

536 W2

PRICE 13 CENTS.

JUNE 20, 1891.

THE AMERICAN ARCHITECT
AND BUILDING NEWS

VOL. XXXII

* REGULAR EDITION *

NO. 808.



ARCHITECTURE

ENGINEERING

DECORATION

TICKNOR & COMPANY

CONSTRUCTION

BOSTON MASS.

CONTENTS.

EDITORIAL SUMMARY.
 SPANISH ARCHITECTURE.—IV.
 THE MARINE DWELLINGS OF THE PAPUANS.
 LETTER FROM CANADA.
 " " WASHINGTON.
 " " PARIS.
 " " CHICAGO.
 REFRIGERATORS IN NEW ZEALAND.
 THE FOUNDLING ASYLUM AT BORDEAUX, FRANCE.
 NOTES AND CLIPPINGS.
 TRADE SURVEYS.

ILLUSTRATIONS.

ENTRANCE TO THE UNIVERSITY CLUB, WALNUT ST., PHILADELPHIA, PA.
 [Gelatine Print issued with the International and Imperial Editions only.]

VENETIAN WELLS.
 [Issued with the International and Imperial Editions only.]
 VENETIAN RENAISSANCE WORK.
 [Issued with the International and Imperial Editions only.]
 THE TAYLOR HOUSE, ROXBURY, MASS.
 DETAILS OF THE SAME.
 DOORWAY AT MEILLERS, FRANCE.
 CHURCH OF THE SUPERGA, TURIN, ITALY.

Additional Illustrations in the International Edition.

TOMB OF PHILIPPE POT.
 [Etching.]
 XVIII-CENTURY WROUGHT-IRON RAILING, SCHLOSS ORTH, AUSTRIA.
 [Gelatine Print.]
 HOLY TRINITY CHURCH, SLOANE SQUARE, LONDON, ENG.
 SCHOOL-HOUSE, REDRUTH, ENG.
 RESIDENTIAL SHOPS, ALCESTER ROAD, KING'S HEATH, ENG.



THE SANITAS TRAPS AND CLOSETS

Are the SIMPLEST, CHEAPEST and most SCIENTIFIC APPLIANCES in the market.

These Specialties have the approval and endorsement of Architects, Builders, Engineers, Superintendents, Plumbers and Medical Authorities, and their acceptance by the owner of the building is assured if he is made to realize the saving affected by their use.

In one building a Chicago Architect saved his client two thousand dollars by using the SANITAS Traps instead of the ordinary S. Trap.

We shall be glad to correspond with parties not already familiar with the merits of these goods.

SMITH & ANTHONY STOVE CO.,
BOSTON,

Makers and Proprietors of SANITAS Appliances.

54 Gold Street, NEW YORK.

219 Lake Street, CHICAGO.



STANLEY BROS., NUNEATON, ENGLAND.



MANUFACTURERS OF

Red, Brown and Blue Roofing and Ridge Tiles; Ornamental Red Cresting and Finials; Red and Buff Ornamental Terra-Cotta, String-Course, Etc.; White Glazed Bricks and Sinks; Superior Blue, Red, Buff, Black and Chocolate Quarries (especially suitable for Churches, Entrance Halls, Conservatories, etc.).

Makers of Buff and Enamelled Malt-kiln Tiles (as supplied to most of the principal maltings in Great Britain). New Illustrated Catalogue containing more than 1,000 designs, on application.

AGENTS WANTED FOR THE UNITED STATES.

Ancient and Modern LIGHT-HOUSES.

BY MAJOR D. P. HEAP.

1 vol. Square 8vo. Fully illustrated. \$5.00

An interesting scientific and historical treatise, exclusively considering this important theme.

Ancient Light-Houses—Eddystone—Bell Rock—Skerryvore—Other Light-Houses with Submarine Foundations—Minot's Ledge—Spectacle Reef—Tillamook Rock—Northwest Seal Rock—Light-Houses of the Atlantic Coast of the United States—Rotherham Light Tower—Fourteen-Foot Bank Light-House, Delaware Bay—Skeleton Iron Light-Houses—Characteristics of Light-Houses—Isle of May Light-House—Miscellaneous Lights—Light-House Administration.

TICKNOR & CO., Boston, Mass.

THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XXXII.

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

No. 808.

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

JUNE 20, 1891.



