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OCTOBER 25, 1890.



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THE Twenty-fourth Annual Convention of the American Institute of Architects promised, so far as could be judged from our latest advices, to be very pleasant and successful. An unusually large number of members were expected to be present from all parts of the country, and careful provisions had been made for facilitating the transaction of business, as well as for entertaining the members out of business hours. At the last moment, a telegram, received from Mr. R. M. Hunt, the President of the Institute, announced that he would be unable to attend the Convention on account of illness which it would be imprudent for him to neglect, and, much to the regret of the members, the annual address will have to be dispensed with, or read by some one else in place of its distinguished author.

THE profession, as well as the public, will be shocked to hear that Mr. A. B. Mullett, of Washington, the most noted of the men who have successively held the position of Supervising Architect to the Treasury Department, died by his own hand on Monday last. He had been for a year or two in a condition of mind which gave much anxiety to his friends, and recently his malady had seemed to take a turn for the worse, but no one anticipated so rapid a development of the disorder. Mr. Mullett came to Washington from Ohio, at the invitation of Chief Justice Chase, soon after the close of the war. He had been in early life, we believe, a carpenter and builder, but his extraordinary energy and capacity fitted him, as the high officials of the Government thought, for directing the public building work, and he was first made Assistant Supervising Architect, and, soon after, promoted to the chief place. Under his administration a great deal of the most costly public work in the country was carried out. The great cities of New York, Boston, Chicago and Cincinnati, besides many smaller ones, needed to be provided all at the same time with post-offices and Government buildings, and all that untiring industry and energy could do to forward the work was

done by Mr. Mullett. That his efforts were not so entirely successful as to save him from criticism was less his fault than that of the system, which, by demanding that one man shall keep in his head all the details of a large number of complicated buildings, details, moreover, which he must leave to an army of subordinates to work out, renders it impossible for him to follow any one of them with anything like the intelligent comprehension which a private architect gives to his buildings. Although he was too independent to care much for professional criticism, even if he had had the training necessary to enable him to appreciate it all, he undoubtedly felt the coldness with which his work was received by those best qualified to judge it, and to a certain extent resented it. After a long, and in many respects brilliant, administration of his office, circumstances made it desirable to put some one else in charge; but Mr. Mullett was retained in the service of the Government as special inspector. A few years later, when his old post was again vacant, the Government proposed to reappoint him. Unfortunately, long delays occurred before any appointment could judiciously be made, and Mr. Mullett, impatient and discouraged, incautiously confided to a newspaper reporter some reflections on the members of the Government, which were published, with the result that his name was erased from the list of candidates for the position. After this misadventure, he remained in Washington, where he had many friends, and soon gained a considerable private practice. He attempted, however, to enforce a claim against the Government for compensation for designing and supervising the immense building of the State, War and Navy Department, which, as he maintained, he was called upon to carry out as a private architect, and not as a Government official. The decision, after appeals and long delays, finally went against him, greatly to his disappointment, and, probably, much to his pecuniary loss. as, notwithstanding his comfortable practice, he is said to have been in financial straits during the latter part of his life. Like most sanguine and active men, he found it hard to bear reverses, and his troubles undoubtedly hastened the course of the cerebral disease which ended so sadly. Whatever may be thought of him as an artist, all architects will agree that he was a man of very great ability and energy; and his family and friends may well find comfort in the reflection that, although entrusted, in a way in which no other official of the United States ever was trusted, with the expenditure of almost countless millions of public money, he lived modestly, on a very meagre salary, and died poor.

IN the Chicago *Tribune* of Saturday last appears a brief account, together with imperfect sketch-plans of the Newberry Library which is to be built at Chicago, and the caption under which it appears, "A Peerless Library," challenges attention in view of its librarian's recent strictures upon the Boston Public Library, now partly built. These strictures, it will be remembered, were largely directed at the architects' treatment of the problem presented to them and in a much less degree at the working arrangement of the library adopted by the trustees and by them imposed upon their architects; and doubtless all who have given heed to that very disagreeable episode will be interested to know how Mr. Poole's architect, Mr. Cobb, has handled the features which gave such umbrage in the Boston building. In the first place both buildings are to be built about an open area, which in the Chicago instance is by far the smaller. Both buildings contain a corridor surrounding this inner court and giving access to all rooms, but in the Newberry Library this is said to be a "distinctive feature" and so must have Mr. Poole's approval. This is rather odd, as

the identical arrangement was condemned at Boston, while through removal to Chicago it receives applause because it is "constructed so as to admit the greatest possible quantity of light to the rooms" upon the opposite side of the corridor which, indirectly lighted in this way, are said to have "light for two sides." One point that Mr. Poole laid much stress upon in his criticism of the Boston building was the catalogue-room in "the crypt." We have already shown that he erred as to the position, size and lighting of this room, but it naturally makes us look to the arrangement he prefers. In Boston two inter-communicating rooms, well lighted from two sides, are devoted to this department with an area of some twelve hundred more square feet than Mr. Cobb's single catalogue-room contains, which, on plan, appears to be better lighted than the other. It is not desirable to say more than this on the strength of the imperfect evidence the *Tribune* affords.

THE real and distinctive difference between the two libraries is not so much one of architectural treatment as of administrative operation. At Boston the books are, in the main, to be all stored together and thence given out by attendants to readers. At Chicago, the books are to be arranged by subjects in special rooms where those interested in such subjects will receive them from the attendant and there read them. Unquestionably this is the more agreeable arrangement for readers who use libraries only occasionally, though the time-hardened library student will probably find the noise and bustle of a dozen workers in a small room quite as disquieting as the commotion of a greater number in a larger space. In these special rooms the space accorded to readers is but twelve by thirty feet which will accommodate a dozen or fifteen readers in comfort, so long as they content themselves with a single book; but the real library worker often needs to surround himself with many books, and when this happens some one will have to find a place in a less crowded room. How often this inconvenience will arise the passage of time alone will show, as, also, whether the assigning of attendants to a single room will expedite or retard the procuring of books from other departments which readers will inevitably require.

WE have before spoken of the new German manufacture of luminous paint, by which oil or water colors, shining by night with white, red, blue or yellow, according to the variety desired, can be sold at retail at about a dollar a pound, while the price of the Balmain paint, as made and sold in England, is about nine dollars a pound. On account of its high price, the Balmain paint has never come into extensive use. It was evidently good, but, as the expense of covering a wall with it amounted to about two dollars a square yard, it was impracticable to use it, as the manufacturers recommended, for painting the interiors of cellars, railway tunnels and other dark places, and it came at last to be used only for painting match-boxes, key-holes and small objects. The German luminous paint, which is sold in Berlin by Fretzdorf & Mayer, Steinmetzstrasse 15, and in Dresden by Gustav Schatte & Co., costs only about seventeen cents for enough to cover a square yard of surface, so that it would be really possible to paint a room with it, without ruinous expense. At present, a good deal of it is used in painting crucifixes and images of saints, which find a ready sale in Germany, and are exported in large quantities.

IT will be remembered that the late Mr. McAlpin was invited by the Austrian Government to advise in regard to the improvement of the navigation of the River Danube, and the removal of the obstructions which now make of the so-called "Iron Gate" an impassable series of cataracts and rapids. After many years delay, the plan which he recommended is to

be carried into execution, and a few weeks ago the first blast of the works of excavation which are to remove the rocks in the Iron Gate was fired by the Hungarian Minister of Commerce, amid the waving of flags, the shouts of assembled multitudes, and the strains of gipsy music. According to the *Wiener Bauindustrie Zeitung*, Mr. McAlpin's plan is to be substantially followed. The Berlin Disconto Bank supplies the money required, which will amount to about four million dollars, and the Luther machine-building company of Brunswick will do the work. A channel eighteen miles long is to be cleared of obstructions by blasting, the course of the river straightened, and the banks revetted. The work, according to the contract, is to be completed in five years. At present, the Iron Gate, through which there is little or no navigation, is a tolerably wild place. It is only a few years since a boatman was arrested in the neighborhood, who carried on a little ferry, for transporting passengers across the river. It had been observed that the people who crossed on his ferry-boat were apt to disappear, and the boatman fell under suspicion of having made way with them. On being dragged before the court, finding his conviction certain, he confessed that he had murdered, if we recollect rightly, more than a thousand people, whom he had robbed, killed and thrown overboard, without attracting attention from any one.

A NEW device for the benefit, not only of the poor people, but of the inventor, is in successful operation in Paris. We have before spoken of the "Kiosks," now being set up in the city, which present maps of the district in which they stand, with a tolerably complete directory of its inhabitants, and it will be easily comprehended that the new invention takes the form of a small kiosk, the exterior of which is covered with advertising placards. In a certain place, however, a faucet projects from the structure, and under it is a place to set a pail. Near the faucet is a slot, large enough to admit a copper five-centime piece, and beside the slot is a button. To use the apparatus, a pail is set in the appropriate place, a five-centime piece, equivalent in size and value to the old-fashioned copper cent, is dropped into the slot, and the button is pushed; whereupon a jet of steaming hot water issues from the faucet, and runs until nine quarts have been delivered, when it stops of itself. It may be imagined that in a district thickly settled with poor families, the cost of hot water so obtained is much less than it would be if a fire were kept in the cooking-stove to heat it, and the housekeepers who would otherwise have to do their washing with cold water must bless the inventor. The apparatus has, however, another use. It is the custom in Paris for hackmen to keep "bouillottes," or cans of hot water, in their carriages in cold weather, to warm the feet of their patrons, and it is often troublesome and expensive for them to get the water renewed as it cools. By means of the new kiosks, the bouillottes may be replenished with the smallest trouble and expense, to the great benefit of the drivers. The mechanism by which the water is warmed and delivered is quite simple. The interior of the kiosk is partly occupied by a coil of pipe, within which is a gas-burner, exactly as in the contrivances used here for heating water rapidly. The coil communicates with the city water-supply, so that the water drawn through is always fresh. The gas is not wasted by being kept burning all the time, but is lighted by the pressing of the button which also opens the faucet, and the automatic closing of the faucet, and turning off the gas, after the pailful of water has been delivered, are easily effected by devices in common use. As in our common apparatus of the sort, the water heats in the coil, after the gas is lighted, with great rapidity, so that the water runs hot almost from the first instant. It is unnecessary to say that the button will not produce its effect without the preliminary administration of the coin, and in selling nine quarts of water, which would cost about three-twentieths of a cent, heated by means of perhaps half a cubic foot of gas, costing about one-twentieth more, at one cent, there must be a considerable profit, as the affair is entirely automatic, and the owner, who has no rent to pay, and no expenses while the apparatus is not in profitable use, has nothing to do but keep the electric batteries in order, and empty the contents of the cash-boxes at suitable intervals into his pockets.

AUSTRIAN ARCHITECTURE.¹—III.

ROMANESQUE PERIOD.—III.

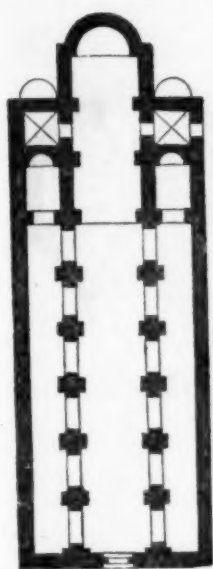


Fig. 17. Plan of the Church of Strahow Monastery.

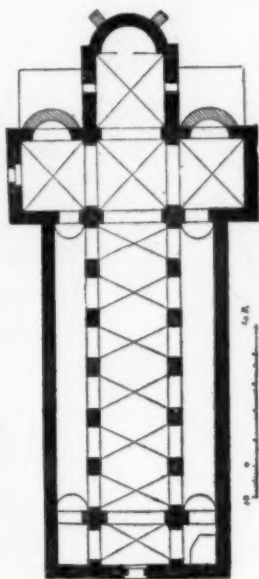


Fig. 18. Plan of the Church of Plass.

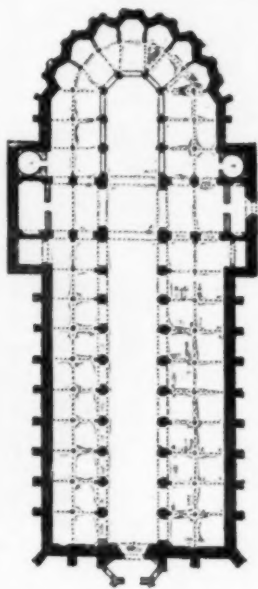


Fig. 19. Plan of the Church of Seidlitz.

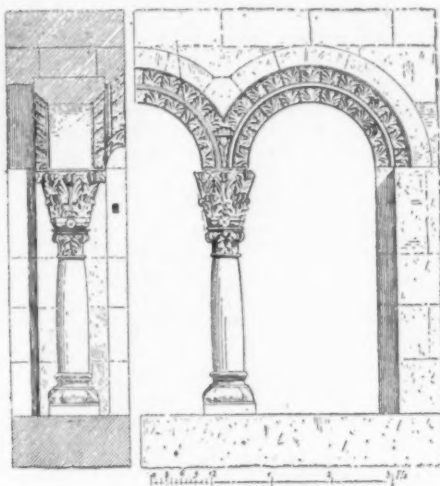


Fig. 20. Arches in the Cloister at Olmütz.

IN Bohemia, where Christianity was not adopted until the tenth century, and where at first only small wooden churches were erected, there are few ecclesiastical monuments of the Romanesque style, and these are generally of a late period. They give evidence, for the most part, of a dependence upon German architecture, and indirectly, in a measure also, upon the architecture of France. The explanation of this lies in

the fact that the Bohemian convents, with their churches which were founded mainly in the twelfth century, were usually nothing more than affiliations of the German con-

vents. The Benedictine church at Kladrau [twelfth and thirteenth centuries], the Premonstrant church at Tepl, and the Cistercian church at Plass (Figure 18), and all of the transition period, are triapsidal and built with a projecting transept.

The first, with the aisles carried beyond the transept, shows the influence of the conventual church of Hirsau in Swabia, while the church at Plass has nearly the same plan as St. Paul's in the Lavant Thal (Figure 15).

Besides these more important conventual churches there are also a good many parish churches of the twelfth century in Bohemia; they are usually constructed with an undivided nave or with two equal aisles; some of them are circular, some square, while others are in the form of a Greek cross. But

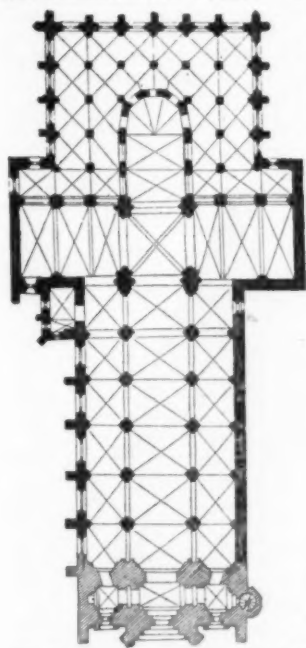


Fig. 21. Plan of the Abbey-Church at Lilienfeld.

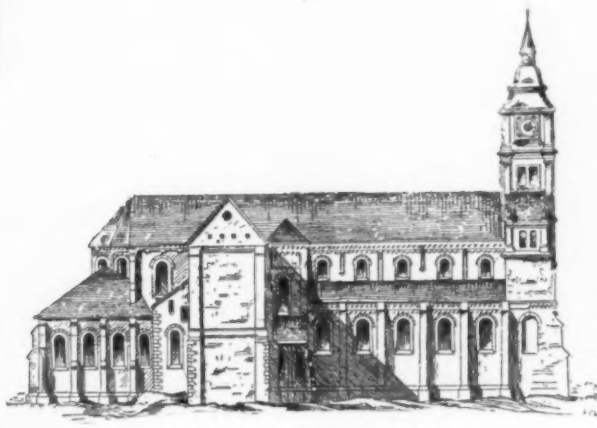


Fig. 22. Abbey-Church, Lilienfeld.

