forms. Moreover, he occasionally adopted an almost pure Renaissance style. In the main, such of his constructions as bear a quite decided Greek physiognomy are merely varieties of the modern Renaissance and harmonize well with neighboring edifices exhibiting the marked features of the Italian Renaissance. Especially is this true of the Houses of Parliament, erected between 1874 and 1885 on the south side of the old Parade Ground (Figures 25, 26).

In this imposing structure Hansen developed in grander proportions a type which he had already created in the Academy of Art at Athens. The architect was confronted with the difficult problem of uniting the Chamber of Deputies and the Senate Chamber in a single edifice and, at the same time, making them independent buildings. To mark the separation distinctly, it had to be expressed in the distribution of the masses as well as on the exterior. With this object in view, Hansen made the different parts of the structure of different heights; he was thus



Fig. 25. Houses of Parliament.

able to signalize the most important portions. The halls for the two legislative bodies he disposed as nearly square buildings at the extremities of the transverse axis. These, eighty or more feet high and projecting on all sides, each comprise a lofty basement and two stories above. In the centre of each basement are four pairs of caryatides supporting a balcony, thus forming a sort of porch with three entrances. The latter are for the accommodation of the Emperor and his suite, who pass in through a vestibule, the stairways from which lead to the imperial halls. Above the basement, on either side, runs an imposing order of Corinthian pilasters, spanning both stories and supporting a rich cornice. Surmounting the whole is an attic adorned with a frieze in relief, with statues, and bronze quadrigæ at the corners. Within are the semicircular legislative chambers, surrounded by ante-rooms and different apartments for the use of the Emperor and the public.

Access to the public stairways is had by passing through the vestibules beneath the one-story connecting wings on both sides of the square buildings. At the four angles of the edifice are

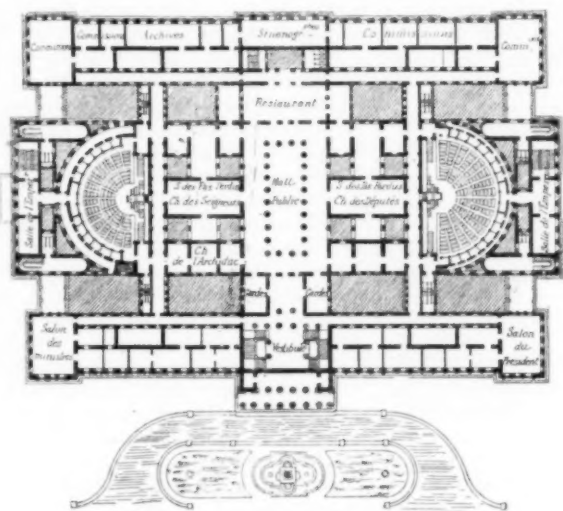


Fig. 26. Plan of the Houses of Parliament.

projecting pavilions, which are also one story in height and look like small temples. These contain offices and committee-rooms; those on the first floor are reserved for the ministers and the presiding officers of both houses. The pavilion in which the ministers' business-rooms are situated is unfortunately about five hundred feet distant from the Chamber of Deputies.

The principal axis is occupied by a projecting building, of the same height as the legislative chambers and opening toward

the Ringstrasse by a Corinthian portico; it is covered by a pitched roof, made partly of glass. The portico is reached above the basement by two broad inclined ways. From it we pass into a vestibule and thence into an atrium, which gives access to the magnificent peristyle occupying the height of both stories, and borne on twenty-four Composite columns. This hall, designed to receive the statues of celebrated Austrian statesmen—it is as yet empty—forms the ideal connecting-link between the two chambers; it, however, severs them externally, though the long roof is fortunately partially concealed by lateral structures. At the western extremity of the peristyle, the rooms are distributed in two stories with a gabled projection on the outside.

But to return to the façade. The angle pavilions and the central building are joined by one-story wings, which are embellished with Corinthian half-columns, and contain offices, halls-of-record, and so forth. There are corridors along the inside of these wings, lighted from courts, and communicating with each other and with the legislative chambers by means of other corridors running parallel to the main axis. On the ground floor, between the peristyle and the corridors, there are apartments for the guards and attendants; the story above contains two large halls for the use of the members of the Upper House and the Deputies, which, in a measure, connect the chambers with the great central hall. These inner rooms are also but one story in height, and they are consequently completely hidden from view on the exterior; they are lighted in part from small courts.

The Houses of Parliament are unquestionably monumental in character and they present a most noble and picturesque aspect, owing to the delicacy of all the members and the varied grouping of the parts. But the front wings have a somewhat choked appearance, and even the central portico loses in effect by the massiveness of the bodies at the sides. Lastly, one finds himself in doubt as to which is the main façade, and the ensemble is broken and scattered. The broad sloping expanse in front hides too much of the basement. In the distribution of the interior spaces the structure is open to the same criticism of dispersedness, and the defect is augmented by the multiplicity of courts, which has seriously interfered with the economizing of ground.

The Exchange (Figure 27), which was designed by Hansen and Tietz, was built (1870-1878) after the death of the latter, by Hansen alone, though with some modifications of the original

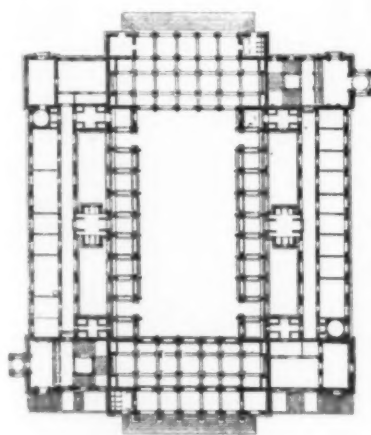


Fig. 27. Plan of the Exchange, Vienna.

plan. In this edifice, Hansen, probably through the influence of his colleague, adopted an unmixed Renaissance style. Motives borrowed from Sansovino's Library and Loggetta at Venice are readily discernible. In the plan the basilican central hall reminds us of the disposition of the Houses of Parliament; but the Exchange differs advantageously from the latter in the economy with which all the space is utilized and in the convenient and practical distribution of the apartments.

The hall appears externally as a projecting, massive body, 142 feet high, or 24 feet higher than the wings. Above the lofty basement, on the curved façade, there are two orders of loggie, with Doric and Composite columns supporting arches and crowned with an attic. The opposite façade of the hall is treated in a corresponding but simpler manner.

The four angles are occupied by pavilions which are likewise adorned with attics, though they are covered with curved roofs. The whole façade is remarkable, not only for the impressiveness of the architecture and the sculptural decorations, but also for the beauty of the materials employed; these comprise marbles of various colors.

There are five entrance-ways leading from the portico into a vestibule with twelve Doric columns, above which is a casino. A similar room on the opposite side is reserved for the stock-

brokers. From the vestibule, three doors give access to the central business-hall which is 126 feet wide, 186 long, and 72 high. It is flanked by two orders of arches and covered with a ceiling in sunken panels. The light, which is obtained from the adjoining courts, is admitted through the arches. Three exits on each side conduct through the courts to the offices, and to the beautiful stairways in the centre of the courts by which the second story is reached. The heating and ventilating appliances are as effective as in the Parliament Houses.

Hansen was also the architect of the Academy of Art on the Schillerplatz (Figure 28). It is in an Italo-Greek Renaissance style, but is less imposing than the two edifices just described.

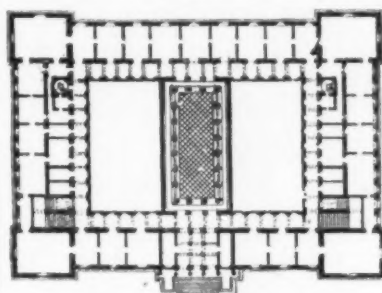


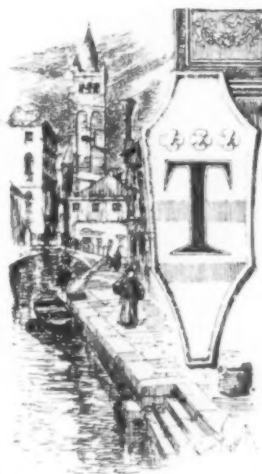
Fig. 28. Plan of the Academy of Art, Vienna.

This is due either to the character of the building-materials, to dimensions, or to the general distribution of the apartments in an underground story, a ground story, a mezzanine, and two stories above. On the outside, however, the underground story, the ground-floor, and the entresol are united in a powerful

rustic basement, while the two upper stories are characterized by two orders of Ionic and Corinthian pilasters, enclosing niches for statues alternating with windows set in arches; the whole is crowned by a rich cornice with consoles. The façade which is of brick, is embellished with friezes, festoons and bas-reliefs, in terra-cotta. A Doric portico with a turret staircase contains the entrances. We pass through a Doric vestibule to the porticos encompassing the vast court, and find ourselves directly in front of the Museum of Casts; this hall extends across the court and is on the architect's favorite basilican plan, with three aisles divided by twenty red marble Doric columns. The columns support the side-walls of the raised central aisle, broad openings in which admit a high side light. The painted ceiling, by Feuerbach, represents the fall of the Titans. The stairways, at the angles of the court, are only modestly decorated. The arrangement of the different quarters is quite convenient. The underground story contains the ateliers used by the sculptors and modellers; the ground-floor is occupied by the school for sculpture and the school for general painting; in the mezzanine are the various offices connected with the administration, the school for general architecture, and work-rooms for engravers and modellers of small objects; the floor above contains the picture gallery and special schools; the upper story is taken up by the painters' studios.

[To be continued.]

VENETIAN WELLS.¹—I.



THE peculiar conditions under which Venice was founded, and the unique character of its situation, have given rise to certain special features developed from necessity more than from choice, but affording an equally special interest to all who attentively observe them. Among these distinctive features of Venice the *pozzi* or wells hold an important place, from the artistic as much as from the economic point of view; and richly repay a closer attention than they usually receive.

* The provision of a constant supply of fresh water sufficient for the wants of a whole city was in this case rendered so much more difficult than usual by the fact that Venice consisted, as it does still, of hundreds of small islands; and these raised so very slightly above the average high-water level of the lagoons as to be subject to occasional inundations of salt-water. However, Nature came to the help of the early settlers—or, rather, she had been there in readiness for ages—and provided in many parts of the site chosen for the new city, and at no extraordinary depth below the ground-level, a number of

¹ An article by Mr. William Scott in the *Universal Review*.

natural springs, including many of very good quality. The wells supplied by some of them are still in constant use, even to this day.

The water-supply of Venice in early times must have depended upon these springs, and upon the rain-water, which, as we know, was collected, filtered, and stored in cisterns or wells of suitable construction; but as the number of inhabitants in the city grew very large, it became necessary to bring fresh water from the mainland in boats. Some may wonder why, with the example of the Romans before them, the enterprising Venetians of those distant days did not project and carry out an aqueduct, such as we may imagine that the Romans would almost certainly have made, and for the execution of which, their engineering skill would have been amply sufficient; but it must be remembered that the essential principle upon which the site of Venice was chosen was that of its complete isolation; and the same principle seems to have influenced, consciously or unconsciously, the policy of all succeeding rulers of the State, who, although they had vast and important possessions on the mainland, seem to have never seriously entertained the idea of bridging over the shallow waters upon which so much of their safety as well as their success depended. At the same time it was found necessary to construct and keep up a set of large cisterns or *serbatoi*, at Lizza Fusina on the mainland, and into them the water of the Brenta was conducted by artificial canals, which cost the Republic millions of ducats, and are still known as *seriole*. An order of the Council, dated April 27, 1540, indicates that "as much water as may be required for the use of the city is to be taken from the Brenta above Moranzano, and where the magistrate shall think fit, and is to be taken by a *seriola* to Lizza Fusina." Another law, of 1610, provides for keeping the water pure, and forbids that linen should be washed or animals allowed to drink on the banks of the *seriole*. The price of each *burchio* (barge) of water brought hence to Venice was formerly fixed at ten Venetian lire; and in 1736 this was increased to twelve lire eight soldi; the contents of a *burchio* being calculated at about seventeen and one-seventh cubic metres of water. The special boats devoted to the work of transporting fresh water to the city had to be duly examined, and when approved were sealed by the government officials.

The *pozzi*, then, served to render available the natural springs found in the subsoil, or the rain-water which could be collected and stored; and in the latter case, they also received the supplies of fresh water brought from a distance by artificial means. This water was not poured directly into the well itself, but upon the ground near it, and was allowed to flow down the *pilele*, and then filter through a bed of sand. This latter custom prevailed until a few years ago, when water was brought from the Brenta to Venice by iron

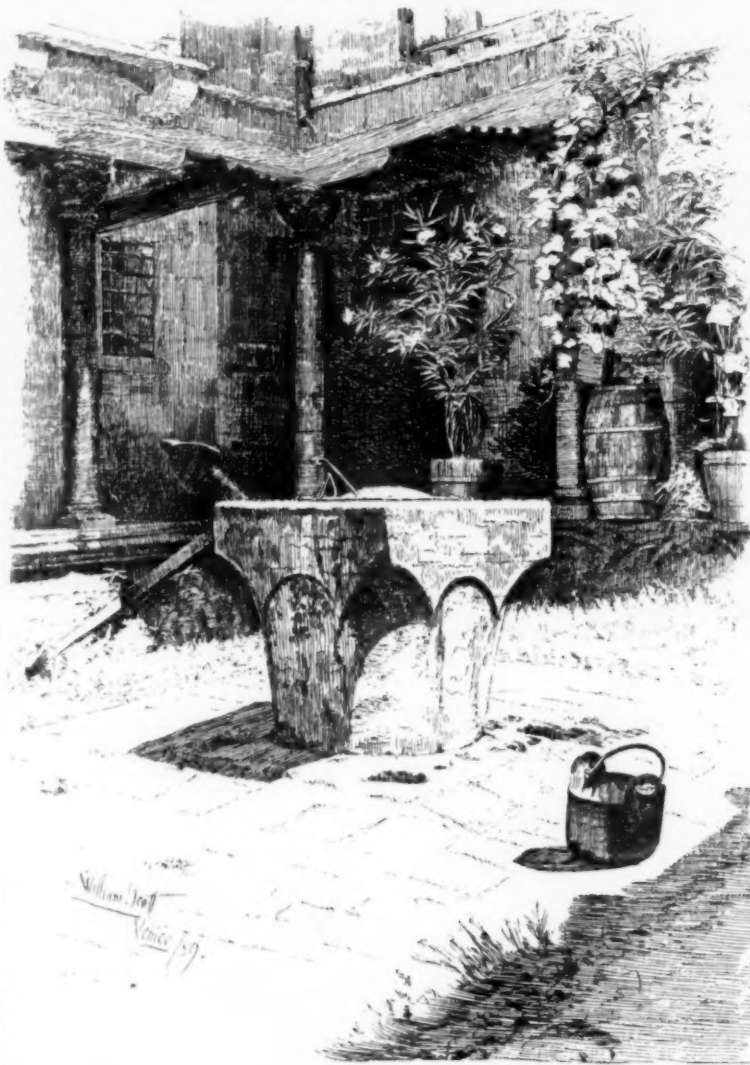
pipes laid under the lagoons, and was then, by smaller pipes, distributed over the city—a proceeding which, while of immense advantage to the inhabitants, is inevitably destroying some of the picturesque incidents and features in the daily life of the place.