SUMMARY:—

"A Question of Commission" further discussed.—Limiting the Height of Buildings in Massachusetts.—The Competitions for the "Paris Prize."—An English Partnership Dispute.—The Iron Gates of the Danube and the Means employed for their Removal.—A Case of Owner's Responsibility.—The Machinery Gallery of the late Paris Exhibition.—The Tombstone of Baron von Schmidt.	173
SPANISH ARCHITECTURE.—IV.	175
THE MARINE DWELLINGS OF THE PAPUANS.	178
LETTER FROM CANADA.	180
LETTER FROM WASHINGTON.	181
LETTER FROM PARIS.	181
LETTER FROM CHICAGO.	183
REFRIGERATORS IN NEW ZEALAND.	185
THE FOUNDLING ASYLUM AT BORDEAUX, FRANCE.	186
ILLUSTRATIONS:—	
Entrance to the University Club, Philadelphia, Pa.—Venetian Renaissance Work.—Venetian Wells.—The Church of the Superga, Turin, Italy.—The Taylor House, Roxbury, Mass.—Details of the Same.—Doorway at Meillers (Allier), France.	
Additional: XVIII-Century Wrought-iron Railing, Schloss Orth, Austria.—Tomb of Philippe Pot.—Holy Trinity Church, Sloane Square, London, Eng.—School-house, Redruth, Eng.—Residential Shops, Alcester Road, King's Heath, Eng.	187
NOTES AND CLIPPINGS.	187
TRADE SURVEYS.	188

AFTER our last issue had gone to press, it occurred to us that the reply we had made to the inquiry of a correspondent, "E. H. O.," might with advantage be amplified. Without repeating the statement of the case, as each reader can refer back to it easily, we will say that if an architect is employed to make plans for a house to cost \$4,000, and it proves, after reasonable inquiry, that the plans made by him cannot be carried out for something near that amount, the owner is entitled to return the drawings and pay nothing for the architect's services. How near the estimated amount must be to the limit of cost fixed by the owner to enable the architect to recover is a question on which the judge and jury might both have something to say. In a case where an architect sued for making plans for a hotel, the owner claimed that his instructions were that the cost should not exceed \$75,000. The architect testified that \$100,000 was the limit given him, and the estimated cost, as estimated from the tenders of contractors, was \$102,000. The judge of the Supreme Court charged the jury that if they believed the owner's story, that the limit was understood to be \$75,000, the architect could recover nothing for his services; but if they believed the architect's account, that the limit was \$100,000, they should give a verdict in his favor, as the estimated cost was sufficiently near the limit to entitle him to his full compensation. Moreover, the owner claimed that the architect's commission of five per cent ought to be added to the estimated cost, making the latter nearly \$108,000, or \$8,000 beyond the architect's idea of the limit. The court ruled that the architect's fee was not properly included in the estimated cost, but that even a discrepancy of eight per cent between the limit and the estimate would not be enough to deprive the architect of his compensation. In "E. H. O.'s" case, the owner said that the plans were "the very thing he wanted." That might mean either that they were just what he wanted, if they could be carried out for \$4,000, or that they were just what he wanted, regardless of cost, and the jury would have to decide which he intended. If he intended the latter, or if the architect told him that it would cost more than \$4,000 to carry them out, and he made no objection, but proceeded with them; or if in any way he waived the strict limit he had set, and gave the architect to understand that he would like to execute the plan, even if it cost somewhat more than \$4,000; or if he had kept the drawings, or made copies of them, or in any way used or proposed to use them, he is bound to pay the architect the proper or agreed compensation, and a jury would be quick to detect any intent on his part to cheat the architect out of his fee; but if he

really wanted a four-thousand-dollar house, and gave the architect to understand that definitely, the latter has not earned his pay by planning him a five-thousand-dollar one. Whether any *bona fide* estimate was near enough to \$4,000 to justify a judge in ruling that the architect reasonably fulfilled his engagement, having in view the inevitable uncertainty of builders' estimates, we could not say, having no particulars of the other bids.

THE law recently passed in Massachusetts, limiting the height of buildings in cities to one hundred and forty feet, does not meet the approval of *Fire and Water*, which thinks that owners of valuable land ought to be allowed to build upon it as high as they choose, provided they make their buildings thoroughly fireproof. While this view of the subject is natural enough to persons who chiefly concern themselves with the fire-risk of buildings, there is another point to be considered, in the injurious shadow cast by very high structures on the neighboring streets and buildings. Where such buildings are scattered at wide intervals, this effect is not much noticed; but if one owner is allowed to make an office-building or hotel two hundred feet high, his neighbors must have the same privilege. To take a single example, the Ames Building, in Boston, the highest structure in the city, stands on a narrow street, with a low building opposite, and the loss of light is not much noticed; but plans are said to have been made for pulling down the low building, and erecting another as high as the Ames Building, the result of which would be to plunge that part of the street into a gloom resembling that of the streets in Italian cities. This, in our climate, would be accompanied by a chill in winter, and a malarious stagnation in summer, which would be unpleasant, if nothing worse, and, independent of the fire-risk, the people of Boston have reason to be glad that the height of their future buildings has been limited, even to so very liberal a maximum as a hundred and forty feet.

