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VOL. XXXII

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ARCHITECTURE

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DECORATION

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CONSTRUCTION

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MAY 23, 1891.



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THE present indications are that it will not be possible for us to assist the Trustees of the Cathedral of St. John the Divine with the suggested "authoritative expression of professional opinion" upon the merits of the four designs submitted in the final competition, for the reason that but one architect has notified us of his opinion. Either the profession is diligently studying the designs published in our issue for May 9, with a view of expressing their opinions during the coming week, or, with the single exception referred to, do not feel enough interest in the scheme or in the tribulations of the Trustees to lend them a helping hand.

AS it is now about the height of the circular season, we hope that we may be pardoned for making some remarks in regard to the wastefulness and uselessness of the present methods of bringing building materials and processes to the attention of architects, which, if not new, are no less true for repetition. Probably few of the people who send circulars to architects have any idea of the number of other persons who are also doing the same thing. No doubt, many of the circulars are not only handsomely printed, but interesting, and we can remember the time when, having nothing else to do, we found pleasure and profit in reading them; but for architects who have other business to attend to, it is absolutely impossible, during the building season, to look over more than a small fraction of those received, and still more impossible to file them away so that they can be found again when occasion comes for making use of some of the articles mentioned in them. Moreover, even if the trouble of filing them is taken, it often happens that the article wanted, by the time that occasion arises for using it, is no longer manufactured, or is made by different parties, so that resort to the description in the circular leads to nothing but disappointment. To take, for example, the case of the "Fire on the Hearth" stoves. We know that other architects besides ourselves, when they were first made, very highly approved the principle of their construction, and took the first opportunity of trying them. Our first trial of them was made at our own expense, as we do not like to recommend anything to our clients on purely theoretical grounds, and was quite satisfactory, so that we felt ourselves quite justified in advising strongly their adoption for warming nurseries, small school-rooms and similar places, where the combination of radiation and an abundant supply of warm, fresh air was desirable. Unfortunately, architects do not have

to recommend nursery-stoves every day, or even every month, and it soon became a good deal easier to recommend our favorite sort than to tell our clients where to get a specimen. At the address given in the circulars they were soon unknown, nor could any one at that address inform us where they were to be had. The directory was mute on the subject, and we found ourselves reduced to hunting for them among retail dealers, who occasionally possessed one or two of the stoves, which had apparently come into their hands as curiosities. In this way, by dint of a great deal of inquiring and walking about, we exhausted the available supply in the nearest city, and our next demand was satisfied by sending to a town sixteen miles away, where, as we learned after much questioning, a dealer had once been known to have had one. We secured our prize, and shortly afterward, by the merest accident, in looking for heating-apparatus of another kind, discovered the address of the firm that had succeeded to the manufacture of the object of our affection. Having thus spent so much labor in trying to buy the goods of a manufacturer who did not know how to sell them, we feel as if we had earned the right to give some hints, from the architect's point-of-view, to other manufacturers who make a good article, and wish architects to help them in bringing it into use.

IN the first place, let him who has a good building appliance to sell never send descriptive circulars to architects *unless they are asked for*. In most offices, at this season, the first work of the morning is to pitch the circulars, unopened, into the waste-basket. A good many of the class are cunningly disguised, and put in a sealed envelope like a letter, so that the person addressed will be sure to open them, but architects become pretty expert in detecting these shams without opening them, and, at most, they follow their brethren after a second's delay, and the time and expense laid out in their preparation and transmission, as well as in collecting and destroying them, is a dead loss to all parties. It may comfort the manufacturers of such articles to know that they are no worse off than other people in this respect. We have heard of a publisher, who wished to increase the circulation of an excellent magazine. He sent out sixty thousand circulars, containing deserved praises of it, and received in response four new subscriptions. He would probably have had that number of new subscriptions in any case during the time, so that the cost of his sixty thousand circulars was practically a total loss. In a similar way some of the great seedsmen and producing florists, who spend immense sums of money in catalogues, have recently been comparing the cost of their catalogues with the profits from the sales which they make to the new customers to whom they send them, and, although a florist's catalogue is as likely to be preserved and read by those who receive it as anything of the kind would be, the balance is often on the wrong side. The circulars sent to architects are perhaps more costly, as an average, than any others made, and the total sum laid out on them must be enormous, so that any economy that could be judiciously made would be desirable. Such an economy might be made, not only judiciously, but most advantageously, by keeping the circulars until wanted, and letting architects know, by standing advertisements in the professional journals, where to get them when they need them. The natural resort of every architect, if he has a greenhouse to build, or a hot-water apparatus to put in, or a theatre to decorate, is to look in his paper and see if there is not something new that will help him to make his work successful. If he finds something advertised that looks promising, he sends for further information, and it is then that a good circular becomes of use, while the advertiser, if he is enterprising, will send a salesman promptly to follow up the circular. We are convinced that this course would do more to facilitate the introduction of meritorious goods, and to enable architects to keep themselves familiar with improvements in building appliances than the dumping of a thousand tons of circulars a day into the mails, to be transmitted unopened, through the architects' offices, to the paper-mills. However, facts are better than theories, and it would, it seems to us, be a most profitable plan for the people who sell goods through architects to keep a comparative account of the sales made through a broadcast distribution of circulars, and through judicious advertising, with the cost of each, and let other people know the results.

WE have been requested to call attention again to the International Congress of Hygiene which is to meet in London on August 10, next. The sixth Section, which is to consider Architecture in relation to Hygiene, meets in Burlington House, Piccadilly, on August 11, and will consider five special subjects, — the Laying out and Extension of Towns, including the control of the construction of buildings, and the reservation of open spaces; the Planning and Construction of Dwelling-houses, especially common lodging-houses, workmen's dwellings and residential flats; Hospitals for Infectious Diseases; the Construction and Arrangement of Asylums; and the Sanitation of Theatres and Public Halls. Those persons who have valuable suggestions to make on these subjects are earnestly requested to contribute papers. The papers may be written in English, French or German, and, for this Section, must be sent to Mr. Ernest Turner, the Secretary of the Architectural Section, at 246 Regent Street, London, in time to reach him by June 30; and abstracts of the papers, written with a typewriter, and containing not more than five hundred words, must be in his hands by June 15. No paper will be received which has been previously published, or communicated to any other society.

AN interesting competition will, it is supposed, soon be announced in Germany. The beautiful city of Munich, one of the most interesting towns in the world, architecturally and artistically, has been growing of late years with a rapidity that throws American cities of the same rank into the shade. Within the last five years, the population has increased nearly twenty-five per cent, and, including the recently annexed district of Schwabing, the town now contains three hundred and forty-nine thousand people, who find it by no means easy to get suitable places to live in. It happens that the municipality, by a curious survival of the mediæval military law, exercises control over a large territory outside the city, under the name of the "Burgfrieden," or Castle Liberty, as we should perhaps say, and nothing is needed but the improvement of this Burgfrieden, by means of streets, sewers and so on, to make it available for an almost unlimited extension of population. Instead, however, of setting cows at work to design the topography of the new district, as is said to have been the practice in the older American cities, or of striking off a map with a few flourishes of a T-square, as is the method pursued in our newer towns, the municipality of Munich, in compliance with the representations of Doctor Widenmayer, the burgomaster, and an engineer, Herr Jacob Heilmann, has recently decided, by a unanimous vote, to open a general competition for a scheme of streets for the new suburbs. Plans of the present city, and of the new district to be divided, are to be prepared, at a scale of one to five thousand, for the use of competitors, and each competitor must indicate the principal streets, as he proposes to arrange them, leaving the minor ones to be determined later, but showing a suitable system of street railways for connecting the new suburbs with each other, and with the old part of the city, as well as a steam railway for bringing the new district into convenient relation with the railway lines entering the city. Parks, squares, public-gardens, cemeteries and suitable positions for school-houses, markets, churches and public baths are to be indicated. The problem is a very inspiring one, and the competition will undoubtedly call out designs of the highest order. As the matter now stands, it is intended to appropriate three thousand dollars for prizes, of which there will probably be three, and to place the decision in the hands of a jury of not more than seven persons, to be hereafter nominated. Some months will probably be required to prepare the sketch-map for competitors, and it is supposed that six months will be allowed, after the programme and maps are ready, for the preparation of designs.

IT appears that there is a romance about the invention of India ink. As every one knows, India ink was not first made in India, but in China, and its discovery dates from the reign of Houang-ti, in the twenty-seventh century, B. C., or about sixteen hundred years before the siege of Troy. Naturally, the particulars of the investigation which led to the discovery have not come down to us, but a Chinese historian, who published, in 1398, a few years after the Battle of Crécy, a book on the subject, says that the inventor was a certain Tien-Tschen, who prepared the ink originally in the form of a

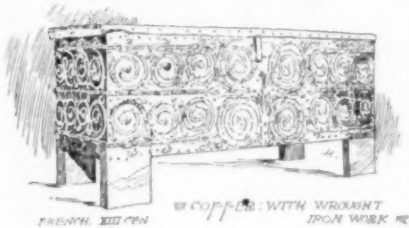
liquid paint, or varnish, which was applied by means of little bamboo sticks. Later, it was found more convenient to make the ink in solid masses, generally spheres, which were rubbed in water, just as India ink is still used. The black ingredient of the ink was then the soot formed by burning lac and pine charcoal. The manufacture was confined, by Imperial privilege, to the province of Kiang-si, and an official inspector watched over the factories, each of which sent an annual tribute of ink to the Emperor. The rival manufacturers of Kiang-si resorted to various means for increasing their business by improving the quality of their product, or for temporarily increasing their profits by cheapening the material, and at this period, about the beginning of the Christian era, the dishonest manufacturers began to add musk to their ink, to conceal a defect in manufacture which is explained by a little story. A certain mandarin, named Ouen-lou, visited an ink-manufacturer named Ouang-ti, and asked for a sample of his ink. In response to this request, Ouang-ti presented himself before the mandarin, and begged him to take what he wished from a box, which he held out to him. Ouen-lou put his finger into the box, expecting to find a stick of ink, but, instead of that, a cloud of black dust flew out, and filled the whole room, as with a mist. As the mandarin gazed with astonishment on the black cloud, the manufacturer explained that the fineness and lightness of the lampblack from which the ink was to be manufactured were its most important and indispensable qualities; and that a black of perfect lightness, such as he used in his own manufacture, had naturally an odor of musk; but that his rivals in the business imposed upon authors by furnishing them with ink made of coarse and bad lampblack, made to imitate the good material by artificially perfuming with musk, which really injured the ink, rendering it susceptible to deterioration from dampness.

IN course of years, the art of making lamp-black so fine as to smell of musk by itself appears to have been lost, and musk was artificially added by all manufacturers. It is well known that the Chinese are very fond of musk, and it became common, as, indeed, it still is, to rub India ink in water, and drink the liquid, as a delicious refreshment. The particles of black pigment were held together by some kind of size or glue. Fish glue, or isinglass, was used, as well as ordinary glue, made from bones or horn, and pearls are said to have been sometimes boiled in the glue. Dried ox-tongue was occasionally added, to give the ink a purplish color, and the bark of the pepper tree produced a blue tinge. After moulding, the sticks were carefully dried, and packed in wormwood leaves, with lime or ashes, until properly seasoned. The addition of sepia, or the coloring liquid of the cuttle-fish, to the ink is not mentioned in the history, but it is said to be common now, and there is no question that the best ink at present has a brownish tinge, as if from a mixture of sepia; and sepia alone, dried, is often used in China instead of the black ink. It appears from the pages of the distinguished historian of ink that good India ink is inhabited by gods. One day, the Emperor Hiouan-Tsong was engaged in learned literary work, when he saw a little god, about the size of a fly, issue from the ink he was using, and seat himself upon the edge of the dish. This diminutive deity addressed the Emperor, introducing himself as "the Spirit of Ink," and announced that in future, whenever a truly learned man wrote with India ink, he would see the Twelve Great Gods rise from the ink, and pass before him. So far, we have no record of any literary person, who used India ink, having suffered annoyance from this cause, but we need hardly caution architects to be careful about ornamenting their plans with Chinese lettering, lest they provoke a rush of divinities from the ink-slab.

A TUNNEL is to be made through the Pyrenees, to connect France and Spain, by joining the Pau-Oleron railway on the French side with the Huesca-Lanfranc system on the other. The tunnel will be situated about four thousand feet above the sea, and is to be about five miles long. This will make it the fifth in length in Europe, the Saint-Gothard being more than nine miles, the Mont Cenis over seven and a half, the Arlberg about six and one-half, and the tunnel under the Apennines, on the Genoa-Novi line, five miles. The Simplon tunnel, whenever it is made, will be nearly twelve miles long, but it is to be hoped that it will be many years before it is completed.

FRENCH ARCHITECTURE.¹—VII.

MODERN TIMES.



Architecture aimed at nobility of dispositions, symmetry and ornamental splendor.

The most perfect balance can be only temporarily maintained, since it is established between two opposing forces, and since it is impossible for these to remain strictly equal for any great length of time. In physical bodies, each element is held in an ever-varying equilibrium by two contrary forces; one repulsive, tending to disaggregation; the other attractive, giving the body its cohesion; so, in every social organism, two contrary forces are always at work producing infinitely varied states of equilibrium, whose history presents manifold and complex examples among different peoples and at different stages of their development. One of these forces is private interest, an instinct which inheres in each individual, or in each of the elementary groups comprised in the total organism, and which is hostile to the neighboring individual or group; the other is that sentiment of solidarity, or fellowship, which compels the individual to abandon voluntarily a portion of his existence, his resources and his faculties in favor of the common interest. This it is that knits together disaggregating elements, this that supplies the bond, whether weak or strong, which binds into one the family, the city and the nation.

Thus far we have seen the monarchy struggling to break down the feudal aristocracy, and lending its power to the betterment of the condition of the lower classes. At the period of its highest glory, which marks the second half of the seventeenth century, a state of equilibrium had been attained in the various scattered forces throughout the nation, and a social condition had resulted therefrom which seemed to be girt round with power and might. But, as with everything else endowed with life, it was impossible that the forces set in play should continue to bear the same relation to each other. The discord-breeding aristocracy had been humbled and put upon a half-military, half-courtier footing. But the impetus, once given, nothing could stay it; in the following century the nobleman had become far more courtier than soldier. His useful function had lessened in importance, his primitive vigor no longer found sufficient employment on which to expend itself. During protracted periods of leisure, pleasure necessarily became his sole occupation: when a caste is deprived of the proper functions for the exercise of its powers, it must needs amuse itself to live. Those conflicts in which human activity is alternately exhausted and renewed had ceased. The aristocracy daily lost more and more of that dignity, manliness and self-respect which had been carried to such lofty heights in the preceding century; it also lost faith in everything, and everything became its sport, itself first of all.

At the same time, the intelligence and ambition of the other classes, which had been aroused in the sixteenth century, steadily strengthened, and did not again suffer a check. In the eighteenth century the human mind had shaken off all its shackles; inquisitive, it carried its ardent curiosity into every domain of knowledge, invaded everything, analyzed, dissected, doubted everything, and soon set aside all preconceived notions.

The barriers raised around the different castes had come to be nothing more than artificial obstructions, and, in fact, had no longer any reason for existing. Religious faith and faith in the monarchy, which had in former times constituted the bulwarks of society, were swept away; they disappeared as superannuated conceptions of past ages along with the social state which they had engendered. A change in social conditions was the aim of the nation, or, in other words, a new equilibrium based upon something different from the old beliefs.

In an idle society, with no resources except amusement and pleasure, the part played by woman assumes an exaggerated importance, in which her true qualities are perverted, and

herein lies the greatest danger to society. Men of letters naturally come to the front, because their wit furnishes diversion; being wholly irresponsible, they unhesitatingly approach any subject, and boldly attack wherever fancy dictates, without much regard to consequences; as for the onlookers, the play seems to them merely piquant.

In the eighteenth century the various classes of society were confusedly jumbled together, presenting a veritable carnival scene, where aristocracy, capitalists, magistrates, the wanton *personnel* of the opera, musicians, dancers, pamphleteers, courtiers and valets all frolicked in company. At the same time, never before was such confidence in the present and the future displayed; never such activity of ideas, lofty and debased; never such wit nor such insipidity; never had thinkers dared to enter upon the gravest studies and the deepest researches by so many different paths, nor laid themselves open to so much trickery; never had there been so many benefactors of humanity, nor so many courtiers, men of the sword, of the long robe or of letters, men of genius, even, prostrate before the meanest offshoots of royalty; never, in a word, had the human mind been more alert, more vigorous or more malevolent, and at no period has such foam been brought to the surface.

Architecture necessarily felt the effects of all this: an exaggerated formality was destined to be superseded by unrestrained caprice. As a result of the universal contempt for symmetry and regularity, lines were broken, divided, turned and twisted in all directions; impostes were inflected; masks, grotesque and grimacing, were set askew; escutcheons were rounded out, and tilted as though tipsy; crossettes were hipped; balconies lost their shapeliness; balustrades swelled and bulged; the foliage and flowers took on jagged and slashed forms. In short, architecture and decoration alike put on a swaggering air, and soon threw off all sense of propriety.

But does this prove that the style had no other beauty than that of freshness, that it possessed no other charm than that of a wild, gypsy grace, which, to depraved tastes, is saved by its very irregularity? By no means; the school from which it sprang was too noble for that; it was impossible that every good principle should have been abandoned; moreover, this exuberance of whim and fancy, this revolt against all reasonable rule, did not go as far as might be imagined: they were always under the restraint of taste, which is never lost sight of in the French school, and of a certain residuum of reason which will always be found underlying the most pronounced eccentricities; and again, their mischievous grace and inexhaustible spirit crave pardon for them.

Indeed, it is in this very respect that the style must be admitted to be preëminently French, for, whatever its defects, it reflects all the qualities of our race; it is in this respect also that it is inimitable. In spite of the reproaches justly heaped upon the France of the eighteenth century, she still possessed such prestige that her architectural style was widely imitated in foreign lands; there, it is often open to condemnation: in hands that lacked that exquisitely delicate touch which can make eccentricity pardonable, the Louis Quinze style exhibited only its defects, and became intolerable.