For the purpose of collecting rain-water, large shallow cisterns, or *cassoni*, were formed either in the public squares for general use, or in the courts of private houses. They were built of brick and filled with sand. In the centre of the *cassone*, the deep *pozzo* or well, properly so-called, was sunk; and into these cisterns or filters, as we may term them, rain-water was conducted by means of suitable drains called *pilele*, whence it gradually filtered into the well, to be afterwards drawn up by buckets or *secchi* in the usual way.

The protecting wall or margin round the upper portions of the well, that is, above the level of the ground, is termed a *vera*. This is a Venetian word meaning a ring, and is also used for the ordinary finger-ring, as, *vera da matrimonio*, a wedding-ring. In ancient times, as is proved by a document of the thirteenth century, the *vera* of a well was also called *pignat*; but the term is now no longer used, though *pignata*, a pot, and various derivatives, such as *pignatela*, *pignatina*, etc., are among the most familiar terms of the Venetian kitchen and scullery.

In spite of the great interest attaching to these *vere* as an important item in the history and development of Venetian art, no one has yet given to the subject that serious research which it deserves; though some

thirty years ago Signor Seguso commenced a work which promised to be exhaustive as well as valuable, but of which only a small instalment ever saw the light.¹ Selvatico² incidentally refers to several of the *pozzi* as examples of Venetian sculpture, and Professor

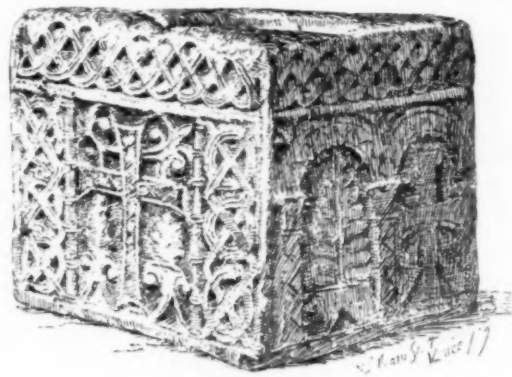


Cortile of the Abbazia di S. Gregorio.



Italo-Byzantine Well.

collected and stored; and in the latter case, they also received the supplies of fresh water brought from a distance by artificial means. This water was not poured directly into the well itself, but upon the ground near it, and was allowed to flow down the *pilele*, and then filter through a bed of sand. This latter custom prevailed until a few years ago, when water was brought from the Brenta to Venice by iron



Italo-Byzantine Well.

Cattaneo, in his recently-published work on the early architecture of Italy,³ has some remarks on those specimens of wells which belong to the period under consideration by him; but a careful treatise on

¹ "Delle Sponde Marmoree, e degli Antichi Edificii di Venezia," A. & E. Seguso, Venezia, 1859. Part I. This first part has been consulted with much advantage in the preparation of the present article, especially as regards the ancient documents, and the various legislative enactments which are here referred to.

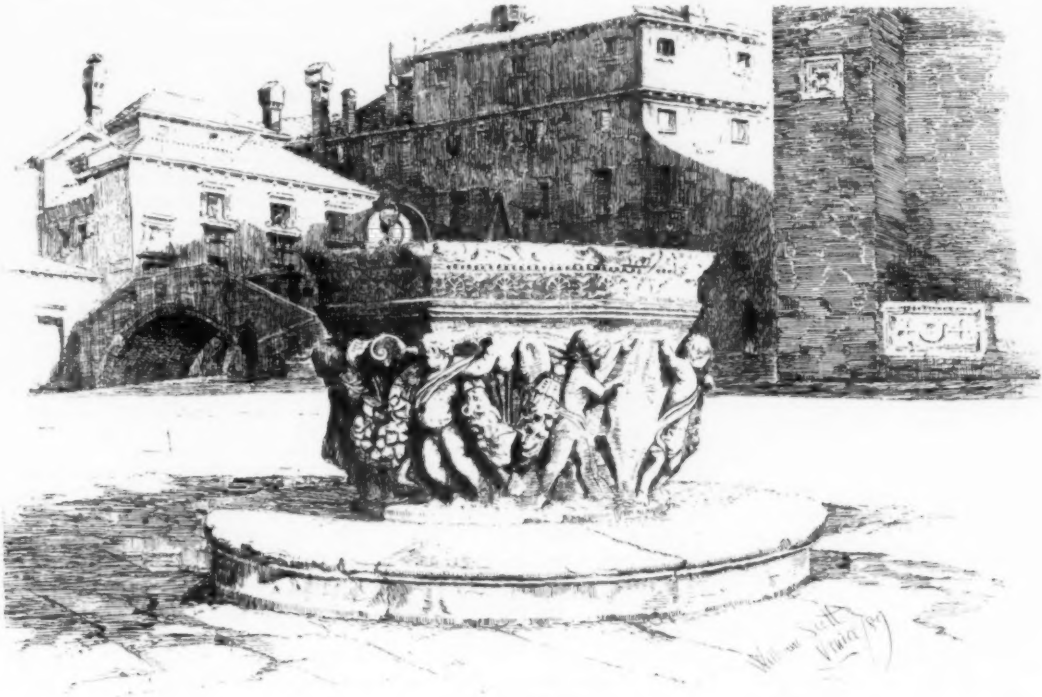
² "Sulla Architettura e sulla Scultura in Venezia dal medio evo sino ai nostri giorni," P. Selvatico, Venezia, 1847.

³ "L'Architettura in Italia dal Secolo VI al Mille circa," Venezia, 1888.

the origin and development of these interesting features has yet to be undertaken.⁴

There is no reason for believing that the earliest well-heads were, as such, brought from other countries, and merely adapted to Venetian use, as many other of the architectural and decorative features of

It is part of a three-quarter column, fluted, and is undoubtedly of Roman workmanship. The projecting portion which had formerly been built into the wall as a bond, was roughly decorated with carving, without taking the trouble to reduce its general form. In the centre of this projection is the shield of the Donati family,

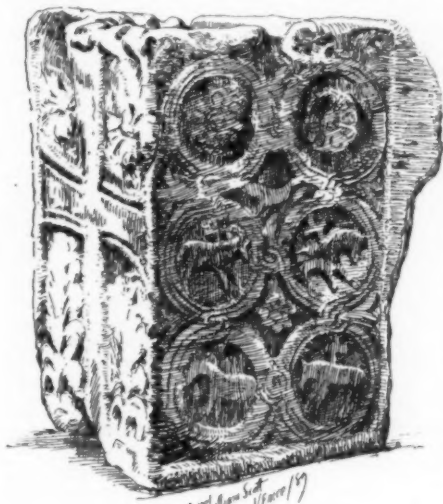


Renaissance Well. SS. Giovanni e Paolo.

the city were, but *vere* have been a distinctly local production, developed out of the needs of the times, and growing logically and naturally in perfect correspondence with the growth of the State and its art.

The foundation of the Venetian government at Rialto about A. D. 810 serves to indicate the earliest period to which we can safely ascribe the design and formation of any of the wells; and the name Italo-Byzantine has been suitably given to the style of art which prevailed in Venice for a considerable period after that time. It must be remembered that the above date does not indicate the first peopling of the lagoon islands, but only the choice of a more suitable position for the seat of government, and the foundation of the present city of Venice.

It is not surprising, however, that among the earliest examples of well-heads which come under our notice, are blocks of stone which had



Italo-Byzantine Well.

already occupied other and perhaps conspicuous positions, but which were afterwards simply pierced through and placed over the mouth of the well to serve as a protection; generally with little or no attempt to change their appearance or character. In some cases they were old Roman capitals, perhaps of the sixth century or earlier, and possibly brought from the ruins of Altinum; in others they were portions of columns or pilasters, etc., and occasionally they bear their original Latin inscriptions. The above figure represents a *vera* brought from Torcello, and now in the Civic Museum in Venice.

⁴Since the present article was prepared Signor F. Ongania has published a portfolio of heliotype illustrations of these Venetian *vere*, but the dates attributed to the various examples are not in all cases reliable, nor is the classification by any means as perfect as it might have been, though the collection is extremely valuable and interesting.

usually known as Donà dalle Rose, but this shield was evidently cut at a later date than the other carving.

Of well-heads originally made expressly for that purpose, the general form in early instances is a simple cube or cylinder, carved with the quaint fancies of the Italo-Byzantine period to which they belong. The cross enters very frequently into the scheme of design; and is surrounded by scrolls, swirls, patera, leaves, geometrical patterns of various kinds, interlacing lines, and curious figures of birds and beasts. It is difficult to determine the duration of this style, but at least we can be sure that it underwent a gradual modification which must have commenced about the time of the rebuilding of S. Mark's in A. D. 976, when Partecipazio brought over large numbers of Greek workmen and artists from Constantinople, and gave commissions in that city for precious objects



Early Renaissance Well.

to be executed for the church of S. Mark.

[To be continued.]

LIFE INSURANCE AND BUILDING.—That was an ingenious scheme adopted by the Progress Club to raise money for building its costly and elegant club-house at the northeast corner of Fifth Avenue and Sixty-third Street. The money was furnished on mortgage by an insurance company, and by way of collateral the directors of the club insured their lives in favor of the company. Meanwhile the mortgage will be paid off as rapidly as possible, and when it has been reduced to a point well below the real value of the property, the insurance policies will cease to be payable to the insurance company, and will become an asset of the insured. The club is one of the costliest in the city, and the house was built when the membership numbered only 250. — *New York Star.*

EMMANUEL FRÉMIET. — I.



Dog Stretching. Frémiet, Sculptor.

IT has been the opinion of a small number of artists and art-lovers, for many years, that to Frémiet was due the distinguished honor of being the only sculptor of modern times that has made equestrian statues worthy to be classed with the "three best in existence," the Colleoni, the Gattamelata, and the Marcus Aurelius.

A smaller number believe in adding to this honor, by giving him the surpassing distinction of having made the only equestrian statues in existence that are complete in all the fundamental principles of such important works of sculpture. Nor is this all, for they affirm that he is entitled to more credit for having made them than are the sculptors that executed those mentioned, and for these reasons: in all great periods of art-production, there has prevailed a high taste in art and, to a considerable degree, a sympathetic and encouraging professional brotherhood among artists, both of which were of immense assistance to this production, as well as to the cordial reception and recognition of works of art. Whereas, to-day, the prevailing taste is low, and conventionalism, jealousy, prejudice, and that worst of all obstacles that great art has to contend against, government and professional organization, have their completest triumphs, in preventing the best artists from receiving the encouragement they deserve, and relegating their works to future generations for just and full appreciation. And they further affirm, that the large and constantly increasing number of mediocre artists educated by the government, as well as a like quantity of amateurs and critics, form an influence that is very injurious to the progress of art, and that this influence is manifested in the following ways. It forces the government to support these artists by buying their works, in preference to giving more liberal encouragement to better artists, and paying them more generously; and that by indifference, or by captious and persistent criticism, ridicule and unjust accusation of being inspired by, or borrowing from the antique, it prevents men of genius from receiving the credit they deserve, and their works from obtaining that prompt public recognition to which they are entitled.

The superabundance of antique art is also declared to be an obstacle to art progress, because the public, the authorities, and in fact every one, save the real art producer, is so much occupied with it, that a meritorious modern work is very often passed by and forgotten, and its author left to the consideration of another generation. It is asserted that these obstacles, influences and contentions did not exist during previous epochs, that the professional personality of the artist came in direct relationship with the art lover and buyer, and that art flourished, free from the deadening weight of organization.

In confirmation of the truth of all this, the difficult lives and disheartening experiences of nearly all the masters of modern French arts are referred to, and to Frémiet himself, who was forced to wait until he was sixty years of age before he received the Medal of Honor, in spite of the fact that he had executed work richly deserving that distinction more than a quarter of a century before. And this in the leading art country of the world.

So slowly comes the welcoming accord due to those who make great works of art in these days.

This indictment reminds one of the expression made, not long ago, by the head of one of the art departments of the French Government. "The general concentration of all influences having to do with an unrestrained and powerful art activity, is now dissipated through the demands of commerce and a superficial admiration for the art of past centuries. It is an epoch of borrowing and adaptation, of death to individuality."

In the face of all these depressing conditions, it is asserted, Frémiet has been able, by his extraordinary courage and genius, not only to produce a series of great equestrian statues, but a large number of other works of high merit. And it can be added, that as an artist he has no counterpart, belongs to no school, general sentiment, or acknowledged force, and has been helped by none; that he has worked alone on his own line, made his own place, recruited his little army of admirers, and will go down to posterity rich in claims for immortal fame.

The life of Frémiet is only another confirmation, strange and peculiar, of the truth of the old saying, that history is constantly repeating itself. The struggles of Barye and Millet, two men now occupying world-wide attention for commercial purposes, have been

lived through, in one form or another, time and again in France, and are being rehearsed to-day in all the fullness of their inevitable bitterness. In some respects Frémiet's battle has been more severe than that of Barye, and in others, less so. His scheme of work was more difficult, because his figures were larger and more costly to execute, but his first successes came at a much earlier age than those of his great predecessor. Barye's work awoke comparatively little professional animosity, while that of Frémiet has kept the art world in constant, condemning commotion. First, because of the startlingly originality of subject, and second, because his equestrian statues were so different from the generally accepted conventional figures.