THE excellent scheme of Mr. John Armstrong Chanler, for giving meritorious American students of art an opportunity to study abroad, has been so far successful that a beginning will be made this year in New York. Early in October the exact time and place of the competition for the scholarship will be announced, but it is already decided that all persons shall be eligible as candidates who have studied during one school year in New York State; who are more than twenty-one years old; and who has received no medal or honorable mention in any foreign exhibition. The preliminary competition will be by means of drawings sent by the candidates to the jury, and a certain number of these will be selected, whose authors will be required, in the presence of the jury, to make a drawing from the nude, to paint a head from life, and to make a composition in color. The competitor who passes this test most successfully will receive the title of "Winner of the Paris Prize," but if he or she is able to bear the expense of study abroad, the money attached to the prize will be given to the candidate standing second. Before the money is granted, the recipient is required to agree to send home specimens of work at the end of each year, and, at the end of the five years during which the scholarship continues, to return to New York, and teach gratuitously, twice a week for two years, a class of students selected by the jury. The prize-winners in Paris will be under the charge of a Commission of Control, consisting of Gérôme, Puvis de Chavannes, Carolus Duran, Dagnan, Bonnat and Benjamin Constant, who will meet twice a year to examine the work of their protégés, and will send to the jury in New York a report upon it.

THE *Builder* reports an English case, resembling very closely one mentioned a few weeks ago in a letter from one of our correspondents here. It seems that the well-known firm of architects which, under the name of Archer and Green, designed several important buildings in London, was dissolved not long ago, and, according to the statement of the partner who appears as plaintiff, the other partner, before the dissolution, obtained several sets of photographs of the buildings designed by the firm, and, after that event, had all the photographs adorned with the legend, "Designed by ———, F. R. I. B. A., 14 Blank Street, and sent sets of them to Lord Rosebery, the Royal Commissioner of Woods and Forests, and

various other distinguished persons. The partner whose name was left out brought an action for libel, on the ground that such conduct was intended "falsely and maliciously" to convey the idea that the partner who sent out the photographs was the sole designer of the buildings, and asked for an injunction to restrain him from further propagation of this notion. The court suggested that the counsel for the parties had better try to come to a settlement, to avoid a long inquiry, but the defendant's lawyer said he had been unable to come to terms, and that as the pleading did not allege that the statement on the photographs was false, or that the plaintiff had suffered any damage, he claimed that the plaintiff had no case. The plaintiff's counsel thought that the inscription imputed to the plaintiff, by omitting his name, a want of skill; but the judge could not see that the statement of claim disclosed any cause of action, and ordered judgment for the defendant, with costs.

VERY few persons know what an enormous work has been undertaken at the Iron Gates of the Danube, where operations are rapidly progressing, mainly in accordance with a plan devised many years ago by our distinguished countryman, Mr. McAlpine. The total length of that part of the river to be regulated is about two hundred and fifty miles, so that the enterprise ranks with the cutting of the Panama and Suez Canals, as one of the greatest engineering feats ever attempted. Work has been begun simultaneously at three points: at Greben, where there are reefs to be taken care of, at the cataract, near Jucz, and at the Iron Gate proper, below Orsova. At Greben, where the stream is shallow, but swift, a channel two hundred feet wide is to be blasted out of the rock, and below it a stone embankment wall is to be built, more than four miles long. From a reef which projects into the river a piece is to be blasted away, measuring five hundred feet in length, and about nine feet in depth. The difficulties of working in this part of the river are very great. Not only is the current extremely rapid, but in certain places ridges of rock barely covered at low water alternate with pools a hundred and forty feet deep, which give rise, in the rapid current, to frightful whirlpools and eddies. These deep pools are to be filled, at the same time that the reefs are cut away, and it is estimated that nearly three million cubic feet of loose stonework will be needed for this purpose alone. In addition to the excavation, artificial banks and breakwaters, for modifying the course of the stream, are to be built; so that it is estimated that the masonry to be executed in this section will amount to about five and one-half million cubic feet.