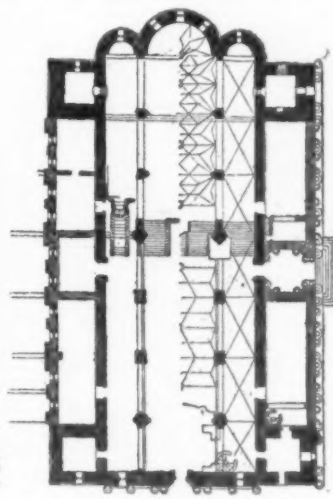


Fig. 23. Plan of the Cathedral of Fünf-kirchen.

vents. One of the oldest of these churches is St. George's on the Hradschin at Prague, begun in 1142 by the German architect Wernher. The plan, which includes three apses and no transept, approaches the simple types of South Germany, while the rhythmic variation from the two piers to a single column, in the division into aisles, recalls the Saxon architecture.

Above the side-aisles run arcaded galleries (triforia) covered with half-barrel vaulting, a disposition which occurs in Notre-Dame-du-Port, at Clermont, and in a few other French churches. The little Premonstrant church of the Strahow monastery [twelfth century] at Prague (Figure 17) is a similar plan, but pillars form the sole supports. Columns alone, on

they are all so rudely executed and possess so little artistic value that they call for nothing more here than this general mention.

The church at Seidlitz (Figure 19) belongs to the latter part of the thirteenth century.

In Moravia, the cloister at Olmütz is of the twelfth century (Figure 20); the Cistercian church at Tischnowitz, of the thirteenth century, and the Benedictine church at Trebitsch belong to the same class and to the same transitional period. The first approaches the type of the abbey-church of St. Paul in the Lavant Thal, the second resembles the Cathedral at Gurk in plan. Both edifices are remarkable for the elegance and elaborateness of the details, especially in the doorways.

In the archduchies of Lower Austria and Upper Austria, we

¹From the French of H. Semper, in Planat's "Encyclopédie de l'Architecture et de la Construction." Continued from page 33, No. 773.

find no noteworthy constructions except such as are in the transitional style; these were mostly erected by the Cistercians who introduced certain French architectural elements into their creations. One of the most splendid productions of this *genre* is the abbey-church of Lilienfeld (Figures 21, 22) in Lower Austria, erected between 1202 and 1220. It is a basilica divided by pillars into three vaulted aisles, with a transept and a deep polygonal choir. The nave is a third higher than the aisles. The vaults and arches of the nave are ogival; those of the choir and windows, as well as the arcades, are semicircular. The square porch behind the choir is more modern. Adjoining the choir is one of the finest cloisters in the empire; it contains over four hundred well-executed red marble colonnettes. There

of Martinsberg, Nagy-Caroly, Zsambek (now in ruins), Fünfkirchen (Figure 23), St. Jak (Figure 24), and St. Miklos at Lebeny, all erected in the thirteenth century. The church at Ocza near Buda, is the only one which has a transept.

The most purely original and artistic features of these churches are the details and the elaborate well-executed decorative sculptures, especially those around the portals. The

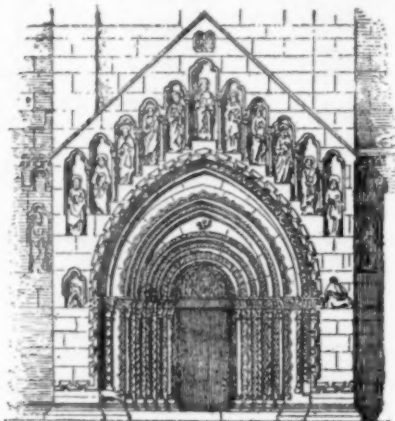


Fig. 24. Portal of the Church of Saint Jak (Hungary).

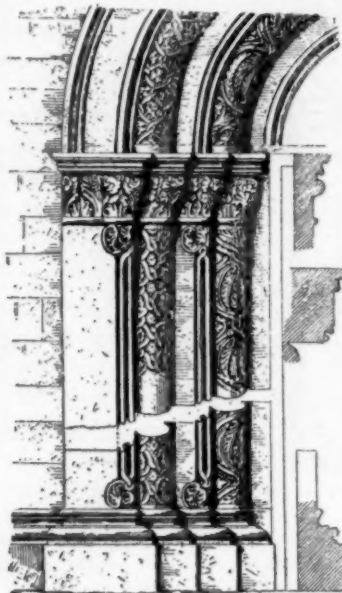


Fig. 25. Portal of a Church of Siebenbürgen.

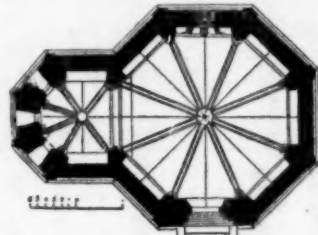


Fig. 26. Plan of the Church of Edeburg (Hungary).



Fig. 28. Plan of Hartberg Chapel.

is another no less elaborate cloister, of the same period [thirteenth century], at Heiligenkreuz in Lower Austria; but the church here was built in the twelfth century; it is in the shape of a Latin cross. At Klosterneuburg in the same province, on the Danube, there is a magnificent cloister of the thirteenth century. To the same transition period belong likewise the

finest examples of these are found in the church of St. Jak, which has one of the most ornate portals produced by Romanesque art.

The churches of Siebenbürgen (Figure 25) are very simple and conform to this same type; as, for example, those of Münchdorf and Michelsberg, both of the thirteenth century.



Fig. 27. Edeburg Chapel (Hungary).



Fig. 29. Hartberg Chapel.

church of St. Pölten, and St. Michael's at Vienna; the latter is noted for the harmony of its disposition and the beauty of the details.

In Hungary, the Romanesque period has no representative except in the advanced transitional style. Nevertheless, still simpler dispositions occur here than in the German provinces of Austria, so that these might seem equally inspired under Dalmatian influence. The most common type of these Hungarian churches is as follows: a porch between two towers, three aisles, with three apses and no transepts. Such are the churches

In all the provinces of Austria-Hungary, numerous small, round or square chapels are to be seen; they are often built with an apse containing an altar, and are covered with cupolas (Figures 26, 27, 28, 29). They are usually in cemeteries adjoining churches, and serve as mortuary chapels. In Tyrol, however, they occupy isolated positions, and, as we remarked above, are almost always used for the general purposes of worship. Our illustrations sufficiently indicate the characteristics of this type.

[To be continued.]

THE LAKE-DWELLERS OF VENEZUELA.¹—II.

Entering a Lake-dweller's Hut.

WITH the reader's assent, I will now conduct him to that historic site of Little Venice, and compare the Indians there found in possession with their ancestors of four centuries ago.

Six days' steaming southward from New York takes you to the island of Curaçao, which lies within sight of the coast mountains of Venezuela. In its sheltered harbor, the like of which is not to be found anywhere else, you change from the great "Red—D" steamer that brought you hither to another and smaller, but belonging to the same fine fleet. It is merely a transfer of yourself and luggage over the rail, as the vessels lie side by side in the land-locked lagoon of Curaçao.

As the ship in which I had made the voyage thus far drew up to her dock, from the opposite side there drifted across to us the smaller tributary which had just come up from the Maracaibo region, laden with dye-woods, hides and coffee. She was called the "City of Merida," after an inland settlement above the largest lake in Venezuela. Drawing gently alongside, the two boats were made fast, and the work of transferring her cargo commenced. It was done so easily and quickly, that the work was well under way before we were aware of the existence of the sister ship; showing perfect seamanship and systematized plan of operations.

I looked rather dubiously upon the steamer that was to be my home for a week or two, because the deck seemed to be in possession of a large brown dog, that did little else than prowl about and bark. As I swung my leg over the rail, she bared her white teeth and saluted me with a "Wow! wow! wow!" I stayed there, right there, until the captain came out of his state-room and drove her away. "You must not be afraid," he exclaimed, "you may have no fear of Princessa, only when I am asleep. Ven I am awake, she vill not pite you, but ven I am asleep, then you shall look out!" This was assuring, but decidedly not comforting; for how was I to know when to find the captain awake or when taking a siesta?

But, "Princessa" and I became very good friends, and during the entire voyage, to her credit let me say it, she bit nobody without he had negro blood in his veins.

We had no other passengers on this trip, so I was given the free-

dom of the ship, and was taken under the special protection of the captain. He was a Russian by birth, but an American citizen by adoption, a skilled mariner, a master in his profession and entirely devoted to the interests of his employers. Besides his native tongue and English, he spoke fluently the *Papiamento*, or Curaçao patois, which is a compound of several languages: Spanish, Dutch and Negro dialect, with Spanish predominating. Small wonder, then, that he did not always give each word its exact pronunciation; I should have been too puzzled to talk, with such a mixed vocabulary to select from.

Having just returned from a tour of the chief ports of Venezuela, where we had gone freely in and out, I was surprised to learn that the customs restrictions at Maracaibo were such that every article of luggage must be entered on a list and sworn to before the Venezuelan Consul.

Thanks to the assistance of the efficient agents of the line, my list was prepared according to law, and was as follows:

"Lista del equipaje que embarca el suscrito en el Vapor Americano Merida su capitán G. Laksy, con destino á Maracaibo.

1 (un) Baul — trunk.

1 (una) escopeta de cazar — shot-gun.

2 (dos) carriolos con aparatos fotográficos.

2 (dos) maletas — valises.

6 (seis) Bultos, contiendo ropa y efectos de uso, pesando 80 Kilos.

Curaçao, Abril 14, de 1890.

El Agente Comercial."

To this I subscribed my name, and then was declared ready to depart.

It is such a delightful harbor, that of Curaçao, one would like to linger there for weeks, such an air of protection surrounds the place. Everybody here is placid and slow-moving, just like the huge globular jelly-fishes that floated around our ship, each one with its convoy of from three to five small shiners.

Out of the harbor, the run to Lake Maracaibo was made in about twenty hours, part of the way through a cross-current that tossed our steamer about for several hours.

We sighted and passed the long peninsula of the Paraguaná, and doubling it, at a distance, found ourselves crossing the bar that lies between the salt sea and fresh waters of the lake.

Late in the afternoon we dropped anchor in the bay, a mile from the city of Maracaibo. After a most annoying detention by the customs officials, I was permitted to land. It is not with Maracaibo, the city, that we have to do, more than to glance at it as we pass on. As cities may be viewed, it is exceedingly interesting, being a

Spanish plant in an Indian garden.

The architecture is Spanish, the life Indo-Spanish, but not so decidedly aboriginal as in Mexico; still, the Indian has made his impress, and the question is an open one whether there be more Indian or Spanish blood in the veins of the people. The streets are bad, the public buildings few and unimportant; but the situation of the city is such that nature has redeemed its defects.

From the anchorage of the steamers, you may describe half a circle engirdled with palms. The coco-palms fringe the shore, lean lovingly over the water and form a waving wall of green, golden-green, about the sandy beaches.

After the necessary formalities were endured, and the ship temporarily consigned to the care of the

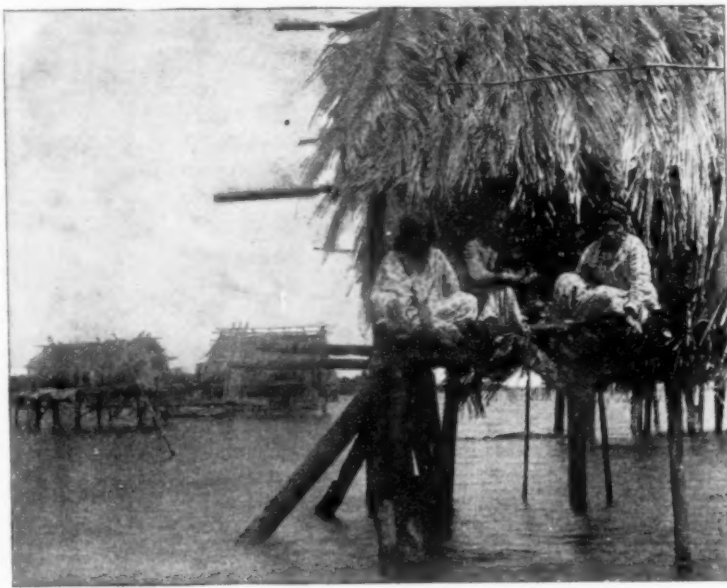
agents, the captain announced himself as ready to take me down to the village of the lake-dwellers. This village, called Santa Rosa, lies about ten miles distant from the city of Maracaibo, northerly from it, and can be seen at a distance, as the steamer enters the lake.

In the middle of a shallow bay of the lake, the Indians have built their huts, on the tops of piles driven into the sand, and there, entirely surrounded by water, they peacefully pursue their vocation as fishermen.

All the spare time on board I improved in writing up my "remembers," as the steward termed my travel-notes, yet I was anxious to be off to the Indian village, and see for myself the last of the lake-dwellers.

The night before we started, the captain kindly gave me the result of his own observations, made during several excursions to Santa Rosa.

"When you shall see those hoots on the poles in the water, and



Lake-dwellers' Huts at Santa Rosa.

¹ Continued from No. 770, page 196.

the gals yoomping about, yoost as pridelly as ebrydings, you will want to crazy."

We started in the morning early, but not so soon that the sun did not greet us with his shafts, seven times heated in the fiery furnace of the tropics. It was a holiday, and all the flags were flying. As we rowed in under the shore we passed scores of girls and women bathing before their doors, beneath the palms. And the pictures were pretty ones, enticing even, as the slant sun fell through the latticed leaves of the palms, across breasts and shoulders of glistening brown, and golden-bronze. Skirting the shore, we passed hundreds of cabins, half hidden in the coco groves, their inmates working and playing in an environment of freedom delightful to experience.

The wind was ahead, and it took our boatman two hours and a half to pull the distance, though part of the course was through a canal. It had been cut by the Indians, through a sea of reeds and tangle of mangroves. We were completely shut in when we reached the mangrove swamp, and could see only a short distance into the meshwork of black and twisted roots that supported a dense canopy of green branches. A great pelican roost occupied some trees at the entrance of the canal, and the bulky birds were perched there, in grotesque attitudes, and sailing like miniature galleons on the water. A green heron or two flapped in front of us: the only sounds were from the land and fiddler crabs that scurried away by thousands with a rattling, crackling noise.

Emerging into a deep bay, we saw ahead of us the village of our quest, Santa Rosa, perched above and mirrored in the water.

There were about a dozen huts, or houses, built on platforms of poles supported upon piles. It was a wonder to me, how they could drive these piles far enough into the sand to bear up such a weight, and to withstand the storm and hurricane. Yet, frail as the structures are, they, and their types have existed here for several centuries; and there is no evidence of any great destruction in times past. It must be a fearful experience, however, to endure a night of storm in these cobweb houses, penetrated by every breeze, shaken by every wind, swayed by every blast; and to remain in them throughout a hurricane, must require a faith and courage born of nothing less than generations of custom, and immunity from disaster.

The method of construction is simple enough: upon the piles, driven well into the sand, cross-poles are firmly lashed, and upon these a platform of poles is laid. These poles are small, two or three inches in diameter, and no pains are taken to fill up interstices, so that all filth and rubbish drops into the water. Upon this platform the hut, proper, is built, merely a framework of sticks and poles, covered with thatch of palm-leaves and with side-walls made of rush mats.

The palm-trees that yield the thatch grow within sight, on shore, and the rushes for the side-walls can be seen by the acre on the water-side. The sides and one end are closed in, but the shoreward end is left open, and a platform projects a dozen feet or so. Some of the houses are upon connecting platforms, which the respective families seem to occupy in common; but I did not see any sign of drawbridges, which, anciently, formed connecting links in the chain of water-dwellings.

The water here was from a foot to half-leg deep, the bottom sandy, the distance from shore perhaps one eighth of a mile. Taking one of my cameras with me, I removed shoes and stockings and was overboard as soon as the boat had grounded.