We weary of everything in time, especially of disorder; the monarchical organization, after having been of incalculable benefit to France, was daily disintegrating, and threatened the ruin of the country along with its own. The old institutions had been so perverted that they were now nothing more than abused and dangerous privileges. "Amid the humiliations of the Seven Years' War, and even through these humiliations, the drama of the century rapidly approached its climax. Who was vanquished in this war and the preceding? France? No, the nobility; the nobility from whose ranks the officers and generals were drawn.² As for the generals, the only ones that bear mention at this period, Saxe and Broglie, were foreigners. He who claims the glory of Fontenoy, the great general of the age in the opinion of ladies and courtiers, the hero of Port Mahon, the old Alcibiades of the old Voltaire, Richelieu, had sufficiently proved, during five campaigns of the previous war, the value of this reputation so cleverly constructed and guarded.

"Toward the close of this ignoble Seven Years' War, during which the aristocracy had fallen so low, the great plebeian thought broke forth in speech. It was as though France would have cried out to Europe: 'It is not I who am conquered.' In

¹ From the French of P. Planat, in Planat's "Encyclopédie de l'Architecture et de la Construction." Continued from page 98, No. 863.

² Michelet's remarks here are not quite accurate. Marshals de Belle-Isle, de Maillebois and others were the descendants of Fouquet, Desmarets and other very plebeian advisers of Louis XIV. All the world was guilty in the eighteenth century.

1750 Jean-Jacques Rousseau, the son of a watchmaker of Geneva, vagabond, copyist and lackey in turn, had published his curse upon science, in hatred of the philosophism of the lettered caste; then followed a curse upon inequality, called out by his detestation of the degenerate nobility. This effective, levelling dissolution was carried on with torrential force in the '*Lettres de la Nouvelle Héloïse*.' Naturalism was proclaimed in '*Emile*'; deism, in the '*Profession de foi du vicairé Savoyard*.' Finally, in the *Contrat Social* appeared the three fateful words of the Revolution, traced with a hand of fire."

It must not, however, be supposed that the writings of Rousseau alone could have brought about the Revolution. The Revolution, in fact, embraces two distinct revolutions which, owing to the precipitation of events after 1789, are too readily confounded: one was the bourgeois, parliamentary struggle against the monarchy, the precursory signs of which were already apparent in the attitude of the parliaments of the seventeenth and eighteenth centuries, and which includes the period from 1789 to the fall of the Girondists; this might have terminated, as did the revolution in England, in the establishment of a liberal, constitutional monarchy, a monarchy freed from its abuses; the other was wholly a democratic, republican struggle, in which the lowest strata of the populace came to the surface. Viewed from our present standpoint, it is still older than the first, for the social explosion accompanied the violent reappearance of a race determined, once for all, to overcome all obstacles to that rule which its superiority in numbers assured to it.

This popular movement, in its violence and its brutality, was blind and unconscious; it was doomed to the most extraordinary vicissitudes, but arrest was impossible; it required no bold prophet to predict that the people would stand at last sole masters amid the ruined institutions which they had overthrown, with the task before them of building up, in their turn, a new edifice.

We are now on the eve of terrible and grandiose events; the arts must, for a time, be eclipsed by far more pressing interests. During the reign of Louis XVI there was a brief halt at the summit of the slope down which everything was about to be summarily hurled. "For this old society it was an era of happiness and ingenuous emotion; it wept, admired itself in its tears, and thought its youth had been renewed. The fashionable *genre* was the idyl; first came the vapidness of Florian, the innocence of Gessner, then the immortal eclogue of Paul and Virginia. The queen had a hamlet and a dairy at the Trianon. Philosophers held the plough . . . in writing; 'Choiseul is a husbandman and Voltaire a farmer.' Everybody was interested in the people, loved the people, wrote for the people; benevolence constituted a part of good breeding, small alms and grand fêtes were the fashion."

But the people had far other needs and ambitions. Nevertheless, a little spot of blue could be discerned in the black, storm-laden sky. There was a groping after a new ideal. Would it be taken from the feudal past, before the early beginnings of French nationality? A certain aristocratic school did, in fact, attempt this; they sang the praises of chivalry and the beauties of the Middle Ages, for the dawn of the Romantic movement dates much farther back than is generally supposed. It began in France, as well as in England, in the eighteenth century; it sent out a vivid gleam on the appearance of Chateaubriand, long before the school of 1830 rose, but at no time did it become popular.

The movement which won the favor of the people was directed toward the revival of the standards of Roman antiquity; in literature, in art, on the stage, as afterward in popular song, and on the battlefield, we believed that we were resurrecting the mighty past of the Republic or of the Empire of Caesar and Augustus; we adopted Roman names, pronounced Roman harangues, copied Roman manners and Roman costumes; we boasted of our descent from the heroes of antiquity. In all this we oftentimes put ourselves before the world in a most ridiculous light, and yet we were not wholly in the wrong: the past of modern France is deeply rooted in Latin and Roman soil.

It was in this way that the Classical school, which finally succumbed under its own weight, was founded. It was not as preposterous at first as it has seemed since, or as writers have tried to make it appear; it had its *raison d'être*: the French are Latin to a great extent, and Latin they will long remain, whatever may be said to the contrary. At all events, this Classic dawn was full of charming grace; architecture, following the general movement of ideas and manners, and stimu-

lated by the recent discoveries at Pompeii, abandoned forever the capriciousness and license of the Louis Quinze style. Returning to its remote sources, it was once more inspired with the feeling and taste for simplicity, tranquil harmony and happy proportions, which, with a few quiet decorations, form the chief beauty of an edifice. Rectangular shapes were adopted, the straight line became dominant again; rectilinear channellings and a few simple interlaced patterns of antique design furnished the ornamental element.

At a later period, the tragic events of our history, our strictly military customs, as well as the decay of intelligence, led to coldness and soreness in our art. We will go no farther, for we have reached the threshold of modern art, when every architectural style is about to disappear—when it may even be said that there will be no more architecture for a time.

Religious society had had its architecture; monarchical society had found the gratification and expression of its peculiar needs in a new art. At the beginning of this century, these two great powers, which had alternately swayed the world, were, if not completely dethroned, at least greatly weakened, and their creative faculty had departed. An industrial power had, it is true, sprung up to supplant them. This is gradually absorbing the great forces of the country; but this power has little need of an architecture; it possesses few qualifications for the creation of an art. The bourgeoisie passed through their heroic and military age during the Revolution; they then settled down to the accumulation of wealth. What are their artistic needs? Having arrived at fortune by means of economy, they can scarcely comprehend any but economical luxury, and that never engenders art.

Religious architecture is, then, to-day merely an official formula, made up from decent survivals; royal, princely or seigniorial architecture went down with the court and the great aristocracy; the bourgeoisie, under bourgeois rule, despite their many estimable qualities, have long showed themselves incapable of originating anything in the realm of the arts bearing upon architecture.

Notwithstanding the tireless piling up of wealth, toward the close of a period of pettiness and sterility, broader traditions are beginning to take shape and on more modest proportions than in the past we see, meanwhile, the advent of a private architecture, which is at the same time attractive, comfortable and elegant. True sumptuousness, that which is in accordance with taste, is appearing again, and it may be predicted that this art will return to the traditions of the past and perpetuate them, on a smaller scale.

It is not true, however, that the great innovation is to come, the transformation requisite to a veritable *renaissance*. Where will it appear? This is demanding in what quarter a new and mighty power is to arise. It is possible that it may be looked for from the recent accession of the masses to the throne; the power of the people is already making itself felt in politics, literature and in some of the arts. Its advent is the great characteristic fact of the eighteenth century. In architecture, what manifestation is it making? A few important public edifices—town-halls and theatres, the palaces of our democracies—have already been erected for its service. But the only work which it may be said to have originated, the only work purely its own and which has no prototype in the past, is the modern Exhibition building; these colossal structures are built for the accommodation of vast throngs who know nothing of tradition, who want nothing of copies from a past in which they had no part and who care not a fig for imitations which do not benefit themselves.

A careful study of the subject would doubtless show that the artist always creates to satisfy an immediate, pressing want, which dictates the law to him; that an art is always formed and developed as much by the desires, the inclinations, and even the demands of the patron, protector or employer as by the artist's initiative; the mission of the artist consists mainly in discovering what the world is waiting for, what it needs; hence the universal welcome accorded to each new solution, hence the eagerness with which it is adopted and amplified, hence, too, that unity which appears in every one of the great styles of former times, whose forms were at once accepted, consecrated and forced into use by the popular taste.

For three centuries it has been out of the question that a complete removal or radical transformation of architecture should come about, as in the grand historic epochs, through the appearance of a new race; but we may expect what has already occurred several times during this interval, namely, partial

rejuvenating transformations, sufficiently radical to sustain the vitality of art, which, in fact, lives only by transformations.

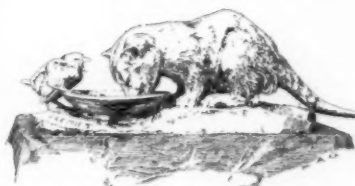
For this, different needs must make themselves felt; such needs always follow in the train of modifications in the social state and the customs which it engenders. It may be that this democratic accession to power will prove to be one of these modifications, and a most radical one.

Possibly this democracy, in its confused, but powerful, virgin instinct, may have vaguely comprehended that something is preparing for it, a work which is to be its work; it apparently cares little for our petty criticisms, however just we may deem them; it hardly pauses to consider the objections raised by our purism; it pays little heed when we halt before those gigantic palaces, which have recently sprung up, to analyze them, to criticize the heaviness of certain parts, their inelegance or awkwardness and their so-called refinements, which are merely lack of power. It looks little to details; in a broad way it has caught a glimpse in this imposing *ensemble* of something new, created for it and in its image, and which speaks to its soul. There is still, too much routine, there are yet too many traditions which we find difficulty in dislodging? No matter, this democracy has felt the stir of a new emotion, and it cares not for criticism.

It is right. All these things will correct themselves, provided that the new may be resolutely followed, provided that new combinations be boldly tried, even though some prove unfortunate; let the work go on, notwithstanding imperfections and failures; let every innovation, every departure from hackneyed conventionality, find encouragement. The only thing that could prove incorrigible is that powerlessness which persists in servilely imitating an art that is representative of a dead past, whether Classic or Gothic.

P. PLANAT.

EMMANUEL FRÉMIET.¹—VIII.



Frémiet, Sculptor.

sculptors. Those who had long been his admirers enjoyed a high confirming and comparative satisfaction, while many partisans of other sculptors were astonished at the superiority of the "Age of Stone," "Robber of Young Bears," and the "Gorilla," and willingly accorded



"Wounded Dog" in the Luxembourg Gallery, Paris. Frémiet, Sculptor.

it to their author. Then, M. More, his editor, made a very complete exhibition of his small bronzes, and reduced copies of his large ones, about a hundred and fifty in all, and this presented an extremely interesting opportunity to study the full range of the sculptor's equestrian work. As a whole, the show was immensely imposing:

¹ Continued from No. 801, page 72.

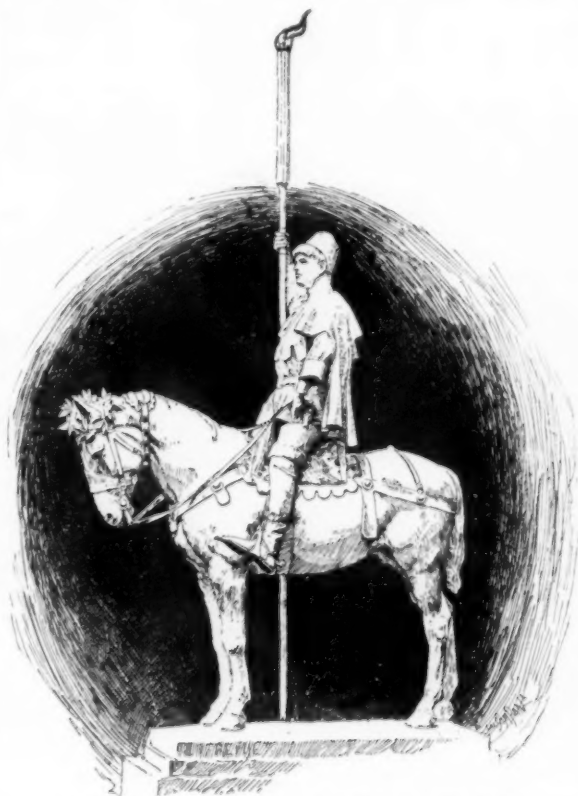
the labor of a life of undeviating loyalty to art on a high plane. From the best judges of all countries, there came the verdict that to Frémiet all must bow. So, at the age of sixty-five years, he becomes known to all the world as the greatest living master of the



"St. Hubert" (Bronze Statuette). Frémiet, Sculptor.

art of sculpture. The press generally joined in this encomium, adding that he "best represented a school, originated by Barye, which places itself squarely in front of nature, without regard to symbolism or anthropomorphism."

The art-exhibit at the great Exhibition brought about among other things, some terribly levelling effects. Works that had been popularly accepted as classics for a quarter of a century went out



The "Porte-Falot" in the Hotel de Ville, Paris. Frémiet, Sculptor.

like a flash, and men who had been recognized by the same momentary feeling for a like period left the stage in shadow. A new dispensation, based upon a better understanding between the art of a day and that of time, was ushered in, for a time, at least.

In sculpture, three other men held their own, Aubé, with his immortal "Bailly," Rodin, with his "Age of Brass," and Dalou, with his "Mirabeau" bas-relief. And they held it with high distinction.

In Barye's life-time, lovers of fine bronzes made it a kind of pilgrimage when they went along the banks of the Seine to No. 4, Quai des Celestins. But they were rare lovers, and only a few bronzes were sold. He being dead, now since fifteen years, the pieces bring fabulous prices when (seldom) found.

It is a curious phase of art-history that even those who like fine bronzes learn little by experience. With the unexplainable exception of the large sale of the reduced "Joan of Arc," few purchasers find their way to Frémiet's collection in the Rue Béranger, No. 7. Yet they are ready to be bought, and now is the time. No one doubts that after their author leaves the scene that he has so long ennobled, his bronzes will pass through the same experience as those of his great contemporary. More curious still is this indifference, when it is remembered that Frémiet is the only living master who is personally concerned in the production of his little masterpieces. Paris auctioneers, in selling poor bronzes, try to give value to them, by saying that they are in the style of Barye and Frémiet. Thus is trade touched by art.

When the Spanish bull-fighters came to Paris, during the great exhibition of 1889, they brought with them various kinds of horses, among which was one that Frémiet had never seen in the flesh, though often indicated in various illustrations. It excited his interest, and he made one, life-size, placing upon it as a rider, the great painter, Velasquez. This equestrian work was sent to the Salon of 1890. The great popular procession in favor of the sculptor was now perfectly formed and in marching order, it only remained to make the noise whenever occasion required. That made over the "Velasquez" could hardly be exceeded. If ever known and unknown merits were found in an equestrian statue it was then and there exposed to millions of readers. The press rang their loudest changes. "He has surpassed himself on this occasion. His 'Velasquez' has the nobility and pride of style of a hero. One has nothing to do but to bow down to it." "I don't know why, but Frémiet is always classed among the animaliers, yet he sends this year a 'Velasquez' on horseback of superb line, and of high elegance. It is superfluous to praise M. Frémiet." "The best thing in the Salon." "Proud and majestic. Excellent statue of heroic character." "Grand art, patiently studied, great in expression, and of beautiful style." "This knight of noble mien is like a fore-runner of painting, and ought to be set up in the most beautiful alley of the garden of the Tuileries, in front of the Louvre, as though he came to announce to Paris the prodigious cortège of the glorious masters of all times."

M. A. Michel, in the *Debats*, wrote as follows—after alluding to the monotonous similarity of statues of artists—"M. Frémiet is not in the habit of running his statues in ready-made moulds. A pupil of Rude, he learned, in the school of that master, to 'render nature in its variety.' Freed, more than any one, from every servitude of formula, and of transmitted style, he has, with a valiant curiosity and a beautiful audacity, pushed his researches and labors in the most diverse ways. With an always original sentiment, an ample interpretation, a sincerity of accent and a bravery that no danger intimidates, he has brought to life one after another, in bronze and marble, the 'Gorilla,' the 'Troglodyte' in his unchained beastliness, the 'Virgin of Orleans,' the 'Age of Stone,' good and happy brute, and his lordship, the 'Prince of Condé,' he has lifted up with a superior intelligence and surprising ease, the elementary forms of life to the highest historic style."

"He did not think that in order to glorify the grand, noble and proud Diego Rodriguez de Sylva y Velasquez, it was enough to place

him sitting in a chair, palette in hand, but he has evoked him in the semblance of a Roman knight." Then follows a minute description of the painter's costume, the article closing in these words, "It is thus, with his mahl-stick entwined with a branch of laurel, probably, that he appeared in his quality of Aposentador Mayor, as he preceded the royal cortège as it entered Fontarabie, to make preparations for the interview between Philip IV and Louis XIV."

"What will you do with the Velasquez?" I asked the sculptor.

"I hope to sell it to the State, but as that is very doubtful I shall be obliged to cut off V's head and put on that of some one else, in order to get rid of it. I only ask its actual cost. It is the best statue, after 'Joan of Arc,' that I have made."

The contrast presented between the little tale about this statue, and the closing sentence uttered by its author, is an excellent illustration of the impotence of the French press to influence the government authorities in matters of art. And it may be added, that, quite contrary to what many believe, there is no such thing in Paris or France as a defined and controlling influence in favor of first-class art. Nor is there in Paris a single specimen of such art that has not had to go through the crucible of public indifference and hatred, and if saved at all, saved only by the fortunate influence of some single individual.

"A hot word may bring on a revolution, and a sarcastic one change the course of national events."—Old French Proverb.