IN the cataract section, at Jucz, a channel two hundred feet wide, and more than half a mile long, is to be blasted out of the rock, and a breakwater built, to moderate the suddenness of the fall. This breakwater is to be about two miles long, and ten feet thick at the top, increasing in thickness toward the bottom. The rock in which the channel must be cut at this point is partly serpentine-greenstone, partly chrome-iron ore, and is intensely hard. In the section of the Iron Gate, the work to be done consists in "canalizing" the river for a distance of a mile and a half, by building a wall on each side, and excavating the bed of the river between. The channel between the walls will be two hundred and fifty feet wide. It is estimated that nearly three million cubic feet of rock will have to be excavated here, all of which will be used to fill-in behind the embankment walls. Of course, the greater part of the rock will be removed by means of blasting with high explosives, but some of it is to be attacked with a novel instrument, which was first tried, on a small scale, on the Panama Canal, and is to be used for serious work here. This instrument, as it is to be employed on the Danube, consists of an enormous steel drill, thirty-three feet long, and weighing ten tons. By means of a machine like a pile-driver, this monstrous tool is raised to a height of about fifty feet, and allowed to drop, point first. So heavy a mass of metal, falling from a considerable height, meets with comparatively little resistance from the water, and the point shatters and grinds up the rock on which it strikes. Fifty or sixty blows per minute can be struck with a tool of this kind, and ten thousand blows, in all, can be inflicted before the tool is so worn as to be past service. Several of these drills will be at work at the same time, and, to remove the fragments of rock which they break off, a huge dredge, of three hundred and fifty horse-power, is to be employed. For excavating by means of explosives, arrangements

have been made for drilling the holes for the cartridges with the greatest possible rapidity, as on this depends the celerity with which the work can be pushed forward. Much of the drilling will be done by means of diamond drills, which are mounted on boats. Five of these boats have been provided, each with seven diamond drills, arranged so as to work perfectly in twenty feet of water. Other boats are fitted with pneumatic drills, which are operated by means of air, compressed to a tension of seven hundred and fifty pounds to the square inch. The pressure of the compressed air is transmitted by means of water to the drills, which act by percussion, and work very rapidly. These drills are curiously automatic in their operation. After boring the holes to the allotted depth, the machine automatically sets in each a tube, washes out the dust, inserts a dynamite cartridge, withdraws the tube, and connects the wire of the electric fuse in the cartridge with the battery wire in the boat. The cartridges are charged with a pound of dynamite to each. In hard rock, only one charge is fired at a time, but in softer material four are fired at once. If the water over the work is deep, the boat is not moved from its position, but in shallow water it is towed a few yards away from the spot where the explosion is to take place. The drill-holes are about six feet deep, and are spaced at the rate of about one to every three square feet, something, of course, depending upon the character of the rock. The whole work is now under contract, the mechanical engineering firm of Luther, of Brunswick, having undertaken to complete it in five years, for a payment of less than four million dollars.

AS every one knows, the building laws and other police regulations are very strict in Germany. Not long ago, a lady built a house in Berlin, and contracted expressly with the builder that he should assume entire responsibility for the observance of all police regulations and directions. When the exterior came to be washed down and finished, the men who were doing the work transgressed the building regulations in some way. A notice was sent to the lady, who, supposing that the builder, under his contract, would look after such matters, paid no attention to it. The cleaning-down went on as before, and the lady was arrested. She produced the contract, by which the builder assumed all responsibility for such matters, but the police tribunal held that, notwithstanding this, she was liable to prosecution and punishment for the infringement of the law by the builder, and that the only way in which she could have transferred the responsibility upon the person who had contracted to bear it would have been, as soon as the first notice reached her, "to take energetic steps against the continuance of the work."

AFTER a good deal of discussion, the great Machinery Gallery of the recent Exposition in Paris has been leased by the military Governor of the city as a military riding-school. The cavalry exercises are to terminate at ten o'clock in the morning, and after that time the building is to be open to the public. What the public will do there is not quite settled, but it is hoped that the place can be used for civilian riders, and that it may become a fashionable resort, not only for ladies and gentlemen who like riding, but for the much larger portion of the public which likes to see other people ride.

THE *Deutsche Bauzeitung* tells a pretty story about the monument of the great architect Schmidt. Not long before his death, Schmidt had a severe attack of illness. Thinking that he might not recover, he discussed with his son the sort of tombstone he would like, and the inscription he wished to have placed on it. He finally concluded that a plain stone slab would suit his taste best, and desired that it should have on it his "mason's mark," enclosed in a shield, showing his rank as a master in the craft, with the simple inscription: "Here rests in God Friedrich Schmidt, a German stone-cutter." It will be remembered that Schmidt was originally a stone-cutter, and that his skill in designing detail has been attributed to his practice in executing it. After his death, his tomb was erected by the Corporation of Vienna, and his wishes were so far respected that his mason's mark was cut upon it, with the inscription which he had directed; but to this was added a list of his titles and official employments, while at the top of the stone stood the motto which distinguished his successful competitive drawings for the Vienna Town-Hall, "*Saxa loquuntur.*"

SPANISH ARCHITECTURE.¹—IV.

PLATERESQUE STYLE.

WE have already explained the origin of the term "Plateresque." This peculiarly Spanish style has made its influence felt outside of Spain nowhere except in Portugal. There a few scattered monuments, among others the cloister of Batalha, bear its imprint.