Emmanuel Frémiet was born in the city of Paris, in the month of December, 1824, in the Hospital of La Rochefoucauld. His father was the son of a Burgundian tax-collector, and by trade an engraver of music. He was a man of visionary mind, inventive, of fine intelligence, and a great student. The dominant object of his life, and for which he sacrificed everything, was motion, as expressed in vehicles. The result he hoped to obtain was a wagon that would go by itself, or perpetual motion, and in this unrealized hope he died. He was familiar with the mechanical and engineering progress of his day, and was on intimate terms with leading authorities in those sciences. Late in life he studied the subject of quarrying stone, and obtained by competition, the position of Director of the great quarries of Paris. Frémiet's mother was the daughter of Frochot, the Director of the above-named hospital, and a woman of exceptional character in every respect. Of fine mind, excellent education, surpassing courage and tireless industry.

The Frémiets had two sons, the sculptor and a brother ten years his junior, now a retired cavalry officer. They were very poor, and, in order to increase their means of living, the young husband taught his wife his trade, and though they worked unceasingly their circumstances did not materially improve.

When Emmanuel was five years of age, his mother had the good fortune, through the influence of her brother, who was under-secretary to his uncle Frochot, then, and for many years after, Prefect of the Seine, to be appointed superintendent of the Clinical Hospital, at a salary of five dollars a month, lodgings included. This increase of income was of considerable importance, but it obliged the Frémiets to leave the quarter where they had received their work at engraving, and in order not to be separated from his family, the father gave up his trade and obtained a position as foreman in a printing-office. Emmanuel had already begun to draw, much to the pleasure of his mother, who gave him her warmest encouragement, and to emphasize it, bought her son a silver pencil-holder out of her scanty and hard-earned savings. In possession of such a shining treasure, the boy hastened to school to show the gift to his playmates, but they, jealous of such an unquestioned evidence of financial superiority, nearly taunted the life out of him by calling him a little aristocrat. This incident seems to have been prophetic, for in its finest sense the character and professional life of the sculptor is eminently aristocratic.

The delightful hope that her son might become an artist, was now Mme. Frémiet's chief pleasure and anxiety. Fortune favored both.

Sophie Frémiet, the cousin of her husband, was the wife of Rude, the sculptor. She was a splendid woman, who painted well and drew like a master. To her was the boy taken to receive his first lessons in drawing, and such advice as he might need in his subsequent studies. Prepared by such a teacher, he soon entered the since famous Petite Ecole, then, as now, in the Rue de l'Ecole de Médecine, and taught by two teachers of the most mediocre ability, Perron and Bonvoisin. During his stay there he made the most rapid progress, advancing in place after every drawing, and winning first and second medals. The rules of the school required that after gaining a medal the pupil should make a special drawing to be hung upon the walls of the school-room, and those made by the future sculptor hang there to this day.

When Emmanuel had arrived at the age of fifteen it was thought that he should begin the practical rudiments of some branch of art, though his father, who cared nothing for art, desired him to learn the trade of a printer. To such a proposition his mother would not listen for a moment. She loved her son's tendencies towards art, rejoiced that he was happy in following them, and resolved to endure every sacrifice that he might gratify them. His father, while willingly consenting to her wishes, would often, during the earlier years of his son's studies, banteringly ask his wife if she thought her son would ever be "decorated?"

Among the friends of the family was a wood-engraver named Prud'homme, and they asked him to take Emmanuel, teach him that trade, and make him useful in any other way he saw fit. The engraver refused, but he advised the parents to go to Jacques Vernet, a lithographer and painter of natural history, who was employed at the Jardin des Plantes in the department of that science. Vernet took the lad and set him to work at making drawings of the bones of animals on lithographic stones, giving him a dollar a month for eight hours' daily labor.

Emmanuel's career had now fairly begun, though no magician could have foretold what he was destined to go through during the first two years. He was surrounded by the bones of animals of every description, and by many of their living prototypes. The latter awakened his liveliest enthusiasm, but the everlasting drawing of the former was wearisomeness itself, and he thought that in doing the latter he was cruelly squandering precious time that ought to be

given to the study of art. It was not until after years that he became aware that what he had acquired in that dreary and uninspiring drudgery was of the greatest value. The constant task of drawing bones of all kinds with the most perfect exactitude for scientific purposes, often with the aid of a magnifying-glass, gave him insensibly and unconsciously a power of precision, a depth of observation, a correctness of eye and an appreciation and understanding of values that he could never have obtained in any other way. It helped him to become one of the greatest constructive sculptors of any age.

The menagerie was a world in itself, and its attractions were irresistible. Every morning, as soon as it was light, found the young lithographer making drawings of the animals, and he made such progress that his employer, out of proper respect to his assistant, gave him his afternoons to himself and raised his wages to three dollars a month—an immediate appreciation, which, unfortunately, rarely followed later and more important advancements in his art. This additional income was of special significance to Emmanuel, for before this, whenever he received his wages, he always bought a little present for his mother, costing twenty or twenty-five cents; now he could get one that needed the expenditure of a dollar. He loved and adored his mother with the greatest ardor. She was his guardian angel, never absent from his thoughts.

Soon after entering Vernet's employ the fancy came to him to try to make something in form, and, as he could not afford to buy wax, he got some clay and began to copy the commonest sort of little plaster casts. Finding that it gave him solid pleasure, he went to the menagerie and made a fox from life.

In the midst of this new and joyous existence came the intimation that he must soon serve his time as a soldier. Of all mortal horrors this was the worst, and he looked forward to the moment of conscription with pain and trembling. He had no money to buy a substitute, and he saw no way to escape the degrading misery that was inevitably in store for him. It haunted his sleep, made his days intolerable, and brought a shadow over his home. But relief came from a direction as unexpected as it was welcome, though it led him through anything but pleasant ways. Orfila, the eminent French physician, was at this time forming his now famous Museum of Comparative Anatomy, and, as a friend of Vernet, knew how well the latter was aided by Emmanuel, and also of the boy's fear of soldier life. If he could only get such an assistant in his own difficult task! Though a distinguished man, and engaged in a work of great national importance, he was so poor that he could afford to pay little, if anything, for help in the prosecution of his project; so, in order to get Emmanuel, he offered to secure him exemption from military duty if the latter would lend him a hand. The offer was gladly accepted, and the afternoons and evenings were thenceforth devoted to the odorous occupation of making plaster-casts from all kinds of dead nature and painting them the color of life.

So glad was the boy to escape the expected sufferings of conscription that he did not go home to get his dinners, but loyally gave every moment to his new employer, eating as he worked.

There were also at this time in Paris two rival doctors, Suget and Ganai, who were engaged in the art of myological preservation. The first was a friend of Orfila, and was helping him with the museum. He, too, was attracted by the skill of his friend's assistant, and was anxious to secure the same service for himself, and he offered Emmanuel sixty cents for every evening's work. The proposition was taken up, Orfila consenting, and the scene of labor was transferred from the Jardin des Plantes, where the casting and painting had been carried on, to the attic room of the doctor's house in the Rue St. Antoine. The young comparative-anatomist's new duties consisted in painting, with life-like colors, the parts of the human body that the doctor had dried and mummified, though they were not strictly confined to that poetic locality, or to that single department of imitating human beauty, as the following incident will show: A coal-dealer had killed his wife, chopped her up with a dull axe, and thrown the pieces into the Seine, where they had remained nine days before they were discovered by the authorities and deposited in the morgue. It was necessary to re-establish and preserve the body of the unfortunate woman for judicial purposes, and Dr. Suget was sent for to perform the operation. As the parts had already passed into the first stages of corruption, the doctor refused to undertake the job, because he feared that if he did not succeed it would give Ganai, his rival, an opportunity to exult over his failure. "Is it impossible?" asked the people at the morgue. "Can't some one do it?" The doctor, ever mindful of his competitor, and suspecting that the latter would be called upon if he persisted in his refusal, finally said that it was not impossible, though very difficult. "Very well," said they, "it has got to be done. If you can do it, go ahead." "All right," answered Suget. "I have got a little painter who can paint life into most anything, and, if this can be done, he can do it." The mangled body was taken to the dissecting rooms of the medical school, lifted upon the table, bolstered up, put together with pieces of wood, and the "little painter" began his work, brush in one hand and candle in the other, as it was night. The doctor was dressed for a grand party, and, just as he was leaving, he noticed that the eyes of the murdered woman wore an unpleasant expression. Asking for a pair of glass ones, he snatched up a knife, lifted the natural eyes from their sockets, and replaced them with those that art had made. But the gas of the body dimmed them in an instant, whereupon the doctor took them out, wiped them carefully

with his fine handkerchief, put them back, tucked his handkerchief in his pocket, and started for the party.

In such pursuits a whole year of variedly weird evenings were spent by Emmanuel in Suget's attic.

While engaged in these suggestive occupations with Vernet, Orfila, Suget and the study of animals at the menagerie, a world of strange thoughts and fancies began to run riot through his mind, all concentrating in the impression that something was the matter with his mother. She seemed to be undergoing a change, especially in reference to the color of her eyes. If he had hitherto looked at her with the uncritical regard of affection, he now examined her with the most scrutinizing care. To his painful surprise, her eyes were different from what they had always appeared. His mother was indeed changing, and he was filled with sorrow. This curious experience was succeeded by a series of still more fantastic impressions, droll images, and scenes of vivid contrast and construction, precisely like those described by Edgar Poe. Baudelaire's translations of this writer had a peculiarly interesting attraction to the sculptor, when he read them many years after.

Whether or no Emmanuel's occupations had anything to do with these experiences, or how much, it is difficult to determine, though it seems certain that they had some effect upon him. It is well known that the study of wild animals, by certain temperaments, produces a very different class of sensations from those aroused by the study of the human form, and that there is a very material difference between the natures of great animal sculptors, like Barye and Frémiet, and those who make other kinds of sculpture.

The consideration of the governing identification of the artist with his model, and the submissive relation which the latter bears to the former, is one of the most interesting phases of art life, as well as one of great importance to understand, in rightly judging of the merits of artist and work. It is often quite independent of what is understood as human sympathy, yet so strong, that, as in the case of the men just mentioned, careful observers remark, "He seems and acts like an animal." Those who knew Barye well, and they were very few, say, that the dominant characteristic of his actions was like the well-repressed, though conscious, feline nature, and always dominating. He tamed his wild models by making them feel that he was like them, and greater. I have seen a lioness stand perfectly still for a long time, at the Jardin des Plantes, looking at Barye, while he was looking at and modelling from her. She seemed, and was, entranced. Without this power of overcoming identity, Barye never would have become the great animal sculptor that he was, even with all the art sense in the world. He held his wild models in his hand, and played with them like a reproductive god.

It is pleasant to think that these fanciful visions of the boy Frémiet were the first indications of the existence of one of the most personal and original minds in modern art, and in some respects, in any art.

The drawing from bones went on as usual with Vernet in the mornings, and modelling from animals in the afternoons, after leaving Orfila, with now and then less lugubrious experiences than those which characterized the time spent in Suget's attic, or at the dissecting-rooms of the medical school.

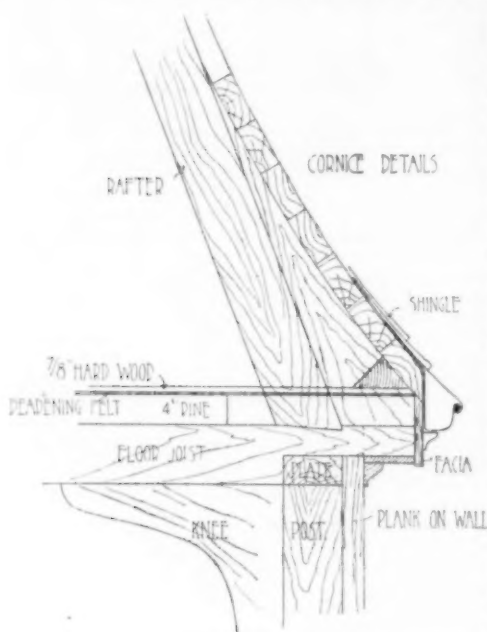
The little model of the fox, which, it will be remembered, was the first thing the young sculptor tried to execute from life, was so successful in pleasing its author that it stimulated him to make other studies in clay, all of which he cast in plaster. This modest ambition continued for some time, but at last the inevitable great enterprise took possession of his whole thought, and he boldly informed Vernet that he had got to try a life-sized dog, a beagle, which he had chosen as the subject of his first real work in sculpture. Both his mother and his employer were very ready to encourage him in this project, and the latter offered his workshop as a studio. The dog was brought in and placed upon the table, a modelling-stand provided, and a large pile of clay heaped on the floor. Now, Vernet's humble quarters consisted of a low-studded room of limited dimensions, and when this specimen of living nature made his appearance, in company with the other cumbersome requirements of a sculptor, it was evident that a revolution was about to begin. When work actually began, and clay, dirty water, and the other concomitants were scattered around the room, Vernet and his other assistant could stand it no longer, and they were obliged to leave the place and work in their lodgings, giving up the field to the entire possession of the sculptor. A retreat, which seemed to him, a veritable victory for the high art of sculpture, over the humble trade of lithography.

T. H. BARTLETT.

[To be continued.]

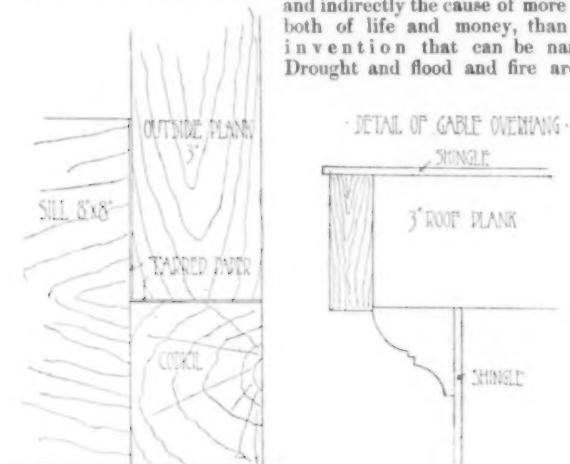
UNION OF ALUMINIUM AND GLASS. — Bradford McGregor, a mechanical expert of Cincinnati, has succeeded in uniting aluminium with glass, and he claims to be the first who has done so. A large piece of the aluminium with a glass tube in the centre was turned in his lathe, and it was impossible to detect the joint where they united. Heretofore no metal could be made to unite with glass in which the contraction and expansion were the same, and it is claimed that this will create a revolution in the way of reducing the cost of incandescent lights, as it will take the place of platinum, which costs \$320 a pound, while the new discovery will cost only \$10. — *New York Evening Post*.