In July, 1889, there was erected with considerable ceremony, a colossal equestrian statue of Etienne Marcel, one of the early mayors of Paris, on the Seine side of the Hôtel de Ville. It was the result of a public competition, held some years previous, in which Frémiet took part. The whole history of this statue is quite as interesting, though not quite as lively as that part which immediately concerned our sculptor, but it must be omitted. There were four competitors for this statue, Frémiet, Aubé, Idrac and another, and a committee of artists, of whom the late M. Schœnewerk, sculptor, was one, was to decide upon the merits of the models. The sketches, which were half life-size, in plaster, were exposed in one of the large rooms of the above-mentioned building. Aubé's sketch was a very beautiful one, Frémiet's much the best, and the other two common-place. Frémiet's appeared as it came from its mould, a simple effect of plaster, but of large style in line and mass. Idrac's presented all the surface allurements that is known to the ingenious and picturesque-loving French worker in plaster: deftly colored in various attractive tints, lights and

shadows displayed with the most striking and brilliant care, and all richly heightened with shining gold. As Schœnewerk entered the room, he exclaimed, in a tone and manner that carried appropriate force to his words, "Ah! that one," pointing to Frémiet's, "looks like the valet of this one," as he turned to that of Idrac. The latter's model was selected. It is not too much to say that this disgracefully flippant observation lost to Paris, France and the world a great equestrian statue, and got instead a very poor one. The second prize was awarded to the author of the "Valet," and six hundred dollars given for his model, which may be seen in the museum of sketches and models belonging to the City of Paris.

This chronological account of the sculptor's productions by no means includes the scores of small works that form a great part of his collection, many which have never been reproduced. The history of some of them is as interesting as the things themselves. Soon after the great fire in Chicago, the French artists made a contribution of an example of one or two of their works for the benefit of the sufferers, to be disposed of by lottery, but as it was thought that more money could be realized by selling them at auction, the last plan was carried out. If I remember aright the amount thus obtained was thirty thousand dollars, and I also have the impression



"Gorilla and Woman." Frémiet, Sculptor.

that the contributors have never found out to this day what became of the money, after it arrived at its destination. I think that at the time when there was much difficulty in raising funds for the pedestal of the Statue of Liberty, in New York harbor, a reference was made to this matter by the author of that work.

Frémiet's gift to this enterprise was a wax representation of a gorilla, running off as fast as his legs could carry him with a copy of the Venus de Milo under his arm. Into whose hands this amusing object went, the sculptor never knew. The memory of it, however, remains very vividly with those who saw it, as a composition of remarkable *verve* and great style. Some people were wicked enough to affirm that it was a skit on the English, because of their fame in buying so many fine works of art, and so seldom producing them.

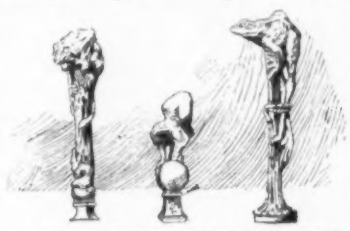
Among the sculptor's small bronzes are a lot of letter-seal handles and paper-weights, curiously artistic, grotesque and amusing, one of the funniest being an elephant standing on his head on a ball. Another represents a frog bent over and tied to the end of a stick, simply the reproduction of a fact, for as the sculptor was going along the banks of the Seine, one day, he saw this unfortunate creature thus imprisoned, a bait for the savage pickerel; he took it home, made a copy in wax, and returned it to its place in the water.

One of the most deliciously delicate of these little affairs, is a crane reaching out to catch a fly on the ground.

But sculpture has not filled all the sculptor's hours, for he has found time to paint and draw a great deal, and has been an exhibitor at the *Salon* in these departments of art.

As the Institute is the highest organized public recognizer of genius in France, and the world, I, wondering why Frémiet had

public honor his membership gave him. It finishes an artist's living ambition, and few are strong enough to resist the desire for it. Then, above all things, an artist loves to be esteemed by his profession, and especially after a life of active toil, passed perhaps without other thought than the pleasure of work. As age comes on, and the vigor of production grows less imperative, he becomes more human, fonder of companionship, and more susceptible to the sweet voice of popular encomium.



Letter-seals. Frémiet, Sculptor.

"The Institute has monthly meetings and dinners, and all the fellows have a good time together. There they meet on a common level, feel authoritative, as though they had really, at last, 'got there.' Frémiet has an imperial right to all his country can give him. He is more

than an Institute himself. His professional life has been one of the most dignified, devoted and loyal, in all the history of French art."

"As you have alluded to Barye, and I am necessarily obliged to constantly refer to him in what I am writing, will you tell me what you think of him and Rude," I asked; "a kind of summing up?" "O, yes. Barye was, by all odds, the greatest sculptor of ferocious animals, since the ancients. To explain why would be a long story. Outside of that he was not so great. He could not make anything like as good a horse as Frémiet. His horses were made from *chic*. He never had the chance to study the horse as he did other animals. Of course, everything he did bore the touch of a master, but other sculptors since his day have made much better figures of human beings. Barye's tremendous power in wild animals ranks him, at present, in the estimation of the most thoughtful judges, as our greatest sculptor. Rude, in the sense of an ideal sculptor of the human form, was greater than Barye. The style of his temperament was higher. He was a man of a richer mould. Once refused by the Institute, a very commonplace man being elected in his stead, no amount of conciliation would tempt him to apply for admission the second time. In this expression of sterling self-respect he was greater than Barye. Both the École des Beaux-Arts and the Institute fought and abused Rude, and continued that treatment to his pupils. In 1846, I think it was, he refused to send his "Napoleon" to the *Salon*, and the latter in turn, refused the work of sixteen of his pupils. To-day, you never hear a member of the Institute spoken of, as such, as a representative of French sculpture, it is Rude and Barye.

"Still, Barye's scheme was not the highest intellectually. He was a giant of the jungle, not of men and horses. If you will observe Frémiet's works you will find that his range of mind is on a much more elevated plane, wider in extent, and better balanced in his loyalty, to nature.

"It is the savage sentiment in Barye, the human in Rude. The first could bear no rival, and saw no merit in others' work, while the last was the contrary, to tenderness. It is only on general lines that we can arrive at an estimate of such men."

In many respects Frémiet is better known and appreciated in other countries than his own. He has exhibited in almost every city in Europe, and very often in Munich, where they always ask him to send his best things. For the "Gorilla," and "Group of Race-horses," he received a gold medal from that city, and he is also a member of its Academy of Fine Arts. It was there that I first heard of the sculptor, in the summer of 1869, and spoken of in warm terms. He is a great favorite in Madrid, and a member of its Academy Royal. A half life-size copy of the "Porte Falot" went to Copenhagen, in 1887, and the horses of the Luxembourg fountain, to Vienna, in 1882.

What a curious and interesting fact of human nature it is, that as soon as the personality of an artist is out of the question, the sensibilities work more freely and rivalry is unknown. But let the personality appear, and there is a general blindness of the sensibilities, and rivalry show up in surprising vigor. Perhaps in these old countries this fact is more evident than anywhere else, because every country is loyal, to a very extreme degree, to its own artist, and they have, as a consequence, no fear of foreign competition. There is no reason, therefore, why admiration should not have its full exercise. Frémiet's originality, never questioned anywhere as a fact, receives in foreign cities its due applause.

T. H. BARTLETT.

[To be continued.]



"Velasquez." Frémiet, Sculptor.

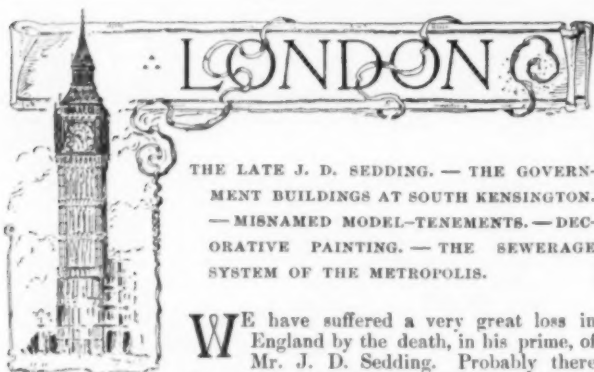
not long since been made a member, asked an eminent sculptor what the reason was, and he said — "Ah, mon Dieu! It is very simple. — He is too big, bigger than all of them together."

"They rarely take in any one above their own level. Bear in mind that Frémiet is not a graduate of the École des Beaux-Arts, and that the Institute is a close corporation for the special benefit of its graduates. No man can successfully contend against either of these influences, and they are the inevitable enemies of original minds. None of our great artists belong to the Institute, and I don't think they ever will. Of painters, it prefers Chaplain to Chavannes, and it is the same with the sculptors. Frémiet is an independent; his work is as exceptional in its character as is his temperament. He has never had any professional sympathy save from a few who were capable of understanding and appreciating him. Both are miracles, his life and his productions. He has had nothing whatever to do with his own generation, or his own century. He stands for himself, and great historical landmarks. It takes time for such men to be appreciated. Time and again has he been passed over in favor of inferior men. I cannot tell whether Frémiet will ever get into the Institute."

"Barye was only made a member at the last moment, and almost in spite of himself. He had got to be such a power individually that the Institute felt that it would not do to lose him, and so they fairly 'ran him in.' I am certain that Frémiet would like the honor. 'Member of the Institute' has a loud sound, greater than itself. Its really great men preserve its dignity.

"Much as this coagulated body is laughed at, we all want to get into it. I believe that Barye himself was by no means indifferent to the

SOLUBLE GLASS. — Soluble glass is made by heating in a reverberatory furnace until fusion becomes quiet 1,200 lbs. white sand and 600 lbs. of potash of 78 degrees. This will produce, says the *American Stationer*, 1,600 lbs. of transparent homogeneous glass with a slight tinge of amber. This glass is only little soluble, even in hot water. To dissolve it the broken fragments are placed in an iron digester charged with a sufficient quantity of water, at a high pressure, to make a solution marking 33 to 35 degrees Baumé. Distilled or rain water should be used, as the calcareous salts contained in ordinary water would produce insoluble salts of silicate of lime, which would render the solution torpid and opalescent; this solution contains silicate and potash combined together in the proportion of 70 to 30.



THE LATE J. D. SEDDING. — THE GOVERNMENT BUILDINGS AT SOUTH KENSINGTON. — MISNAMED MODEL-TENEMENTS. — DECORATIVE PAINTING. — THE SEWERAGE SYSTEM OF THE METROPOLIS.

WE have suffered a very great loss in England by the death, in his prime, of Mr. J. D. Sedding. Probably there was no one who aroused one's enthusiasm in the way that Sedding did. He was one of those with a winning way and a charm of manner which endeared him to those around him, despite his oddnesses and quaint inconsistencies, for Sedding never thought two days alike.

His work, like his thoughts, was full of inconsistencies but always very charming, because it showed so well the personality of the man. He is represented in London by a few churches, notably Holy Trinity, Sloane Street; Holy Trinity, Clerkenwell, while in the country many examples of his genius may be found.

Sedding was not a rich or an aristocratic architect, but the son of a village schoolmaster. In early days he was destined for a baker and was actually apprenticed to a baker when he was twelve years old. But his artistic temperament could not stomach baking, so he found his way into Mr. Street's office, ultimately practising in Cornwall, afterwards in London. His career was one continual advance, and at the time of his death he was a Member of Council and Chairman of the Art Committee at the Royal Institute of British Architects. Despite his extensive and busy practice he was always ready and anxious to give up his time to his fellow architects, and many a time has he come down to the Architectural Association and mixed with the students quite as one of themselves, helping them on in their work by one of his cheery, welcome speeches and by the example of his enthusiasm which seemed always brimming over in him. Mr. Sedding was an ardent devotee of the Catholic movement in the English Church and held for a long time the position of churchwarden in the world-famed Church of St. Alban, Holborn.

The proposed devotion of the site in Exhibition Road, South Kensington, to the new Gallery of British Art, has aroused the ire of the scientists. It is thought that this piece of land was intended to have been set apart for the erection of additional galleries for the College of Science, and the agitation culminated in questions in the House of Commons. On April 16, Mr. Mundella asked whether the Government had fully considered the difficulties of placing an art gallery, under independent management, between portions of the Science School and the science collections, but it was replied that any addition to the College of Science must of necessity take the form of a separate building across Exhibition Road and the subway leading thereto might, without any inconvenience to any one, be lengthened by some sixty yards or so, the length of the site for the new Gallery of Art.

It is a little doubtful whether the Government are quite wise in crowding together so many large national buildings at South Kensington. At the corner of the Cromwell and Exhibition Roads there is South Kensington Museum, which, when it is completed, will be one of the most extensive museums of its kind in the world. At the opposite corner of the same two roads and occupying the whole frontage between Exhibition Road and Queen's Gate is Mr. Waterhouse's *chef d'œuvre*, the Natural History Museum. Parallel to these and almost as large is Mr. Collett's Imperial Institute, while a little farther on in the Exhibition Road stands the great Technical School of the City and Guilds of London. Besides all these important buildings there is Sir Arthur Blomfield's new Royal College of Music, and sundry smaller schools of a technical nature; and now we are to have the National Gallery of British Art and apparently another gallery of science. These various buildings, if they had been judiciously placed about London in prominent positions would have had far more effect than they have now, crowded together at South Kensington where their grandeur is minimized by the scale of the surroundings.

The increased activity in favor of a municipal water-supply for London, has caused Birmingham to definitely take a very important step, avowedly with the intention of being first in the field. They decided on Tuesday, April 21, to authorize their Water Committee to obtain detailed plans, specifications and estimates of the cost of obtaining a new water-supply for the city from the rivers Elan and Claerwen in Wales. The watershed of these rivers is about seventy square miles, and the cost, it is thought, will be at least £4,000,000.

An important inquiry has recently been held by the Government upon the sanitary condition of Shoreditch, the adjoining parish to Bethnal Green, which contains the great improvement scheme of the London County Council. This report is chiefly of interest to the general reader on account of some severe remarks by the Government Commissioners on the so-called "model" blocks of dwellings,

where residences for the poorer classes or "lettings," as they are familiarly termed, are superimposed on the flat system. The Commissioners report reads: "To say that some of these model blocks are built without due regard to sanitary requirements would be a misuse of language. The fact is that they are built in gross violation of some of the very first principles of sanitation. We may draw attention to some blocks of dwellings on the Vinegar Ground, Shoreditch, which illustrate our meaning in the most striking manner. Here will be found buildings on the flat system over forty feet high and less than twenty feet apart, containing large numbers of separate tenements approached by dark corridors. The water-closets for these dwellings abut on the corridors, and are without direct light or proper ventilation. The dwellings thus approached contain rooms, many of which can never be penetrated by the rays of the sun. These dark, gloomy habitations are in our opinion far more likely to become a danger to the public health than are even the worst of the dilapidated cottages to which public attention has been drawn by the Mansion House Council."

This report of the Government Commissioners is of a highly important character, as it indicates that some control will have to be exercised over the erection of these artisans' dwellings. The pressure of space in London compels the erection of flats of this nature, and it is necessary that the so-called "model" buildings should really be sanitary dwellings. Otherwise the labors of the municipality in expending vast sums in demolishing rookeries and slums will have only resulted in the substitution of one evil for another. I understand the London County Council is, therefore, about to institute a searching inquiry into the question of construction and administration of dwellings for the poor, erected upon the flat system.

A very interesting discussion took place at the Royal Institute of British Architects, on April 20, on Decorative Painting. The meeting had been arranged by the Art Standing Committee, and three papers were delivered by three decorative artists, Messrs. W. B. Richmond, N. J. H. Westlake and Ford Madox Brown, with a short introductory paper by Mr. J. M. Brydon. Mr. Richmond dealt with the question of fresco-painting, which he regretted could not safely be employed in London, or in the great manufacturing towns of England, from the character of the atmosphere. For country houses, town-halls, or country churches the process was a most suitable one, and he would like to see it now extensively used. After explaining the materials in which fresco-painting should be executed he stated that it was the very life of fresco and of decorative work that it should never be pictorial, and never greatly embarrassed by light and shade, and that to attempt in fresco, what oil-color could do much better, was like asking a violin to give the full harmony of an orchestra. The strength of fresco was light, the strength of oil was shade. He deplored the lack of really competent fresco-painters and advocated the establishment of a school of fresco-painters. The other two papers dealt in a more general manner with other methods of mural decorations. There was a bright and animated discussion, and more than one speaker referred in terms of congratulation to the gradual *rapprochement* which is now going on between the sister-arts of painting, sculpture and architecture. There is no doubt that these arts are beginning to understand one another a little better and that there is growing up a sympathy between the three divorced professions that predestines a bright future for English art.

The Architectural Association are at last proceeding in earnest with their new scheme of education. There has been a good deal of unnecessary delay, caused mainly by members who are opposed to the new development, but all is now amicably settled, and there is every chance of the new scheme being put into working order in time for next session's work.

I have been considering for some time, how I could best place before you the chief problems of an architectural and engineering nature, which have to be dealt with by the Municipality of London, and it has seemed to be a convenient procedure to give, as briefly as possible, an epitome of the present position of such questions as the drainage, water-supply, etc., in order to facilitate the comprehension of the current history of the various matters. I propose to deal first with the drainage question, considering in this letter the collection of sewage, and dealing in subsequent letters with its disposal and the many different points in connection therewith.

Among the many abstruse sanitary questions which London is called upon to solve, one of the most important is the collection and disposal of sewage. To comprehend this question thoroughly it is desirable to master the geographical configuration of England's metropolis. London is situated in a great basin, flanked north and south by ranges of hills some twenty-five miles apart. Laterally, the plain is nearly level, though there is a very slight rise westerly, towards Windsor, while on the sea or eastern side the flanking hills gradually disappear, and the whole of the country due east of London is a grassy, marshy plain, occupying the greater portion of the county of Essex. The centre of this basin is occupied by the River Thames, which is a tidal river for some forty miles of its length, the first lock being at Teddington, eighteen and one-half miles above London Bridge. This brief sketch will serve to make clear one or two of the chief factors in the problem, which may be defined in the following manner.