The development of the Plateresque style dates from about 1440, and quite naturally its earliest productions indicate only a weak modification of Pointed art. For example, in the cloister of San Gregorio (Figure 27), at Valladolid, constructed by Macias Carpintero, the mouldings of some of the bases and

shafts of columns are in the Pointed style, while the mouldings of the archivolt and cornices, the spandrels of the first-story arches and the decoration of the upper frieze already exhibit quite different types: the forms have a thickness and roundness not seen in ogival architecture. It is evident that this mixture must occur in a large number of structures, for the transformation from one style to another is always effected by slow and almost imperceptible changes. Thus, likewise, in the Casa de las Conchas (Figure 28), at Salamanca, the windows have Gothic mouldings, with crossed mullions; the ornamentation is, however, quite novel, and the doorway (Figure 29), with its sharply accented lintel adorned with palmettes and intertwining figures, its pediment with reversed curves, its tympanum richly carved with armorial bearings and their tufted appendages, offers no analogy to the doorways of the Gothic edifices which we have been studying. The same remark may also be made with respect to the disposition of the

court or *patio* (Figure 30); the queer pillars and arches of the ground-floor, the string-courses, the open-work balustrades, the columns of the first story with their segmental arches, the upper cornice crowned with a rich open-work crest, can in no fashion be attributed to Pointed art. And here, too, we have the original features of Plateresque art, which in development and extension far outdistanced the only style having any points in common with it, namely, the Louis XII style in France. The *patio* of the Casa del Cordón (Figure 31), at Burgos, is surrounded by two stories of colonnaded porticos and possesses a very characteristic doorway. The enormous vousoirs of the

lintel seem to be a survival of the massive wedge-shaped stones seen over the doors of Gothic seigneurial dwellings as, for instance, in the Count of Superunda's palace, at Avila, and the Casa de los Momos, at Zamora; but the general arrangement of the decorative elements, with a cable outlining, as it were, the main motive by circumscribing above the lintel a monumental inscription and the escutcheons and emblems embellishing it, is inspired from a new source and exhibits great originality.

This character of originality stands out still more prominently in the ornamentation of the Palace del Infantado, at Guadalajara, where the vegetable element figures largely in the designs. There is such a wealth of carving, especially in the

patio, such a profusion of sculptured plants and huge animals in bas-reliefs, of twisted columns and armorial bearings, that we are tempted to criticise the style as somewhat too pronounced. The façade, on the contrary, with its projecting bossages and beautiful doorway, together with the corbelling of the turrets which was inspired by the Arabian stalactite forms, presents an aspect of nobility and grandeur.

The Hospital of Santa Cruz at Toledo (1404-1514), constructed by Enrique de Egas, exhibits a peculiar disposition, examples of which are to be found in several Italian edifices. The chapel, or rather the church, runs across the rectangle formed by the general plan, so that the altar is visible from the four arms or aisles; one of these aisles is set apart for the religious order officiating at the hospital, two others are for the patients—one for the men, the other for the women—and the fourth is reserved for strangers and visitors: all these different classes of worshippers engage in the services,

but cannot communicate with one another.

The great grille of the Capilla Real in the Cathedral of Granada, enriched with subjects executed in bronze and in relief; the choir of the Cathedral of Toledo, built by A. Berruguete and Philippe de Bourgogne; the cloister of the monastery of Lupiana, with four stages of superimposed porticos, two of which have wooden cornices and entablatures; the Casa de Zaporta, at Saragossa, with a *patio* embellished with baluster-like columns, and a projecting roof adorned with rafters and sculptured consoles; the grilles of the choir-enclosure in the Cathedral of Saragossa; the *reredos* at Nuestra Señora del Pilar in the same city, and numerous other celebrated altarscreens—for example, the one in San Nicolas, at Burgos—