Pitching the camera in different places, I waded all about the village, at times in water above my knees, and photographed the principal dwellings in every position, that the readers of the *American Architect* might view these strange structures as I saw them myself. Later, with a smaller camera, I secured portraits of the dwellers here; men and women, children, and babes at the breast, for the use of the ethnologist, and to illustrate my forthcoming lectures. I

must have taken more than twenty photographs of these interesting people and their dwellings, and, to crown all, the captain took a snap-shot at me, as I stood knee-deep in the water, thus photographing the photographer.

As all the huts were open to the north, the shore side, I could see into them all, as I waded about. There was no secrecy, could be none, everything was open to inspection. Access to each hut was had by means of a log laid slantwise, with deep notches cut in it. This same primitive ladder I have seen in use among the Seminoles of Florida, the Indians of Yucatan, and in the mines of Mexico. On the front platform of each house was a hearth of clay, on which the family fire was made, and the few cooking utensils. One house had a pig-pen attachment, a little wattle-off apartment under the thatch with a thrifty porker grunting in it, and several of the huts had fowls cooped-up on their platforms, while tame herons and cormorants were quite common.

Perhaps there was nothing more interesting than their palm-garden, the only bit of land they owned. It was a small plot, not bigger than what would suffice for two huts to stand on, made by building up with logs and filling in with earth, painfully brought from the mainland. It was not cultivated, though two or three coco-palms waved here, but seemed to be used as a wood-yard for their fuel.

The lake-dwellers, as we found them, showed by their deportment that they were descended from a fine race of Indians; they were not shy, but were respectful; they manifested sufficient curiosity, but without boldness; they treated each other and their visitors with

kindness and courtesy. As to their appearance, in shape and feature they are most agreeable, and I am ready to credit the reports of the first Spaniards whom their ancestors entertained, that they, the females in particular, were beautiful and gracious.

Here is what the distinguished historian says of these people found here four centuries ago. He is describing the further adventures of Ojeda, after he had entered the country of the lake-dwellers.

"The natives of this part were distinguished for the symmetry of their forms; the females in particular appearing to the Spaniards to surpass all others they had yet beheld in the new world for grace and beauty; neither did the men evince, in the least degree, that jealousy which prevailed in other parts of the coast; but on the contrary, permitted the most frank and intimate intercourse with their wives and daughters.

"By the time the Spaniards set out on their return to the ship, the whole country adjacent was aroused, pouring forth its population, male and female, to do them honor. Some bore them in litters or hammocks; and happy was the Indian who had the honor of bearing



Central Group showing Platform and Ladder.



Lake-dwellers.

a Spaniard on his shoulders. Others loaded themselves with the presents they had bestowed on their guests: rich plumes, weapons of various kinds, tropical birds and animals.

"In this way they returned in triumphant procession to the ships, the woods and shores resounding with their songs and shouts. . . . The Spaniards brought away with them several of the beautiful and hospitable females from this place, one of whom, named by them Isabel, was much prized by Ojeda, and accompanied him in a subsequent voyage."

The Spaniards sailed, with regret, away from this friendly port of Coquibacoa; and thus they sail out of this narrative, the gallant Ojeda, the learned Vespucci, and their cut-throat crew of cavaliers.

Nor have the Indians changed one jot from the lax and lazy habits of their ancestors.

Should a crew of gallants arrive at Santa Rosa to-day, on pleasure bent and amorous, they would find kind and gracious females, with forms of symmetry, and charms that would tempt St. Anthony himself, perchance.

I had heard that the people here, though good-hearted and honest, had no compunctions about disposing of their surplus daughters to the highest bidder. The standing price for little girls and boys was fifteen dollars; and it is said they make excellent servants, faithful and devoted to their masters. For a maiden of marriageable age the price ranges from forty to sixty dollars, according to her looks and pedigree. If her record is stainless, and this, it is understood, is to be guaranteed, she commands the higher price. The descendants of the early Spaniards, like those of the aboriginal lake-dwellers, have the same desires as their ancestors, and it is no matter of wonder that in this place, only ten miles from Maracaibo, the demand for female servants exceeds the supply.

Several of the girls we saw were very pretty, even though they had daubed their faces with streaks of *roucco*, or *arnatto*. They were very shapely, inclined to be plump without corpulency, and (could one forget that they were, most of them, the mistresses of Maracaibo *roués*) they would be considered quite attractive.

It is a strange problem to solve: this Indian nature, so simple, or so complex, that it seems to have no moral sense. They are unmoral, rather than immoral, like the Mayas of Mexico, the African negroes, and other peoples in a state of simplicity.

Looking into the faces of these girls and women, so frank and engaging, I could not believe that they would knowingly live a life of sin. They seemed artless and as innocent as babes, and I doubt not, in their own consciousness, they were.

I cannot doubt what has been stated above — that children are sold to strangers, and it was singularly proven to me.

As I approached the palm-garden, of which I have written, I saw a comely little maiden standing underneath a palm. "Good morning," I said in Spanish, "Have you anything here to sell?" I expected to purchase bows, arrows, baskets or like trinkets; but imagine my surprise when she answered, "*No, señor, no mas que un joven-cito!*" "No sir, we have nothing on hand now, except a very little boy!"

All the little children were naked, the girls over eight or ten wearing a fore-cloth, and only the grown women were in full attire of flowing calico dresses. From glimpses we got on arrival, we concluded that these, even, were donned for our benefit. There were few men about, most of the males being absent fishing, or trading at the city.

The mode of carrying children is the same as the Hindoos have and other Eastern peoples, astride the hips. The prettiest picture of domestic content was in the last hut we visited. A young woman, of beautiful proportions, was swinging her babe in a hammock by a line attached to the roof-tree and a loop through which she passed her toe. The baby awaking at our coming, she took him out of his cradle and gave him a breast that Phidias would have paused to admire. The little fellow curled up his toes in great content, and the mother let a laugh ripple over her pleasant features at our admiration of her precious infant; and — well, I could not resist it, really — I took an instantaneous photograph of the happy mother while the smile was lighting up her face.

These dwellers by the lake-shore live chiefly by fishing, having, so far as I could ascertain, no gardens or plantations on the main. They speak Spanish, most of them, though having a dialect of their

own, and retaining the simple customs, costume, and mode of life of their ancestors. They pay no taxes to government, and lead a free and independent, though perhaps miserable, existence.

Not very far distant, on the peninsula, are Indians yet living in a state of savagery, the Guajiras, who hunt, raise stock and steal cattle. They are fierce and sanguinary and the dread and terror of sailors who coast the Guajira — as their country is called. They speak their original language, have their own chiefs and acknowledge no outside authority. We all know the fate of the Indians subdued by the Spaniards; and it is quite refreshing to find yet a people who have successfully resisted them, since the first caravels came here until now. Our consul at Maracaibo, General E. H. Plumacher, probably knows more about these Indians than any other man, and he has given much valuable information in his Consular Reports.

I should have liked, if only for the sentiment of the thing, to have called these people here the "last of the lake-dwellers;" but, if we may give the encyclopædists credence, there are still other dwellers over waters; a few at the entrance of the Orinoco, in New Guinea, in central Africa, and among the Dyaks of Borneo. It would be instructive to compare these lacustrine habitations of Venezuela with those of prehistoric remains of the lakes of Switzerland and the north of Italy. Like these, they were built on platforms supported by piles; but perhaps the modern structures were not so large as the ancient ones. There is little difference between them, except such modifications here as came from climatic causes. They had canoes, also, and those of Maracaibo would contain a great number of warriors. As we know, relics have been found in the Swiss lakes, of the stone, bronze and the iron age. There is nothing to indicate that our aborigines had

advanced beyond the age of stone. Why they should have chosen such a situation for a settlement, originally, or why, since the coming of the Spaniards, they have persisted in occupying it, no one can explain. They dwell here happily, and, though exposed to the elements, all are healthy. They are certainly secure from wild beasts, poisonous reptiles, and the midnight marauder. The chief cause operating to their extinction, or obliteration, as a race, is their amalgamation with the white people; but this has been going on now for generations, and yet they retain tribal affinities and dialectic coherency. Their color is being steadily modified, and a Saxon impress is noted, in blue eyes, occasionally, and fairer skin, since the Germans have obtained a foothold in Maracaibo.

We left them watching

our departure in a state of mild excitement, the women chatting together, the children clustered about the platforms in dusky groups.

It is said that there is a settlement far up the lake, larger, more complete, where the houses are finer and the water-ways between them are like streets, wide and regular. But they do not, like these, link us with the beginnings of American history; they do not bring before us that vast procession of Spanish cavaliers, headed by Ojeda, Columbus, Balboa, who made this coast the theatre of their exploits, sought fame, found death, and disappeared.

These are the last of the historic lake-dwellers.

FREDERICK A. OBER.

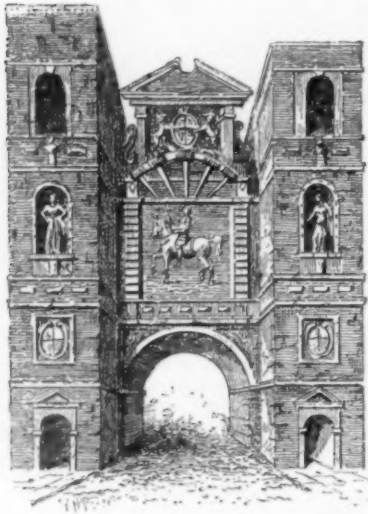


The Palm Garden, Santa Rosa.

CHALK DEPOSITS IN ILLINOIS. — Last winter the discovery of a huge mountain of pure chalk in Union County, Illinois, one mile from the Alexander County line, three miles from the line of the Grand Tower and Carbondale Railroad, and within three miles of the Mississippi River, was announced; but until the last few weeks the magnitude of the find was not appreciated, inasmuch as the work of development had not proceeded to any extent. The mountain is about one hundred and fifty feet high, and from borings thus far made there does not appear to be any limit to the chalky substance. The mountain is the property of Jonathan Peery, whose residence is at Mount Vernon, Ill., and who is just now putting the chalk on the cars at \$5 per ton. The chalk is found by scratching away about a foot of the soil, when the pure white substance is exposed in solid mass, unalloyed by any foreign element apparently, as pure as the driven snow. This discovery is the more important from the fact that it is said to be the only chalk-bank in the United States, and as it is convenient to the railroad and to the Mississippi River, where it may be handled in barges, its value is not likely to be overestimated. A company of Chicago capitalists are now investigating the mine with a view to purchasing the entire property. — *New York Star*.

EQUESTRIAN MONUMENTS.¹—XXX.

THE STUARTS.—II.



Aldersgate, after a print of 1670. From Thornbury's
"Old and New London."

tered London on his way to the coronation ceremonies through the Aldersgate, the northern gate in the city walls near St. Botolph's Church. This particular structure in this way acquired for him a peculiar significance, and when the Aldersgate was rebuilt in 1617, the sculptor Gerard Christmas was instructed to decorate the great panel on the outer face, over the main archway, with the equestrian figure of the king in high relief. The godly monarch, through whose instrumentality we have been furnished with the version of the Bible that has met the acceptance of the greater part of Protestant Christendom, was supported upon either side by the figures of the prophets Jeremiah and Samuel, in niches over the smaller archways for foot-passers. The gate, and probably the figures of the king and his horse, suffered in the London fire in 1666, but the damage was made good and the gate maintained its place for nearly another century; but by that time London had outgrown its walls and the Aldersgate was only in the way, so it was sold, April 22, 1761, for £91, and immediately torn down. Whether the Jacobite image had escaped the notice of the Roundhead iconoclasts, and had survived to the date of the gate's destruction, is extremely doubtful.

Also, a recent visit to the Metropolitan Museum of Art discovered the existence there of an electro-plate reproduction of the silver-gilt statuette of Charles I, which to-day forms part of the collections in the Romanoff House at Moscow. This statuette, which is little more than a foot in height, including the pedestal, shows the king in the costume which, according to Van Dyck, was his common wear, seated upon a fairly modelled rearing horse supported by the hind legs only. The subject is the work of an Augsburg artist of the seventeenth century, whose name and the exact date of the statuette are not given, so there is a possibility that it may be a portrait made during the king's life by one of the numerous artists whom he encouraged to come to his court.

It was fortunate for the kingdom, distracted and impoverished by domestic strife, that William III although an extremely able military leader was an even better statesman and politician, and that though his reign was troubled by Jacobite incursions and plottings in Scotland and Ireland, and though the French landed in England and he in turn took active part on the Continent to curb the ambition of Louis XIV, he nevertheless found time to effect many salutary and permanent reforms in the civil affairs of the kingdom, and practically to reduce to organic shape what has grown to be that undefined code of civil procedure known as the English Constitution. To accomplish such things as these a man must have immense force of character, and men who have this usually bear its imprint on mien and countenance, and so are admirable subjects for the artist.

Englishmen are curiously inconsistent in their attitude towards their several kings. The proudest boast that an Englishman to-day can make, is to show a clearly established descent from some soldier who "came over with the Conqueror," and one would expect to find many statues of the Norman duke in all parts of the country, yet if any such exist not one of them is equestrian. Alfred and Edward I are equally unhonored. Henry VIII has a claim to recognition for putting an end to the sequestration of property in the hands of the Catholic clergy by the workings, amongst other things, of mortmain, and Richard III is associated with the horse only by Shakespeare. Perhaps when kings are altogether things of the past, steps will be taken in the interest of historic art to create statues of all the kings; but until such authoritative movement is made people who have a voice in selecting the subjects of such equestrian monuments as are

HOSE who have followed these papers and have noted the ground covered by the researches and the great number of authorities consulted, will understand how provoking it is to come upon a new "find" just too late to make use of it in proper course. Such a discovery was made at the time the first paper on the Stuarts was going to press, and as it only slightly disorders the sequence of events, it is worth while here to retract the statement that James I was never the subject of an equestrian sculpture.

When James was called to the throne of Great Britain, he entered

erected will exercise their own judgment, and, judging by what has been done, William III will not infrequently be selected as one of the most prominent factors for the recording of English history, in English sculpture. Within a couple of years, even, an equestrian figure in bronze of William III has been set up at Belfast, Ireland; and the fact that the motive for its creation was political and not historical, while it



William III, Belfast, Ireland. Harry Hems, Sculptor.

turns the event into one of private rather than of public importance, does not hide the fact that insignificant historical characters are not, during centuries, used as an honored symbol of political purposes. In this country we know something of the animosity which exists between the Orangemen or Irish Protestants and the Ribbonmen or Irish Catholics, and are familiar with the fact that when unwise civic authorities grant permission to the Orangemen to parade their streets on the anniversary of the Battle of the Boyne, unless the police protect the small body of paraders, an attack upon them is sure to be made by the Ribbonmen, who outnumber them in this Protestant country as much as they do at home. The same riot and bloodshed always attended the celebration of this famous anniversary from the time of the founding of the Loyal Orange Institution, in 1795, until 1836, when the order was temporarily suppressed, only to be revived in 1845. Public processions in the British Islands are now forbidden by law and the two societies have transferred the scene of their active animosities to this country. The order has, it seems, quite a large club-house at Belfast and its parapet has lately been adorned with the statue in question, the work of Mr. Harry Hems of Exeter, who is well known to architects, in this country as well as at home, as an architectural sculptor of note and a frequent contributor to the architectural journals. One who is constantly employed upon sculptural work which must adapt itself to the sedate and rigid lines and forms of architecture, does not have much chance to practise his hand upon the more subtle graces and expressions of actual animate beings, and so one would naturally expect to find in the work of such a sculptor a rigidity and conventionality of treatment which would be wanting in the work of those whose free artistic faculties had not been stunted and repressed by having to conform their work to the established precedents of architectural modelling. Apparently the sculptor perceived the difficulties with which his training hampered him, and sought to avoid them, though unfortunately in a case where the direct association of the statue with the building particularly invited a bold and architectural treatment. The conception is animated and bold enough, but the handling is what the French would call *molle*: it has too much of the dryness and unattractiveness of modern English architectural sculpture, that is, it is too highly wrought, too minutely finished, too machine-made in appearance. Workmanship of this order, applied to the arid conceptions which English designers work into their buildings, has made of English modern building a very wilderness of wasted opportunities.