(a) The rise to the north and south and the slight rise to the west preclude any scheme for disposing of the sewage on sewage-farms surrounding the outskirts of London.

(b) The comparatively flat nature of London proper prevents the complete native flow of the outfalls eastward.

(c) The tidal nature of the river keeps the water therein on a perpetual swing backwards and forwards, and so prevents the river being used as a receptacle for crude sewage.

(d) The distance from the coast renders it practically impossible on the score of expense to discharge the sewage into the sea.

Bearing these four main principles in mind we may, perhaps, be able to grasp the difficulties with which the solution of this great question is attended.

London really had no system of sewage until about the end of the seventeenth century. Even so recently as 1815 cesspools reigned supreme, such sewers as then existed being regarded as simply to be used for the surface water, and these surface-water sewers were constructed, running north and south, to discharge at various points into the Thames as it made its course through the centre of London. Time, however, went on, and gradually these surface-water sewers became used for sewage, until in 1847, it was made compulsory to drain all houses into the sewers. The consequences of this action were, however, very serious. As explained above, the water in the Thames is not continually on the flow from London, but ebbs and flows, backwards and forwards, so the sewage remained in the river in a constant state of oscillation.

Obviously this state of things could not be permitted to continue and one of the first actions of the Metropolitan Board of Works, on coming into power, was to prepare a plan for a comprehensive system of drainage. The Metropolitan Management Act, however, required the submission of the plans and estimates of the proposed new sewers to the Commissioners of Her Majesty's Works and Public Buildings. The Board's plan was submitted in 1856, but the First Commissioner declined to approve it and eventually he referred the scheme to three independent engineers, who on July 31, 1857, made a report, submitting and recommending a design of their own. The substituted plans were in turn, submitted by the Board to three other engineers who reported that they were "needlessly large, excessively costly and, as a work of construction, all but impracticable." A long controversy followed and in the meantime nothing was done. The Summer of 1858, however, was unusually hot and the condition of the Thames became exceedingly bad, the continual stench being such as to cause considerable apprehension and alarm among the inhabitants of London. The following extract from a leading article in the *Times* of June 18, 1858, graphically describes the condition of affairs at that time.

"What a pity it is that the thermometer fell ten degrees yesterday! Parliament was all but compelled to legislate upon the great London nuisance by the force of sheer stench. The intense heat had driven our legislators from those portions of their buildings which overlook the river. A few members indeed, bent upon investigating the subject to its very depth, ventured into the library, but they were instantaneously driven to retreat, each man with a handkerchief to his nose. We are heartily glad of it. It is right that our legislators should be made to feel in health and comfort, the consequence of their own disregard of the public welfare. . . . As long as the nuisance did not directly affect themselves, noble lords and honorable gentlemen could afford to disregard the safety and comfort of London, but now that they are fairly driven from their libraries and committee-rooms — or better still, forced to remain in them with a putrid atmosphere around them — they may perhaps spare a thought for the Londoners."

Ultimately the Government decided to trust the Board and on the 2d of August, 1858, an Act was passed which repealed the clause of the original Act, which required the Board to obtain the consent of the First Commissioner of Works before intercepting the sewage from the Thames, and the Board then proceeded to put into execution its own plan. In accordance with this scheme, three main intercepting-sewers were constructed on each side of the river, termed respectively, the High, Middle and Low Levels, and so-called from the relative positions in the gradual slope upwards, north and south, from the bed of the river. Of these sewers, the high and middle sewers discharge by gravitation, the lower by pumping. The northern low level, which we are informed is much overcharged, drains a district to the west of Chelsea and is raised in its course, by pumps at Pimlico, some 17½ feet. These three great sewers on the northern side of the Thames are made to converge and meet at Abbey Mills, West Ham in the East End. Here the whole of the contents of the low level are lifted 36 feet, an operation which involves the consumption of as many tons of coal per day. From Abbey Mills the aggregate stream of sewage flows through the northern outfall sewer, which consists of three culverts carried on a concrete embankment across the marshes to Barking Creek. These culverts are each nine feet by nine feet, placed side by side, with upright sides, semicircular crowns and segmental inverts.

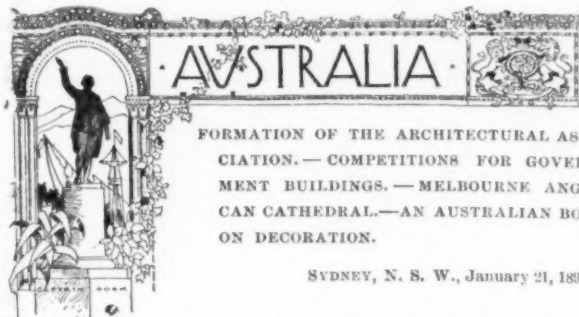
On the south side of the Thames, the three intercepting-sewers were made to converge at Deptford, where the sewage from the low level is lifted by pumps eighteen feet into the southern outfall, and the united streams of sewage flows on in one channel through Woolwich, to Crossness, where it is pumped up into a reservoir in order that the discharge may be made upon the ebbing tide, it being found by experiments that the discharge of sewage at high water at any point was equivalent to its discharge at low water, at a point twelve miles lower down the river and that therefore by allowing the

sewage to pass out at high water instead of low, the construction of twelve miles of sewer would be saved.

The following statistics will convey an idea of the magnitude of the main-drainage works:

The total length of the main intercepting-sewers is about eighty-two miles; they are capable of intercepting daily 63,000,000 cubic feet, or nearly 400,000,000 gallons of sewage and the total cost of the works has been about £4,600,000. The average daily quantity of sewage discharged is about 160,000,000 gallons.

The precipitation works and disposal of the sewage will be dealt with in my next letter.



LAST week saw the formation of the much-talked-of Architectural Association here, which, no doubt, as the country newspapers say, will supply a long-felt want. The Institute of Architects is beginning to make itself felt, and is steadily and quietly doing much good work; but it is not yet numerically strong, and, as its own affairs necessarily occupy a large share of its attention, the interests of students and draughtsmen had partly drifted into abeyance.

The new Association has been born under favorable auspices, and at a time when everything was ripe for its advent, but it must beware of approaching its work in the self-sufficient manner which is so characteristic of the Australian youth. It has in its power to accomplish much, if it does not seek to involve itself in a struggle for supremacy with the representative Institute, for such a course can only end in disaster, for its whole energy will require to be devoted to the object for which it was formed. There is too much dissension already in the architectural dovecote; we cannot afford to indulge in internecine warfare, when so much remains to be done in repelling attacks from without. The Institute, the Architectural Association and the newly-formed society of the members of the Royal Institute of British Architects resident in Sydney have, I presume, one common object in view, viz, the advancement of the profession, and this object can only be obtained by united action. The enmity of individuals and coteries can only serve to delay this accomplishment and retard our progress generally.

The competition for our new Houses of Parliament is shortly to be advertised, and a competition for new Law Courts will, it is said, shortly follow, so there is quite a hum of excitement in the architectural atmosphere. These competitions are the first under the new system lately inaugurated by the Government for allowing all works over £5,000 in value to be competed for by local architects. The Railway Commissioners, some time ago, put this idea into practice, and, as a result, they can point to a Railway Institute, which is just approaching completion, and which, without doubt, is one of the most picturesque buildings about Sydney. The architect is Mr. H. M. Robinson, a former Soane Medallist.

The Roman Catholic Cathedral, St. Patrick's, is to be completed forthwith, the contract having been signed a short time since.

It is said that nearly four and a half million pounds sterling will come into New South Wales during 1891, representing the value of the wool exported last year. If only a moiety of this is invested in buildings, and should the conditions for the Government competitions be equitable, there should be unwonted activity in architects' offices before long.

Now that Melbourne Anglican Cathedral has been opened, the papers are discovering that "it is no more, architecturally, than the common or garden kind of parish-church dignified by the name of cathedral." The church, for some reason best known to the authorities, occupies a position between two streets, which will preclude future enlargements. This may hereafter prove inconvenient to the Anglican community, but it is, at least, a relief to know that there is a probability of there being, at length, one complete ecclesiastical building in Australia. The church, which is 277 feet long by 66 feet wide, will accommodate somewhat less than 2,000 people, and has cost already over £115,000 sterling. The architect was Mr. William Butterfield, of London, who resigned some few years back because the committee, as usual, knew more about architectural matters than he did. The building is, however, admitted to be the best example of Early English in the colonies.

Some time ago, I had occasion to refer to the utter vileness of the windows in our Centennial Hall in the columns of this paper. Though I am of the same opinion still regarding them, I must, in justice, say that the fault does not lie altogether with Mr. L. Henry, the artist who designed them, for I have since seen a "process"

reproduction of one of his original cartoons, and though the design, even there, is not altogether admirable, it is still easy to see that the manufacturers of stained-glass are responsible in a great measure for the wretched drawing and the "thinness" and crudity of the coloring. Mr. Henry, by the way, is about to publish a book on "*Australian Decorative Arts*," illustrated by fifty large plates reproduced by the best processes from his own designs. I must remark, however, that Mr. Henry is not an architect, and I do not imagine for a moment that he expects "to found a distinctly Australian order of architecture . . . which shall be racy of the soil," by merely adapting Australian *fauna* and *flora* as his motives. If, however, he succeeds in sending our students to nature for inspiration, instead of following traditional ornament and the decoration of the schools, he will have achieved more than most men may hope to accomplish.

We are informed by the papers that Mr. Edward E. Raht, the architect-in-chief of the Equitable Life Assurance Society of the United States, has arrived from New York with a view to immediately commencing the erection of office-buildings on the sites recently purchased in Sydney and Melbourne.



THE CHIGNECTO SHIP-RAILWAY. — ANOTHER SHIP-RAILWAY PROJECTED. — MARKING HISTORIC SITES WITH TABLETS. — COLLECTION OF OLD MASTERS ON VIEW AT MONTREAL.

THE Chignecto Ship-railway, which is being watched with such interest from all parts of the world, by engineers and capitalists, is rapidly progressing and during the last month all the works suspended through the winter have been resumed. The masonry of the lifting-dock is nearly half-finished and will soon be ready for the hydraulic machinery, which will lift the vessels from the water to the level of the rails. The Amherst Basin in which the lifting-dock is situated has an area of about 500 feet by 300 feet for vessels. The entrance will be formed of two immense walls, each 100 feet long, running parallel and 60 feet high. The great gates will be a feature of engineering: they will have to support a larger head of water than any gates in the world. At no place in the world is the movement of the tide, where such gates are in use at present, greater than 15 feet. Here the rise is 50 feet and this gate will have to hold up this weight of water against one side, while on the other side there is none.

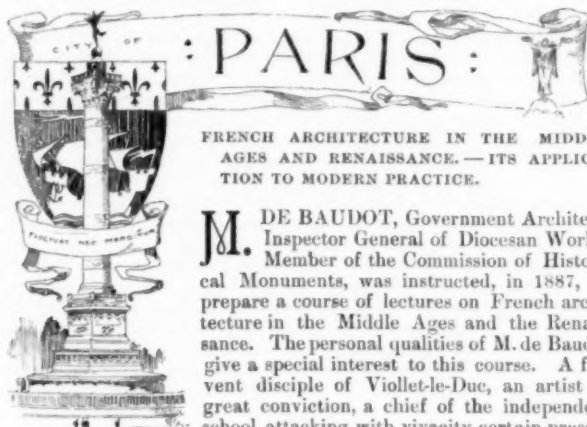
Another ship-railway in Canada is contemplated for the purpose of shortening the route from the Upper Lakes to Lake Ontario. This, if carried out would create a direct route from Duluth to Chicago, for all grain shipments bound to foreign countries, avoiding great waste of time and also expense, involved by the present waterway through Lake Erie and by Buffalo. It would be 166 miles long and the cost is estimated at \$15,500,000, considerably less than the estimates for a canal with the same object, which has been mooted.

The Antiquarian Society, of Montreal, is beginning to erect tablets in various parts of the city, to commemorate historical events and mark historical buildings. They propose to start with about fifty tablets of Italian marble, three feet by two feet, inscribed with the event to be commemorated and put up in conspicuous positions. One of the first to be put up will be to mark the place where the founders of Montreal landed in 1642, under command of the Sieur de Maisonneuve. This is no doubt a good move on the part of the Society and it is to be hoped sufficient funds will be at its disposal to enable it to do its proposed work thoroughly.

There is at present an exhibition of valuable paintings, principally by "old masters," on view in the unfinished church of St. Peter's, Montreal. This church is the Roman Catholic Cathedral, but it requires a large sum of money for its completion. With a view to raising the required funds, Dean Wagner, of Windsor, has lent all the valuable pictures which have been donated to him for the purpose of benefiting his Hôtel Dieu that he has founded in connection with his free school and orphanage for colored children. Many of these pictures came from the Ursuline Convent, at Prag, Bohemia, the late Lady Superior of that Institution having left all the pictures of her rooms to Dean Wagner for this purpose. The present Lady Superior sent about forty others and many have been sent by wealthy people in the neighborhood of that convent. It is a great pity that this exhibition was not advertised to a far greater extent, such an opportunity is rarely, if ever before, afforded to people on this continent and there are many who would have been glad to travel hundreds of miles to see the collection. Among them is a "Crucifixion" by Vandyck; a "St. Jerome" by Tintoretto; "Mater Dolorosa" by Carlo Dolce; a "Holy Family" by J. Sandrart; the "Wedding feast of Cana" and a "St. Paul in Areopagus" by Agostini Ciampelli. A "Portrait of Rembrandt," by himself, a

"Madonna," by Amiconi; "Adoration of the Magi" by F. Francois. "Head of St. Francis in ecstasy of suffering," by Ludovico Carracci, and many others of note and value including a painting attributed to Rubens. The Sisters of the Visitation, in Gleinsk, sent a "Madonna" by Wohlgumth, and from the Trappist Monastery of Hohenfurst, Bohemia, comes a "St. Peter," author unknown.

The Royal Society of Canada, will hold its annual meeting this year in Montreal, at the end of May.

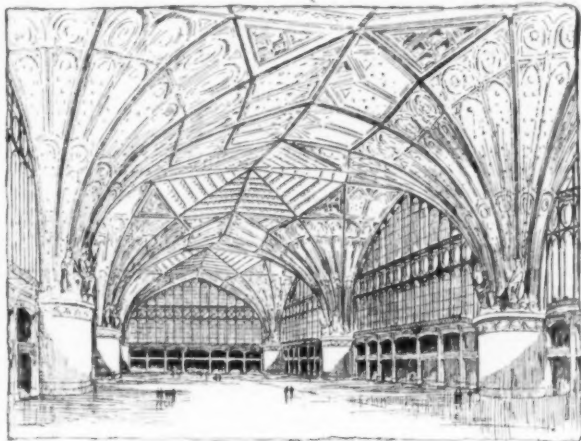


FRENCH ARCHITECTURE IN THE MIDDLE AGES AND RENAISSANCE. — ITS APPLICATION TO MODERN PRACTICE.

M. DE BAUDOT, Government Architect, Inspector General of Diocesan Works, Member of the Commission of Historical Monuments, was instructed, in 1887, to prepare a course of lectures on French architecture in the Middle Ages and the Renaissance. The personal qualities of M. de Baudot give a special interest to this course. A fervent disciple of Viollet-le-Duc, an artist of great conviction, a chief of the independent school, attacking with vivacity certain present methods of instruction at the Ecole des Beaux-Arts, an enemy of that which is styled "official art," M. de Baudot was sure of attracting the attention of all architects who concern themselves with the questions of art and curious to listen to a master who sets out his theories with conviction, warmth and persuasiveness. These discussions in the hall of the Museum of the Trocadéro, in the midst of the souvenirs left by Viollet-le-Duc, with, close at hand, the marvellous models of the finest specimens of our national art, refresh the mind, wearied with the dry details of the profession and annoyed by its practical requirements, and make more perceptible the charm of the artistic side of our profession.

If we have not yet spoken of this course the reason is, that until this year M. de Baudot, after having gone over the art of the Middle Ages and the Renaissance, had not reached the conclusion which we were waiting for with impatience, knowing the programme which he had imposed upon himself. This programme consisted in the study of the method of composition followed by the architects of the Middle Ages and the Renaissance, in order to reach at length its application to the solution of modern problems. In the first place M. de Baudot was induced to take up and comment on the work of Viollet-le-Duc and study the different schools of the Middle Ages. He showed the influence exercised on each of them by the requirements of style, climate and the materials which were at their disposal. It is thus that the Provençal school in the churches of St. Trophime at Arles and St. Gilles reveals a Gallo-Roman influence which it owes to its geographical position, and also in the sculpture the Byzantine influence which the school of Languedoc felt still more, as is testified by the Abbey of Moissac, St. Bertrand de Comminges and St. Sernin at Toulouse. The school of Perigord, of which school the Church of St. Front at Perigueux is one of the most curious monuments, marks in even a more emphatic manner the Byzantine influence which is also found, although attenuated, in the school of Poitou, which is brilliantly represented by Notre Dame la Grande at Poitiers and the Cathedral of Angoulême. But it is not the intention here to narrate anew, even in epitome, these discourses of Viollet-le-Duc, rejuvenated and modernized in some sort by M. de Baudot. It is enough to say that he has carefully studied all these schools, and developed in a very interesting manner their different systems of construction. In his final comparisons with our present methods, which did not lack a spice of malice, M. de Baudot made apparent the advantages of the methods employed in the Middle Ages for the construction of buildings. Too often, in his opinion, the ability for drawing which numberless modern architects possess disguises, under the charm of a drawing of an enticing composition, the lack of study in the employment and arrangement of materials. It must, indeed, be confessed that architects nowadays too often seek after an effect without concerning themselves with the manner in which this effect can be built. M. de Baudot regrets this general absence of rationalization which allows materials to be used haphazard, without method, for the mere sake of copying style or introducing a form of detail or of decoration, which will be insisted on at any cost whatever, at the sacrifice of all logic. Perhaps architects do not altogether merit the reproaches which M. de Baudot heaps upon them. When an architect preserves a certain liberty, when he is stopped neither by regard for the interests nor the irrational demands of his client, whose caprices he must satisfy, we all know that he can accomplish a more truly personal work. But M. de Baudot especially directs his attack against monumental architecture, that which history will disinter and dissect to derive from it instruction and documentary evidence. He finds instruction of great value in the Gothic monuments and the monuments of the Middle Ages, which in general answer to the conditions which an edifice must satisfy if it would truly

be a work of architecture. These monuments, in short, rest on a logical system of construction. They present arrangements which result from the plan itself, and their decoration is proportioned to the materials which are employed in a rational and economical manner. It follows that Gothic architecture must be taken up again, and this theory, far from enabling an advance, may it not make us



take a step backwards? Quite the contrary. It is not a question of applying the Gothic method to new Gothic edifices, but of penetrating ourselves with this method and applying it to the working-out of new solutions required by new programmes and new materials. These new materials, the principal of which is iron, must not be used to reproduce forms compatible with other materials, but incompatible with the material of which they are actually composed. By logical deductions drawn from the methods of composition in the past, it must happen that by the means of the new elements which are at our disposal, there shall be created new methods and a style specially adapted to them.