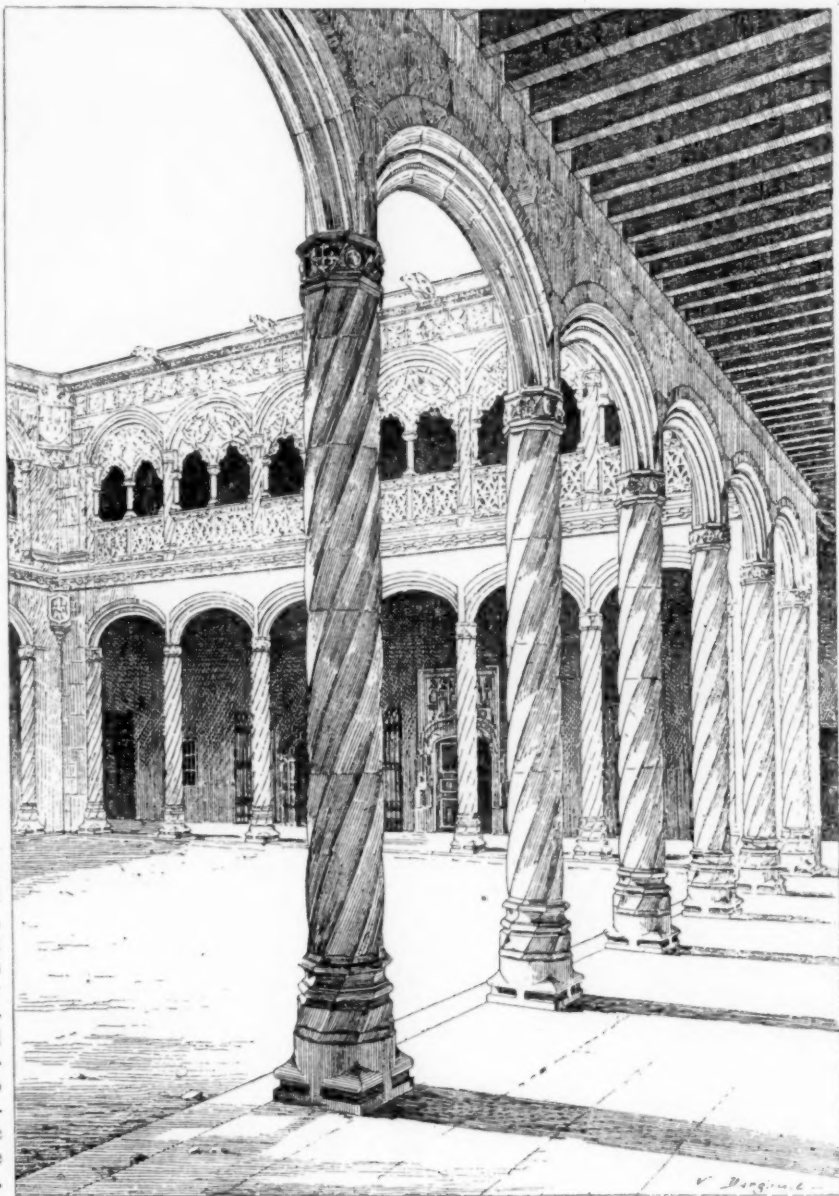


Fig. 27. Cloister of San Gregorio, Valladolid.

¹ From the French of H. Saladin, in Planat's "Encyclopédie de l'Architecture et de la Construction." Continued from page 163, No. 807.

may all be cited among the most remarkable productions of this style.

The Plateresque was not merely the connecting link between the Pointed and Renaissance styles; it sometimes made use of delicate enrichments borrowed in part from Arabian art. The

soberly pierced with small openings. The grandeur of the whole architectural purpose, and the frankness with which it is presented, make this façade rival the façades of the palaces of Monterey at Salamanca and that of the Guzman family at Leon; the latter will be noticed later on.

Open-work crests are found elsewhere at Salamanca (Alonso de Covarrubias, architect), as in an entrance-way near the University (Figure 32) and at the University itself (Figure



Fig. 28. Casa de las Conchas, Salamanca.



Fig. 29. Doorway of the Casa de las Conchas, Salamanca.

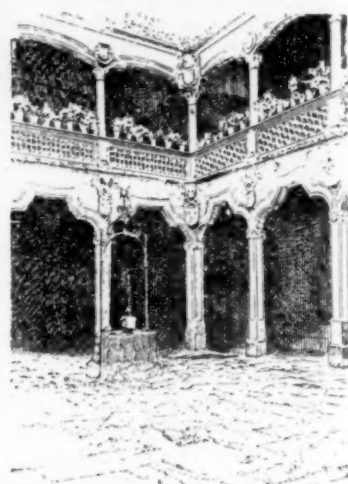


Fig. 30. Court or Patio of the Casa de las Conchas.

Puerta del Perdon and the Casa de Pilatos, at Seville, furnish well-known examples of this.

Under the influence of Cardinal Ximenes of Cisneros, in 1497, a number of remarkable monuments were reared at Alcala de Henares; these constitute some of the noblest specimens of Plateresque art. The archiepiscopal palace and the University, which were the work of P. Gumiel, architect of the high-altar in the Cathedral of Toledo, and Enrique de Egas, also derive their character in a measure from Arabian survivals. The ceiling of the great hall of the University, which is in octagonal or star-shaped caissons, with shells at the angles, may be considered as a Classic variation of an Arabian theme. The court, with arcades on the ground-floor and a portico with lintels around the first story, is also due to Arabian tradition, although the noble and delicate decorative details belong to the new style. The chapel of San Ildefonso,

noted for its beautiful bronze grilles, is of the same period; it has fine Plateresque ceilings of Arabian inspiration, and contains the tomb of the founder, Cardinal Ximenes of Cisneros. The main façade of the University displays great breadth of composition, and deserves a brief notice here. The central motive is richly decorated: the entrance on the ground-floor is flanked by two small windows pierced in a broad, bare wall; in the first story there are three bays, the middle one of which is the most lavishly ornamented; above is an attic loaded with orna-