A MILL-BUILT DWELLING-HOUSE.



hot in summer. The development is not a logical one, but we suppose it may be accounted for in this way: logs are heavy and hard for a couple of men to raise and put in place; their unhewn sides do not afford a satisfactory background for the furniture, utensils and decorations of fairly civilized existence; the log walls are stronger than static necessities require causing a waste of raw material and consequent waste of means which, in partly deforested districts, can ill be borne by the house-builder. These seem to be the logical reasons for the disappearance in a richly wooded country of this most picturesque and comfortable form of dwelling. The real cause, however, we take to be the advent of the ferocious and voracious circular-saw with its unlimited capacity for undoing in a few moments the work that Nature has taken decades to accomplish.

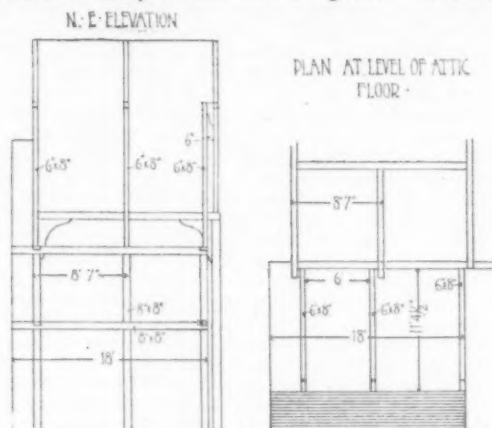
In spite of its great real usefulness the circular-saw is the one of man's inventions that there is most reason to regret. It is directly and indirectly the cause of more loss, both of life and money, than any invention that can be named. Drought and flood and fire are its



hand-maids and accident its boon comrade. It turns in short order a reclaimable wilderness into an irreclaimable desert; it floods the upper Ohio in mid-winter and sends the unfortunate riparian householder to his roof-top as his house is whirled down the stream; it breaks down the levees of the lower Mississippi and drowns square miles of crop-covered farming land with river-silt and rubbish; and it furnishes the combustible which causes an annual fire-loss in this country of more than a hundred million dollars and a loss of life incomputable so far as value is concerned. This is a heavy indictment to bring against a useful tool, but it is an entirely true one, except that it should not be brought against the inanimate tool which, if left alone, would be inert enough, but against those unintelligent people who use it and misuse its product. The tool is well enough, the product is useful enough, but the people who use both are very largely all wrong. The saw is too busy a workman to do fine work; it chews its way through a log, leaving a ragged path behind it, and in this imperfection in its work lies one of its great elements of danger. If it be necessary that log-houses should be abandoned and in their stead should be built houses of boards and scantling, the passage of a law in every State requiring that all lumber should be mill-planed would cut the fire-loss almost in half. It is the splintered surface

and angle of joist and stud and lath that give foothold and an easy pathway for the incendiary accidental spark, whether introduced directly or created spontaneously by a steady rise of temperature.

But the rough-sawn surfaces of board and timber are quite as objectionable to the eye as the unhewn log, and to hide these the

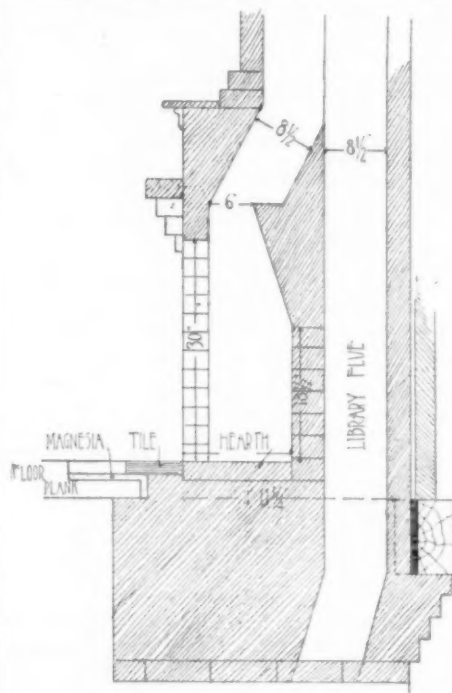


present system of American construction with its hollow concealed spaces — viaducts for evil and dangerous draughts and mischievous vermin — was devised.

People had become so accustomed to having their buildings burn up that they considered it quite the normal and incurable condition of things and, if properly insured, did not really much care; for the American mind loves a change and a fire means, usually, an opportunity to effect long contemplated changes and improvements. How long this fatalistic attitude of owners and builders would have lasted cannot be surmised; but by great good fortune the matter received the earnest and systematic attention of Mr. Edward Atkinson and others connected with the Boston Manufacturers' Mutual Insurance Company who were interested in putting an end to losses so far as their clientele were concerned, and fortunately were animated by an unselfish public-spiritedness which led them to place their facts and

deductions unreservedly at the disposal of the public.

Through their efforts there has come into existence a well recognized and fairly understood system of building which is commonly spoken of as the method of "slow-burning construction," and to some degree as "mill-construction," though this term brings it into conflict with another class of work. At first it was supposed that the method was suitable only for mill and factory buildings, but from them it has gone on to be adopted

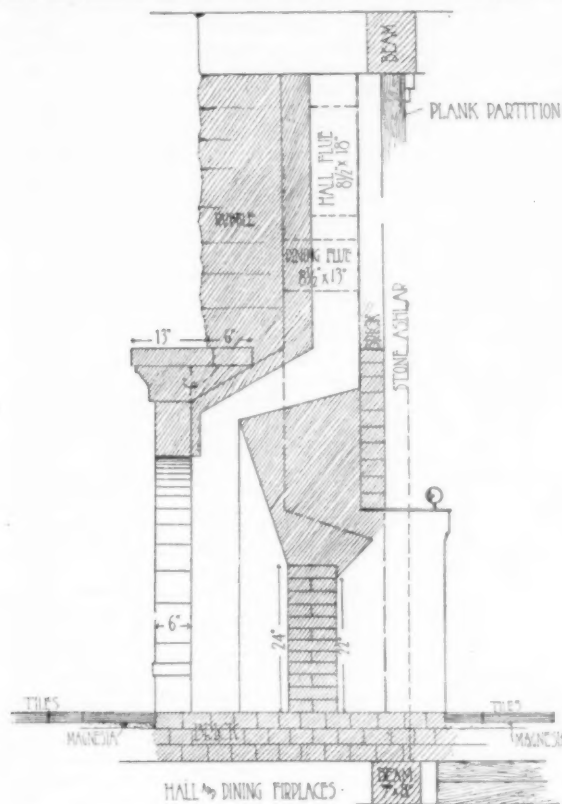


LIBRARY CHAMBER FIRE-PLACE.

for warehouses, stores and office-buildings of a utilitarian rather than ornamental character. Here its field of usefulness seemed to stop, for it was not easy to see how it could be acceptably applied to the building of dwelling-houses. Mr. Atkinson declared that it was absurd to think that it was not useful for house-building, and has asserted his intention of sometime proving his contention by building such a house, but this, we believe, he has not yet done.

However, some one has done it and has proved the point, and it only remains to take his success as a point of departure for further development. Very naturally the person who has built the first "slow-burning," or "mill-built" house is a mill owner — a member too of the Insurance Company mentioned above — who has done a good deal of building of new mills for his own use, in which mill methods have been adopted to his satisfaction.

Desiring to build a summer-house near his wood-pulp mills at Yarmouth, Me., Mr. George W. Hammond, of Boston, determined to apply the mill methods, in which he believed, to his new home, in spite of the fiascos of local builders and out-of-town architects. It was



a simple enough thing to do: the great difficulty was to persuade himself that it was worth while to do it in that way, and then to have faith in the result's being a satisfaction and not an irremediable cause of heartache. The house could be built in that way — in fact any body could build it so; it would be strong; it would be slow-burning; it would have no concealed spaces for vermin and foul air; it could be made to look like other houses on the outside, but how would it look on the inside? and would it be as cheap as if built after the ordinary method?

The last question can be answered first; it was not as cheap, but was possibly ten or fifteen per cent more expensive than the ordinary frame house. The first question could be answered only after the house was built and then, while its owner found its interior wholly to his satisfaction, others might not find it so. Therefore he suggested we should make an inspection of it under the disadvantages of a winter's day in Maine.

The illustrations make a description of the method of building almost unnecessary. Briefly speaking the building consists of a self-supporting frame of posts and timbers, of large scantling, while all the rest of the structure is of dressed three-inch spruce plank, applied vertically for the walls and horizontally for the roof. The floors were laid in the same way, but to them was added an upper flooring of hard wood. All planking is grooved and put together with splines and the walls are papered on the outside and shingled. Nothing very remarkable about this, is there? Ah! but its the old story of Columbus and the egg.

Mr. Hammond was fortunate in one thing, being near a seaport he was able to employ a gang of ship-carpenters, men who understand the necessity of driving a butt or a joint to its proper place, so that his house is built with exceptional thoroughness, and the hackmatack knees used for brackets are got-out as only a ship-carpenter knows how.

The exterior of the house structurally demanded no examination: interest centered entirely on the interior. Would the absence of plaster and wall-paper be at once noticeable, and, if so, would the effect be disagreeable? Would the rooms be warm? Would noises in neighboring rooms be over-noticeable? A moment after entrance it was plain that very many people would visit and leave such a house without discovering that there was anything very unusual in its internal appearance. It was easy to see that there was a good deal of wood-work, but that did not suggest at once that there was no wall-paper nor any plastered surface to hang it on, and still less was it at once discernable that the wood in the main was only the vulgar spruce, with its big and little knots scattered at random. The general aspect was warm and hospitable and even the absence of the usual whitened ceiling did not make the rooms seem unusually dark. As a rule the walls were simply schellacked and varnished, but in

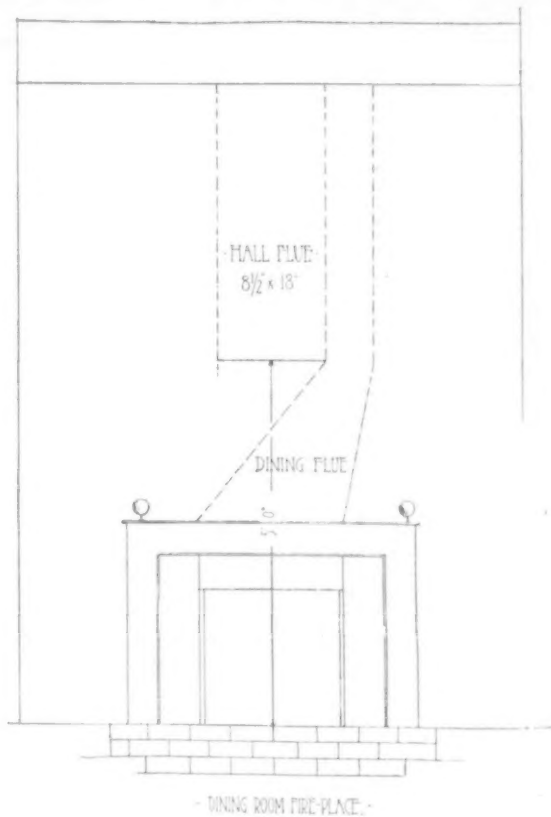
some rooms a slight stain had been first applied — in one room a stain of a greenish tone, which had taken on different depths about the knots and on the sapwood, so that the general effect was quite as agreeable as if a greenish wall-paper had been used.

As to warmth, the evidence was quite as satisfactory, though, to be sure, the house was heated by steam — and, with power enough, any building can be made warm; but when the hand was applied to the inner surface of the wall on the exposed side of the house, in an unoccupied room, there was not felt the deathlike chill which a plastered surface would give out in a similar position, but it had the same sort of warm and friendly "feel" that makes a ship's deck so attractive a spot for a lounge or a nap. Although the mercury was nearer zero than the freezing-point, the wall was distinctly warm, and not cold. In this house it is never necessary to shut off the water on cold nights, and in the two winters since it was finished no fixture has frozen, a statement that could hardly be made of an ordinary frame house built in a similarly exposed position.

As to noise, the evidence was not so satisfactory. The floors had been laid with an upper flooring over the spruce plank, and between them a certain amount of paper deafening had been used, but the result was not what was hoped for. Noises were audible, but not unpleasantly so, perhaps even less than with the usual form of joist and boarding between rooms of the same height, and besides the transmission of noise is an inexplicable matter often: for instance, in the writer's house noises in the rooms overhead are less apparent on the first floor than noises made in the second story above it. The transmission of noise transversely between adjacent rooms was not perceptibly greater or less than in the case of plastered stud partitions.

The next point for observation was the manner in which the work had "stood," for it was built of practically unseasoned stock, not culled with much particularity, and, apart from its being the work of ship-carpenters, might stand as a type of what would be the average result. One would expect to find in a steam-heated house built of unseasoned stuff that the shrinkage would have drawn things badly out of shape, but this was not the result. The walls were practically unaffected — of course, all joints are beaded — and in the ceilings, where the heat would have most effect, the result was hardly less satisfactory. Thus, in the dining-room, a room some sixteen feet wide, visible shrinkage was confined mainly to a single joint; elsewhere the beading sufficiently concealed the come and go due to different hygrometric conditions.

These simple statements go to show that the general effect of the house, practically and aesthetically, was more satisfactory than we were disposed to expect. It only remains to speak of some of the detail. Mr. Hammond has been thoroughly conscientious. To the last particular his is a "mill-built" house, and none can be more so.



There is not a concealed space about it anywhere, in the walls, floors, partitions, roof or cornice, and, as proof of thoroughness, we will point out that, perceiving that a broom would have some difficulty in cleaning out the acute angle formed between the attic-floor and

the lower pitch of the gambrel roof, he filled-in this angle with solid blocks, so that a broom can easily keep the obtuse angle clean while yet there is no vacant space covered in.

Another point, rather amusing, too, is that, after they had begun to plank-in the walls, some one pointed out that while there would clearly be no concealed spaces for large vermin like rats to make their runs, yet small vermin like ants, weevils and wasps could find entrance through the vertical joints: therefore, the vertical planking was stopped half-way down the sill, and a horizontal piece of equal thickness closed all the vertical joints, and to this piece, as it was an after-thought, was facetiously given the name of the "codicil," a name which, as the member is applied alongside the sill, it would be worth while to incorporate into the architectural nomenclature.