Such is the end toward which the efforts of modern architects must tend, and to reach it M. de Baudot considers that it will be enough to reason about that which one is building. Now do people reason about the employment of iron? Up to the present time, no. Finding themselves face to face with an elastic and powerful element, use has been made of it to span the greatest spaces, or to support and reinforce other materials upon which they desired to impose forms which they were themselves incapable of assuming. So it has been concealed in stone and hidden under plaster. It has been the real element of construction only in market-halls, railroad-stations and factories. In these cases it is used in a brutal fashion, exclusively scientific and material in its application; proceeding from a single point of departure, and ending in one and the same formula; that is, in the solution given by the accurate calculations of the engineer. At the side of this mathematical precision must be introduced the artistic education of the architect. If he has carefully studied the constructive methods of the Middle Ages based upon the elasticity of structures, he can in no small degree contribute aid in the search after forms proper to give to an element so elastic in itself as iron. M. de Baudot, struck by the comparison of the elasticity of iron and of the vault, built with transverse arches and wall arches, divided into triangles by diagonal arches, has from it arrived at the conclusion of which we were speaking a moment ago, and this is the culminating point of his lectures.

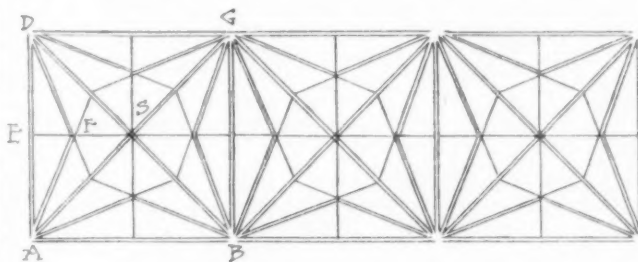
The effort exhibited at the Universal Exhibition of 1889 in the marvellous Machine Gallery vividly impressed M. de Baudot, but, in his opinion, this effort, a hasty one by force of circumstances, only produced an incomplete result. That which he particularly finds fault with in this work is its lack of scale, which diminishes the effect of grandeur which ought to have been produced; its indefinite repetition of the same truss forming a hall which has no beginning



nor end,—in fact, to employ a popular expression, there is no reason for its finishing at all. There are a great number of buildings which present the same disposition. The entire interest, a scientific interest, limits itself to this result: to cover a space of 115 metres' span, without any point of support, by means of a single truss. This is certainly something, and it would be unjust to cheapen one's admiration for the work of the designers of the Machinery Gallery.

But, M. de Baudot asks, whence comes it that, all the proportions

being preserved, an edifice like the Cathedral at Amiens, which is only thirty-two metres high and sixteen metres wide, produces an impression of greater grandeur? The reason is that in this monument, as in others of the same kind, the detail, the disposition, everything, recalls the same scale, and this is absolutely wanting in the Machinery Gallery. M. de Baudot also, on the other hand, makes this judicious remark: that the architects of past times, whether they were Greeks, Romans, Byzantines or what not, when they had to span a space in one direction, also spanned it in the other; and then naturally arises the question: Why could not these 115 metres of the Machinery Gallery have been covered on a square plan? Preoccupied with this idea, like a conscientious and thoroughly convinced artist, M. de Baudot has pushed his study a little farther, and has had the curiosity to make for his hearers a complete *projet* of a machinery gallery arranged according to his theory. It is this scheme, extremely interesting, that its author has been willing to communicate to us, and of which the *American Architect* has the first notice. And, first of all, we must state with exactness its author's intention in exhibiting this work. He does not pretend, with this study, to give a new and much-desired formula, which he complains of not having discovered in the work of others. He denies, with much modesty, having invented a disposition which has really been given to him by reasoning and logic, taking as his point of departure a truss of 115 metres' span, of which he is not the author. He has simply desired to show that this point of departure might lead to less commonplace solutions, and this very fact is a tribute paid to the constructor who opened the way to him, and for whom he professes a sincere admiration. To this work of the engineer (in this case, however, due to the brain of an architect, M. Dufert) M. de Baudot would simply like to add a little art, which, by transforming it, might give it more grandeur, and make of it a veritable piece of architecture. He has, therefore, taken trusses of 150 metres, such as exist in the Machinery Gallery, and has used them as the two diagonal arches on a square plan of about 81 metres



PLAN DE LA VOÛTE.
AG. BD. = 115 MÈTRES.

on a side. It is these trusses which form what we may call the transverse arches, the wall arches and the intermediate ribs of the new vault. And this permits us to have a regular and easily-decorated formula. But this disposition, on the other hand, brings about a break at the point "F," the three points "E," "F," "S," not being of the same height in consequence of the different lengths of the trusses. We give the plan of the trusses and the exterior and interior views of this *projet*, which has certain advantages, from an artistic as well as practical point-of-view, over the Machinery Gallery. It must first be observed that the gallery thus presented is only 245 metres in length, while that of the Machinery Gallery measures 420, and that its depth is 80 metres only. The dimensions are, therefore, much smaller, and yet the effect produced is proportionately greater. This arrangement better lends itself to decoration by its full vaults, which also allow of better ventilation, one of the great inconveniences of the Machinery Gallery, lighted from the top, being that it was either too cold or too warm. The vault of M. de Baudot is protected from the external air, since an empty space, the height of the truss itself, separates the filling which forms the surface of the vault from the roof proper. The lecturer had arranged about his nave piers of masonry enclosing staircases which reach to the interior and exterior galleries, without counting the one which, higher up, forms a balcony all around the building.

I must do justice to the good arrangement of the gables, whose filling of iron work, consisting of a regular series of arcades and rose windows, is independent of the truss, and does not have the appearance of supporting it, as was the case with the Machinery Gallery. But we must not stop too long over matters of detail. It would be easy to formulate some criticisms, and ask, for example for angle motifs better accented and better re-enforcing the *ensemble*, so as to give it a better silhouette and more firmness. This is not the question, however. The interest rests on the fact of the new solution brought about by logical reasoning upon a method of composition. Calculations which M. de Baudot has made, allow him to affirm that the weight of iron employed would be almost identical in arriving at this grander effect. He only speaks here of the cost of the iron, and we might question whether this solution, evidently more artistic, might not be more costly. An important matter would be the method employed for filling the vaults. This is one of the most delicate matters. M. de Baudot believes that they could be formed in panels of concrete, with an imbedded metallic tracery of iron

work. Experiments have in fact been made with this system, which has allowed the construction of vaults of a thickness of only three centimetres and yet offering a considerable resistance. But it is not a matter of great importance, and has nothing to do with the principle which has guided this study, which was in great part theoretical.

A programme has been chosen which falls outside of ordinary needs, in order to make the teaching more impressive, and the lecturer has confined himself, in taking his point of departure, to an element of construction which already exists—the truss of 115 metres. He has desired to show that this new element, powerful and elastic as it is, must lead to results differing from those which we are acquainted with up to the present; and in order to reach these results it is only necessary to apply reasoning to the new element, and not confine it to reproducing at a greater scale forms similar and analogous to those which are already known. The method of composition which he has applied to this transformation of the Machinery Gallery can be applied to any construction whatever. This is the interesting point and the one which must be remembered, for the difficulties which are presented in the execution of so costly a work as the Machinery Gallery would disappear when it became a question of a more everyday, more detailed and more complete building; but the principle remaining always the same, its application will give rise to new architecture, of which the *projet* of M. de Baudot is not the formula, but for which it can indicate the way and encourage others in the search.



A NEW architectural feature has been seen in Chicago this last month, and this time the idea originated in the "Glorious State of California."

The old Exposition Building has been made gorgeous by an orange carnival and exhibit from the sunny southern counties of the distant land, one of the most attractive features (after the sweet orange cider) being the architectural efforts of the exhibitors, miniature reproductions of various buildings all made of the golden fruit. Whittier County's building is of no aspiring style, being only the representation of the old well and sweep of the poet's "snow bound" New England farm-yard, though before the cadmium-hued curb and sweep with the cotton snow hanging from it, imagination has to do its utmost to realize that

"... its slant splendor seemed to tell
Of Pisa's leaning miracle."

The Red-land "Bear Valley Dam" had little that was characteristic in the mere wall of oranges, but Pasadena's fifty-foot tower rising in the centre of the exhibit all constructed of oranges was quite a success. The Los Angeles "County Court-house" reproduced chiefly in small tangerines was very successfully managed, as well as a "Turkish Mosque" from Duarte's County. The most successful reproduction, however, and the one where the character was best preserved, was the old "San Gabriel Mission."

Not connected with the orange show, but in a dusky and dusty corner of the same part of the building is an object to be glanced at casually and wonderingly. It is the Carrara marble "Cleopatra" of the little sculptress Edmonia Lewis. The figure is not by any means a wonderful production, but certainly good enough to deserve a little better treatment than to be hidden in the dust of this particularly dirty locality. The marble is so begrimed that it scarcely is recognizable as marble, the end of the tapering sandal is broken, several fingers and toes are missing, and after a few months more of such usage, there would be a chance for restoration as of a veritable antique. Perhaps the Exposition managers are planning for such a result, and expect to bring the work before the public again, with added worth, though perhaps fewer phalanges, as coming from some recent Egyptian excavations. Chicago will stand, is accustomed in fact, to a good deal of general brag and presumption, but this sort of thing would be a little more than they could bear, as younger people than the oldest inhabitant remember when they paid their extra quarter in the early Exposition days, to look upon the same white queen and to have a chat with her dusky-hued creator, who sat by her side. Her ignominious position among the oranges is not the lowest place to which the mighty has fallen, for at the "fat-stock" show she could be found hustled off among the boxes and stalls. The proud daughter of the Ptolemys seems to be claimed by no one, and one wonders whether even Miss Lewis has lost all interest in her.

There are certainly many places where she could fill a long-felt want, and once more become quite a "leading lady." The statue would most assuredly be more appropriate in the Newberry Library than the huge and poor picture of one of our prominent society women, now conspicuous in World's-Fair circles, which graces the walls of the auditorium of that edifice.

One of the most unusual experiments in building here at present is the manner of erection of the mammoth structure to be occupied by the huge department store which is known as "The Fair." The manner of erection is at present its most interesting feature, the work being done in sections. The old building was divided into eighths, each section, we are told, being seventy-four by ninety-two feet. One division at a time is being taken. First, excavations are made under the present building, a very low and light structure, to the depth of fourteen feet below the sidewalk-line, the old structure being supported in the meantime on jack-screws. The steel foundations are then laid for the new building. When this is accomplished the section of the old building is torn down and the new one run-up four stories. When these are finished they are immediately occupied, and another section is taken till the entire lot is covered with a four-storied building. This is then roofed or floored over and the other stories progress in the usual manner of work, while the store is occupied as usual. According to first report it was to be the largest mercantile building in Chicago, if not in the world, and was to cost three million dollars, being sixteen stories high and occupying an entire half square. If we can judge from the published newspaper cuts of the sixteen-storied building, the change of plan to an eight-storied one will be an improvement. Eight or sixteen, it resembles many of our gigantic structures in being serenely plain, a triumph of engineering rather than architectural skill.

This kind of building is constantly increasing in Chicago, and as mentioned in a previous letter it is a question, which is at present far from settled, how much these structures will add to the health and beauty of the city. The streets in their immediate vicinity must become extremely damp and cold, the sunlight penetrating into them during but a few hours out of the twenty-four, and in this particular, if in no other, we may possibly learn the folly of these towers of Babel. Some members of the Real Estate Board have tried to prove that streets between these high buildings are lighter than between low ones, on account of the large expanse of glass with its reflective properties. This theory is ingenious, but unsatisfactory. Certainly no one can argue that such buildings as the Monadnock, the Monon Block, the Old Chamber of Commerce Building, the Tacoma and others are artistic. A smile often passes over our faces as we show strangers our wonderful buildings when, with few words of admiration, they immediately fall to counting the stories. Why smile, however? This counting of windows is the only appropriate thing to do, before these many storied monstrosities. In the majority of them, there is absolutely nothing to admire. As has been suggested in communications to the daily papers, it seems a pity that so glorious a chance to become justly celebrated, should be so ignored by many of our leading architects. Fra Lippo Lippi's motto: "If you get simple beauty and nought else, you get the best thing God creates," would hardly do for the working device in the erection of our great mercantile houses and other large structures. Utility must, of course, have the lion's share, but when it comes to combining it with beauty, in extremely high buildings, whose every inch of area must be used, every designer must recognize it as the most difficult of modern problems. Every one admits that the interior of the Auditorium is a most successful building, but it also is as fully admitted by the public in general, that the exterior is not all that could be desired. Many of the large apartment-houses of the city would come under the present criticism, so far as their exteriors are concerned, charming and pleasant as may be the interior arrangement, and is not the time soon coming when instead of our pride, these structures may be our shame? Can we not to a greater extent combine the element of beauty with their size and utility, for then we could well point to them with pleasure?

An association has recently been formed here very much on the plan of the village-improvement societies of our small towns. Eleven clubs are represented in the movement, each of them having three delegates. The object of the association, taken from a draft of a plan made out by a committee on organization is as follows.

1. "To cooperate with and support the constituted authorities in all practical ways in securing the observance of municipal requirements pertaining to streets and sanitary regulations."
2. "To aid in creating a more vigorous public sentiment in favor of beautifying the city and increasing its attractiveness."
3. "To urge the adoption of such new municipal regulations as shall be found necessary to restrain street encroachments and secure the fullest protection and freedom in street travel."
4. "To suggest and encourage plans for embellishing the city."
5. "To enlist the cooperation of citizens and corporate bodies, through the means of examples, complaint and active endeavor in maintaining cleanliness in streets and alleys; in securing the removal of unsightly objects and structures; in abating practices and nuisances injurious to the good name of the city and in such general improvements as shall tend to impart attractiveness to its public thoroughfares."

It seems possible that this association might accomplish something in our very poorly controlled streets and highways. Dirt under foot and above head is the order of the day in our city, and if one does

not realize it down in the thoroughfares, he has only to mount to the Auditorium Tower and look down on the "world we live in," to realize the density of the atmosphere we breathe.

There have, however, been some results from the efforts of the Smoke Inspector, as shown by his report this year, though few people realize that much has been accomplished. The statistics of his report are as follows.

Violations observed.....	3,215
Notices served to abate nuisances.....	2,186
Nuisances abated.....	746
Suits prosecuted.....	485
Cases fined \$50 and costs.....	299
Cases fined \$100 and costs.....	1

In spite of the dirt, smoke and confusion which accompanies the practical side of Chicago, the more artistic side is steadily growing, and the Art Institute is fast becoming a school of no mean reputation. A new system of prizes has been recently established at this institution. At the end of two years, students who have successfully followed the course are to receive diplomas, a silver medal going to the most successful worker. Honorable mention will be bestowed when deserved, the same honor to be conferred on the antique class, and prizes given to the Saturday morning juvenile class. The Art Institute already exerts a strong influence on the artistic education of the city and it is to be hoped that it will continue to be a power that will make still larger results.

The Palette Club, the women's artist association of Chicago is at present holding its annual exhibition within the walls of the Art Institute. The exhibition is one of exceptional excellence and if we can judge the ability in the men's artist's club from an exhibition recently given in its own rooms, the club will have to look well to its laurels if it does not wish them borne off by its fair rivals. Indeed there are many already who, if they were making a search for these immortal *greens*, would only hunt for them among the Palettes.

As previously mentioned there is some talk of turning over the Art Institute to the city. It always seems questionable not to leave well enough alone, especially when it is a matter of inviting municipal authority into a heretofore successful management. The Public Library seems to be but little affected by city politics, however, and the Art Institute might be kept equally free from them.

For the last few years the Library has had temporary quarters in the City-hall, but the much-talked-of building is now on the eve of construction. We can only hope that our discussions concerning the building may occur before it is erected rather than after, as in the case of the Boston Public Library. Chicago is so well acquainted with Librarian Poole's advanced ideas concerning library buildings, that it is to be hoped that the requirements of a library will be the first question that the architects will have to solve, while architectural effect will be subservient to them. It is reported the ground will be broken next October, though that, very probably, is rather an early date, and it is hoped that the building will be completed by 1895; but everything, so far as the public are informed, is at present very uncertain. The site of the proposed edifice will be a part of Dearborn Park, a square in the down-town portion of the city, since according to legislative grant, a soldiers' memorial-hall must occupy one portion of the square. A bill recently passed in the Legislature authorizes a levy of a two-mill tax, which it is expected will provide for the running expenses and leave a surplus of about \$1,500,000, for building purposes.

Another large building or group of buildings of a somewhat similar public character will be those of the Chicago University, now in an embryo state. Mr. Rockefeller, the Standard Oil magnate, heading a large number of public-spirited men, has come forward, and given for the founding of a university in Chicago a very princely sum. The committee in charge have recently decided to ask six of our leading architects to make drawings showing the location on the grounds of the various edifices, and the elevations of a university recitation-building and two dormitories. The architects are asked to locate on their plans the sites for the other buildings, which will include the large administration and recitation building, the library, chapel, gymnasium, observatory, chemical and physical laboratories and a number of dormitories.