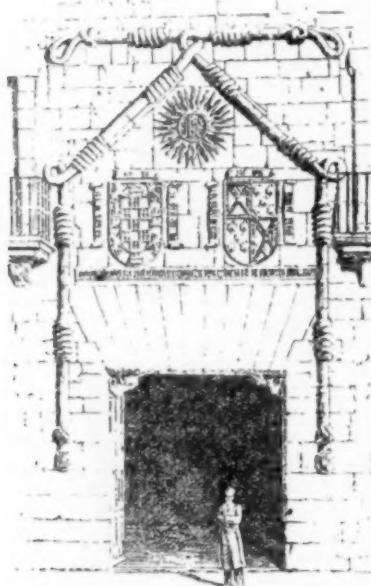


Fig. 31. Doorway of the Casa del Cordón.

mentations, and bearing in the centre the arms of the kingdom, supported by the double-headed eagle with spread wings; the whole is surmounted by an open-work cresting, which produces a charming effect. The naked walls of the less elevated wings, which run off on either side of this motive, are



Fig. 32. Gateway near the University of Salamanca.

already appear. These elements are still more clearly discernible in the porticos surrounding the court of the Irish College (Figure 34), where the forms are almost entirely those of the French Renaissance (Francis I), and in the open arcades of San Esteban (Figure 35), the complex-ribbed vaulting of

which presents, like that of other Spanish monuments already cited, a striking likeness to those English vaults which, at the

(Figure 36), of which we have already spoken, another step toward the Renaissance has been accomplished; and the

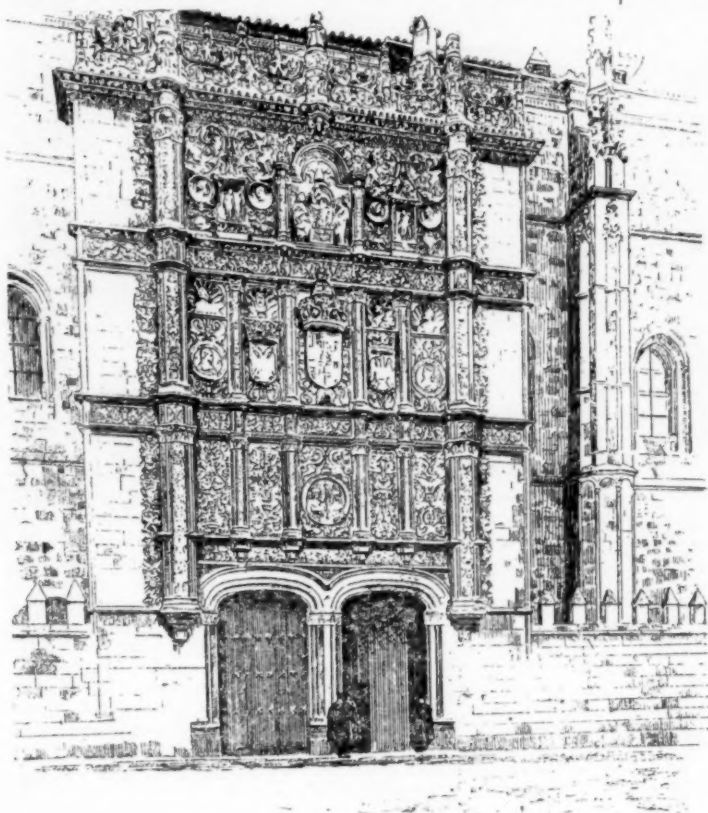


Fig. 33. Entrance to the University of Salamanca.



Fig. 36. Entrance to the Hospital of Santa Cruz, Toledo.

springing, affect the shape of the bell of a hunter's horn cut in two.

In the entrance to the Hospital of Santa Cruz at Toledo

palace of Monterey, at Salamanca (Figures 37, 38), may be taken as a type of the edifices forming the last link between the Plateresque and the Renaissance, as the cloister of San



Fig. 34. Court of the Colegio de Nobles Irlandeses, Salamanca.