It is hardly fair to Mr. Hems to contrast the conception and execution of his statue, which from its position must always count in the main as a mere silhouette—and he has taken care that his group shall have an effective outline—with a statuette, executed, too, in a precious metal, where the artist is compelled to have all the details

¹ Continued from No. 771, page 12.

minutely perfect and can have no broad masses and general effects to fall back on; so we will let contrast and comparison pass and only point out that the silver statuette of William III by Mr. C. B. Birch, A. R. A., is another recent instance of the respect that will always be entertained for William's character and his achievements that did so much to set Great Britain in the proper course for development and progress. This statuette, which measures three feet in length and two feet eight inches in height, is a so-called "race-cup" presented by the King of Holland as the prize for the annual race established by him and to be run at Goodwood. Quite as a matter-of-course it is to be known as the "Orange Cup," and the propriety of making the first trophy presented by such a founder a likeness of William of Orange as he appeared at the Battle of the Boyne is obvious enough. The statuette at present is in the possession of the



William III (The "Orange Cup"). C. B. Birch, A. R. A., Sculptor.

Princess of Wales, and is not accessible to the public, who had their chance to examine it when it was exhibited in 1883 at the Royal Academy. There are many statuettes that one would like to see carried out at a large scale and this is one that would make a particularly interesting and instructive monument, for, equestrian though it is, it is the man and not the horse that gives character to the group; and as this is a very unusual condition in equestrian statues, it is a pity that this example should be wasted. Mr. Hems studied his subject with the aid of such inspiration as he could draw from the equipment actually used by William, a portion of which is in the possession of the Baroness von Staiglitz, and Mr. Birch probably sought similar



William III, Dublin, Ireland.

support, for his work has the air of a conscientious effort at portraiture.

William's most enthusiastic and devoted supporters were the Irish Protestants, the forbears of the Orangemen of to-day, whose standing in Ireland was made far more tolerable than it had been before, and in token of their gratitude they caused to be erected on the college green at Dublin an equestrian statue of the king which should stand as a perpetual memorial of the Revolution of 1688 and the emancipation, as it might be called, of the Protestants in Ireland that followed later. This statue was set up about the year 1700, and was one of the first of those leaden statues which were so common in

England in the early eighteenth century. It would be interesting to know just what alloy of lead was used, for to the wisdom of the metallurgist is unquestionably due the ability of this statue to sustain the repeated attempts to annihilate it, attempts whose partial success accounts for the sorry condition of the statue to-day.

As the motive of its erection was political, it naturally became a rallying-point around which many a factional riot was fought out—not a few of them caused by the action of the Orangemen in decorating the statue with yellow ribbons or painting it yellow, a usual preliminary to the annual procession about the statue of the Lord-Mayor,



William III, Dublin, Ireland.

aldermen, Lord-Chancellor, judges, the Provost of Trinity College and other notabilities. Dearly as Irishmen love a fight, they have a keener appreciation of a practical joke and the close proximity of the statue to Trinity College was a challenge to every joker within its walls, particularly if such joker had individual or inherited Jacobite tendencies. The early assaults upon the statue were probably genuine outbreaks of political feeling, but the later ones should be put to the credit of the undergraduate love of a lark at any one's expense, for exact counterparts of some of them have amused the citizens of Cambridge and New Haven on more than one occasion. Thus the recent sanguinary coloring put upon the statue of John Harvard at Cambridge was but an imitation of the prank played at Dublin in 1805, when William, who had just received his annual decorations for



William III, Hull, England.

the morrow's festivities, was found in the morning all besmirched with some filthy black compound, an occurrence which enabled the Member for the University to deliver himself of the apt quotation: "*Hic niger est, hunc tu Romane caveto.*" The dressing of the statue in wisps of hay and the seating behind him of a man of straw doubtless had a meaning whose significance escapes us, but it has the earmarks of a college prank; and the number of times gunpowder has been used by our own student jokers and the dates when the statue suffered through this agency make it probable that the serious mutilations so wrought had no real political significance. The first time gunpowder was used the king, who never flinched in battle, quite lost his head, and the

second time, a night in April, 1836, the doughty warrior retreated bodily and next morning was picked up and taken in a wheelbarrow to the police-station, as the manner still is with those shattered wrecks of humanity that are now and then found in the gutter. In the case of any other king, so disgraceful a mischance would have prevented his again appearing in good society, but William's Orangemen proved staunch friends and he was given time to recover from his shaking-up, and then was loyally given a helping-hand to his former seat.



William III, Glasgow, Scotland.

Apparently the king alone was thought worthy of repair, for his sway-backed steed bears more evidence of having been to the wars than his, now, undismayed master.

There will surely come a time when this monarch will be worthily represented by an equestrian statue, and when that time comes it will be as well to let the statue near the Cross in the Tron-gate at Glasgow be represented by mere historical records and prints, and one of these records will be a copy of the inscription¹ which decorates its sides, an inscription which is only less amusing than the one upon the statue of Charles II at Edinburgh, in that its adulatory phrases are more deserved.

The inscription can be accepted as a matter-of-course, but not so the description of the horse which is found in a poem written at the time of the unveiling of the statue, in 1734, so if no trustworthy print showing the statue should be preserved, it is to be hoped that no copy of the poem may remain extant, since in it the poet remarks:

"Methinks the Steed doth spread with corps the plain
Tears up the Turf and pulls the Curbing Rein;
Exalts his Thunder-Neck and lofty Crest,
And force thro' ranks and files his stately Breast,
His Nostrils glow, sonorous War he hears,
He Leaps, Jumps, and Pricks his Net'ning Ears,
Led by the Hero, he the Files invades,
And forceth passage through the thick Brigades
Hoofs up the Turf, spreads Havock all round,
Till blood as torrents overflows the ground."

And all this fine frenzy and affluence of capitals is wasted over a tame, a very tame, quadruped bestriden by a laurel-wreathed figure in Roman toga.

One really gets a better idea of the group from the "Glasgow Bellman's" [Dougal Graham] poem "John Highlandman's Remarks on Glasgow"

"Her nainsel into Glasgow went,
An erran there to see't;
And she ne'er pe saw a ponier Town
Was stan'ing on her feet.

"I gang to seek a Snish tumbak,²
And standing on the Corse,³
And tere I saw a Dead Man
Was riding on a Horse.

OPTIMO PRINCIPI,
WILLIELMO III. BRITANNARUM REGI, PIO, FORTI,
INVICTO, CUJUS VIRTUTE, CONSIDIO ET FELICITATE
IN SUMMO SEPE DISCRIMINE SPECTATIS,
FEDERATI BELLO CIVITATIBUS TANTUM NON DELETIS
INSPARATA PARTA EST SALUS;
BRITANNIE ET HIBERNIE
RELIGIO PURIOR, JURA LIBERTATISQUE,
RESTITUTA, CONSERVATA, ET POSTERIS,
SUB LEGITIMO PIORUM PRINCIPUM BRUNSVICENSIIUM
IMPERIO, SUNT TRANSMISSA;
INTENTATUM DENIQUE, A GALLO TOTI EUROPAE
SERVITUTIS JUGUM EST DEPUISUM:
HOC IMMORTALIUM MERITORUM MONUMENTUM,
LABENTE SEPTIMO POST OBITUM LUSTRO,
SUMMO SENATUS, POPULIQUE, GLASGUENSIS PLACU
ACCEPTUM, POSUIT, CIVIS STRENUUS ET FIDUS,
JACOBUS MACRAE
COLONIE MADRASSIANAE EXPREFECTUS
MDCCXXXV.

In honor of the most excellent Prince William III, sovereign of Great Britain, pious, valiant, invincible, by whose courage, counsel and address, often displayed in the greatest danger, to the United Provinces, well-nigh overpowered, safety was obtained; to Britain and Ireland purer religion, law and liberty were restored, maintained and transmitted to posterity, under the just government of patriotic princes of the Brunswick line; and the yoke of slavery, intended by the French for the whole of Europe, was averted: this monument of his immortal deserts, in the thirty-third year after his decease, being accepted, with the highest approbation, by the magistrates and people of Glasgow, was erected by her faithful and active citizen, James Macrae, late governor of the presidency of Madras MDCCXXXV.

² Snuff tobacco.

³ Cross.

"And O, he pe a poor man,
And no hae mony claise
Te Progs⁴ be worn aff her feet
And me see a' his Taes.

"Te Horse had up his muckle fit,
For to gie me a shap,⁵
And gaped wi' his great mouth,
To grip me by the tap.

"He had a Staff into his hand,
To fight me an he could,
Put hersel' pe rin awa frae him,
His Horse be unco proud."

Just why the horse should be "unco proud" is hard to discover, unless it be because of the success with which he caricatures his, presumably, noble original.⁶

Who was the author of the group, which, overstrained and absurd as it is, is one we would be loth to have disappear, for associations' sake, is not recorded, while on the other hand full particulars are given as to the James Macrae who presented the statue to his native town, from which he had run away forty years before to seek that fortune which was so difficult for one of his lowly birth to find at home. By effort and merit he raised himself to be Governor of the Presidency of Madras and at length returned to Glasgow with the fortune it had been his object to acquire. This fortune he eventually settled upon his four nieces, one of whom married the Earl of Glencairn whose name is sometimes erroneously associated with the procuring of the statue.

In the same year, 1734, was erected by the burgesses an equestrian statue of William, at Hull, of lead, gilded, whose authorship we have been unable to trace and whose actual appearance, for it still exists, is imperfectly shown by the annexed cut, based on a rough representation in the London Graphic.

Still another statue of William is to be found in Queen's Square, Bristol, the work of the prolific Belgian sculptor, Rysbrach. If



William III, Bristol, England Rysbrach, Sculptor.

the cut, which is taken from "Bristol, Past and Present," is a fair representation of the statue, the sculptor took as great liberties with the hook-nosed king, as he has with the horse, which seems as full of dimpling folds of fat as any of the voluptuous nudities which stand for the work of Rubens in the Dresden gallery. Still, though the sculptor had even less idea of what goes to constitute a well-shaped and well-conditioned horse than the unknown author of the Glasgow statue, the group has its merits. It appears that though Rysbrach was paid £1,800 for his work he only did the modelling,

⁴ Brogues—shoes.

⁵ Blow.

⁶ There is an old custom, still to some extent prevailing, of the people congregating around the statue on New Year's Eve, waiting the advent of the new year from the bell of the Cross spire. At the last sound a shout rises from a thousand throats, and happy new years and treats are exchanged, when each takes off his several way to get home by daylight in the morning. The simpleton is told that when King William hears the clock strike twelve on New Year's Eve he comes down and takes a drink. Of course, he never hears the clock, although many a guileless youth and maiden have stood open-mouthed as the clock was striking.

and that Van Nost [Van Oost] carried it through the process of reproduction and may possibly have introduced changes of his own.

According to Walpole, the sculptor Scheemakers also modelled an equestrian figure for Bristol for which, as it was not found satisfactory, he received a gratuity of £50.

Bristol, an important sea-port at the head of Bristol Channel, is about one-hundred miles from Torbay where William landed and was one of the first places where his partisans openly declared themselves in his favor and it was because of the strong feeling of the citizens that in December, 1731, a petition was presented to the Common Council asking that an equestrian monument in his memory might be erected. Steps were immediately taken to carry their wishes into effect and in September, 1736, the group was finished and paid for, mainly by public grant, the balance being provided by private subscriptions. Although the statue is called one of "copper" in a book bearing the date of 1819, it is probably of lead and at any rate is now bronzed or gilded.

The most pleasing statue of William—for Birch's statuette can hardly be counted as such—stands in St. James's Square, London, one of those small breathing-spots where a few square rods of grass



William III, London, England. John Bacon, Sculptor.

overburdened with shrubbery are enclosed by high iron railings to whose stranger-repelling gates the fortunate abutters (or their nursemaids) have keys. Fortunately the pathways are not overgrown and outsiders have an unobstructed side view of the group, which possibly gains through being seen at a little distance. From 1732 to 1808 the statue was represented solely by a pedestal which had been set up at the earlier date in fulfillment of a bequest made in 1724. For some unknown reason matters came to a standstill and the vacant pedestal might have remained to this day one of those landmarks which are accepted as things which have always been and must always be, though no one cares for them, had not the evidence of the existence of the bequest and the intention of the testator been discovered in the following century through an advertisement of unclaimed dividends. This led some one to make an investigation with the result that the principal and increase were reclaimed by the proper successors of the executors and the completion of the statue was placed in the hands of the younger Bacon whose work was finally placed upon the elderly pedestal in 1808.

JAMES I of England and VI of Scotland, son of Mary, Queen of Scots, was born in the Castle of Edinburgh, 1566. He was crowned King of Scotland and placed under a regency in 1567. Became King of England by the death of Queen Elizabeth in 1603, and for a time continued the foreign policy of his predecessor, until he finally sacrificed his son-in-law, the Elector Frederick, and Raleigh, to conciliate Spain. He wrote some works of pedantic learning, ordered the translation of the Bible, and died in 1625.

CHRISTMAS.—Gerard (or Garrett) Christmas had a high reputation as a carver and statuary in the reign of James I. His origin is not known. According to George Vertue, he designed and executed Aldersgate, and (according to the same authority) as architect, or carver, was responsible for the front of Northumberland House. He was very skillful and much employed in designing and carrying out the figures for the pageants which accompanied the entry of each new Lord Mayor of London. He designed the monument in Chilton Church, Suffolk, to Sir Robert Crane, and the tomb of George Abbot, Archbishop of Canterbury, at Guildford. In 1614 Christmas was appointed carver to the Royal Navy and the Lords of Admiralty, which position he enjoyed till his death in 1634.

WILLIAM III.—Stadtholder of Holland and King of England, was born at the Hague on the 14th of November, 1650. He was the eldest son of William II, Prince of Orange, and Mary Stuart, a daughter of Charles I of England, and before his accession to the British throne was styled Prince of Orange. At the death of his father, in 1650, the enemies of the house of Orange determined that there should never be another Stadtholder. On the death of De Witt, in 1672, the young Prince William became head of the government and took vigorous measures to defend the State against the invading French armies, which culminated in his opening the dikes and inundating the seat of war, thus forcing the enemy to save themselves by a hasty retreat. In 1674 William was defeated at Senef by Condé, and the war ended with the Peace of Nymwegen in 1678. A year before this William had espoused Mary, a daughter of James, Duke of York, afterwards James II of England. Although weak and sickly from childhood, William was possessed of remarkable qualities and great energy, and before he had reached the age of twenty-five was renowned throughout Europe as a soldier and diplomatist, and as the guiding spirit of a powerful coalition formed against Louis XIV. About 1686 he became the leader of the opposition which the unwise conduct of James II had awaked in England, and two years later was invited by Russell, Sidney and other conspirators to come with an army to defend the liberty and the Protestant religion of that country. Pledging himself by declaration to be devoid of any idea of conquest, and to leave all questions to be decided by a free Parliament, William embarked, and landing at Torbay in November, 1688, with an army of about 14,000 men, was joined by numerous peers. King James fled to France on

the 11th of December and the revolution was thus accomplished without much difficulty or shedding of blood. William called a convention, composed of peers and the surviving members of the former House of Commons, which voted in February, 1689, that James had abdicated and that William and Mary should be declared King and Queen of England. Many obstacles to peace, however, were still to be met, as James had numerous supporters in Ireland and Scotland and was aided by Louis XIV. For his ministers, William chose members of both the great parties, the Whigs and Tories, and reserving to himself the direction of foreign affairs, declared war in May, 1689, against the King of France, with whose help James had been enabled to take the field in Ireland with a considerable army. William, passing over to Ireland in June, took command of the land forces and on the first of the following month inflicted a signal defeat upon the French and Irish at the Battle of the Boyne, after which James abandoned the contest and again sought refuge in France. In May, 1692, the French fleet was defeated by the Dutch and English navies at La Hogue. The war between the allies and France, however, continued in Flanders, where William commanded in person, and where he lost the battle of Steenkerke to Marshal Luxembourg in August, 1692. This war was stopped by the treaty of Ryswick in 1697, soon after which William and Louis became parties to a treaty to partition the Spanish dominions. In 1700, Louis XIV disregarded the obligations of this treaty and William formed an alliance against him with the Emperor of Germany and other powers. But before the commencement of hostilities, he died in London in March, 1702, in consequence of injuries received by a fall from his horse, and, leaving no issue, the crown passed to his sister-in-law Anne.