The plans will be paid for and will become the property of the Trustees. From a study of all the plans, a decision as to the arrangement of the buildings will be made, and the choice of the architect will then follow.

The two most important and interesting items in World's Fair circles this month are the conclusions to which the committee has come regarding the labor question and the rules governing the State exhibits.

The request for eight hours' time is the only demand that has been conceded to the labor organization by the committee, and this has been simply reaffirming previous actions. The most important part of the report of the committee is the following: "In regard to incorporating in agreements with contractors a minimum scale of wages, your committee desires to state that they have given careful attention to the arguments, printed and oral, submitted by the representatives of the labor organizations, and much consideration to the reasons presented why a minimum scale should form a part of said agreements, but, so far, the reasons and arguments presented have not been sufficiently conclusive to convince your committee that so important a departure from established usage should be made by the Columbian Exposition Company." In conclusion, the report of

the committee was unanimously accepted, the committee discharged, and it is to be noted this action was taken at an unusually full board-meeting. Thus the Directory has unequivocally committed itself to a line of action, from which they probably cannot be forced to recede. It goes without saying that the "minimum" rate of wages is a very deceptive clause, since with the labor agitators it could mean nothing but the Unions' highest schedule wages. The labor organization is prepared to fight for its demands to the bitter end, and at a recent meeting concluded "to take into consideration the necessity of applying to the City Council and the State Legislature to begin action towards securing a minimum rate of wages, eight hours and arbitration." Further, the Labor Committee stated that "Inasmuch as the City Council and State Legislature have become financially interested, we consider that we have a right to say what should be done with the money raised. We will ask the Council to indorse eight hours and arbitration, and request the Directors to reopen negotiations with the representatives of labor with a view to satisfactory adjustment of the question of the minimum rate of wages."

Who will come out ahead it is hard to tell, but for either party it will be a "famous victory," and will decide in a great measure the future strength or weakness of the labor organizations in Chicago.

The sum and substance of the rules regulating the State exhibits is that, first, the plan of the especial building shall be approved by the Bureau of Construction, the allotting of the ground for the building shall be sanctioned by the Director General, and among the exhibits no manufactured goods shall be permitted except "potted, canned or preserved fruits and vegetables, produced in the particular State."

THE HOUSE THAT JONATHAN BUILDS.¹



Bishop's Stall, Vienne, France.

OF the early works to which I refer but few examples remain to us, but those few examples have been so well taken advantage of by the native architect, have so impressed him as being the representative of the only mitigated antiquity to which his country can lay claim that they have modelled to no inappreciable extent American architecture of to-day. You would be surprised if you could see what good eighteenth-century work there is to be found in America. The city-halls of New York and Philadelphia, and certain churches in Maryland and Pennsylvania, are models which could afford valuable hints to the most devoted and learned student of Wren and the Queen Anne architects of our own country. Nor is the old domestic work which is to be found everywhere throughout the more early settled States, such as the old manor-houses along the valley of the James or the Hudson Rivers, and a few of the older city houses of Boston, New York and Philadelphia, to be despised. A quaintly free Classicism; an ingenious use of wood, where stone or brick in this country would naturally have been used; a refinement and grace of detail, carving and moulding mark the work of

this period, which, for want of a better name, the American architects have dubbed Colonial—a term which, at least, is more comprehensive and founded more on actual fact than our terrible misnomer of "Queen Anne." About the beginning of the present century, however, architecture became practically a lost art on the other side of the Atlantic, and it was, in fact, not until towards the close of the sixties that any real and healthy regeneration took place.

No one in the world knows how to live better than the average American. I mean the Americans of the Eastern States, be it understood most distinctly; for I will not deny that in the far-off West, the South and the Northwest there are certain crudities and roughnesses which are apt to set cultured teeth on edge. The New Yorker

¹ A paper read by Mr. H. Townsend before the Architectural Association, March 20, 1891.

and Bostonian, and, to a less marked degree, the Chicagoan also, are cosmopolitan in the truest and most admirable sense of the term. They have taken something of the best from every nation of the world; a hint here, an idea there, a suggestion from somewhere else, and the result is that they are better housed, better fed, better amused, better warmed in the winter and cooled in summer than any European or any Asiatic.

Take the ordinary house of the middle-class American and compare it with the building of the same class on this side, and I think the odds will be found to be very largely in favor of the former. It is, in the first place, if a city house, better and more conveniently planned. Domestic service is an expensive luxury in New York, the result being that everything which will reduce household work to a minimum and render friction as non-existent as possible is a distinct pecuniary advantage, and worth taking a great deal of trouble to attain. My experience has therefore been that in most American houses of the class to which I refer, the relation of the domestic offices to the living and reception rooms is much more carefully studied, with the result of a vastly greater convenience both to servants and their employers. Such little labor-saving devices as lifts, or dumb-waiters, for the raising of dishes from the kitchen to the dining-room, or for the sending down of soiled linen and so forth from the top of the house to the basement, are much more universal there than here. The interior arrangements of the kitchen also compare most favorably with the domain of the London cook. The comparative advantages of English and American kitchen-ranges are not for me to discuss, but there are certainly less trouble and less work connected with the latter than with the former.

There is one point, at least, in which the American house compares absolutely favorably with the English, and this is as regards the heating systems employed. Americans are exposed all over their vast country to extreme variations of temperature. They have accordingly been forced in self-preservation to so construct their houses that they shall be habitable when the thermometer is in the neighborhood of zero, and at the same time shall not be too stifling when the temperature is semi-tropical. We in England, though we may not be exposed to quite the same variation, have something of the same nature to contend with. But we do not set about it (or at least have not for a great many hundred years) with the same reasonableness as the American. To all intents and purposes it is practically as cold when the glass is at 32° as when it is from 10° or 12° or even 20° below that point, and yet it seems to me the average English house is built for summer alone, and as though no such thing as winter existed. Since I returned home, at the beginning of this winter, I have hardly known what it was to be warm within four walls, whether of a house, a theatre, or any other public building, unless I were standing or sitting within two feet of a blazing coal fire. Now, the American goes to work to warm his house on a very different plan. It has required no very peculiar Yankee ingenuity on his part, no very serious scientific study of the question; he has simply said to himself that in order to be warm in his house he must warm the house itself, and not the separate rooms thereof only. It is this fundamental principle which makes so great a difference between one's winter comfort in the two countries. I need not dilate upon the various methods employed by the American to attain the desired end, but I should like to momentarily take up the cudgels in defence of the much-abused system of hot-air heating. The stories one hears of oppressive floods of baked, scorching air, which are supposed to form one of the horrors of Yankee life, if the tales of some returned travellers may be believed, are, in my humble opinion, sheer and undiluted nonsense. The average American house is heated, not by baked air, but by warm air. Pure fresh cold air is drawn into the basements, heated to any degree which may be desired by an ingeniously-constructed furnace, and discharged through tin-lined ducts into every room and every passage of the house. The cost is trifling, the system is easily regulated, is absolutely safe, requires but little attention, and results in a degree of comfort of which you can form no idea until you have become habituated to it.

This thorough and universal heating of a house disposes to a certain extent of another problem, which seems to me as unsolved to-day in this country as it was a decade ago, though it has been one on which a vast amount of talk has been expended, and about which volumes have been written. This is the problem of effective ventilation, and, as I say, it disappears almost entirely when one has to deal with a house the air of which is throughout of one universal temperature, and which does not practically consist, as does the English house, of a series of more or less efficiently heated rooms, separated from each other by halls and passages of semi-arctic temperature. Something more of material comfort, too, is the result of these thoroughly heated houses. One can practically abolish doors, save for the purposes of securing privacy, and the whole ground-floor of a house may, therefore, be thrown into one, and much valuable space gained for living purposes, which in this country would be wasted on passages and hall. Most charming effects are gained in the smaller city houses of America by this means, rooms being thrown into one by the raising of a *portière* or curtain, and charmingly artistic vistas being thus gained. It has also led to the practice, which is an admirable one, in a country where the average building lot is never more, and frequently less, than twenty-five feet in width, of placing the staircase-hall in the centre of the house, with the rooms rear and front opening into it and connected by it.

But the average American of moderate income does not live in a

house at all. I don't mean he camps out in a tent, or that he is altogether homeless; he lives in a flat, and I can quite understand the shudder of disgust with which this announcement will be heard by those whose notions of flat-life are gathered from that system as developed in London. A Londoner said to me the other day that in London a flat was looked upon as a luxury. If this is so, all I can say is that London ideas of luxury and my own notions of the same article are several miles apart. The London flat is a creation of the last ten years, and among the many sins for which that decade has to answer at the Last Day it will, I am sure, be held the chief. The better class of New York flat has its disadvantages, it is true. What is there in this decidedly second-rate world of ours which has not? Take it all in all, however, it is as convenient, comfortable and economical an abode as intelligent man has yet devised for himself. By its means the New Yorker is enabled to live in a fashionable or convenient neighborhood in a house—or, at all events, in a portion of a house—built in a style compatible only to those of the richest of his fellow-citizens, and he pays for it the rent which he would have to pay for a small house in an inconvenient and distant suburb.

Architecturally, the apartment-houses, as they are termed in New York and the larger cities of America, are among their most admirable features. They are run up to a somewhat alarming height, it is true, for though land in New York is dear—dearer even than in London—the atmosphere is free, and of this fact the American has taken advantage. But he has not thought it necessary to build a jaundiced-looking barrack with oblong holes punched into it in place of windows, as one wicked individual, at all events, has done in London; and this abnormal height is, from a practical point of view, a matter of little moment, for when one ascends to one's apartment in a lift or elevator, as in Yankeedom it is termed, it matters little whether one stops at the third story or the thirteenth. The average number of stories, however, does not exceed nine or ten, and it is a significant fact that the rents are very often in direct proportion to the height of the story. The same principle is carried into the apartment-house that prevails in the ordinary dwelling-house. The staircases and passages leading to the various floors are not, as seems to be the fashion in London, cold, cheerless and wind-swept, but are warm, carpeted and decorated, as are the halls and staircases of a private house. The typical flat, when one enters it after stepping out of the elevator, consists of an inner hallway or passage, from which open out the various rooms; some of these derive light and air from a central shaft, but as many as possible have direct communication with sun and air. Everything is done to economize room, and I think many valuable hints would be gained by English architects from a study of the plans and specifications of these American flats. The servants, as a rule, sleep upon the top floor, access to which is gained from each flat by a private staircase in the rear; the entire flat is heated either by steam or hot water, as the case may be, and in addition to this there are open fireplaces in all the principal rooms. From the kitchen a dumb-waiter or small lift runs to the basement, and is used by tradesmen for sending up their goods, and by servants for sending down the ashes and so forth. Coal and wood are kept in the cellar, and sent up every day as required by the janitor or care-taker attached to the premises. A large refrigerator, carefully drained is, as a rule, built into the butler's pantry. The woodwork is generally hard-wood, and exceedingly elaborate mantels and over-mantels, with mirrors and bric-a-brac shelves, and so forth, are among the permanent fixtures. Cherry and ash are the predominant varieties of wood used, though mahogany is by no means uncommon. In the newer flats the lighting is effected by means of the incandescent electric system, and this, as well as the heating, is included in the rent. Some quarter of a century ago the ordinary house in New York was what is termed a "brownstone front," and was quite as hideous and unarchitectural as anything we can offer in this country. The exteriors were all cast in one mould, and the plan was always more or less on the same line. They have changed all that now, and nowhere can a more interesting variety of elevation be found than in the more newly built districts of New York. Even the so-called speculative builder's house is pleasing to the eye, and I have in my mind a couple of short streets in the upper part of New York which I used to pass every day, and which were entirely built by one man, an ordinary building speculator. Instead of going (as I think the same man here would) to an architect, even if he went to an architect at all, and getting from him the plans of one house, to be afterwards reduplicated as often as necessary, the American got half a dozen architects, all of acknowledged position, to design for him a number of houses of somewhat similar plan, but of absolutely varying elevation. The result is a street, which in its variety of gabling and fortuitous contrast of color and material is as picturesque as anything one can find in the oldest quarter of one of the oldest Dutch towns. The interiors of these small houses, which are let at a moderate rental, are arranged with care and an eye to effect, and are fitted with an opulence of detail as regards the woodwork which could only be found here in the houses of rich men built for their own occupation.

The American theatre, both before and behind the curtain, is better arranged, on the average, than any playhouse in the world. As regards its plan, the American theatre is so arranged that the line of sight from every seat therein to the stage is, as a rule, perfect. The fact that the entire ground-floor is taken up with what we should call here the stalls, renders the task of planning and of securing adequate entrances and exits somewhat easier, it is true, than that set

before the English architect; but, at the same time, no such dangerous death-traps as one finds in London would be permitted in America. The building-law of New York is in most of its provisions most admirable, but no sections are more commendable than those which expressly concern the erection of theatres or other buildings intended to be used for the purposes of public entertainment. It is provided that every theatre shall have at least one front on a public highway, and that on either side of such building shall be left a clear space of not less than eight feet in its narrowest part, and that this space shall begin from the line of the proscenium-wall and extend the whole length of the auditorium. No portion of any theatre can be used for any other purpose, while as far as possible the entire building and all it contains must be of non-combustible material, and all stage woodwork, scenery and so forth must be rendered non-combustible by approved means.

I hardly think I should be doing you any service by dwelling at too great length upon the purely artistic side of American architecture or the value of their work. Nothing quite so shocking nor so harrowing as the American vernacular church-work would be permitted here by the public authorities. Detail is the weak point of the average American architect, but his Gothic detail amounts to a crime. Of course, they have had Richardson, whom most of you, I am sure, know by name at least, and in Richardson they can claim the greatest architectural genius the English-speaking world has seen since Wren's days. "The King can do no wrong"—and Richardson's church work was almost on a level with his secular performances, which says everything. But Richardson is dead, and, like all men of the highest genius, he was a snare and a delusion to his followers. A big man intellectually, physically and artistically, he was of so strong and marked an individuality that his colleagues had perforce to be his imitators, and the greatest menace offered to American architecture is the influence of this departed Titan, which is responsible for the presence of swarms of little tin Richardsons on wheels, who are flooding the country with weak imitations of the Richardsonian Romanesque marked by all devices, and but pale reflections of the virtues of the original. Turn, on the other hand, to their country and town houses, and in the work of such men as Stanford White, of the firm of McKim, Mead & White, of Richard M. Hunt and others whom I could name, though doubtless with but little benefit to English hearers, and one finds a restrained originality, a freshness of *motif* growing to a thoroughly trained cultured perception and trained knowledge which you would not find it easy to parallel on this side of the Atlantic. As to their public buildings, they are hampered regarding government and municipal edifices, but of their offices and corporation buildings I may say that though not so prominent as their domestic work, they are at least not quite so immoral as their churches. Without entering into any detailed criticism of the modern American architectural styles, I may say that so far as I am aware its followers are the first architects in any nation who have journeyed with the sister arts of painting, music and literature into the realms of eclecticism.



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

PORCH TO HOUSE OF PROF. ELIHU THOMSON, SWAMPSCOTT, MASS. MR. JAMES T. KELLEY, ARCHITECT, BOSTON, MASS.
[Gelatin Print issued with the Imperial and International Editions only.]

HOUSE OF PROF. ELIHU THOMSON, SWAMPSCOTT, MASS. MR. JAMES T. KELLEY, ARCHITECT, BOSTON, MASS.

PORTAL TO CHAPEL OF THE COLUMN, S. PRASSEDE, ROME. MEASURED AND DRAWN BY MR. GUY KIRKHAM, SPRINGFIELD, MASS.

A LITTLE MOUNTAIN CHURCH. DESIGNED BY MR. E. ELDON DEANE, ARCHITECT, BOSTON, MASS.

HOUSE AT "ACORN POINT" MANITOU ISLAND, MINN. MESSRS. GILBERT & TAYLOR, ARCHITECTS, ST. PAUL, MINN.

HIGH-SCHOOL BUILDING, ARKANSAS CITY, KANSAS. MESSRS. PERKINS & ADAMS, ARCHITECTS, TOPEKA, KANS.

HOUSE AT YONKERS, N. Y. MR. G. HOWARD CHAMBERLIN, ARCHITECT, NEW YORK, N. Y.

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HOUSE AT BERLIN, PRUSSIA. HERREN KAYSER & GROSSHEIM, ARCHITECTS.
[Gelatin Print.]

EQUESTRIAN STATUE OF ETIENNE MARCEL, PARIS, FRANCE. MM. IDRAC AND MARQUESTE, SCULPTORS.

IN the fragment of his life of the sculptor Frémiet, Mr. Bartlett speaks, this week, rather disparagingly of this statue, but the *Moniteur des Architectes* holds it in other esteem and says that "of all the statues which adorn the public squares of Paris, the one

of 'Etienne Marcel' must be held the best, the most decorative and the most instructive."

The history of the statue is this: In 1882, a public competition for the model was held and seventy-four suggestions were submitted, some being models and the others drawings. The three prizes were awarded to Idrac, Frémiet and Marqueste in the order named. Idrac and Marqueste had been students together at the *École des Beaux-Arts*, had both won the *Prix de Rome* and were both "decorated" at about the same time. Idrac began his work in 1883 and about the time the clay figure was fairly complete fell sick through overwork and died. As Frémiet was unwilling to complete work which he had not originated, Marqueste was called in and under his care the group was got ready for the founder, though three years elapsed before the plaster model was ready for the founders, MM. Thiébaud frères, who cast the group in a single piece. The city of Paris paid \$9,600 for the model and \$7,900 for casting, though the ordinary price paid for such casting is \$12,000, the explanation of the small sum paid for this great work lies in the fact that both sculptors and founders worked for fame and the city knew it and took advantage of it. The subject of the statue, Etienne Marcel, a French partisan chief and agitator of reform, was Provost of the Merchants of Paris when King John was defeated and made prisoner at Poitiers in 1356. He became the leader of the popular party in its contest with the Dauphin Charles, who acted as regent. Marcel gained predominance in Paris and controlled a majority in the States-General, which refused to vote supplies for the war unless their grievances were redressed. A revolution was effected which rendered the government almost republican, but having given the control of the city to Charles the Bad, of Navarre, Marcel was betrayed by him and assassinated in 1358. Clad in the costume of the Provosts of Paris, ill-harmonizing with that worn by the nobles, he here presents the very type of the forerunner of a new régime presenting to the old a scroll and a sword in his right hand, the scroll, or Charter of the Rights of Man, represents peace, but peace with its rights sanctioned by a binding convention, the sword grasped by the blade below the hilt signifies power, but a power so sure of its own capacity of performance that it need not menace.