The last point of interest was how a hearth could safely be laid without the use of trimmer-arches — the floors being only four inches in thickness. Iron hangers naturally first suggest themselves, but these were not used here. As space could be afforded, the hearth proper is carried within the lines of the chimney-wall, and the fore-hearth is made safe by bedding the hearth-tiles over a layer of magnesia. Even with this precaution, this would be a doubtful method to use with the common joist floor; but here where there can be no accident beyond having a hole burned in the ceiling of the room below, and so allowing a few tiles to drop down from the room above onto some one's head, there can be no objection raised to this method.

The matter of hearths brings us to the feature which, after the slow-burning method of building employed, is the most interesting thing about the house. Ever since Richardson introduced the "fad," it has been quite a common thing to build one fireplace in a country-house with a rubble-work front, and at first sight we were disposed to think that Mr. Hammond had fallen victim to the craze; but a glance was enough to show that there was a deeper meaning in this fireplace than any new fireplace ever built, for on its construction had been lavished all the specimens suitable for the purpose that a geologist could spare from his cabinet: here were quartz crystals, beryls, garnets, rose-quartz, greasy-quartz, mica curved and plain, tourmaline, calcite, amygdolite and an infinity of other "ites" put to a use which has probably fallen to the lot of the specimens of few collectors, the whole *mélange* forming a most interesting feature — one which would take many hours to comprehend.

The structure is a sample of mill-construction in almost its simplest form, but it is easy to see how a far more decorative architectural treatment could be incorporated with this method of building without in any way impairing its integral good qualities. Solid mouldings and enriched members could be added — the plane of the wall-surface could be varied by the introduction of occasional thicker planks and beams gained into the timbers of the frame, leaving judiciously distributed projecting faces which could be worked and carved in various ways. Even as it is, the plain surface of the walls invites the attack of the sculptor's graving-tools, and it is easy to imagine how the bareness could be converted into a pleasing variety by carving it into the decorative linen-folds so common in Flemish and Elizabethan interior wood-work. Flutings, reedings, beadings and fret-work could be easily wrought into or applied to the wall-surface so as to almost wholly conceal the numerous vertical joints of the narrow planking, which with the aid of proper framing could be made to count as an agreeable feature in themselves.

The papering and shingling of the outside of the house is in some sense, of course, false and foreign to the method, but it is quite excusable on the plea of climatic necessities.



[Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.]

ENTRANCE TO THE ART CLUB, PHILADELPHIA, PA.

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

A VIEW and description of this building were published in the *American Architect* for November 29, 1890.

FIRST BAPTIST PEDDIE MEMORIAL CHURCH, NEWARK, N. J. MR. WILLIAM HALSEY WOOD, ARCHITECT, NEWARK, N. J.

THE church is built of Westerly, Rhode Island, granite towards the two streets, with roof covered with corrugated Spanish tiles. The general plan of the building is square in shape with a baptistery and pulpit arranged nearly in the centre. The Sunday-school departments lie directly behind the pulpit and are opened into the auditorium through a massive archway filled-in with cherry screen-work. The entire building is finished with hard wood inside. It will seat, when all the rooms are thrown into one, about three thousand people. The entire building is built by the late Mr. T. B. Peddie for the First Baptist Congregation of Newark, N. J., and is a memorial to him.

INTERIOR OF THE SAME.

CAMP HAMMOND, YARMOUTH, ME.

SEE account of a "Mill-built Dwelling," elsewhere in this issue.

[Additional Illustrations in the International Edition.]

THE SYNAGOGUE IN KAISERSLAUTERN, BAVARIA. PROF. LUDWIG LEVY, ARCHITECT, KARLSRUHE, BADEN.

THE Jewish community of Kaiserslautern commissioned the architect in the year 1882 to build a new synagogue. The old place of worship was too small, and on account of its appearance did not answer its high purpose, and was, besides, not an honor to the community. After the acceptance of the plans by the royal government of the Pfalz and the royal Bavarian State Minister of the Interior, the work was begun in June, 1883; and on February 26, 1886, the synagogue was consecrated with due ceremony. The plan was above all influenced by the condition that in praying the congregation must face towards the rising of the sun. Therefore the nave was placed from west to east and the main entrance in the west façade. The hall opens immediately into the interior, as well as to the gallery steps. The regulation that requires the division of the sexes, necessitated a two-story plan — the galleries for the women and the body of the building for the men. The interior is arranged with massive arches, and the whole building is crowned with a dome 8.5 metres in diameter, and this is supported by heavy pillars. On the east side of the nave, several steps higher up, there is the Almémor, the desk for him who recites the prayers, the choir-master's table, and next to this the Holy of Holies and the chancel. The Holy of Holies, which serves as a storage-place for the Bible-rolls is detached, with a passageway around for processions. The chancel lies in the nave so that it can be seen equally well from both galleries. Next the Almémor are rooms for the Rabbis and committee, and above, on the same floor as the galleries, there are waiting-rooms for women.

In considering the form of a synagogue the question of which style to choose first arises. In our days there is no prevailing style, and it is therefore necessary to select one suitable to the surroundings, and to bear in mind the means and material at one's disposal. The Romanesque would have suited best this particular case, had it not been necessary to consider that true Romanesque easily approaches the character of a Christian church, and not a synagogue. The Oriental origin of the race, therefore, was the inducement to give an Oriental appearance to a Romanesque form.

The building was finished in grayish-yellow and red sandstones, both found in the neighborhood of Kaiserslautern.

The visible wooden construction of the galleries rests on pillars of Nassau marble. An organ with seventeen stops is built in the western gallery, next to the choir desks. The walls are painted with casein colors, and the windows stained and leaded. All roofs are covered with zinc, and the cornice of the cupola, the ribs and the pinnacles are gilded.

The building, with its area of 590 square metres, contains seating-capacity for 620 people. In consideration of the low price of labor and material, the building cost only 193,328.18 M. (\$46,398.75). According to this calculation each seat cost 311.81 M. (\$74.83) and one square metre 327.67 M. (\$78.64). The building contains 9,210 cubic metres — reckoned from the pitch-line to the cornice, and therefore 20.99 M. (\$5.03) per cubic metre. The illustration is copied from the *Deutsche Bauzeitung*.

A RENAISSANCE GATEWAY, TOULOUSE, FRANCE.

It is difficult to imagine a more graceful *motif*, a more simple composition, one more firm in its general effect or more fine in its detail, than that which is presented by this plate from *La Semaine des Constructeurs*. Whence comes this fragment? Why is it found isolated in the midst of a luxuriant vegetation? The only points that we have been able to collect concerning it are as follows: This arcade used to form the entrance of the grand Consistory of the city of Toulouse, a city where private houses still show numberless examples of the French art of the 12th and 17th centuries. At the time of the demolition of this religious establishment, an amateur, M. Fenaille, struck by the beauty of this fragment, purchased it, in order to save it from destruction, then had it transported and set up bit by bit in the park of Neuilly-sur-Seine. The double date, 1551-1552, which is to be read above the entablature, indicates that this gate was built in the reign of Henry II. In the carved gables surmounted with grinning heads which flank this vigorous full-centred arch, the varied escutcheons which decorate the frieze, the cartouch accompanied by *rincaux* which rest upon the cornice, the triangular pediment, clearly defined and crowning all, we recognize the peculiar richness and grace which characterize the architectural works of the middle of the 16th century. We see here, as in the greater part of such works, forms borrowed from the antique but transformed with charming caprice.

DESIGN FOR A DINING-ROOM.

THIS interior after a colored drawing exhibited by the artist, Mr. J. Armstrong Stenhouse, at the Royal Academy Exhibition of this year, along with another drawing of a boudoir interior is reproduced from the *Builder*. The "strap-work" Elizabethan detail which is introduced is not a form of decoration we have much sympathy with, neither the weak-looking scroll supports to the chair-arms; but the general effect of the apartment is rich and harmonious, and preserves the general character suitable to a dining-room.

"ZENOBIA."

THE large illustration in this week's number is a reproduction of the design for a mural painting, by Mr. Philip H. Newman, which was hung at the last Royal Academy Exhibition, and was favorably noticed at the time. We are glad to have an opportunity of recurring to so admirable a work by an English artist, especially at a time when there is a tendency for unsophisticated naturalism not only to threaten inundation of our picture galleries, but even to invade the domain of architectonic and monumental art. This design is as successful in its execution as it is bold in its conception and treatment, and it must be admitted that an artist who now essays in any form the representation of a Roman triumph is heavily handicapped by the great decorative works of the past, notably by those of Andrea Mantegna and Hans Burgkmair. Mr. Newman, we think, has done wisely in avoiding competition as much as possible in ornate magnificence with works that will probably never be surpassed, and in making the interest of his cartoon centre in the figures of Zenobia herself and the maidens who support her golden fetters; this is done, however, at no loss to the subject in a purely decorative sense, as indeed the interest is maintained from one end of the panel to the other.

There is no need to take the page of Gibbon for assistance in reading this story from the Late Empire. The immense crowd of figures readily resolve themselves into groups, each tending to illustrate some phase of the triumph of the Emperor Aurelian and the abasement of the captive Queen. Note the tact with which the long panel is practically divided into three portions by the sentinels holding rods, boards or ensigns, bearing inscriptions of victory or laudations of the Emperor. Also, the placing of the movable altars to Jupiter and Juno, with the sacrificial implements, is particularly happy, as emphasizing the locality, the Via Sacra, and balancing the plinth on which stands the wolf of old Rome. An augur, holding in his hands a lituus and a book, typifies the fatality indicated by an inscription immediately above his head, *Roma perpetua victrix*, under which pass the group of fettered captives usually sacrificed on such triumphal occasions at the Capitol. The wild beasts, duly bridled and muzzled, form a fitting sequence to this group, and suggest the scenes in the amphitheatres with which the Roman populace were at such times entertained. The circular triumphal car, drawn by the traditional four horses, bears the Emperor, preceded, according to custom, by the lictors with their staves and winged victories. Aurelian was the first Emperor who wore the diadem, duly shown. The Etruscan crown, also, is held above the Emperor's head by a slave. Another slave is, as was customary, endeavoring to moderate any tendency to over exaltation by whispering in the Imperial ear the significant phrase, *Respice post te: hominem memento te*. The bell and scourge attached to the triumphal car were supposed to ward off the powers of enchantment and the evil eye. The crowd of sight-seers occupying stands and every point of vantage are adequately varied, and indicate the many moods of the citizens; an elderly woman is dealing a blow with a ryton or drinking-horn at one of the soldiers, who is evidently forestalling the license usually accorded them on these occasions. Some of the spoils of Palmyra, in a car, immediately precede the central group of the Queen and attendants, where the dramatic contrast already enforced by the proximity of the wolf is strengthened by the presence of gladiators, who, with their thumbs, indicate their desires as to how Zenobia should be dealt with. The retiarius, holding aloft his net, seems to imply a continuous captivity, which Aurelian, however, was mercifully pleased to forego.

We are glad to hear that this subject has, with slight variations, been painted on an important scale on tiles—underglaze—by Messrs. W. B. Simpson & Sons, the cartoon being one of a large series, though not sufficiently known, for which that artistic firm have commissioned Mr. Newman, during some years past, for purposes of wall-decoration.

RESTORATION OF THE ROOD-LOFT OF THE ABBEY CHURCH OF FÉCAMP, FRANCE.

IN measuring, in 1875, different parts of the Abbey Church at Fécamp, says M. L. Sauvageot in the *Encyclopédie d'Architecture*, I particularly noted the remains of the old rood-loft, which must have been very fine, to judge by the portions which are still attached to the piers of the nave. Several fragments scattered through the church appeared to me to come from this rood-loft, but their small number could only increase the regret caused by the disappearance of the feature to which they belonged. I afterwards learned that a citizen of Fécamp had collected together a large number of carved stones coming from the Abbey, and that, besides, one of the houses in the city was ornamented with sculptures having the same origin. Having at once visited this house, I recognized that not only was it decorated, but almost entirely built with materials taken from the stone screens of the chapels and especially from the rood-loft of the Abbey. My visit to M. Legrand was still more fortunate, for there I found collected in the garden and workshops a crowd of the most remarkable fragments, evidently acquired from the Abbey, and of which the greater part apparently belonged to the rood-loft which had attracted me. By collocating in one place these different important parts of the rood-loft it was possible to appreciate the precious character and high artistic value of the work of which they represented the remains. An attempted examination of the profiles of the ornamental sculptures as well as of the costumes worn by the decorated figures, made it easy to determine the epoch to which dated the construction of the rood-loft, a date which could not be

later than the second half of the fourteenth century. Finally, other fragments buried in the cellars of M. Legrand, at which I glanced, led me to conceive the hope of discovering the arrangement of the destroyed feature. I set, therefore, resolutely at work to try and measure with the greatest care all the scattered fragments, not forgetting to note exactly the number of similar bits. On moving the fragments in the cellar I first found a great number of steps with a hollow newel, which once made parts of a spiral staircase. The greater part of the drums forming the well of the same staircase were also found, as well as several portions of the open-work arcade, and the circular cornice, thus forming the staircase of the rood-loft almost complete. From this moment I was satisfied as to the most difficult part of the reconstruction. Several other fragments carried by M. Legrand to his country-house at Pourville, near Fécamp, which I also measured and drew, completed the first step of my investigations, which consisted in the graphic delineation of all known fragments which belonged to the rood-loft. By means of a succession of studies drawn to the same scale, I endeavored to find a proper place for each fragment. Numberless portions of a ceiling of cut flaggings, the greater part of which were unbroken, different fragments of the *arcs-doubleaux* and *arcs-ogives*, portions of the cornices and especially the courses of piers, both engaged and isolated, decided me to first of all prepare a general plan. In this way I succeeded in fixing the arrangement of a very peculiar ensemble, one of unprecedented importance and surely very original. One of the difficult points, the position of the staircase leading to the platform of the rood-loft was determined on plan by two special portions of the ornamented pavement, which formed a juncture with the ceiling of the staircase. My sketches based on this collection and the dimensions based on the various fragments agreeing perfectly, I next passed to the elevations, the heights of which were fixed in a certain manner by important vertical members still attached to the piers of the church. With the help of the thickness of the courses, based on the drums of the piers, completing the fragments of the arcades by means of versed sines, measured on different portions belonging to them, and taking account also of the capitals yet remaining in place, which indicated the springings of the open arcades, I easily found the proper places for all the fragments to-day scattered amongst so many places. The position and even the order in which were arranged the fine sculptures of the scene of the Passion, the Triumph of Christ, and the representation of the Holy Trinity, under which name the Abbey of Fécamp has been known from all time, were determined from the dimensions of the different groups as well as from the attitudes of the personages.