HEMS.—Harry Hems was born in London in 1842. At the age of fourteen he went to Sheffield, and was apprenticed to a wood-carver, for whom he worked some years; but in 1853 he returned to the metropolis, and the next year went to Italy to study the antique. After working in Florence, Carrara and Milan he went back to England, and in 1856 carried out his first work on his own account, when he executed some sculpture and carving at Bramley Hill House, Croydon. The same year he went to Exeter, with which city his name has since been identified, and where, in 1881, he built his present workshop. The greater part of his work has been executed for churches and other ecclesiastical edifices. Among the most important may be mentioned the renovation of the high-altar screen at St. Alban's Cathedral, under Sir Arthur W. Blomfield; the restoration of St. Andrew's Church, Plymouth, under the late Sir G. G. Scott, and his work at the following churches: St. John the Baptist, Bere Regis, Dorsetshire, and Dunster Priory and Parish Church, Somersetshire, both under the late G. E. Street; St. Andrew's, Fort William, N. B., under Mr. Alexander Ross; St. Peter the Fisherman, Noss Mayo, Devon, under Mr. J. Piers St. Aubyn; and St. Denis's Church, Westminster, Wilts, under Sir Arthur W. Blomfield. Hems also made the colossal equestrian statue of King William III, carried out for the Orangemen of Ireland and erected at Belfast.

RYSBACH.—John Michael Rysbach (whom Walpole thought "the best sculptor that has appeared in these islands since Le Soeur") was born at Antwerp, probably in 1693. His father was a landscape painter, and the young Rysbach studied in Antwerp under the sculptor Van der Vorst. He came to England in 1720 and his first success was in making a bust of the Earl of Nottingham. For some time he was engaged by Gibbs, the architect, but as his works were more known and admired, he set up a studio of his own and at last became the most famous sculptor in England. His productions are very numerous and include, in addition to a large number of portrait busts, the following: Monuments to Prior (except the bust by Coysevox), Earl Stanhope, Sir Isaac Newton, Sir Godfrey Kneller and Admiral Vernon, all of which are in Westminster Abbey; statues of Sir Hans Sloane at Chelsea, of Locke in Christ Church College, Oxford, of George II at Greenwich Hospital, and of the Duke of Marlborough at Blenheim; and the equestrian statue of William III in Bristol. He also executed a Hercules and a Flora, which were at Stourhead, the statues of Palladio, Inigo Jones, and Flamingo at Chiswick, the heads of English worthies in the Elysian fields at Stowe, and those in the Hermitage at Richmond. His statues of the first and second Georges perished in the fire which consumed the Royal Exchange in 1838. Rysbach died in London in 1770.

BACON.—John Bacon, the second son of the sculptor, John Bacon, R. A., was born in London in 1777, and received his art education at the schools of the Royal Academy. He exhibited his first work, a bas-relief, "Moses Striking the Rock," at the Academy in 1792 when only fifteen years old, and gained a silver medal at the age of 16 and a gold medal the following year. In 1796 he exhibited two figures, "Vigilance" and "Prudence," now at the Trinity House, London. His father dying in 1799, he succeeded him in his work and completed numerous monumental commissions thus left unexecuted. Besides the equestrian statue of William III in London, Bacon made a number of monumental works, several being in St. Paul's and others in Westminster Abbey, and many busts. He died in London in 1859.

[To be continued.]

THE IMPROVEMENT OF BUILDING CONSTRUCTION.



Hand-rail.

(6) WHICH is the best economy, to continue building as now done and trust to the fire department: or put up better buildings that will not destroy each other, but will burn out individually?

The general public is not aware that eleven fires alone destroyed over thirty millions during 1889: just think of it, eleven fires costing on an average near three millions each. We destroy over 110 millions worth of property each year, we spend nearly 40 millions for managing a system of insurance tax, 30 millions are needed for the fire departments, our whole fire tax being near 190 millions. Estimating our population at 64 millions this fire tax amounts to three dollars per head for every man, woman and child in the United States.

One-half of this sum at least is the price we are paying for ignorance, carelessness and crime: the other half we cannot help, for fires have occurred for ages and will continue to occur, notwithstanding all precautions to prevent them; but it is a lamentable fact that our people have grown more careless than those of any other nation, and that the means for preventing fires have not, by any means, kept pace with those for its extinguishment. Take up the report of a representative department, that of New York, and in 1886 the ratios of fires to buildings was one to eighty; in 1889 it has risen by uneven steps to one to forty. While the number of buildings increased eighty per cent and the population one hundred and

¹ Portions of a paper by Mr. Henry A. Goetz, read before the National Association of Fire Engineers at Detroit, in September last.

twenty per cent the outbreaks of fire increased in number two hundred and fifty per cent. The Insurance Commissioner of Massachusetts, in his report, estimates that fully ninety per cent of all fires were preventable. These figures indicate very plainly that it is better buildings and increased precautions we need rather than improved apparatus or additional firemen.

At a public meeting in Boston, Inspector Damrell said: "The subject of prevention supersedes that of extinguishment, and that we must build so as to confine the fires in the places where they started; if you wish to avert conflagrations separate the risks by fire-walls so that fires can be confined. Prevent the erection of a building which, when a fire starts in it, will not only destroy itself, but lay waste the property of its neighbors."

At the same meeting the Fire Commissioners expressed the opinion that it was not additions to the fire department or improved apparatus that was wanted so much as better buildings that were able to resist fire. In fact it is now being accepted as law by the insurance experts and those who are intimately concerned, that it is only by the most careful inspection and improved methods of building that we can ever hope to reduce the fire-waste of this country.

The walls of all warehouses, stores, factories and buildings intended to contain merchandise, machinery or humanity should be of the most substantial construction. The joists, girders, posts and interior framework should be so constructed that the entire contents might be burned and destroyed without danger to the enclosing walls. If the architect could be prevailed upon to design his building so it could safely cremate its own contents, then it would be impossible for any fire to spread to any serious extent, and the conflagration hazard could be wiped out of existence. The eleven fires of last year would have been impossible, and immeasurably less would have been the danger to life and property.

When it is borne in mind that falling walls are of frequent occurrence, and that when one building gives way the one standing next to it usually falls also, and when it is considered that this flimsy method of construction, as now practised, furnishes all the most favorable conditions for a conflagration, the wonder is that each city is not in turn destroyed block for block.

It is a high tribute to the efficiency of the American firemen that conflagrations are not of more frequent occurrence, and with no small amount of pride can we assert that the American firemen are head and shoulders above those of any other nation, and, while the firemen are doing all that it is possible to do, nevertheless it is much the best economy to prevent fires rather than trust to our ability to extinguish them.

(c) Should firemen take an active part in urging that better methods of construction be adopted and in what way can they do this best? Is it policy for the National Association to undertake to frame a model building law?

For the last few years the loss of life at fires averaged nearly 500 yearly, and we can call to mind many brave and fearless firemen who are among that number. Hardly had our last convention closed when Major Hughes was called home by telegram to mourn the loss of five men who were buried under falling walls. Following soon after this came Philadelphia with one dead and several injured, at Lynn another lost his life, then the big fire at Boston took away four at one time. This list could be kept up indefinitely, but we will close with the most fearful of all, Indianapolis, twelve being killed at once and many others injured.

It is certainly a sad commentary on our methods of building to know that the collapse of a single post or the falling of a few joists should cause the whole building to fall.

Should we, then, as firemen, stand back and say nothing, is it not our duty to cry out and call upon our Government, both State and National, to correct these evils in building?

Take up the building ordinances of all the larger cities and you will find no two of them alike, uniformity is a term unknown. Examine more closely and you will discover many paragraphs to be unnecessary or so ambiguous as to be misunderstood.

It is a strange commentary on the intelligence of this great nation, that not a single State in the Union has a comprehensive building-law, classified to meet the varying wants of its different cities. Not a single city in this country has an ordinance that can be considered perfect, or nearly so.

That of Louisville, just passed, is said by architects and builders to be impractical, even using names and terms unknown to the trade. The Mayor of Boston has just appointed a committee for the purpose of revising an admittedly bad and patched-up ordinance. In New York State a bill was recently introduced at Albany providing for the appointment of a commission of three experts to draft suitable laws for the construction of buildings in the State. This bill fell through, possibly because the average statesman did not appreciate its importance. New York City has had a commission at work for months revising and correcting the law, and intended to have the amendment passed by the last Legislature, but the underwriters found some room for improvement and succeeded in delaying its passage until next winter. St. Paul, Minneapolis, Baltimore, Philadelphia and Memphis are at work seeking to improve their laws. All this work showing conclusively and admitting the defects now existing.

This subject of improved methods of building should receive our most earnest and careful deliberation, for it concerns the financial welfare of this country, the personal safety of ourselves, and the life

and property of those who are so unfortunate as to occupy these badly-constructed buildings during a fire.

There are other national bodies who should be as deeply interested as ourselves, and we have every reason to believe they are, namely, the American Institute of Architects, the National Association of Builders, the National Board of Underwriters and the National Association of Building Inspectors.

It does not seem improper, therefore, for this Association to ask the cooperation of the national bodies mentioned for the purpose of framing a "Model Building Ordinance." Such a model framed and promulgated under their combined cooperation would be eagerly adopted by all cities, and would have a wonderful effect in improving our present methods of building.

This Association should be the first to take some action in the matter.

Nothing we could do would be more commendable.

Nothing we could do would be of such importance.

Nothing we could do would be considered a greater blessing.

Nothing we could do would bring us into greater prominence than to be the prime movers toward getting a Uniform and Model Building Ordinance, framed and adopted.

(d) Will it cause the public to adopt better methods of building if the chiefs, in making their reports, would adopt the plan of reporting, in addition to the total loss, also the probable loss that would have occurred if the building, in which the fire originated had been built with adequate fire-walls or in a proper manner.

The people generally seem to think that a great fire or conflagration is an act of God, and find consolation in insurance, forgetting that insurance companies merely distribute the burden on the multitude with about forty per cent. added to pay dividends and expenses. The people generally are not aware that the greater the fire-waste, the greater the tax on the people. Insurance is now considered a legitimate and necessary expense and any one is counted as negligent indeed, who meets with a loss by fire and is not insured against such a loss. Insurance, therefore, is a tax amounting at the present time to near one per cent. on all our taxables. A reduction of this tax is an important matter and lays wholly in the hands of the people, and can be brought about only by greater care in preventing fire, and by better methods of building. The Mutual Insurance Companies have demonstrated beyond a doubt, that it pays to put up better buildings and protective apparatus; from actual results we find that the rate on a textile mill was formerly two and one-half per cent., while the rate last year was only one-fourth per cent. The president of a prominent stock company asserts that his company would make good money at one-third the present rates if fires could be confined in the buildings in which they originated.

Losses by fire from interior causes seem unpreventable, but those from exposure, that is, where fire extends to adjoining property, can be prevented by the erection of better buildings having substantial fire-walls.

The *Chronicle* fire tables show a loss from exposure during 1889 amounting to 50 millions, the total loss from all causes being 125 millions. Sixty per cent. therefore representing the loss from all causes, and forty per cent. that from exposure alone.

After any great fire there is usually considerable criticism floating in the air, condemning the management at a fire, and the firemen generally get the blame if any one is hurt by falling walls.

Did you ever hear any one ask or inquire during a fire about the details of construction, and how it might be improved? Did any one ask for the name of the architect, the builder and the owner?

Is the architect censured for permitting his judgment as to safety to be overcome by the economical ideas of the owner?

Is the builder ever called to account, or brought before a jury for putting up such a flimsy death-trap?

Is the owner ever summoned before a judge to answer for the damage caused to adjacent property through his negligence, or to answer for the lives that were burned and scorched? No. None of these are at fault, it is the chief, it is the firemen that get all the blame. I need only refer to the papers for evidence. This way of criticising matters should be changed, and it can be done.

One chief in his report says: "Had the walls of the building been sufficiently strong, the fire would have been confined to that building alone, and the loss would not have been more than one-third what it really was."

Another says: "If the walls would have remained standing the loss would have been very much less."

Another says: "The walls fell early, exposing much property that lay next to it."

Now this is entirely too lenient with the owner and much stronger language should have been used, giving the figures of the total loss and also of the preventable one. We have become so accustomed to walls falling, that we take it as a matter-of-course and not to be helped.

This habit our builders have of making thin party walls do double service, and of propping up these buildings against each other, will not do. Compel owners to build so that a structure will stand alone should those adjacent be removed.

Compel builders to put a building so that the entire interior of the same could burn out without damage to the exterior walls.

Draw out these facts especially in your reports, with a view of educating and instructing the people, and there will certainly be a public opinion aroused that will correct these evils and make it a

crime against the safety of the public for any one to build these thin, weak and unsafe party-walls. Methods of anchoring should be corrected, for at the present if the joist fall the anchors cannot free themselves, and therefore the wall is pulled down. You must explain in your reports what made the walls fall, and insist on some method of anchoring joist being used so that falling joist shall free their anchorage and leave the walls standing, remembering all the while that nothing in existence can resist a fire so well or so long as a standing brick wall.

THE POSSIBILITY OF PROFIT THROUGH CO-OPERATIVE LABOR.



a letter to the Boston *Herald*, Mr. Arthur T. Lyman, Treasurer of the Lowell Manufacturing Company, says:

In your report of the discussion of the subject of profit-sharing, at the last meeting of the Unitarian Club, you stated that I said that the difference between the value of the average product per person employed in Massachusetts, according to the census of 1885, and the amount of wages paid, required an explanation, but your report omitted the very plain explanation which I gave from the figures of the census. As it is of some importance that the matter should not be misunderstood, allow me to restate the facts.

According to the State census of 1885, the total value of goods made and work done was \$674,634,269. The number of persons employed on June 30, 1885, was 379,328. This gives the average product per person \$1,779; but, as is explained in the census report, the total product as above is largely duplicated, the returns, for instance, covering the value in one place of leather finished, and in another the value of the boots finished out of the leather which had already counted as a finished product.

The total amount of wages paid was \$147,415,316, and the number of persons employed during the year was 419,966, or an average of \$351 for each person employed.

What became of the difference between \$1,779 and \$351, which some persons have supposed went to capital?

As above stated, the total value of products was \$674,634,269. From this must be deducted the value of the stock used, which was \$389,757,458, and the wages paid \$147,415,316, a total of \$537,172,774. Deducting this from the total product leaves only \$137,461,495, which is all there is left after paying wages and for material used.

Out of this must also come charges for taxes, interest on capital, depreciation of plant, bad debts, salaries, general expenses, etc.

The capital invested was \$500,594,377. The interest alone on this is over \$30,000,000. The depreciation allowed should be at least \$20,000,000. The salaries paid were over \$10,000,000, and taxes, general expenses, etc., would add many millions more. The total to be deducted before any real gain or profit is left must be \$80,000,000 to \$100,000,000. Calling it \$80,000,000, and deducting this from \$137,461,495, leaves only \$57,461,495 that could possibly be added to wages. This sum divided by the 419,966 persons employed gives \$137 per person per annum. This is undoubtedly too large by a large percentage, as explained above in speaking of the duplications in the value of the total product.

It is probable that the whole of the \$137 would thus disappear, and I consider it certain that not over \$100 would be left, i. e., less than \$2 per week per person employed. This view of the case is fully confirmed also by actual returns from good representative business establishments. Such returns are much more reliable than a mass of averages.