The position of the statue on the north side of the Hôtel de Ville overlooking one arm of the Seine at that point, is an excellent one, and M. Deperthes, the architect of the building, has combined the pedestal with the balustrading in a felicitous manner.

HOUSE IN GLOUCESTERSHIRE, ENG. MESSRS. ERNEST GEORGE & PETO, ARCHITECTS.

NEW BUILDINGS, THE HIGH CROSS, CHESTER, ENG. MR. GEORGE FRED. HAINES, A. R. I. B. A., ARCHITECT.

THESE buildings are situate at the top of Bridge Street Row, next the High Cross, in the City of Chester, and are used as shops and residential chambers combined, to replace the very ancient ones which were burned down last year, and formed part of the Rows. The external woodwork is of oak and plaster panels, and the interior pitch-pine throughout. The panels under bay-windows above the Rows are of plaster.

NEW DUTCH REFORMED CHURCH, HEIDELBERG, TRANSVAAL. MR. H. G. VEALE, ARCHITECT.

THIS church has been erected by the Dutch inhabitants of Heidelberg and the district at a cost of nearly 16,000*l.* It is seated to accommodate 650 persons. A choir-loft is placed at the south end, which will seat thirty persons and receive the organ, imported at a cost of 1,000*l.* Advantage has been taken of the sloping ground by placing a large schoolroom under the north end of the church. A stone pulpit of rather good design is being made. It is said this is the only stone pulpit in South Africa. The building was started in February last, and is now rapidly approaching completion. It is built of sandstone of rather coarse nature, which is found in great abundance in the neighborhood, the stones for the dressed work being of the best quality obtainable.

CIRENCESTER CHAPEL. MR. LOCKE WORTHINGTON, ARCHITECT.

THIS chapel has been practically rebuilt, though the architect has striven to maintain and reproduce in the new structure the feeling of the old work. Three of the old walls stand, and the windows and entrance door are much the same. The architectural characteristics are of the late Tudor style, intermingled internally with the heavy ponderous Classic galleries and columns of the Classic revival. It is noteworthy that the iron gudgeons on the windows, which held the shutters of our predecessors, as a precaution against molestation during Divine service, are now retained in one window as an indication of days and times forever passed away. The old galleries have been practically removed, a portion at the end of the church being adapted both for use as gallery and Sunday-school. The old irregular tub seats, with the old paving, have been taken away and replaced by oak wood-block in aisles and boarded joists beneath sittings. The floor has a ventilated space beneath, and six inches of concrete lies under the whole building. The building has got a strong new roof, the internal soffit of which is richly panelled. A delicately-carved rostrum is situated at the east end, with the words "Faith, Hope and Charity" placed on the front panels. The walls have been plastered with cement and colored a pale rose tint, the ceiling being colored French gray. The new roof is carried by four pairs of good principals, and the side walls have been raised

two feet to receive it. The roof is well ventilated. A new top window has been added on the north side, in harmony with the existing lights, and one of the south windows, which was formerly obscured by the gallery, has been fitly restored. A window in the east wall has had to be built up. The seating is by means of comfortable red deal benches, stained and varnished. The cost of the restoration is about 800*l*. An iron gate and rails have been fixed in the passage from the street to the chapel, and at the entrance of the passage is an arc bearing the words "Unitarian Church" in gilt letters.

RESIDENTIAL FLATS, BRIXTON, ENG. MR. G. WARREN COOPER, ARCHITECT.

This building is being erected in Coldharbour Lane, Brixton, and will contain sixteen residential flats, which are much in demand. The brickwork is of red bricks, with stone pilasters and moulded string-courses, etc. The stairs are of teak, and the flat is covered with foreign asphalt, and will be used for a drying-ground. There is a laundry at the rear for the use of the tenants. The building is being erected for Mr. J. J. Brown, of Brixton.

SELEHURST, SUSSEX, ENG. MESSRS. C. E. CLAYTON & E. BLACK, ARCHITECTS, BRIGHTON.

This house, now just completed for Mr. W. E. Hubbard, J. P., stands on a well-wooded site in a very picturesque part of Sussex, about midway between Horsham and Cowfold. The typical Sussex manor-house, or superior farmhouse, has been taken as a model, and the materials used—red bricks, tiles, stone and oak timber—are mainly of local origin or manufacture. The work has been carried out by various contractors. The drawing, which we have reproduced, was hung at last year's exhibition of the Royal Academy.

COMPLETION OF FACADE, CHURCH OF THE HOLY TRINITY, CORK, IRELAND. MR. D. J. COAKLEY, ARCHITECT, CORK, IRELAND.

This design was selected from about eight sets of plans submitted in competition as being the most suitable and fulfilling all the conditions as to cost, the contract being taken for 300*l*. less than the sum mentioned in the printed instructions to architects. This church was commenced about seventy years ago, from designs of the late James Pain. The front piers were existing, and were about thirty-four feet high. The architect adapted his design to the existing work, retaining the piers, etc. The whole of the work is in Cork limestone, and is now nearly completed. The total cost will be, including extras, 6,000*l*.

THE ENGLISH PRESBYTERIAN CHURCH, LLANDUDNO, WALES. MR. J. G. WILLIAMS, ARCHITECT, LIVERPOOL, ENG.

The new English Presbyterian Church, Llandudno, situate on a commanding site at the corner of Chapel and Gloddaeth Streets, has just been completed, at a cost, including schoolroom, of about 5,200*l*., and was opened in Easter week.

The school buildings adjoining were built in 1886, at a cost of 1,400*l*., and contain on the ground-floor a schoolroom, 42 feet 6 inches by 28 feet, having accommodation for 250 persons, two classrooms, lavatory, conveniences, and minister's vestry adjoining. The basement contains heating-apparatus, boiler, cellar for coals.

The church measures internally 58 by 55 feet, exclusive of vestibules, and has accommodation for 450 persons. The plan is arranged with circular pewing fixed in an isocoustic curve, which inclines with the floor towards the pulpit, and being in one span, dispenses with columns and piers, and adds to the convenience of the minister being seen and heard by the whole congregation. Ample means of egress are provided from entrances in Chapel and Gloddaeth Streets, leading to tiled and parquet-floored porches and vestibules, the latter being constructed so that invalids may be conveyed with ease in their bath-chairs to the church, where accommodation is provided. Revolving shutters, in arched openings, divide the church and schools, which may be thrown into one on crowded occasions. All the walls are built of a dark local stone, which contrasts well with the Cefn stone dressings.

The external treatment of elevations is designed to produce broken and effective outlines. A square tower, flanked with offset buttresses, occupies the corner of Gloddaeth and Chapel Streets, having moulded arched windows, doorway and belfry window openings, surmounted by moulded enriched cornices and balustrades, and crowned by a neatly tapered, octagon, broached spire, capped with moulded apex and ornamental finial, 86 feet high. On the east side of Chapel Street is the schoolroom gable, with traceried rose-window and moulded arched doorway and windows, and dwarfed slated roof and octagon stone spirelet. On the west side of the same are the staircase windows, with octagonal roof and ornamental finial. An octagon stone turret projects from the main gable of church, in which the principal entrance is placed, with canopied buttresses, having moulded arched openings. A large traceried window occupies the centre of gable. The elevation to Gloddaeth Street is divided at regular intervals by buttresses and two tiers of arched windows, the centre being canopied and a gable formed in which are traceried windows, with a circular rose tracery window in the centre. The organ-chamber is placed at the

extreme end, and projects from the main building. The roof is of conical shape, with the timbers converging to the centre, forming an apex, on which is a slated spire turret or *flèche*, having ornamental finial. The large gable roofs intercept the main roof at apex. T add to the acoustic properties of the building the walls at angles are built circular. The ceilings are panelled, with moulded, decorated and gilded ribs, and coved at the eaves. The interior is fitted up in pitch-pine, also the pulpit, which is of chaste design. The windows are filled with cathedral-glass lead-lights.



[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.]

PROJECTIONS BEYOND THE BUILDING-LINE.

HARTFORD, CONN., May 15, 1891.

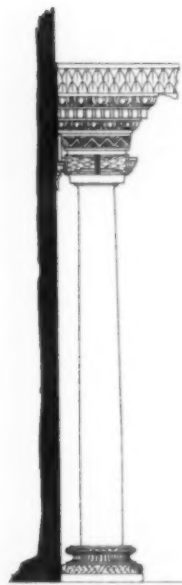
TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—What is the law or custom in regard to building-lines? Must a building be so set that the water-table face will be on the line or is it sufficient to have the face of the main structure on the line? Yours truly, D.

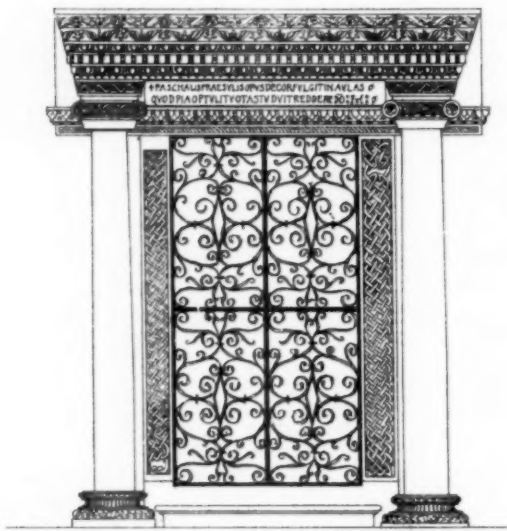
[It is usual to count the "ashlar line," or main face of the building, on the street line, and to allow water-tables and mouldings to project outside; but there is no law on the subject, and it would be necessary to ascertain the practice in each place. Occasionally, where there is a space restricted against building on the front of the lots, the deeds recite just what projections shall be allowed. Over private adjoining property it is not allowable to build any projection whatever.—EDS. AMERICAN ARCHITECT.]



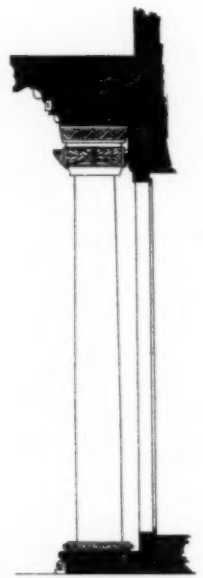
THERE is no help for the present condition of business but to continue the wise policy of making only as much as can be sold. Business men were never better informed as to trade conditions and trade prospects than at the present time. It has never been as difficult to obtain money for wild-cat ventures as at this time. There are two reasons: one is, every new enterprise is more carefully scanned and weighed, and, second, there is such a multitude of opportunities that investors have plenty of choices. It is also true that there are more schemes under promotion and more opportunities for investment in a greater number of avenues than at any time in the history of the country. Business men recognize perhaps more clearly than they ever have done the imperative necessity of avoiding extremes, and of keeping within the limits which demand is creating. One of the favorable indications is that the country at large is remarkably solvent; there are comparatively few weak spots. The enormous expansion of business has been effected with comparatively little loss. Liabilities exist by the hundreds of millions, but expert authorities who are studying this feature say that there is a very small percentage of invested capital that is likely to be unproductive. Of course, this statement must be accepted with grains of allowance, and for what it is worth. It is impossible to make predictions twelve months ahead, or to say that all of the millions that are being invested in new enterprises and schemes will realize fair returns. A favorable indication is a decline in the rate of interest in the money-borrowing West; this decline is legitimate, and is brought about not only by the greater supply of money seeking investment in the West, but also by other considerations, the basic one of which is the extraordinary demand for new lands for agricultural purposes. The statistics published in the reports of State governments show that a great deal of new land is being taken up, and that a vast amount of land heretofore uncultivated is now being reduced to cultivation. The point is that a great deal of land in the States between Pennsylvania and Iowa and between Michigan and Alabama which heretofore it has not paid to cultivate is now coming in, and hereafter will be more productive. Agricultural authorities think that this will make these States gradually less dependent on the trans-Mississippi States for a portion of the cereal products consumed. For a while, wheat and corn cultivation was prosecuted with extraordinary vigor in the farther Western States, but within a year or two the States east of the Mississippi have been giving more attention to farms and farming products. Even in New England, the attention of small farmers is being diverted in a new direction. Farms which have been abandoned or neglected are now looked after. Just what has brought about this change it would not be pertinent to say, but the fact is a pleasing one, going to show that there is no necessity for relying exclusively upon one section of country for our cereals, and upon another section for our manufactured products. This tendency will, no doubt, increase, as it should. It is a healthful sign, and one which will add much to strengthen little and big industries East and West. In regard to the volume of business, it is generally admitted that an improvement is much needed, but the reports of market conditions must not always be read as they are written. Speaking generally, prices for manufactured products are declining; while it is not true that prices for farming products have advanced, farmers are better satisfied with prices realized, as compared to cost of production, than a few years ago. The cause for this improving condition is not easily pointed out. There is, of course, a great deal of poorly-requited labor in the newer States, but economists and careful observers think that there will hereafter be less complaint on this score than there has been. In other words, industries in shop and farm are settling down and harmonizing and equalizing, so to speak, so that each is obtaining nearer an equivalent. The manufacturers of all kinds of machinery from locomotive engines to hardware are kept pretty busy, and the projection of new manufacturing establishments in all sections of the country goes to show that the country is not overdoing in its manufacturing-capacity. There are exceptions, of course, to this sweeping statement, and they are to be found in the lumber trade, in iron-making and in some other directions. As a rule, however, the producing-capacity of the country is kept on the safe side.



Side Elevation.



Front Elevation.



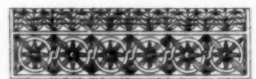
Section.

PORTAL TO THE
 CHAPEL OF THE COLONNA.
 S. PRASSEDE, ROMA.
 Scale: 1/8" = 1'-0"

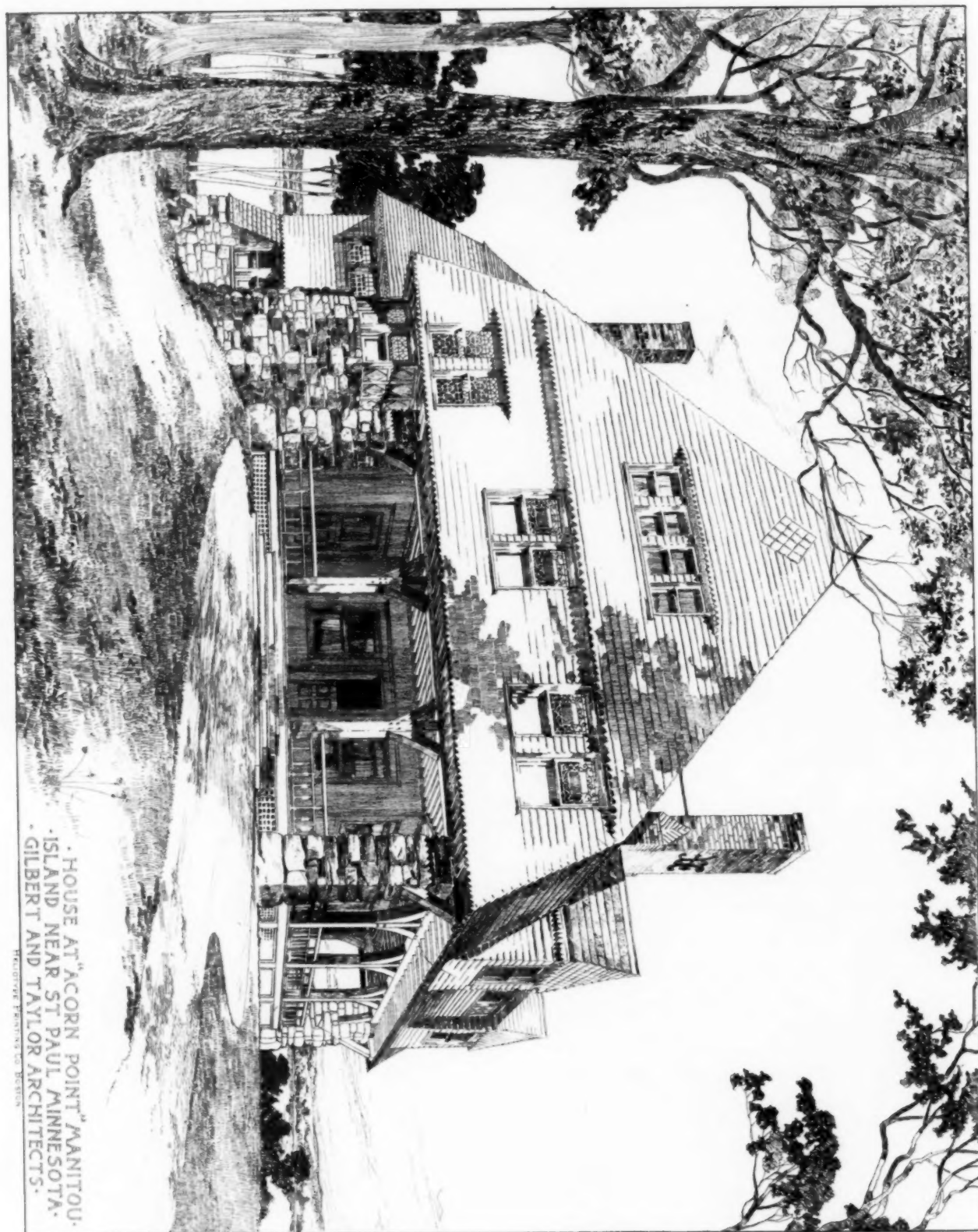
Augustus, 1871



Plan.