While carrying on this work, I endeavored to collect facts concerning the Abbey which might still be remembered in the district. I thus learned that this fine rood-loft, after having passed unharmed through the epoch of the Revolution, was at length destroyed only in 1802. At this time the Abbey of Fécamp had become the parish church. It is easy to understand how the rood-loft, placed at the upper end of the nave, where it completely shut off the choir, might interfere with the exercise of religious rites by preventing the faithful from perceiving the priest officiating at the altar. So the curé of that time did not hesitate to destroy the thing that troubled him. According to a tradition, the work had to be done at night. Engaging a country mason, the curé ordered him to bring the number of workmen needed to accomplish the demolition between five o'clock in the evening, when the doors of the church were closed, and the hour of the next morning when the first service would be held. Material derived from this demolition, except the groups of figures, which were kept in the church, were allowed to the contractor in payment for his work of destruction. It is with these materials that the said mason subsequently built the house which is mentioned above, in which he set up complete the staircase of the rood-loft, — subsequently bought by M. Legrand, and deposited bit by bit in his cellars. In spite of active research at the town-hall of Fécamp, in the Municipal Library at Rouen, which now possesses the books and manuscripts of the Abbey of the Trinity, and also at the National Library at Paris, I have found only one graphic document which gives any indications (and very vague ones they are too) as to the destroyed rood-loft. This is a treatise on canalization and the distribution of water, drawn up in the year 1700, by a monk of the Benedictine abbey, which shows at a very small scale a plan of the Abbey Church, on which the rood-loft is indicated in such a way as to confirm the general disposition which resulted from my studies.

Old rood-lofts are, as we know, to-day very rare in France. The least recently known are those of Folgoat (Finistère), the one in the church at Brou (Ain), and the one in the Church of the Madeleine at Troyes, the one in the Cathedral at Albi, and the one in St. Fiacre at Favuet, all of which date from the end of the fifteenth century, or the commencement of the Renaissance. By reason of its greater antiquity the rood-loft of Fécamp, whose construction dates from the end of the fourteenth century, as well as of its important and original arrangement, has a very peculiar interest, which, I trust, will cause the illustration to be properly appreciated.

"ARACHNE:" DECORATION BY PAOLO VERONESE IN THE DUCAL PALACE, VENICE.

PAOLO VERONESE, after he had completed his first works in the Ducal Palace — works that were destroyed in the conflagration of 1574 — was about thirty-seven years old. Already celebrated for

his paintings at Verona and his decorations of villas on the mainland, at Vicentino and Treviso, protected also by one of his compatriots, Bernardo Torloni, he had achieved a success at Venice which had made his name thoroughly popular, through decorating almost alone by himself the entire Church of S. Sebastian, of which this Torloni was the prior. The effect was profound. From patrician to gondolier everybody hurried to the sanctuary to admire an effect less pompous, doubtless, than that of the Ducal Palace, but of equal brilliancy. Titian, who, in spite of his eighty-six years, came to measure himself alongside of Paolo at S. Sebastian, had been captivated by the loyal nature, the simplicity and the genius of his rival, and acquired a real affection for him. He went straight to Sansovino, who as architect, had the control of important works, to Contarini, the grand dispenser of orders, and pointed out to them that Veronese was one of the marvels of the time. Paolo, nevertheless, full of a just pride, a butt for the jealousy of a cabal, at the head of which was Zelotti, who had begun life at the same time with him, and whose fame was being eclipsed day by day by his own, voluntarily held himself aloof, living in his studio in place of going, as all others did, to the Broglio to solicit the suffrages of the senators and members of the commissions, as an artist in our day goes to pay his court to the municipal authorities on the evening of a ballot. Paolo painted on without stop, without care for concessions, and without seeking to please judges whom he did not acknowledge to be his equals. He thus made for himself a powerful enemy in Contarini, whose vote was decisive. Persisting uninterruptedly in his haughty attitude, he limited himself to making a sketch on the day when the competition for a composition was opened, a commission of considerable size, since it was the object of everybody's aspiration; and the very day when the judgment relating to the central ceiling of the hall of the Grand Council was made public, it was through the shouts of the enthusiastic crowd, which felt a feverish interest in such contests, that he learned the name of the successful competitor, and that name was his own. The chronicles of the time narrate that when forced to present himself before Contarini, the latter reproached him for his pride and his seclusiveness. Veronese, a simple man, and one who expressed himself with pride and straightforwardness, answered the illustrious senator, "I better understand how to deserve honors than to go in search of them." Contarini was generous enough to be disarmed by frankness such as this, and became his protector and his friend. It is through his own genius that Paolo secured the most notable place in the decoration of the Ducal Palace, but the friendly help of his ancient enemy was not an immaterial point in this success. The work of Paolo was divided in the following fashion: In the Hall of the Grand Council, on the wall which faces the lagoon, at the right of the throne, he painted "Pietro Mocenigo capturing Smyrna from the Turks in 1471." In the centre of the ceiling the "Triumph of Venice," framed in with episodes due to the brushes of Tintoretto and Bassano. The Hall of Inquiry, consecrated entirely to feats of war, vast tumultuous scenes of a panoramic character, was not suited to his talent. Other artists there painted the "Descent of Pepin," the taking of Zara, of Cattaro and of Jaffa, the "Battle of Lepanto," the "Defeat of Roger, King of Sicily, in the Morea." Paolo had the best portion, in full light, in the most notable surroundings. In the Hall of the Council of Ten and in the tribunal called "Dei Capi" the ceilings were reserved for him. He borrowed his subjects from mythology, yet keeping them as closely allied as he could to the proprieties of the room. . . . The Hall of the College where the Seignior sat was one of the select spots in Venice, contracted in its dimensions, august in its destination, reserved in character. Here are received ambassadors and envoys extraordinary. Veronese was allowed to paint the principal wall, that above the throne, the entire ceiling, divided into many compartments, in the midst of which he proposed to represent Venice ruling the world, with Justice and Peace. The composition over the throne was fixed for the artist, the "Death of Agostino Barbarigo." . . . The ceiling of this Hall of the College is charming. Nothing here is grand, but everything is lovable and pleasing. Venice is seated upon her throne, borne on the globe of the world, like a doge, clad in a brilliant robe and with the ducal mantel, a crown upon her head, a sceptre in her hand, sheltered under a dais, and bathed in the transparent cloud which envelops her like a regret, and throws over her countenance soft reflections of light, bringing out each feature. Her foot rests on the winged lion, symbolical of the Republic—that lion of St. Mark, which, aroused, irritated and threatening, looks down from the column in the Piazzetta with raised wings, but here submits to the yoke of duty to his mistress, and reposes peacefully on the steps of her throne. Justice offers to Venice her balance and sword; Peace offers her laurel branch. Three personages and that is all. All about is enclosed by massive framework. At the four cardinal points, Veronese, with his usual liberty, with a power of symbolism which belonged only to him, and which has so often exercised our patience and ingenuity in the effort to decipher it, painted four isolated figures, to each of which is attached an allegorical significance. Commentators fail to solve these charming rebuses scattered about this composition. The charming Arachne, who weaves her cloth in one corner of the ceiling, can at the spectator's will, be a Vigilance, a Patience, a Perseverance, a Strategy. Our ancestors saw in this allegorical figure a Recompense, as if the finishing of the work, this fine and fragile network woven during the night, were the price of patience. The exquisite translation of the burin of M. Achille Jacquet, here reproduced from the *Gazette des Beaux-Arts*, shows

the figure in all its grace. A short distance from this spot in the ante-chamber where the ambassadors waited before their audience, Veronese left another chef-d'œuvre. In the same room are Tintoretto's "Ariadne and Bacchus," "Vulcan's Forge," "Mercury and the Graces," "Minerva and Mars." . . . Veronese's theme was the "Rape of Europa," his rendering worthy of Ovid, which probably he had never read.

But it is in the "Triumph of Venice," in the Hall of the Grand Council, that the artist achieved his highest success. All Veronese is here in a pompous, bizarre, confused and unexpected composition which one must scrutinize and study before the artist's intentions can be understood. Architecture here plays a considerable part. An immense triumphal arch, with heavy twisted column supported by an architectural basement and with a gallery, occupies more than two-thirds of the immense oval. Venice, triumphant, supports herself at the key of the vault. At her feet, borne like herself upon the clouds, are Justice, Peace, Venus, Mars and Happiness. Glory descending from Heaven crowns the Queen of the Adriatic; a multitude gathered in the gallery, attend this triumph, and below in the first plane of the composition, and in warlike struggle, are the cities of the mainland symbolized by warriors, leaders, doges, and condottieri, mounted on rampant chargers, brandish their standards, and trample under their feet the arms and the attributes of war. The lion of St. Mark, forming the key of the lower arch, assists at this apotheosis. It was between 1577 and 1580, that Veronese executed this enormous work, which, together with the decoration of the Church of S. Sebastian, represents the greatest effort of his genius. He was fifty years old, in the plenitude of his power, and was to live ten years longer without the last of his works, which bears the date of 1588, bearing a trace of fatigue, of idleness of mind or sloth of hand.

THE NORTH PORCH, CHARTRES CATHEDRAL.

THERE is nothing finer in its way throughout the whole of France than the well-known and magnificent North Portal of Chartres Cathedral. The exquisite character of the detail and beauty of the sculpture are as famous as the grand proportions of the entire composition, which rivals many a celebrated western front for scale and nobility of conception. We give herewith a reproduction from the *Building News* of a drawing by M. B. Adams. The Portal Royal is located at the west front. In Nesfield's "*Specimens of Medieval Architecture*" some sheets of measured details of this work will be found. The view was, perhaps unfortunately, taken at a time when the struts were up to shore the building, as the fabric was more or less unsafe. Probably these timbers have since been removed, and the portals "restored." The dedication of the cathedral took place in 1260, and these porches were not finished till after that date. Intermittently, thirty years are said to have been occupied in their erection, and the uniform style of the work is remarkable, considering the lapse of time which had taken place since their commencement. The several parts present a capital study of ornamentation, and it may be noted that towards the completion of the work a tendency was, it seems, developed in the direction of more naturalistic forms in the foliage. The arches are highly ornate, and the western one, to the front of our view herewith, has the Signs of the Zodiac in the outer order, and in the inner order occur in niches twelve statues representing the industries of each month of the calendar. Winter and Summer are also included among the statues outside. As an instance of the minute care taken with the detail, it may be remarked that the former of these two figures is supported on a cap enriched with flames, and a fish is being cooked therein, while "Hiemps" is hooded and wrapped in a cloak to withstand the storm. Janus, representing January, has two heads, one old as the past year, and one youthful to signify the New Year. February figures as an old fellow seated at a fire, and March, a man pruning vines. Pisces is inserted in the south door of the west front, and is here left out. April is crowned with flowers. May is a man going hawking. June mows a meadow, and so on each month through harvest, till we reach November, who is killing a pig, the boar's head being introduced with the December figures. The Massacre of the Innocents and Adoration of the Magi come into the treatment of the caps below. On the pedestals supporting the great statues we have representations of the arts and sciences, with historical figures, as Adam, Abel, Cain, Jubal, Tubal Cain, etc. "*La Monographie de la Cathédrale de Chartres*" furnishes some excellent drawings of much of this sculpture. The work, published in Paris, is worth a reference. Abbé Bulteau, who wrote a book on the iconography of this church, speaks of the crowned figure among the great statues here seen, as St. Ferdinand, King of Castile and Leon, one of the founders of the cathedral. The other statues are variously named the Queen of Sheba, Solomon, Samson, and the rest. Above, within arched niches, are seated figures of kings. There are, in fact, no less than over four thousand figures enriching the Cathedral, of all sizes, and many of them were once covered with gilding and color, having parts accentuated by dark glazed tints introduced in the folds of the drapery. They are carved out of Berchère stone, of which the church itself is built.

"A CHRISTMAS BREAKFAST," BY HENRY BACON, AFTER AN ETCHING IN *L'Art*.

'AUS DEM SIEBENBERGIRGE,' AFTER AN ETCHING BY B. MANFELD
IN THE *Zeitschrift für Bildende Kunst*.

A SWEDISH DOORWAY. AFTER *Teknisk Tidskrift*.

HOUSE OF L. WEINMANN, MUNICH.

THESE plates are reproduced from *Architektonische Rundschau*.

FIREPLACE IN THE HOUSE OF R. NORMAN SHAW, R. A.

THIS plate is copied from the *British Architect*.

QUEEN'S GATE, LONDON: DINING-ROOM; DRAWING-ROOM. MR.
R. NORMAN SHAW, ARCHITECT.



THE MICHIGAN CHAPTER OF THE AMERICAN INSTITUTE OF
ARCHITECTS.

THE Michigan Chapter of the American Institute of Architects in special session, held January 17, desire to place on record our sense of the great loss to the architectural profession and to the American Institute of Architects in the death of Mr. John W. Root, to pay our tribute to his high professional attainments and to express our profound sympathy to his family and associates.

GORDON W. LLOYD, *President*.
ZACK RICE, *Secretary*.



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

THE ILLICIT-COMMISSION EVIL.

PROVIDENCE, R. I., January 19, 1891.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—We do not know that we can express our views in regard to the "Illicit-Commission Evil" better than by sending you the following copy of a letter to a contracting company.

"PROVIDENCE, R. I., May 30, 1889.

TO THE ———

Gentlemen,—We do not propose to deal with parties who make the assumption that we are dishonest enough to enter into a conspiracy against our own clients as proposed by yours of May 9th."

The above letter is but one of many communications which we have felt obliged to make either verbally or in writing to parties who have proposed to pay us commissions.

Yours truly, STONE, CARPENTER & WILLSON.

WASHINGTON, D. C., January 20, 1891.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—I have carefully read Mr. R. W. Gibson's article in yours of the 17th; and it expresses my views exactly, in reference to "The Illicit-Commission Evil."

Very truly, LEON E. DESSEZ.

YORK, PA., January 21, 1891.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Please add my name to the list of those who receive pay only from their clients and whose interests alone they are employed to serve. I have been annoyed and humiliated with subsidiary offers by letters and travelling agents.