The inference is clear and unavoidable, viz, that a great surplus profit, which it is imagined exists, cannot be divided simply because it does not exist, and therefore, as the census figures show, the division of the product and of the gain is pretty fairly made. That better work could be done and a large saving made by better and more faithful services no one who has the management of extensive works can doubt, and if profit-sharing or industrial partnership can induce such increased interest and improved service, it is well worth trying in the interest of all concerned.

ROPES FOR SCAFFOLDING. — It has been suggested by a French exchange that, in order to insure greater strength and consequently more safety in ropes used for scaffolding purposes, particularly in localities where the atmosphere is destructive of hemp fibre, such ropes should be dipped, when dry, into a bath containing twenty grains of sulphate of copper per litre of water, and kept in soak in this solution some four days, afterwards being dried; the ropes will thus have absorbed a certain quantity of sulphate of copper, which will preserve them for some time both from the attacks of animal parasites and from rot. The copper salt may be fixed in the fibres by a coating of tar or by soapy water, and in order to do this it may be passed through a bath of boiled tar, hot, drawing it through a thimble to press back the excess of tar, and suspending it afterward on a staging to dry and harden. In a second method the rope is soaked in a solution of 100 grammes of soap per litre of water. The copper soap thus formed in the fibre of the rope is stated to preserve it even better than tar is capable of doing, which acts mechanically to imprison the sulphate of copper, which is the real preservative in the case. — *Boston Transcript*.



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

HOTEL IMPERIAL, BROADWAY AND THIRTY-SECOND STREET, NEW YORK, N. Y. MESSRS. MCKIM, MEAD & WHITE, ARCHITECTS, NEW YORK, N. Y.

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

THIS building which has a front of 90 feet on Broadway and one of 125 feet on the side street is, we believe, the latest finished expression of hotel architecture in New York. The materials, white marble for the basement and a very light buff brick with light terra-cotta finish, give the building a fairly harmonious and pleasing general aspect. A greater attention to the color of the basement or an added robustness in its treatment would have heightened the satisfactoriness of the result. The most unfortunate features of the design are the square projecting porches on the Broadway side which cry out for a different treatment of the window-heads immediately over them.

PLAN AND SECTION OF A DESIGN FOR THE MONUMENT TO GENERAL GRANT. MESSRS. CARRERE & HASTINGS, ARCHITECTS.

[Issued with the International and Imperial Editions only.]

Too late to remedy the mistake it was discovered that this sheet had not been made ready for the last week's issue, which it was intended to accompany.

DENBEIGH HALL, BRYN MAWR COLLEGE, PA. MESSRS. COPE & STEWARDSON, ARCHITECTS, PHILADELPHIA, PA.

This dormitory is now nearing completion. It is built of gray local stone with trimmings of Euclid stone. It will cost when finished, about \$70,000.

SANITARIUM, CUMBERLAND GAP, KY. MR. W. B. BIGELOW, ARCHITECT, NEW YORK, N. Y.

CENTENARY METHODIST-EPISCOPAL CHURCH, MINNEAPOLIS, MINN. MR. WARREN H. HAYES, ARCHITECT, MINNEAPOLIS, MINN.

A CITY HOUSE DESIGNED BY MR. THOMAS WHEELER, BOSTON, MASS.

[Additional Illustrations in the International Edition]

THE SOUTH TRANSEPT DOORWAYS OF COLOGNE CATHEDRAL.
[Gelatin Print.]

THE NEW PARLIAMENT BUILDING, VIENNA, AUSTRIA. BARON HANSEN, ARCHITECT.
[Gelatin Print.]

This building, which was first occupied in January, 1884, stands on the Ringstrasse opposite the Volksgarten, and in the view here given has a more imposing air than the building actually has, the real effect being rather disappointing at first sight, and the eight quadrigas which crown different parts and from a little distance can all be seen at the same time, lend an air of dishevelment which seriously detracts from the dignity of the structure.

The entire length of the building is 608 feet and its width is 433 feet. The portion of the building on the left is the Herrenhaus or House of Lords and fronts the palace of ———. More than nine years were consumed in building operations, the cost of which has exceeded \$4,000,000.

STATUE OF THE REPUBLIC, PARIS, FRANCE. M. J. F. SOITOUX, SCULPTOR.
[Etching.]

This statue stands in the semicircular enlargement of the roadway in front of the entrance to the Palace of the Institute, once the Collège des Quatre-Nations or Collège Mazarin, since the Cardinal was its founder. The statue was erected in 1880.

THE SCHOOL LAUNDRY, HARROW, ENG. HOUSES, HARROW, ENG. MR. E. S. PRIOR, M. A., ARCHITECT.

THE NEW BROUGHTON BATHS, BOROUGH OF SALFORD, ENG. MESSRS. MANGNALL & LITTLEWOODS, ARCHITECTS, MANCHESTER, ENG.

This building is now being erected from designs selected in competition, on a plot of land bounded by Great Clowes Street,

Muriel Street and Lucy Street. Messrs. Robert Neill & Sons are the contractors for the general work, amounting to £6,990; Messrs. W. Harrison & Son, for the plumbing, £636; and Messrs. T. Bradford & Co. for boiler, steam service and laundry fittings, £1,035. The façade to Great Clowes Street will be set back twelve yards from the street-line, the material being the best pressed bricks and a good quality of red terra-cotta from Mr. J. C. Edwards, Ruabon, this material being well adapted for the various enrichments in the design. The centre of the building being directly opposite Teneriff Street, it was considered by the architects to be the best position for the principal entrances, and the manager's residence over them forms the centre feature of the design. The wings, right and left, are treated with pilasters, having moulded bases, and with Ionic capitals surmounted by a terra-cotta entablature and balustrade. Between the pilasters there are circular windows, filled-in with stained-glass, and having terra-cotta enriched architraves. The lower portion of the building will have rusticated courses and dado mould for about seven feet in height.

There are three first-class ladies' slipper-baths and six second-class. There is a vapor-bath, with cooling-room, and a shower-bath for the first-class and water-closet arrangement for each class. These bath-rooms are eight feet long by six feet six inches wide. There are eight first-class men's slipper-baths, each eight feet by six feet six inches, and an extra one nine feet three inches by six feet six inches, containing slipper-bath and vapor-bath. On each side of this vapor bath-room there is, with door communication, a cooling-room seven feet six inches by six feet six inches, with couch. Each first-class bath has separate shower-bath and water-closet. There are twelve second-class men's slipper-baths, each seven feet six inches by six feet six inches, with water-closet thereto.

The first-class swimming-bath is sixty-nine feet by forty-three feet within the walls, having water area sixty feet by twenty-five feet, and the second-class one is ninety-seven feet six inches by forty-six feet, with water area seventy-five feet by twenty-eight feet. In each case the depth is five feet nine inches at the deepest and three feet at the shallowest end. One or both of the swimming-baths will be most likely closed in the winter months. It is here suggested that one or both of the bath-rooms could be used for recreation-rooms, assemblies or public meetings. The large second-class swimming-bath is well adapted for this on account of its galleries and numerous means of exit. A special exit door is shown to be left in the side-wall to Lucy Street, for use only on such occasions. If the bath be required for a gymnasium, the principals are strong enough to support swings or other such attachments. A committee-room, sixteen feet by thirteen feet, is provided, convenient to the deep end.

SUBURBAN HOUSE. MR. RICHARD WILLOCK, A. R. I. B. A., ARCHITECT.

THE suburban house, of which we publish a view in this week's issue, will soon be, with slight modifications, commenced on a corner plot of ground near Stamford Hill. The walls are built with bricks, relieved with hanging tiles and brick cornices, string-courses and sills, etc. The drawing was exhibited in this year's exhibition of the Royal Academy.



AMERICAN INSTITUTE OF ARCHITECTS.

THE twenty-fourth annual convention of the American Institute of Architects, will be held at Washington, D. C., October 22, 1890.

ORDER OF PROCEEDINGS.

The meetings will be held in the Arlington Hotel. The rate being reduced from five to four dollars per day, for the occasion.

It is desirable so as to expedite business and pleasure to have all members stop at the same hotel.

The Board of Directors will meet on Tuesday afternoon, October 21, at four o'clock.

AFTERNOON SESSION.

Wednesday, October 22, Four o'clock.

Roll Call.

Address of welcome by the Hon. J. W. Douglass, President Board of Commissioners, District of Columbia.

Address by R. M. Hunt, F. A. I. A., President of the American Institute of Architects.

Reports of the Board of Directors, Treasurer, Committees and Chapters.

The Trustees of the Corcoran Gallery of Art, especially open and invite members of the Institute and their ladies to the Gallery in the evening between eight and nine o'clock.

The Cosmos Club will receive members after nine o'clock.

MORNING SESSION.

Thursday, October 23, Ten o'clock.

Reports of Committees, etc.

Papers. Sketch of the History and Status of the American Institute of Architects, A. J. Bloor, F. A. I. A.

Foundations for Kansas City Hall, S. E. Chamberlain, F. A. I. A. Science of Aesthetics, Henry Rutgers Marshall, F. A. I. A. Afternoon trip to Mt. Vernon and oyster lunch on the boat, given by the Washington architects.

The "Charles Macalester" will leave the Seventh Street wharf promptly at 3 o'clock P. M.

MORNING SESSION.

Friday, October 24, Ten o'clock.

Election of Officers.

Final business before the Convention.

Adjournment, followed by a visit to the White House.

The afternoon; visitors can devote to sight-seeing in the city, as follows:

Mr. Edward Clarke will meet in his office in the Capitol at three o'clock, all who wish to see that building.

Mr. J. H. Windrim will receive at two o'clock in the office of the Supervising Architect, Treasury Department, all who wish to examine the Treasury and Supervising Architect's Office.

Mr. G. Brown Goode will meet in the reception room of the National Museum at two o'clock, all who wish to see that building.

Mr. Adolf Cluss will await in the reception room at three o'clock, those who wish to visit the Patent Office.

Other members of the Washington Chapter will hold themselves in readiness to accompany parties of visitors to any point of interest about the city which they may desire to see.

The Railroads will give a return rate for one-third the regular fare, in accordance with circular already issued by the Secretary.

The architects who attend the Convention will confer a favor on the Committee of Arrangements by signing the Register of the Convention, which will be in the office of the Arlington Hotel, immediately upon their arrival.

J. W. ROOT, CHICAGO, ILLS.

WM. POINDEXTER, WASHINGTON, D. C.

GLENN BROWN, WASHINGTON, D. C.

Committee of Arrangements.

TECHNICAL SOCIETY OF NEW YORK.

At the annual meeting of the "Technical Society of New York" on October 11, 1890, the following Officers and Board of Trustees were elected:

President, Paul Goepel; Vice-president, E. L. Heusner; Corresponding Secretary, Max C. Rudell; Recording Secretary, Heinrich Schreiter; Treasurer, Charles Heinecke; Librarian, Frank Knauer; Chairman of the Committee on Arrangements, Theo. Lungwitz; Chairman of the Committee on Publications, W. Paul Gerhard; Chairman of the Committee on Employment, George W. Wundram; Chairman of the Section of Civil Engineers, George Schenck; Chairman of the Section of Mechanical Engineers, Hugo B. Roelker; Chairman of the Section of Architects, H. W. Fabian; Chairman of the Section of Chemists and Metallurgists, Dr. Joseph Krieger; Chairman of the Committee on Electricians, M. Feilbogen. The society numbers 244 members.



[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.]

EAST AND WEST.

ST. PAUL, MINN., October 13, 1890.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—It is perhaps an unintentional slur upon the so-called "Western Architects" that in your edition of the 4th inst. an article containing a letter from Mr. Warren R. Briggs should be headed "Is This a Key to Western Architecture?" The fact that such a letter as he complains of should have been sent to any architect, East or West, should be considered an insult to the whole profession, but coming from such a source might readily be passed over as too contemptible for notice, and be passed by as belonging to that set of other common annoyances like contractor's bribes and dealer's commissions which really affect nobody, but appearing as it does under the above title it challenges a special kind of attention.

It must not be assumed that the statement of the person who could issue such a circular letter can be taken as *prima facie* evidence that the facts are as he gives them. That some one who indulges in what he himself evidently considers to be a questionable business, should endeavor to induce some one to join him in it, is only natural. And that the tempter (?) should use as an argument in promoting his temptations, the statement that some one else, somewhere else, in a place popularly supposed to be rank with schemes of questionable character, is in league with him, is only part of the insult to his

proposed tempter, especially where the latter is a member of a profession, the good name of which is involved thereby, is also not only natural, but common.

We, as a profession, are all interested in the exposure of such a scheme as Mr. Briggs brings before us in your columns. And we are all indebted to him for it.

I can, however, speak for myself as a "Western architect" that no such letter as he speaks of has been received at this office and I very much doubt if it has been otherwise in the large majority of Western offices.

Do you not suppose if it had been otherwise that you would have received as prompt a notice, and as full a condemnation of it?

That such a method of getting designs should be adopted by a certain class of builders is not surprising, but as to its being a custom among architects, I doubt. There may be in any community, and in any profession, weak, unskilled, and little-minded people; and I suppose we are not more free from them than others.

The West is full of earnest, hard thinkers, and men who are contributing richly in design and construction, to the store of knowledge and the advancement of our whole profession, and I, who have lived in both sections, can say without prejudice, that in proportion, there are as many men in our profession who are eminent in it west as east of the Alleghany Mountains, if that is to be taken as the dividing line.

There is too much of this "Eastern" and "Western" talk. We are one country, and as architects are of one profession, we are all working together. We are first of all, Americans, and I for one sincerely deprecate anything which tends to cast any ill-word upon any section. I therefore take issue with you upon the heading of your article.

Yours very truly,

CASS GILBERT.

[If a similar letter had been addressed from the West to the East the same caption would have been given in our columns with the substitution of "Eastern" for "Western." Personally we have no predilection for any section of the country or for members of the profession therein settled over another, and we believe our views as recorded are catholic enough to support the statement. — EDS. AMERICAN ARCHITECT.]

TO LAY OFF A ROOF OF UNEQUAL EAVES-HEIGHT.

CHICAGO, October 13, 1890.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—In answer to the problem given by a correspondent in your last issue, perhaps the following will be found a practical solution. As I understand it the two slopes of the roof are equal but the eaves are unequal in height, and these heights and the height of the ridge are given. From the condition of the problem $A O$ must equal $O D$. Then by similar triangles:—

$$O D : E C :: B O : B E$$

$$\text{or } A O : E C :: B O : B E$$

$$\text{or } A E : E C :: B O : B E$$

Hence it appears that $A O$ is always the same whatever the height of the ridge, if $B O$ and $O E$ have the same ratio but not otherwise.

Example:

Let $a C = 20$ feet.

$B O = 8$ feet.

and $O E = 4$ feet.

or $B E = 12$ feet.

and let $A O = x$

Then $x : 20 - x :: 8 : 12$

From which $x = 8$

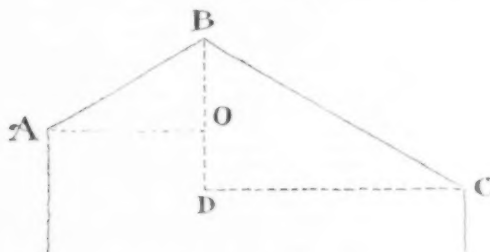
Respectfully,

D. EVERETT WAID.

PHILADELPHIA, October 14, 1890.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—In the last number a correspondent contributes a problem—how to outline a gable with equal slopes but with eaves of



unequal height, the height of the apex being given, and the difference in the height of the eaves and the width of the gable being known.

In the similar right angled triangles $B O A$ and $B D C$,

$$B O : B D :: O A : D C$$

Knowing $B O$ and $B D$ and also the sum of $A O$ and $D C$ the point O is readily found. The remainder of the operation presents no difficulty.

2d. $A O$ is not the same for different heights.

O. H.

THE WATCH AS A COMPASS.