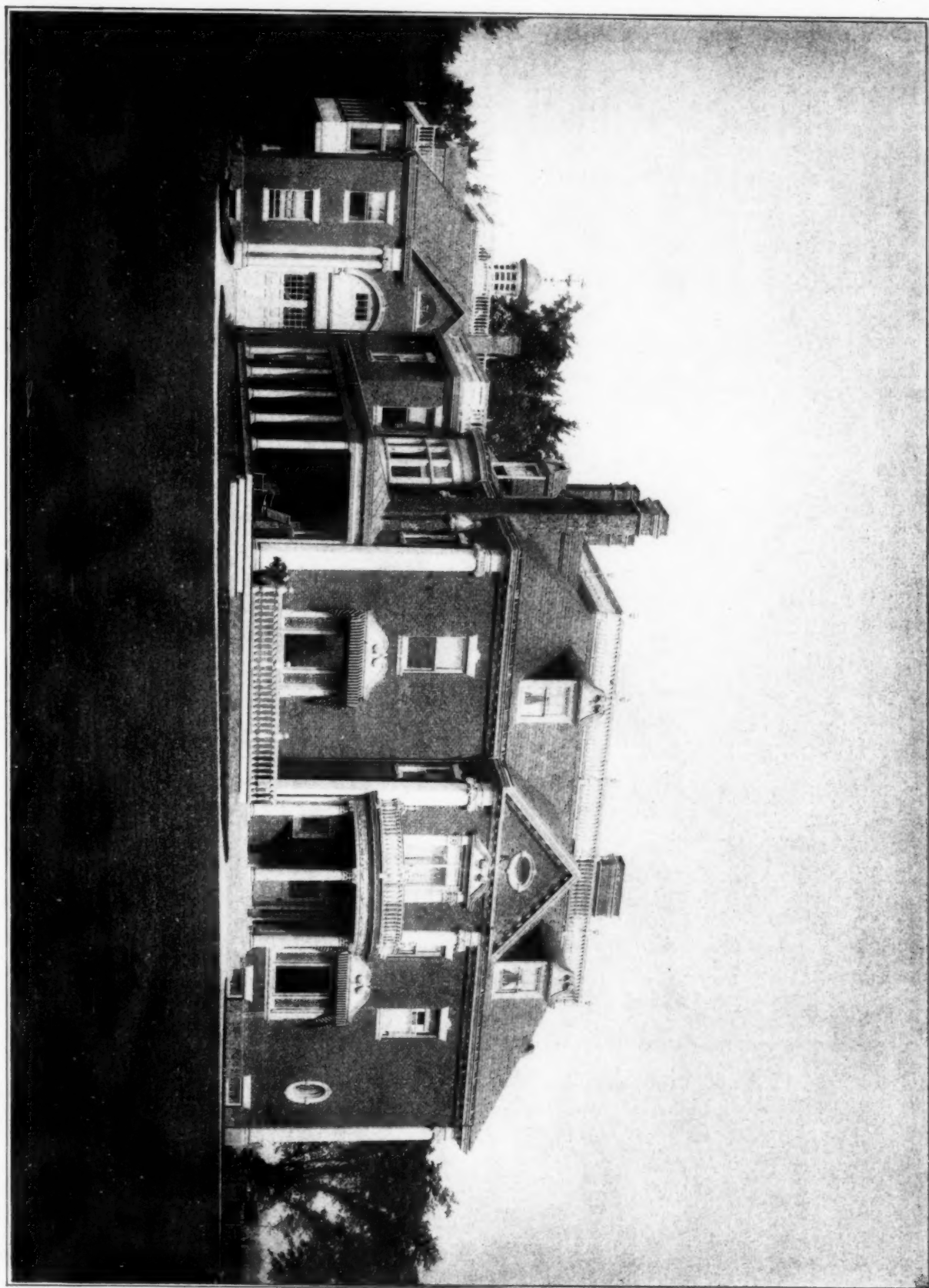


Capital.



HOUSE AT "ACORN POINT" MANITOU-
ISLAND NEAR ST PAUL MINNESOTA.
GILBERT AND TAYLOR ARCHITECTS.

REDUCTION FROM ORIGINAL

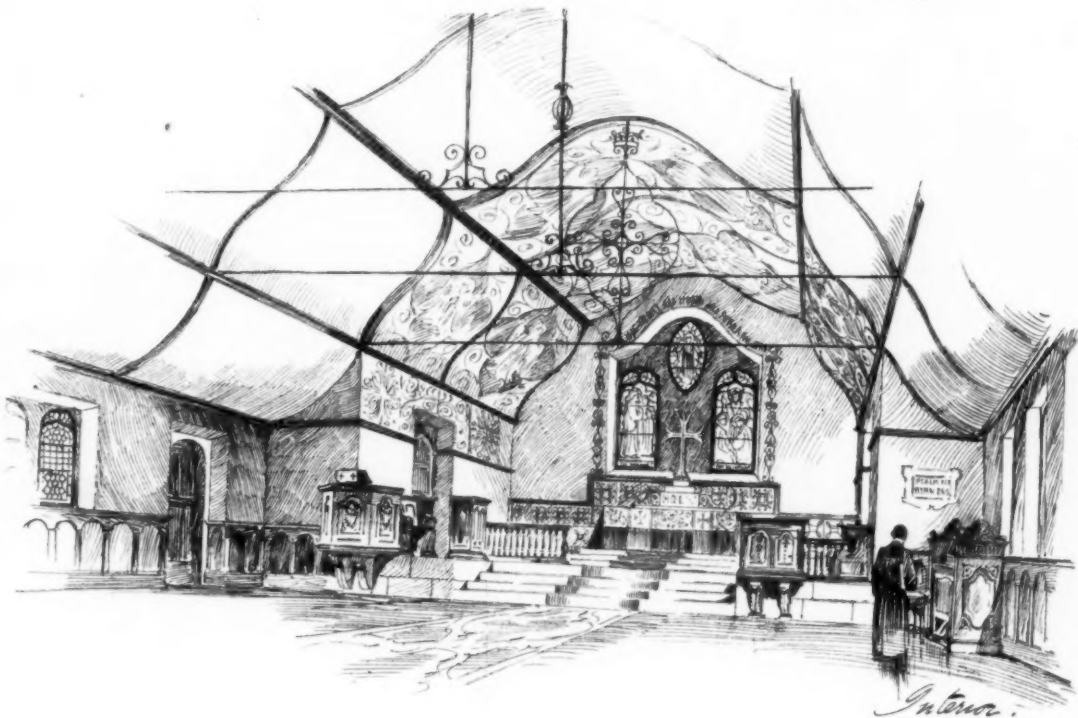


HOUSE OF PROF. ELIHU THOMSON; SWAMPSCOTT, MASS.
JAMES T. KELLEY ARCHITECT

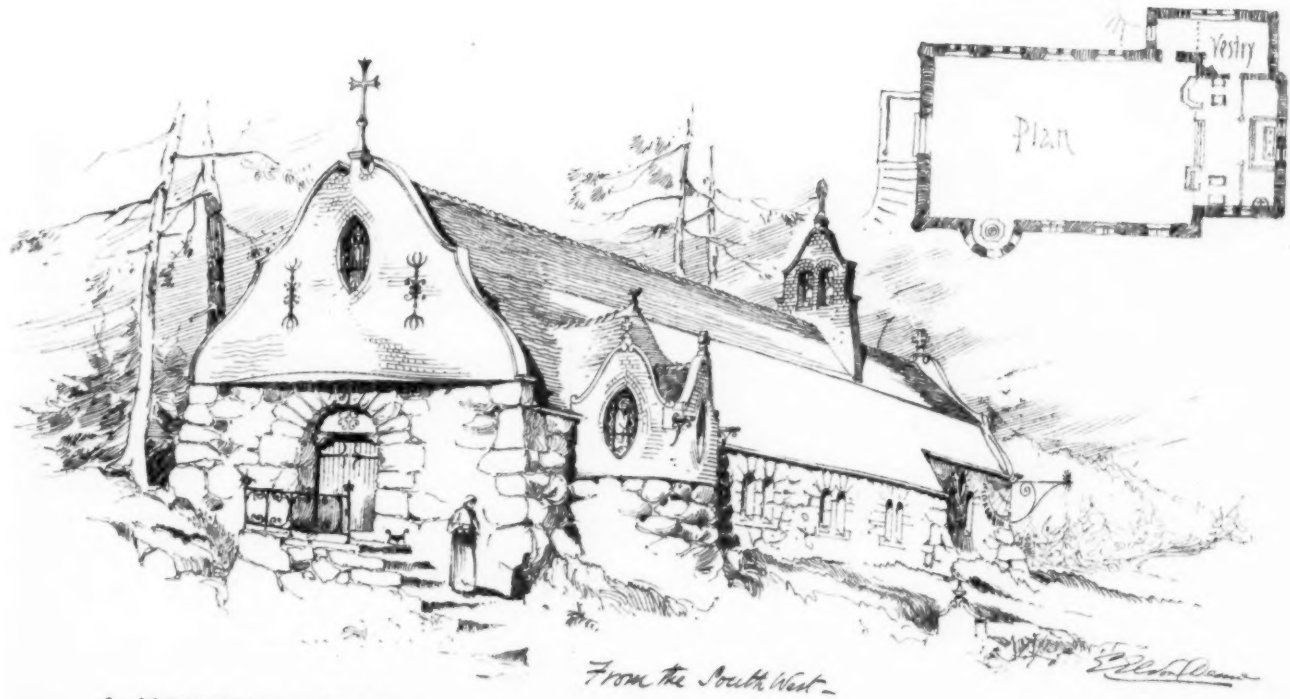
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Sketch from the North East.



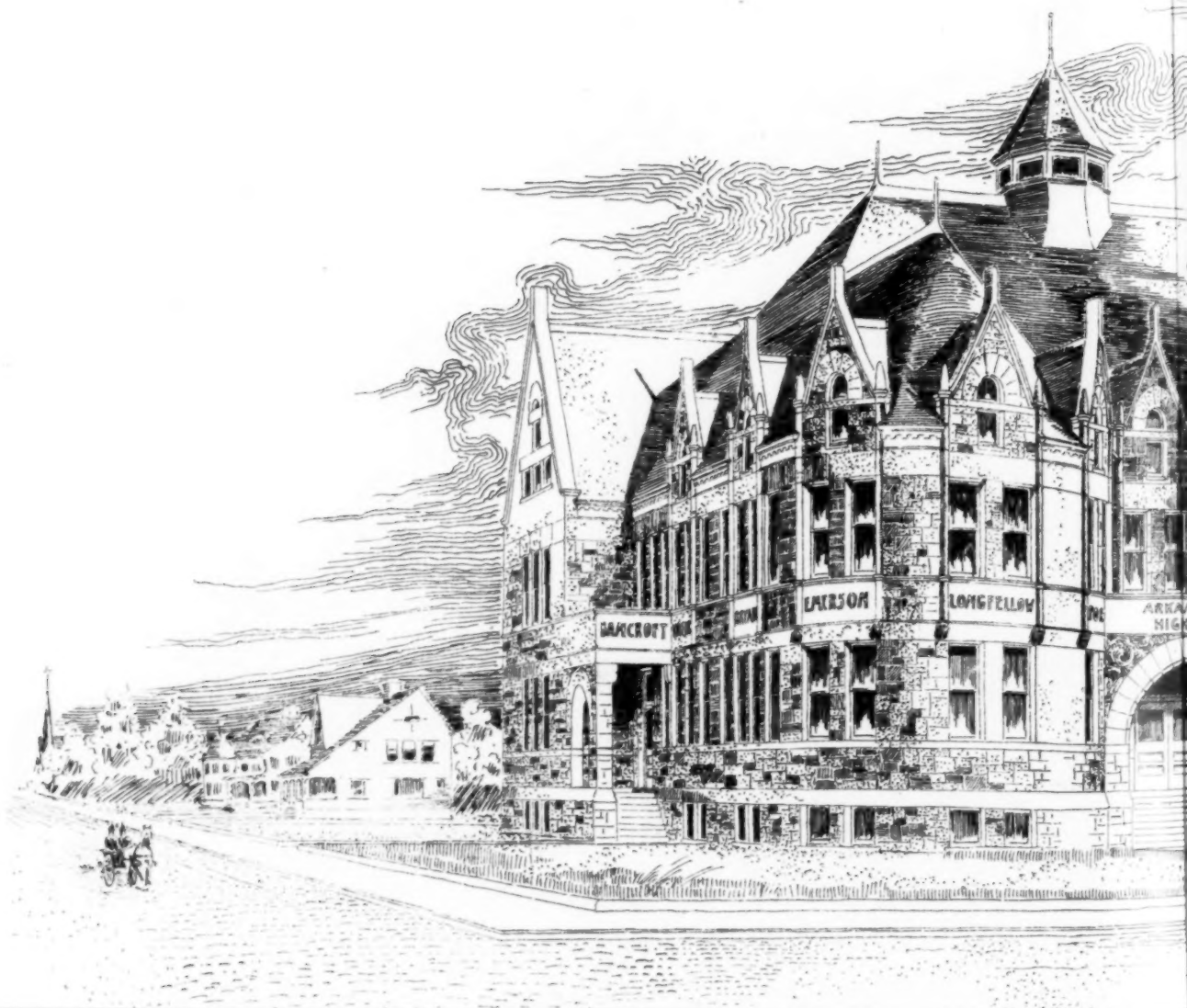
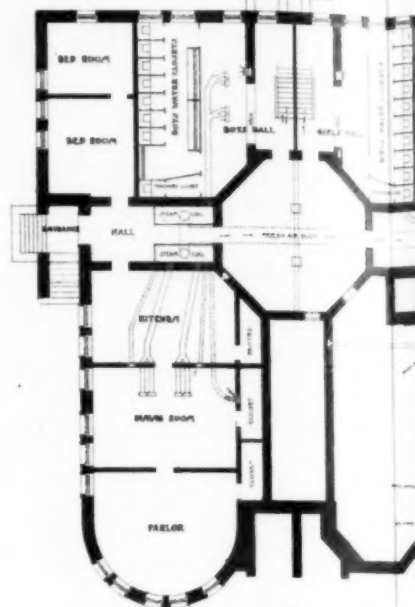
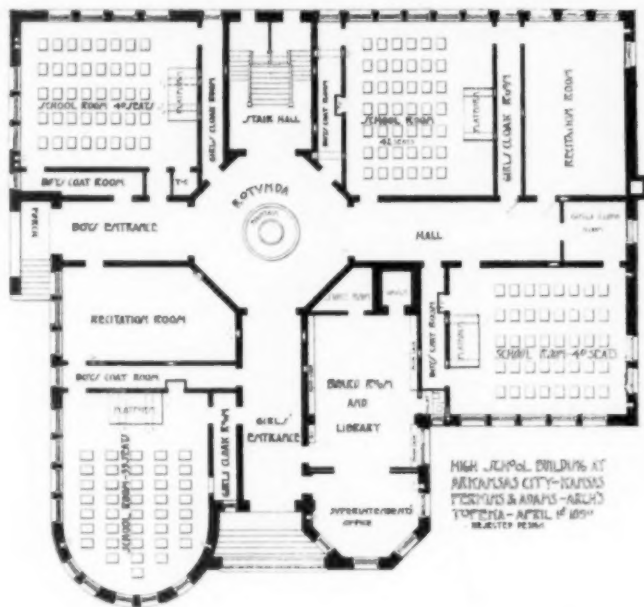
Interior.

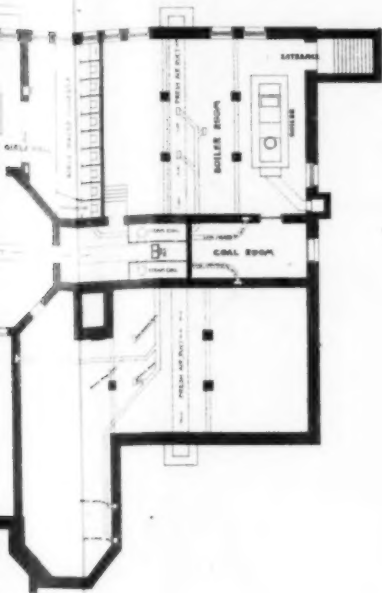


From the South West.

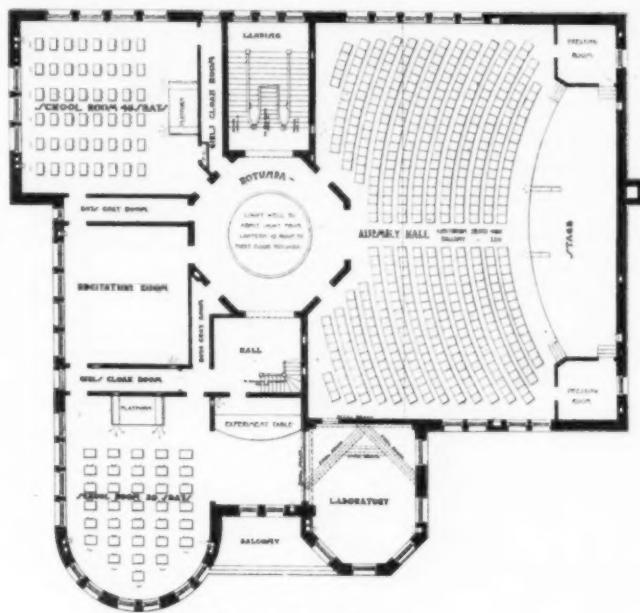
"MOUNTAIN CHURCH"

HELIOTYPE PRINTING CO. BOSTON





1ST FLOOR



2ND FLOOR PLAN

HIGH SCHOOL BUILDING
AT ARKANSAS CITY KAN-
SAS - PERKINS & ADAMS
ARCH'TS TOPEKA KANSAS