Very truly yours, B. F. WILLIS.

CINCINNATI, O., January 24, 1891.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—I am heartily in sympathy with the remarks of Mr. Gibson and others in your journal regarding the Illicit-Commission Evil and desire to add my name to the protest against the same.

Scarcely a week elapses but what I am in receipt of these annoying and insulting circulars which are at once consigned to the waste-basket.

I regret not being able to send for your inspection, one lately received which was worded so artistically that it deserved special notice.

Yours truly, JAMES W. McLAUGHLIN.

FIRE-STOP.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Will you not write an editorial suggesting to architects that even in cheap structures they specify means for stopping the undiscovered spread of fire? The inclosed clipping is only one of numerous accounts of disaster caused by this neglect. It costs little to put a mortar fire-stop on brick walls between furrings, running six inches above and six inches below the floor timbers. And two courses of brick with all interstices flushed full of mortar is not expensive in wooden partitions and outer walls.

We do this in our cheap buildings, and even our most economical clients favor the slightly increased expense in view of the advantages gained thereby.

Yours very truly,

M. H. H.

[We have frequently recommended this simple precaution.—EDS. AMERICAN ARCHITECT.]



BURIALS IN WESTMINSTER ABBEY.—It seems there is room (at the present average of burials) for illustrious corpses inside Westminster Abbey until A. D. 2000, and that there is room for monuments to illustrious corpses until a somewhat later date, if only a number of hideous records of persons of whom neither history nor tradition records anything are removed. Several thousand persons are, I gather from the evidence, already interred there, many of them without coffins. This is quite enough in any one place within the precincts of the metropolis. The corpse of the greatest hero is just as unwholesome as that of the basest malefactor. In 190 years I trust that this will be better understood than it is now. Probably at that period we shall be regarded as exceedingly foolish for burying instead of cremating the dead. The Abbey contains corpses of many who may have been decent respectable persons when alive, but who have no more right to a place in a National Wall-halla than the most obscure of those now living. During the incumbency of the present Dean, five interments have taken place: those of Darwin, W. Spottiswoode, Archbishop Trench, Lady Louisa Percy, and Browning. Posterity will ask who three of these were. During the same period, thirteen monuments have been erected; amongst them is one to Lord John Thynne. I never heard of the gentleman. Is it likely that 100 years hence any one will know more about him than I do now? It is cheaper to be buried or to have a monument in St. Paul's than in the Abbey. In St. Paul's no fee is charged for a monument, and only £10 for a burial. In the Abbey it is not recognized that on death all human distinctions cease. According to the degree of the person buried, £110. 4s. 8d., £101. 4s. 8d., and £91. 4s. 8d., is charged. The 8d. amuses me. What would Mr. Mantalini have said to it? It is not stated what the fee is for a tablet, or for a recumbent statue, but for a bust it is £200. Of these sums about one-third seems to go to the fabric fund; one-third to the Dean, Canons, vergers, etc.; and one-third to the choir, "in lieu of scarves." One thing is very clear to me; if Westminster Abbey is to be our Wall-halla, and if it is not to be filled with comparatively obscure corpses, and monuments to comparatively obscure men, the right of admission should be taken out of the hands of the Dean and be vested in Parliament. Were this done, probably there would be plenty of room in the Abbey for the next 500 years.—*Truth*.

THE SWISS CASTLE OF THE HAPSBURGS ON THE BANKS OF THE AAR.—The ancestral home of the Hapsburgs—a gray hill castle in a poor Swiss lordship, so Carlyle described it—is almost in the market. Three efforts have been made to secure it for the heirs of its first owners. They have all failed, but the record of them is honorable. First, the officers of the Austro-Hungarian army wished to present the property to their King. The money was subscribed, when it was found that military etiquette was a bar to the transaction. Then, on the Emperor's jubilee—fortieth anniversary of his reign—the townsfolk of Vienna had the same loyal impulse. But the authorities of the Canton were implacable. The price was fanciful, the conditions were prohibitive; the negotiations never passed the inchoate state. And now, once more the attempt has been made. Hapsburg Castle, or rather ruin, crowning the Wulselsberg on the right bank of the Aar, dates back for its architecture to the eleventh century. A bishop whose see was Strasburg, built it and lived in it, and called it the "Hawk's Castle," as the contracted name still suggests. The building was 200 years old before Rudolf, founder of the Austrian Empire, left the poor Swiss lordship, and changed the hawk for the eagle, and now, after six centuries, it is proposed to hand over the castle to the reigning House. The Swiss no longer oppose obstacles. They give the castle free of price or ask for the tenure of it but a nominal service. The service is to keep the channel of the Rhine clear. But Austria acts under advice. The service is by no means nominal, is wholly disproportionate to the fealty. The Canton is likely to keep its ruin.—*Philadelphia Telegraph*.

DISCOVERY OF ROMAN SCULPTURE IN FRANCE.—At Martres, Tolo-sane, in the Department of the Haute Garonne, excavations have been made by Professor Lebeque of Toulouse, at a spot formerly opened from 1826 to 1830. Ten or twelve feet below the surface a large number of sculptures have been found, including the bust of an emperor, several bas-reliefs, eight marble heads of St. Beatus, pottery, fragments of statues, and pedestals.—*New York Times*.

THE sculptors who were invited by the German Chancellor to take part in competition for the Memorial to the late Emperor William have been refused the appointment of a jury of experts, and have decided to hold aloof, in the belief that the artist has already been virtually chosen.—*New York Evening Post*.

ARTESIAN-WELLS IN THE UNITED STATES.—By an Act approved April 4, 1890, Congress appropriated 4,000,000, and directed the Department of Agriculture to investigate proper sites for artesian wells, and their use in irrigation in the semi-arid region lying between the 97th degree of west longitude from Greenwich, and the eastern foot-hills of the Rocky Mountains. The area includes the States of North and South Dakota, portions of Montana, Wyoming, Colorado, New Mexico, and Texas lying east of the Rockies and the lower Rio Grande, with those portions of Nebraska, Kansas, Oklahoma, and the Public Land Strip, which are west of the 97th degree. The appropriation was made available on April 15, and by the 20th of that month an organization was perfected and field-work begun by a large and competent staff of division geologists and field-agents, working under capable chiefs. The field and official work was heavy, as the law required a report to be made as early as possible after July 1. The supervising engineer and chief geologist made an intelligent, though a rapid reconnaissance of the whole field, each of them travelling in doing so about 12,000 miles. The entire field required at least 70,000 miles of travel during their work. A report of operations was made on August 22, to Congress. The reports of the special agents in charge of the supervising engineer, the chief geologist, and of the several division geologists and field-agents were accompanied by valuable maps, diagrams, and illustrations drawn from photographs taken for the investigation. Besides the three principal reports, there are four from division geologists, covering the Dakotas, Western Nebraska, and Kansas, Eastern Colorado, and Southwestern Texas. These contain a mass of valuable data describing over 1,300 artesian, a large number of bored or gang-wells, and several hundred springs, besides presenting important evidence as to the existence of other earth waters in quantities sufficient for economic application to agriculture, when the same can be restored or distributed over the earth's surface. The reports presented under the provision of the law of April 4, 1890, are confined directly to the location and availability of artesian-wells, all other references and data being incidental. It was found necessary to make for the use of the investigating-staff a definition of "artesian water." This was done in the following terms: "To include all subterranean waters, which, on being reached or opened from above, are found to flow to a level higher than the point of contact, and from some permanent and general source rather than from a local and temporary one. All bored wells in which the water rises and all natural waters, such as springs rising from below, are included in this definition, as artesian in character. These supplies may be divided into positive and negative, the first to include wells, the waters of which flow above the surface of the earth, the second to embrace waters rising with force, but not flowing above. Taking into consideration the time employed, the series of reports must prove of decided economic value. They form a positive contribution to the science of hydrogeology, or the phenomena of earth waters, besides illustrating the possibility of an extensive agricultural utilization of such valuable supplies. A supplementary report relating to earth waters, other than artesian, as defined by this investigation, is now being prepared, under a resolution adopted in June last by the Senate of the United States. This report will deal largely with the evidences of water underlying the river valleys and uplands of the Great Plains region, as under-sheet or under-flow, and by percolation, seepage and drainage. — *Engineering.*

HAUSSMANN AND HIS WORK.—The death of Baron Haussmann, at the advanced age of ninety-two, recalls many memories of what some people are apt to style the palmy days of the Second Empire. Although physically short of stature, the man who made New Paris overtopped the majority of his contemporaries by many inches; and one need have no special prophetic gifts to predict that his name will survive when most of those of Napoleon III's Ministers and Generals have long since been forgotten. It is but fair to add that the transformation of Paris, the sweeping away of all the old shanties and kennels, alleys and cul-de-sacs, and the laying out of spacious boulevards and avenues lined with imposing houses of freestone, six and seven stories high, was Napoleon's own idea; and, indeed, the work had already been in progress for some time when in June, 1853, M. Haussmann was appointed Prefect of the Seine. But it was under the Baron's auspices that all the more notable improvements were effected, and if Paris is nowadays blessed with a larger allowance of light and air than is enjoyed by any other capital city in the world, she mainly owes it to the energy and industry of the much-reviled functionary who has now just passed away. Baron Haussmann was a favorite of Napoleon III. He had been a Bonapartist prior to the establishment of the imperial régime. It was to him, indeed, that the Prince President addressed the memorable words, "The empire is peace," on the occasion of his journey to Bordeaux in the summer of 1851; and, although not resident in Paris at the time of the *coup d'état*, he was one of the few who from the outset were intrusted with the secret of that famous plot. Haussmann's reward for such services as he rendered in re-establishing the empire was the post of Prefect of the Seine, in which the Emperor maintained him as long as he was able to withstand the popular clamor provoked by the more than unsatisfactory state of the Baron's accounts. M. Jules Ferry, nowadays one of the most, if not the most eminent of French statesmen, owes all his political fortune to a little pamphlet which he published at that time under the title of "*Les Comptes Fantastiques d'Haussmann*," a parody, of course, on Hoffmann's well-known "*Contes Fantastiques*," this pamphlet winning him the favor of the Parisian bourgeoisie and proletariat and a seat in the Corps Législatif at the election of 1869. In every respect save one this brochure was M. Ferry's own work; the epigrammatic title, which made its future, was suggested to its author by the late M. Nefftzer, editor of the *Paris Temps*. Of course the "Haussmannization" of Paris was not an unmixed blessing. Not merely did it saddle the city with a huge debt, but it caused a great rise in rents, driving the working classes into what were then the suburbs of the capital. This, however, was precisely what the Emperor desired to effect. Of the robbery and jobbery prevalent at this period M. Zola has given a graphic and by no means exaggerated picture in his novel, "*La Curée*." In another of his

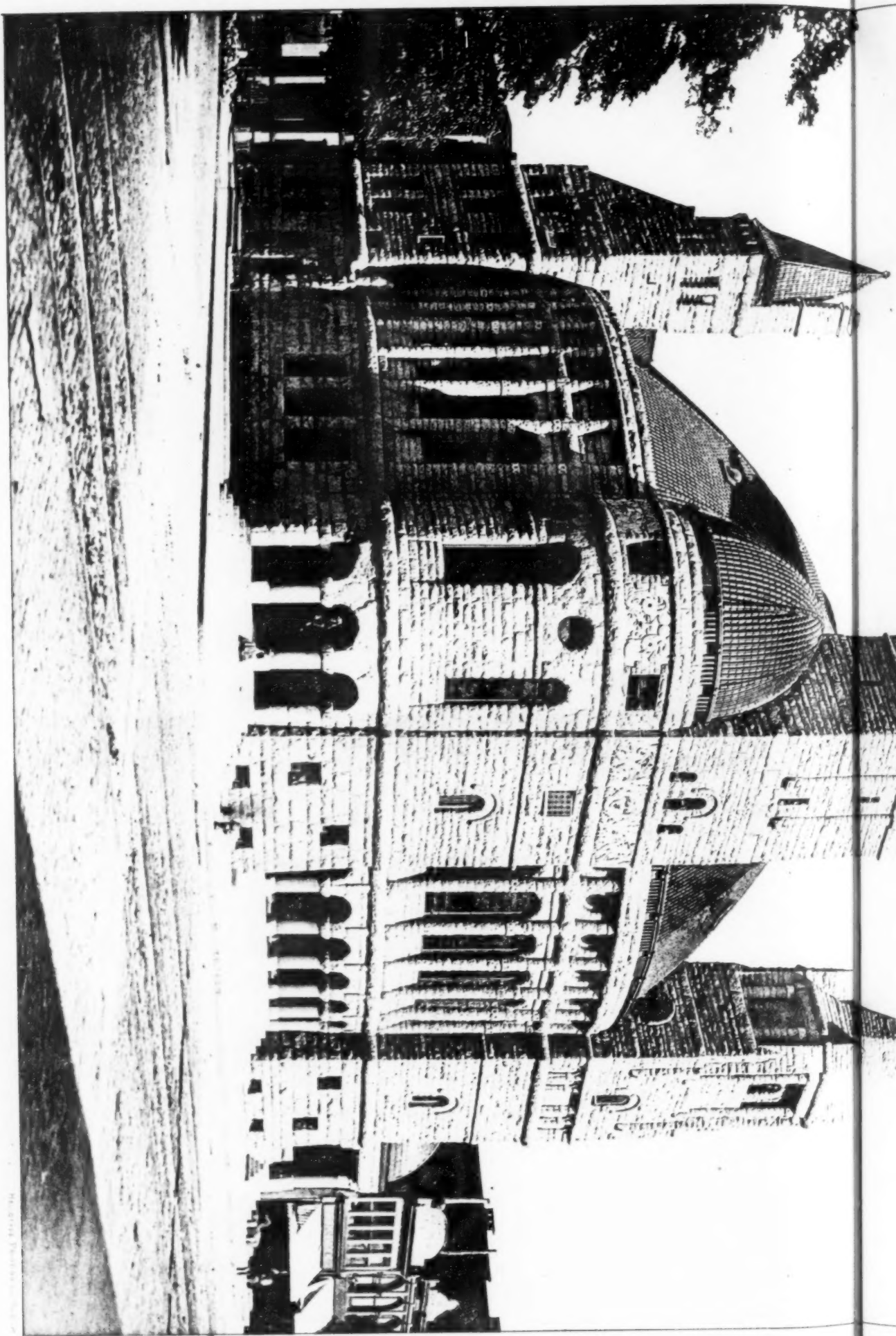
works, also, "*Au Bonheur des Dames*," the realistic romancer has portrayed Haussmann in a most lifelike manner. — *Pall Mall Gazette.*