BOSTON, MASS., October 20, 1890.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Allow me to correct Mr. Gambier-Bousfield's correction. The method of determining the meridian which Mr. Labouchere quotes is true, and is based on the fact that the sun's motion and that of the hour-hand of a watch (held face uppermost) are in the same direction, but that the hand, making two revolutions a day while the sun makes one, moves just twice as fast; so that one hour's motion of the sun corresponds to two hours' of the hand, assuming the motion of both to be uniform. Therefore, if one so places his watch in the plane of the ecliptic that its noon corresponds to the sun's noon, the sun's position at any time will be exactly half-way behind the position of the hour-hand, or, in astronomical language, the hour angle of the sun will be half that of the hand; and so, reciprocally, one can find the meridian south by measuring back, from the position of the sun, half the distance which the hand has travelled since noon, which is what Mr. Labouchere propounds.

But there are two allowances to make. First: since the hand of the watch outruns the sun, the hours must always be measured backward on the dial: so, in the second case which Mr. Gambier-Bousfield objects, the half-way point is not X but IV, which gives the direction at eight P. M. But by midnight the hand has made one revolution, or the sun half a revolution; and if we take the third case that is objected—eight o'clock A. M., the dial being set by the meridian, we must go back $\frac{1}{2}$ (12-8), that is ten hours, to X, to find the sun's position, or conversely, pointing the hour-hand to the sun, count back the ten hours to find the meridian. But this is a little complicated, and between midnight and noon it is simpler to dock half a revolution and go back only half-way toward XII; that is, in this case to IIII, remembering that this will indicate the meridian north instead of south.

Second: one does not commonly hold his dial in the plane of the ecliptic—indeed, to do so he must practically know his latitude and his meridian. He naturally holds it horizontally, and refers the sun's position down to the horizon by a vertical circle. Now, since the sun moves in a spiral path (call it for any ordinary day a small circle) of varying obliquity to the horizon, its motion, referred to the horizon, is not uniform, and does not keep even pace, or even proportion, with the motion of a hand on a horizontal dial; so that mathematically speaking, in Mr. Gambier-Bousfield's first case the determination of the meridian would not be accurate. But the method is a rough-and-ready one, on which no one would think of relying for accurate orientation, and in the higher latitudes the theoretical error is trivial compared to the necessary errors of so rough an observation, being, I should say without computing, less than the ordinary variations of the magnetic needle. In low latitudes however, when the path of the sun approximated to a vertical circle, the indication would be too irregular and uncertain to be of any value.

Yours,

HOURS.

THE SO-CALLED SPANISH CATHEDRAL AT GHENT.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—The gelatine print in your International Edition of last week, called "Ruins of the old Spanish Cathedral, Ghent," is really of the ruins of the old Abbey of St. Bavon, and the octagonal tower in the middle is the so-called chapel of St. Macaire. These buildings, which are much older than the Spanish dominions, were never part of any cathedral—the cathedral, dedicated also to St. Bavon, stands in the middle of the town, as you will remember. The popular name, as I take it to be, must come from the fact that the abbey was demolished in 1540 by Charles V and fragments of it enclosed within the citadel which he built close by the Antwerp gate, and which was in its turn demolished not many years ago. The abbey, which was very ancient, is believed to have been built, or even restored in the IX century by Eginhard, secretary of Charlemagne: among the existing fragments are parts which are assigned to the IX, XI, XII, and XIII centuries.

W. P. P. L.



AN AFRICAN OASIS. — An oasis is usually about a mile and a quarter in length and about five-eighths of a mile in breadth. In nearly every case it occupies the bottom of some ravine, which shelters it in every direction. It is enclosed in a mud or stone wall about eight feet in height and about a foot in thickness. At regular intervals about this wall are found stone towers; these are sentry-boxes, on the flat roofs of which are stationed nightly guards to protect the place from pillage. The gardens of the oasis lie against this outer wall, and are divided into small inclosures, each of which is the property of one person. Next to the gardens, towards the centre are fields of corn, barley and onions, divided into parts as in the gardens, which are watered and tended like our favorite flower-beds; in the centre is a little rivulet, which runs from springs near one of the extreme ends. The inhabitants of this oasis do not live each family in a separate dwelling, but in one large house called a ksar, which is usually built of stone, giving it the appearance of a solid mass, perforated here and there with a

small window, and diversified with jutting angles. The halls are narrow, dark, ill-smelling, uneven passages, winding about the building. The apartments are low-ceiled, filthy places, lighted by a single aperture in the wall. The whole place reminds one more of a dog-kennel than a human habitation. In some of the ksars about 300 or 400 men, women and children, a sickly, scrofulous generation, are huddled together in a building which would seem to an European hardly able to contain more than a hundred. The only interesting thing about the whole oasis is the marabet or sepulchral chapel, which stands outside the walls. It is generally square, surmounted by a cupola, the whole being built of stone or brick, executed by artisans brought from Morocco for that express purpose. Occasionally the principal cupola is flanked by four smaller ones, the interior presenting a court, surrounded by a gallery, supported on Moorish arcades. In most cases the ostrich egg crowns the summit of the cupola, but occasionally a stone or metal ball may be found occupying the exalted position. The inhabitants of the oasis choose to reserve all the luxury and magnificence of their architecture to adorn the little temple around which they excavate their resting places. They are not, like the habitations of the living, subject to the ravages of foes, but are universally held sacred, and the conqueror, covered with blood, approaches here with reverence and prostrates himself in a lowly worship. Life is so uncertain, when the arms of the enemy combine with the elements of nature to threaten its existence, that it is no wonder the inhabitant of the oasis cares to lavish all his wealth, not on the dwelling which will probably shelter him but a day, but on the place which will shelter him forever from the storms of life. — *Boston Commonwealth.*

THE VALUE OF PLATINUM AS AFFECTED BY ELECTRIC LIGHTS. — "No enterprise in the world," said a well-known electrician yesterday, "has increased within the last few years as rapidly as the business of electric lighting. The amount of money invested in electric-light plants in this country to-day is \$120,000,000, and it is only eleven years ago, you remember, that the light was first perfected. From the few lamps burned by Edison at Menlo Park in 1879, there have grown into present use at least 125,000 arc lights and 1,700,000 incandescent lights. One of the most noticeable results of this remarkable growth is the increase in the price of platinum. Here is an incandescent lamp. You see the short strip of wire attached to the copper conductor just at the top of the globe. Well, that is platinum. It connects the carbonized loop, and is one of the absolutely indispensable features of the lamp, because it expands at the same temperature and in the same proportion as the glass globe. There have been a good many experiments for the purpose of determining a substitute for platinum, but none has been found, the experiments resulting, in each instance, in the unequal expansion of the metal and the glass, and the consequent breaking of the globe. Unfortunately, every lamp requires a strip of this metal. I say 'unfortunately' because it has come to be extremely valuable, and the mines are not productive. Moreover, they are situated in the Ural Mountains and are practically inaccessible. As a result of this increasing demand and diminishing supply, the price of platinum has advanced tremendously, until it is now almost as valuable as gold. Five years ago the metal was seldom used in this country, being employed only in the evaporating stills for the concentration of sulphuric acid and in the manufacture of jewelry. It was then to be bought in the market for \$3 and \$5 an ounce. A year ago it advanced to \$8 an ounce, six months ago it had increased to \$14, and I see by one of the trade journals that it has now gone up to \$20, which is only a few cents less than to-day's gold quotation." Platinum gets its name from the Spaniards. As early as the sixteenth century it appears to have been noticed that the gold ore in the Spanish mines of Darien included grains of a white metal endowed with the qualities of a noble metal, and yet distinctly different from silver. Its exportation to Europe was prohibited, because the Spanish Government found that it might easily be used in the adulteration of gold. For this reason it did not find its way to Europe until the middle of the last century, when it was known as "platina del Pinto" — the little silver from the River Pinto. Since its remarkable chemical properties were established in 1780, it has been discovered in New Grenada, San Domingo, California, Borneo, and in portions of Canada. But the richest deposits are those in the Ural Mountains, where the metal was discovered in 1823, and where it has been successfully mined by the Russians since 1828. — *N. Y. Times.*

A NEW BUILDING COMPOSITION. — A new composition is now made from finely crushed granite, and which when formed into shape by moulding, and afterwards burned and hardened, is to all appearances as hard and strong and durable as the solid stone itself, which it closely resembles. It is claimed by those who have brought forward this process that all kinds of ornaments for architectural purposes, such as window caps or sills, cornices, friezes and all other articles of this nature, can be moulded to accurate shapes and forms, and manufactured by this process at one-tenth the cost of cutting the same out of solid rock. They can also be vitrified so that they take on a permanent gloss as fine as polished granite, and at a mere fraction of its cost. The composition follows closely the color and texture of the stone from which it is made, Roxbury granite making a light-colored block, Quincy granite a darker one, and so on. The composition can be produced from waste-stone, of course, as well as any, and the process is applicable to other stones as well as granite, the stone, of whatever description, being first crushed in a stone-crusher, and afterwards more finely powdered by passing between iron rollers. — *Manufacturers' Gazette.*

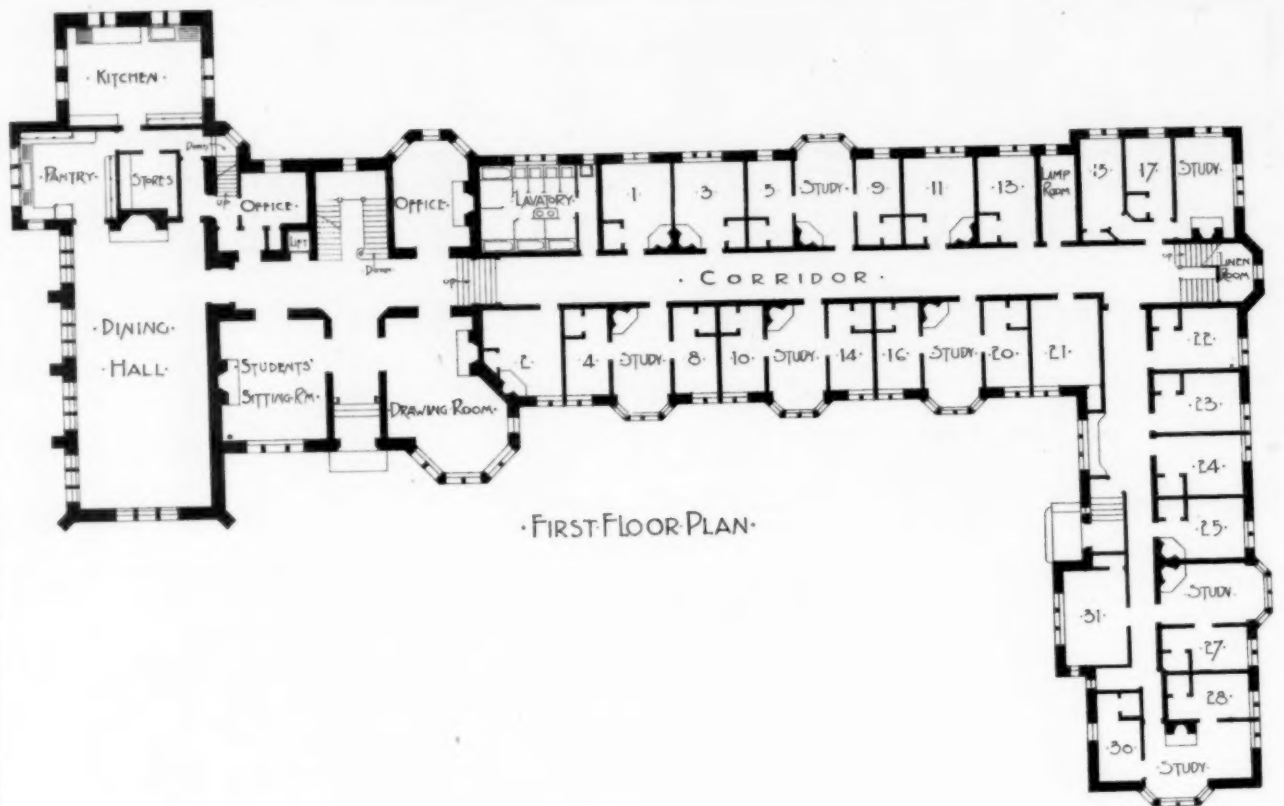
ENORMOUS PAINTINGS. — The largest painting ever produced (not including panorama pictures which are usually the work of a half-dozen artists) was that made by Jacopo Robusti (Tintoretto), a sixteenth-century artist, born in Venice and a pupil of Titian. "Paradise," the name given his largest painting, which is now in the grand salon of

the Doges of Venice, is 84 feet long and 34 in width. If we include in this *résumé* wall and ceiling decorations, that executed by Michael Angelo in the Sistine chapel of the Vatican will take the palm for magnitude, being 133 feet in width. The painting, which was made at the suggestion of Pope Julius II, represents the creation of man, his fall and early history of the world — with references to man's final redemption and salvation. James Thornhill's fine painting on the ceiling of the great hall at Greenwich Hospital, London, is also reckoned among the Titanic paintings of the world. The hospital was founded by William III and Queen Mary; the painting is a representation of the two potentates surrounded by every attribute of national prosperity. Opposite the entrance of the Sistine chapel, mentioned above as holding one of Michael Angelo's largest fresco paintings, is his "Last Judgment," occupying the whole of the wall, which is 60 feet high at that point, but only 30 feet wide. Some one has aptly said that the "Last Judgment" represents over three hundred figures "in the most violent and the most admired disorder." If we had included panoramas in this "Note" several monsters could have been enumerated, such as "The Frost King," 120 by 200 feet, and "Niagara," now at Westminster, London, the latter covering over twenty thousand square feet of canvas. — *N. Y. Commercial Advertiser.*

ARTISTS' FORTUNES. — Mr. Spielmann has compiled an interesting list of rich artists, beginning with Zeuxis, who "left an enormous fortune," and coming down to the death of Sir Edwin Landseer, whose trustees "paid probate duty on £100,000." Other rich artists of the past were Sir W. Tite (£400,000), J. Nollekens, R. A. (£205,000), Sir N. D. Holland, R. A. (£200,000), Sir R. Taylor (£180,000), J. M. W. Turner, R. A. (£140,000), J. Dawe, R. A. (£100,000), F. Chantrey, R. A. (£100,000), and among those who left very considerable sums, though under £100,000, Sir Joshua Reynolds, MacIise, Etty, Lawrence, Lely, Vandyck, West, Gibson, and Northcote. We cannot supplement the above figures with details of incomes of living artists, but Sir J. E. Millais, Sir John Gilbert, Mr. Orchardson, R. A., Sir J. E. Boehm, R. A., Mr. Waterhouse (the architect), and Mr. Alma-Tadema are known to be rich men, even according to what is counted riches in wealthy London of the present day. By far the wealthiest of living French artists is Meissonier, but Carolus Duran, Bonnat, Henner, Puvion de Chavannes, Bouguereau, and Lefebvre are in enjoyment of princely incomes. Among artists who have died comparatively recently, and whom Mr. Spielmann omits, are Cousins, the engraver, who died worth £70,000; J. J. Jenkins of the Old Water-Color Society, who was worth £50,000; and lastly, Frank Holl, R. A., who left a considerable fortune, and was earning over £10,000 yearly for twelve years before his death. All these fortunes have been earned in art; we do not take account of artists, like Mr. Ruskin or Sir Coutts Lindsay, who have inherited fortunes. — *London Sunday Times.*