SURPLUS FROM THE PARIS FAIR.—Although the accounts of last year's exhibition are not yet finally audited, it is reported that, roughly speaking, they will show a surplus to the State of about £400,000. This is an agreeable result compared with the great show of 1878, over which the Government lost a large sum. The only people to whom the success of the last exhibition has been disastrous are the permanent residents of Paris. During its prolonged existence, rents and provisions rose at least 25 per cent, and although a year has passed since its close, prices have not been reduced more than 10 per cent. — *London Daily Telegraph.*

A CHINESE USE OF SOAPSTONE.—In China soapstone is largely used in preserving structures built of sandstone and other stones liable to crumble from the effect of the atmosphere; and the covering with powdered soapstone in the form of paint on some of the obelisks in that country, composed of stone liable to atmospheric deterioration, has been the means of preserving them intact for hundreds of years. — *New York Press.*



The leading features for the week are that at last count in New York the surplus reserves were in excess of twenty-four million dollars. This fact is being heralded abroad as evidence of a theory of permanent financial recuperation. Business men who have occasion to borrow money know what this means; the accumulation has been made at the expense and to the annoyance of borrowing interests. The banks have protected themselves, and it is to be presumed that a more liberal policy will now characterize the money-lending interests there and elsewhere; this fact is also being used as an argument against pending financial legislation at Washington, it being alleged that such legislation is unnecessary as well as dangerous. The bottom facts in regard to the financial situation are just what they were one month, two or four months ago; the skilful manipulation and management of money matters may quiet public apprehension for awhile, but the problem remains unsolved, and no amount of skilful management of money-lending interests will avert the issue. Trade conditions are, in spite of some unfavorable interests, improving. Clearing-house returns from week to week show an aggregate increase of business. Railroads are hauling more freight and more passengers than a year ago, and more economic management is slowly bringing about better shadings of net earnings. The efforts being made to elevate railroad management upon a higher plane are meeting with success. Railway managers are holding themselves amenable to public opinion, to Government requirements and to bank control more fully than they have been. The bank interests which so largely indirectly control railways are gently applying their effective discipline, and better conditions are slowly evolving. It seems only like a question of time when certainty will take the place of uncertainty in railway management, and when the fruits of long years of agitation and legislation will be substantially realized. In regard to the labor situation, it is, perhaps, too soon to make definite statements or predictions, but from what has occurred in several quarters it appears that a most conservative and sensible management will be in control when the time comes to decide whether work shall be continued or not. From all accounts, there will be no serious interruptions in the building trades, and yet this is a statement made only upon surface indications. The eight-hour theory is a pet theory with workmen, and it will require strong pressure on the part of those in authority among them to check a general movement for this organization upon the slightest favorable opportunity. The wage-workers generally think an annual agitation a necessity for the healthy existence of their respective organizations; this is universally true, but it applies to only those trades which are not controlled by schedules annually fixed. Very little labor has been disemployed this winter; the labor associations have been increasing in membership, but within the past twelve or eighteen months a different class of men have been coming into office among them. This class represents a better element—the American element, if it could be so termed, as against the foreign element, which has been very largely in control of labor organizations for many years past. It is for this reason that it is safe to say that labor agitations this year will probably fall to a minimum. Another reason for this statement is, as the records of building and loan associations show, and other records, that wage-workers throughout a large portion of the United States are interested in the procuring of homes; this is a very important point, and will exert a strong influence upon future labor agitations. Then, again, there is a steady outflow of industries from cities and towns to towns and villages, and as this change continues the striking tendency declines. Workers in the more isolated localities forget the feverish impatience felt in larger centres, and are animated with a desire to secure homes; the prowling-about tendency also disappears, and there is much less travelling from city to city of wage-workers than there has been at any time in the past. Within the past two weeks a great deal of industrial capital has been organized, especially in the West. The list of new companies in the Western States is increased, and at a surprising rate, considering the supposed drawbacks. There is no fear as to the future of manufacturing activity. The iron business is improving steadily, and, as heretofore stated, there are more mills and manufacturing-capacity under way now than the records of that industry have ever shown. The lumber interests are, in the woods, pushing logging operations with the utmost activity. The smaller shops throughout the country are, as a rule, well supplied with work for the present. There is scarcely any effort made among buyers of merchandise or material to buy at present for future requirements. The feeling is just this: that possibly lower prices may be reached before the end of April, and all buyers are waiting in order to be fully assured that, when they do buy, they are buying to the best advantage. There are a good many discouraging features in the situation; the common-sense of the manufacturing and business public is leading them forward with conservative and wisely-chosen steps, and there is no reason for predicting anything else than a steady improvement in trade and finances, and in general distribution of the products of labor.

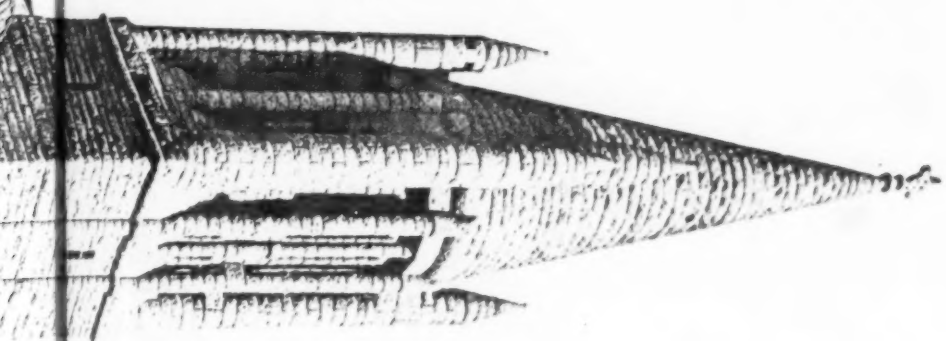


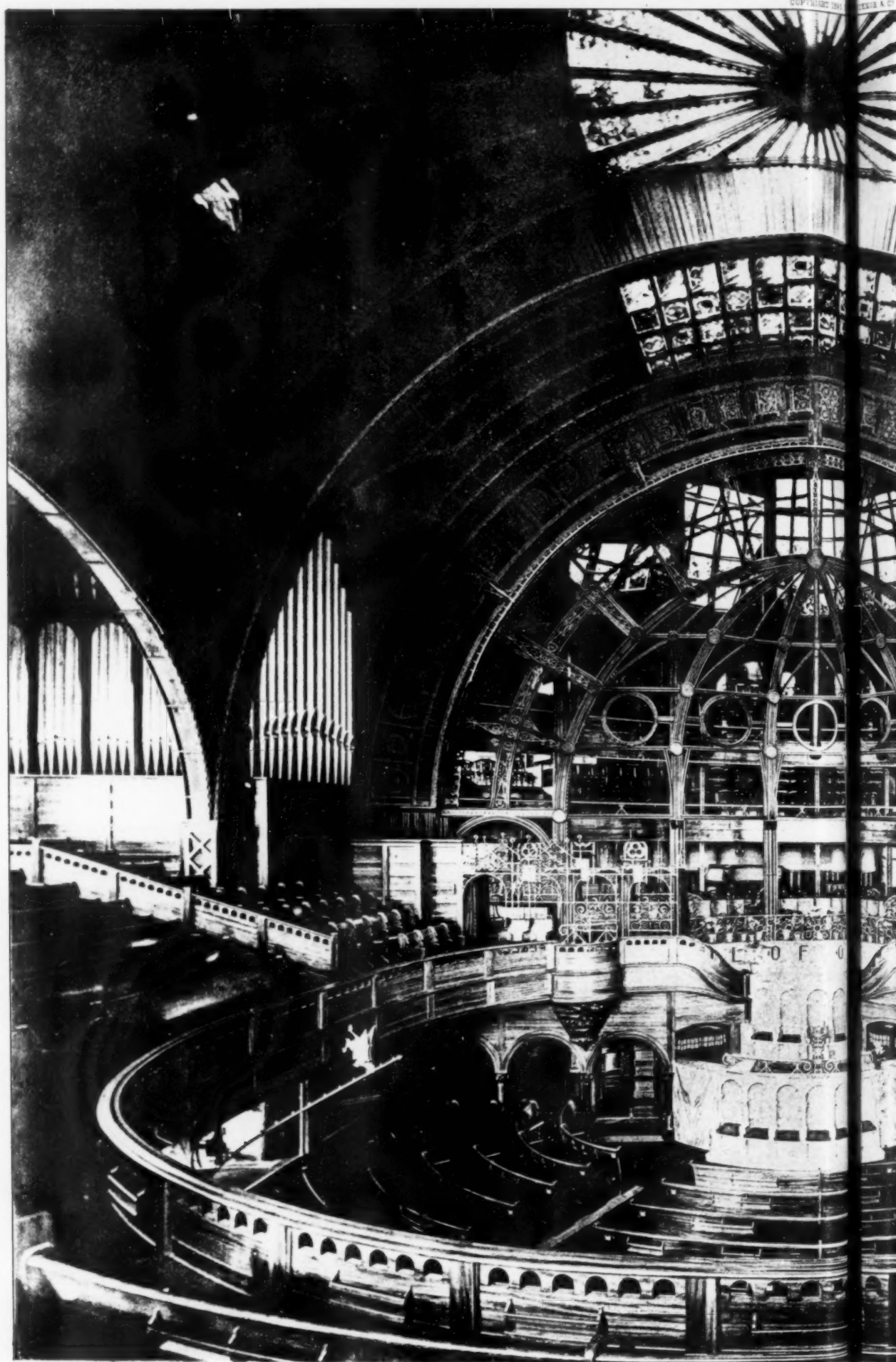
PEDDIE MEMORIAL BAPTIST CHURCH NEWARK - N. J. - W. HALSEY WOOD - ARCHITECT

No. 755.

AMERICAN ARCHITECT AND BUILDING NEWS, JAN 31 1891.

CONTENTS 1891 BY TITEN & CO

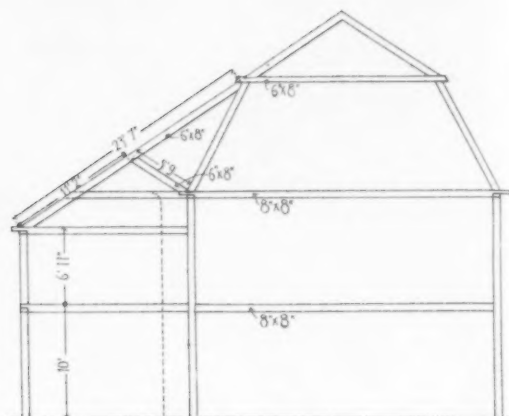
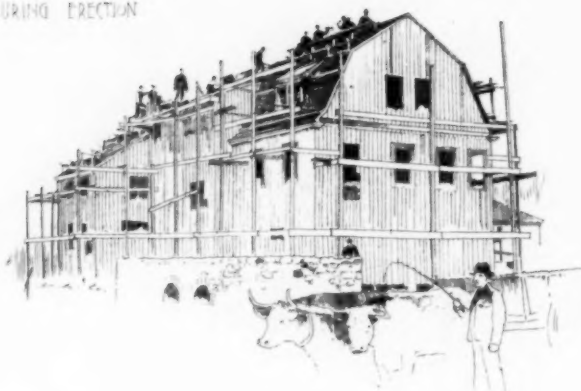




PEDDIE MEMORIAL BAPTIST CHURCH • NEW YORK • N.Y.

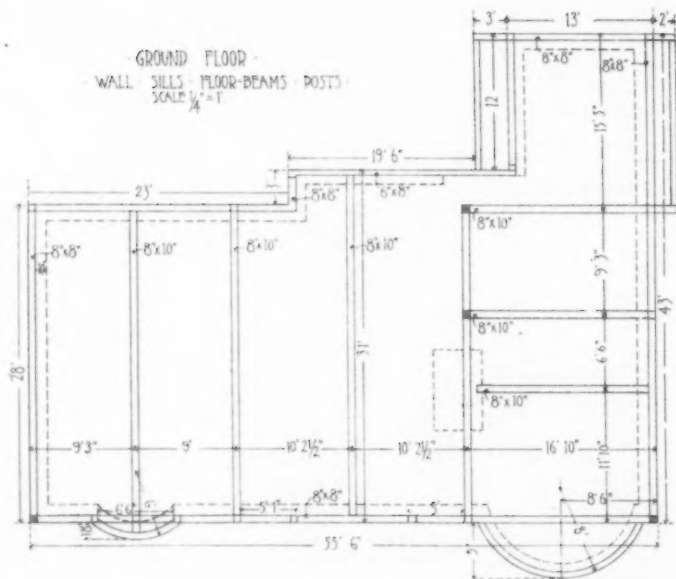


DURING ERECTION

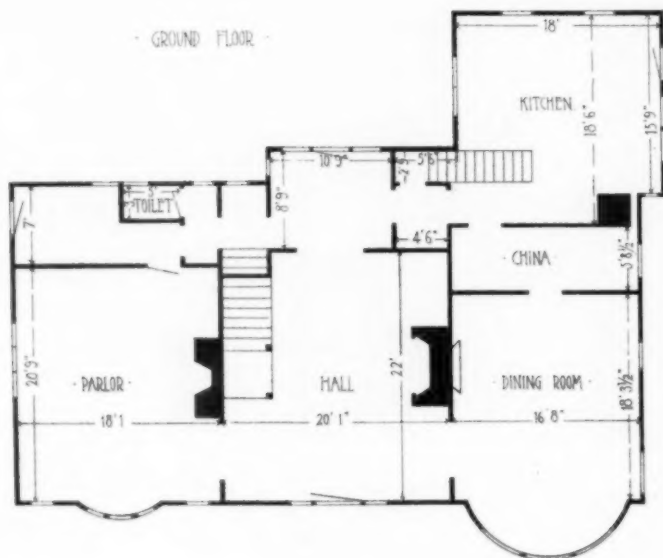


N - W ELEVATION

GROUND FLOOR -
WALL SILLS FLOOR-BEAMS POSTS
SCALE 1/4" = 1'



GROUND FLOOR



CAMP - HAMMON
SUMMER HOME OF G. V.



THE HALL