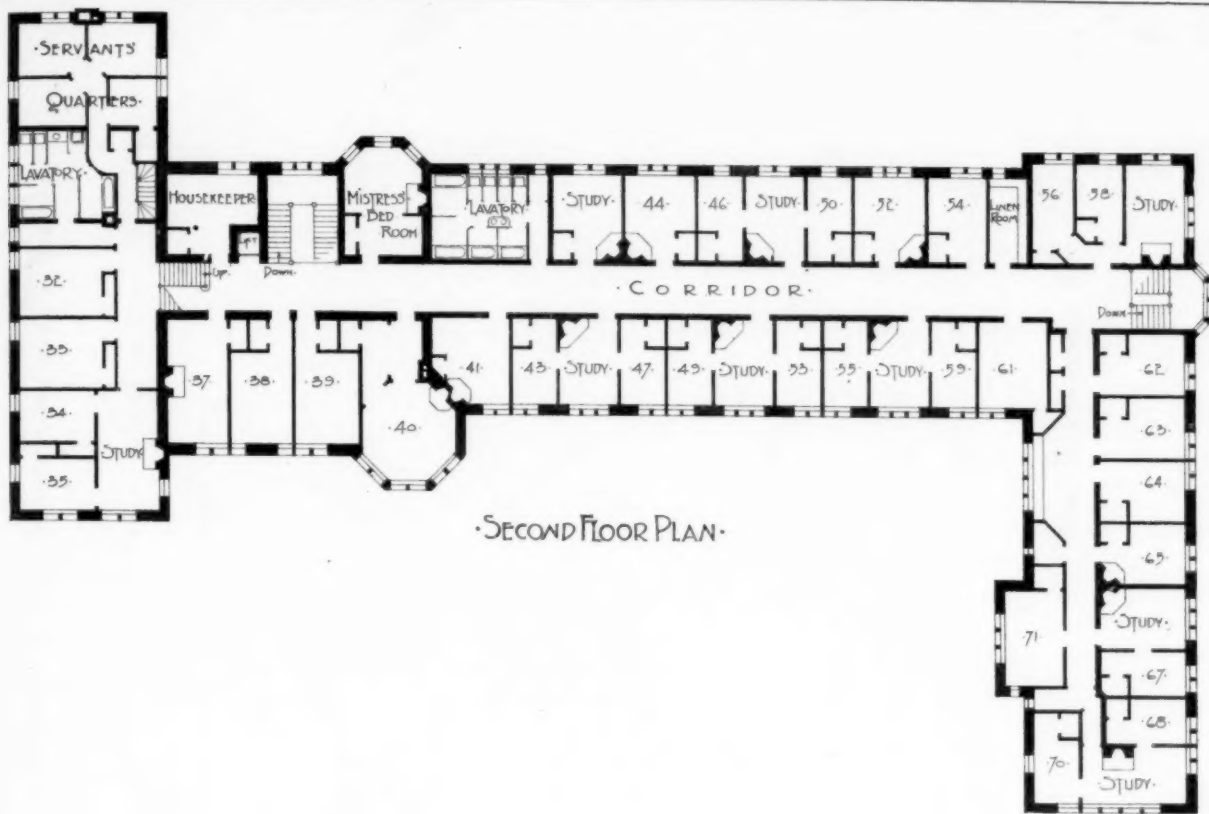
TRADE SURVEYS

THE more conservative among commercial and manufacturing interests are expressing surprise that the extraordinary disbursements by the general government, amounting to over one hundred millions within less than three months, should have so little effect upon the money market. The surplus reserve has been run down close to the danger line, and yet the drain westward continues. From reputable Western financial authorities representing borrowing rather than lending interests, the fact is made quite apparent that the necessity for loans is much greater than is supposed to exist. One cause is the extraordinary investments of the past two or three years. The volume of exchanges is greater, and money has many more rounds to make and debts to cancel than five or ten years ago. Hence the slower returns to the East. There is nothing alarming in the situation beyond the fact that the supply of money has sunk permanently below the level of the country's wants. New industrial enterprises are springing up in all the newer States, and no less than a score of new towns have been mapped out and have been taken up by syndicates, so-called. There is quite an influx of population into the Southern States — at least, so say railway managers and land agents, who ought to know. The industries continue in a healthful condition, and demand is just far enough in excess of supply to keep prices firm and make confidence general. There is no audible complaint in the New England industries. Comparatively few failures mar the serenity of the situation. Business is crowding capacity in all of the manufacturing towns. Labor is fully employed. The manufacturers of electrical equipments are reported especially busy, and radical improvements now under way for general adoption promise to greatly widen the sphere for electrical engineering achievements. The storage-battery system is becoming a success commercially. The leading electrical companies are oversold for months. Hardware manufacturers and carriage and wagon makers, as well as car, ship and boat builders, are all doing well, and it is understood that prices show an improvement. Iron and steel makers are very busy, and furnace production is increasing. Southern furnaces are increasing in number, and as many as a dozen iron and steel mills are now under way. Coal-mining is active in all localities. Cars continue scarce on many roads, and builders are booking new orders every week. There is a very strong feeling in the West over the rapid building up of the newer States. Building operations show no signs of falling off, and architects repeat their former assurance that the winter will be an active one. Little industries are springing up in the older and newer States alike. Some ten or more years ago there was a tendency towards the centralization of industrial effort. A like tendency exists to-day, but there is also at work a tendency or influence which is opening up opportunities to small capitalists. There are, perhaps, five times as many business men with a capital of ten to twenty thousand dollars as ten years ago. While paper indebtedness is increasing, assets and resources are growing faster, and the country generally is in a sound condition. Crops, railroad earnings, manufacturing corporation dividends, recent investments — all are encouraging. Much new work is under consideration. Prices are more likely to move down a notch or two during the next twelve months than upwards.



· FIRST FLOOR PLAN ·





DENBEIGH HALL.

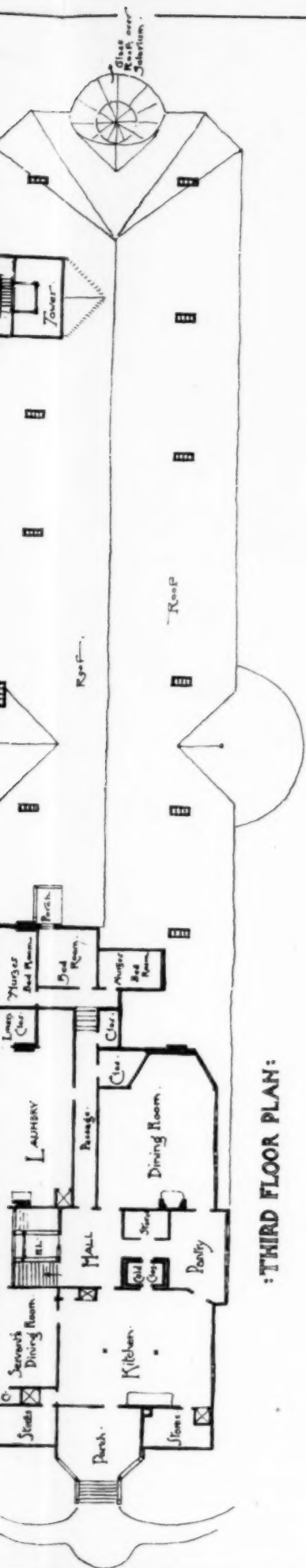
BRYN MAWR COLLEGE, PA.

COPE AND STWARDSON, ARCHITECTS, 212 So. 3RD ST.

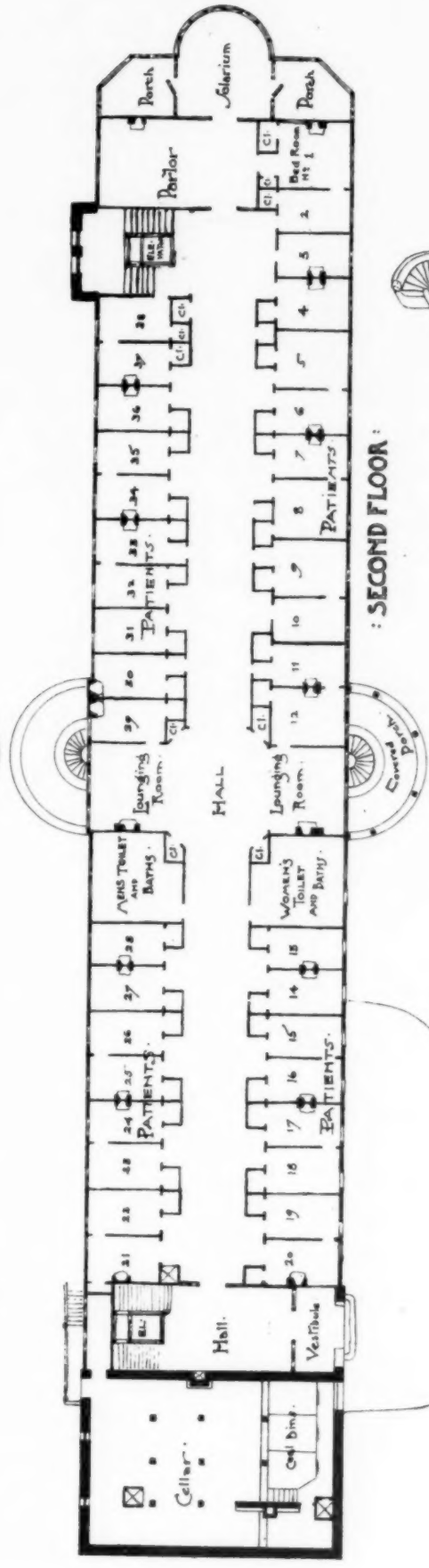
PHILA.

HELICTYPE PRINTING CO. BOSTON.

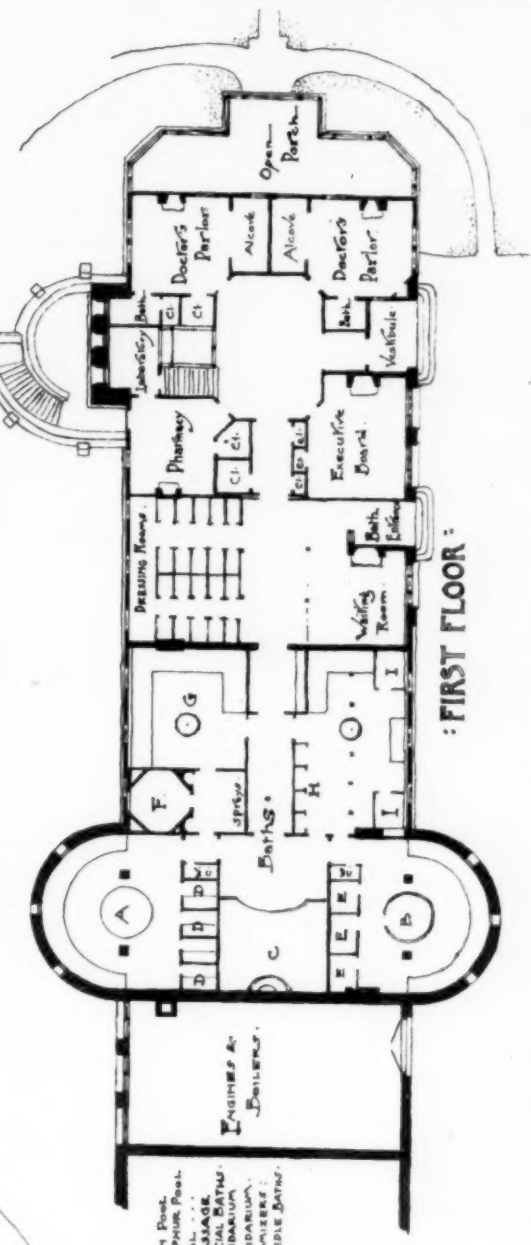




:THIRD FLOOR PLAN:



: SECOND FLOOR :



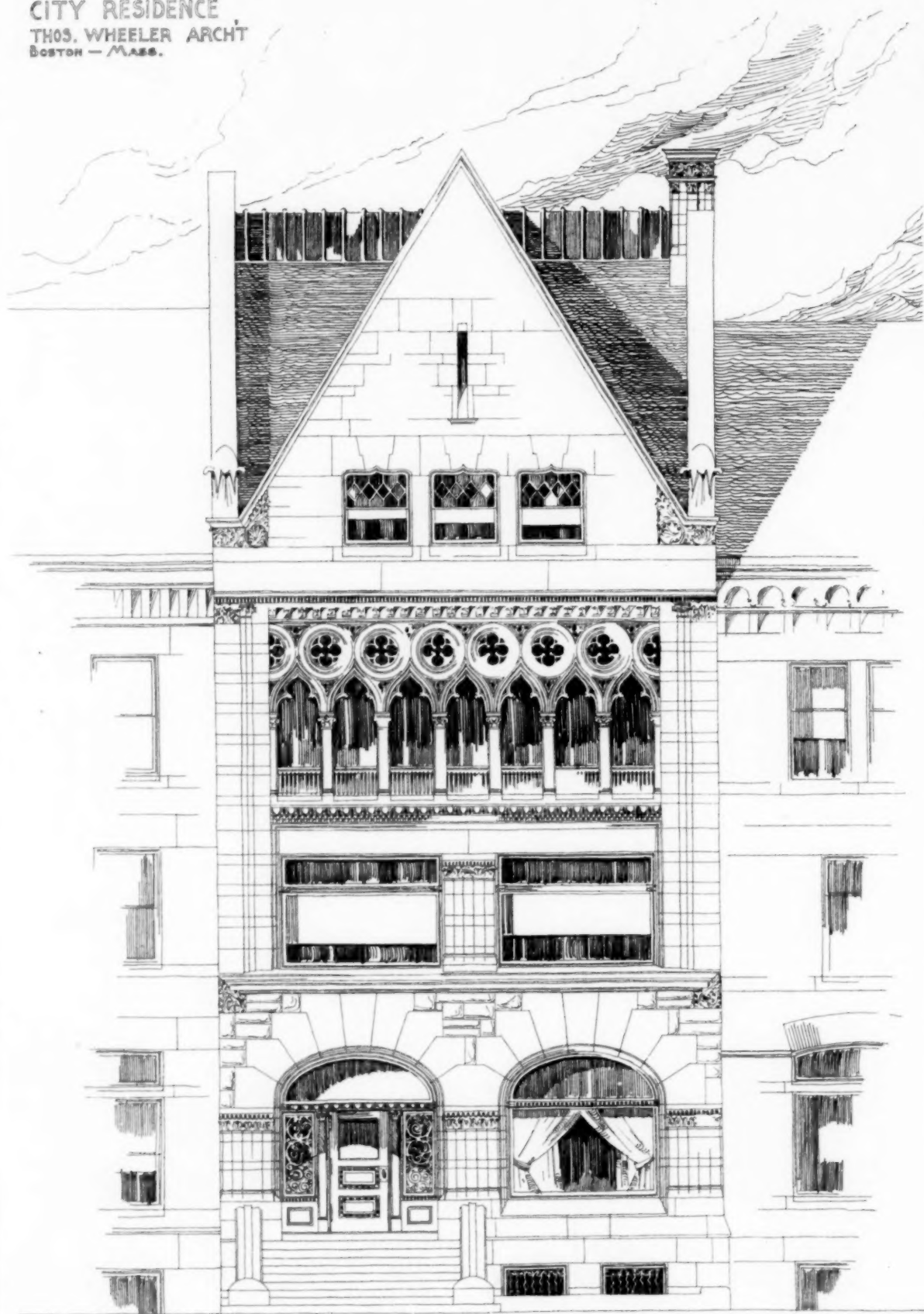
: FIRST FLOOR :

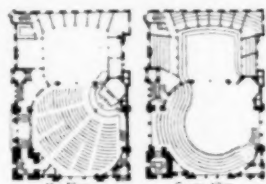
- BATHS :
- A : Iron Bath
 - B : Sulphur Bath
 - C : Pool
 - D : Massage
 - E : Special Bath
 - F : Caldarium
 - G : Tepidarium
 - H : Ateliers
 - I : Needle Bath

SANITORIUM:

FOR THE
 Cumberland Gap Park Co :
 WILLIAM B. DIGELOW, ARCHITECT
 52 Broadway, N.Y.

DESIGN FOR A
CITY RESIDENCE
THOS. WHEELER ARCHT
BOSTON — MASS.





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MINNEAPOLIS, MINN.

WARREN H. HAYES, ARCHT.
MINNEAPOLIS