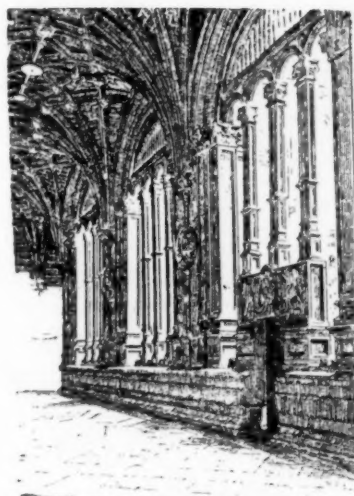


Fig. 35. Cloister of San Esteban, Salamanca.

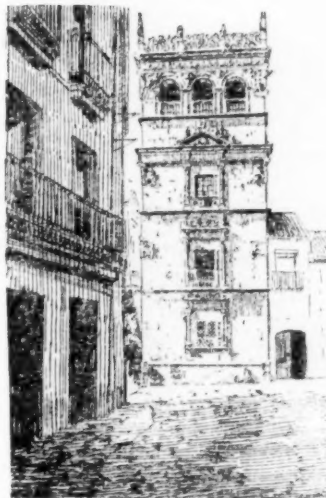


Fig. 37. Tower of the Palace of Monterey, Salamanca.

Gregorio, at Valladolid, furnishes the first link of the chain connecting the Plateresque with Gothic art. The Plateresque style was copied to a certain extent in Portugal, where it was

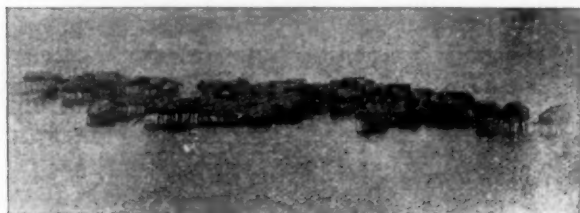


Fig. 38. Façade of the Palace of Monterey, Salamanca.

termed Emmanuelian, from the name of the sovereign to whose reign its entire development was confined.

[To be continued.]

THE MARINE DWELLINGS OF THE PAPUANS.¹



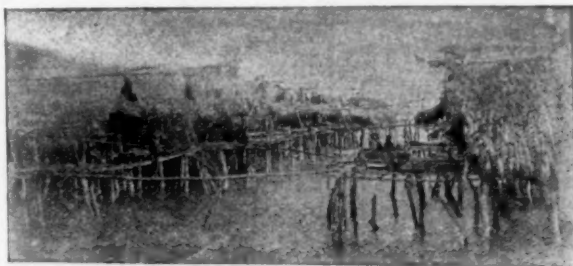
Papuan Village — from the Shore.

PAPUA, or New Guinea is, as every one knows, a large island lying to the extreme north of Australia, from which it is separated only by a narrow slip of sea. The Portuguese, we are told, first sighted it nearly four hundred years ago; and then a Spanish captain returning to Mexico from the Moluccas, whither he had been sent by Cortes to extend the dominion of Spain — and to acquire incidentally such treasure as he could appropriate — sailed down its northern coast about the year 1528, and anchored in a gulf near certain islands, which he forthwith named *Islas del Oro*. Not because he found any gold there; but because gold, in those days of adventure, was ever uppermost in the imagination of the roving romantic Spaniard who sailed all seas and saw in every new land undreamt-of El-Dorados, and to whom every unnamed stream was a possible Fountain of Perpetual Youth, flowing from fabulous sources over sands which glittered with unregarded gems. Ten years afterwards Pizarro sent an expedition from Peru to the farthest Indies; but his ships never reached the Isles of Spice — being wrecked on shores inhabited by a people whom, as the survivors afterwards learned, "they in the Maluco do call Papuas."

A later Spaniard, deeming himself the first to discover it, called the land *Nueva Guinea*, from some fancied resemblance which he saw in the appearance of the natives to those on the African coast. Then Luis de Torres, after whom the straits are named, Tasman, Dampier, Cook, D'Entrecasteau and many more of lesser note visited the Island; but till within the last few years it may be said to have been practically unknown.

¹ See "The Lake-dwellers of Venezuela" in the *American Architect*, Nos. 770 and 774.

The Dutch certainly had made an attempt at colonization on the northern coast, but until Captain John Moresby, of H. M. S. "Basilisk," carried out a careful survey in 1873, the extent of the island and the outline of the south, and southeastern coasts had only been



A Street Scene.

vaguely surmised. Since then much has been done by D'Alberty, Bevan and others toward the exploration of the interior; and the establishment of the British protectorate over the eastern portion in 1884; the now important settlement at Port Moresby and the increased facilities afforded to travellers by regular steam communication from Sydney and Brisbane have combined to dispel in a great measure the mist of ignorance through which New Guinea has been regarded for the last three hundred years. But nevertheless, though it is after Australia the largest island, it is still, certainly, the least known of any country on our globe. The Germans and the Dutch, who have occupied the northern and northeastern parts, do little in the way of exploration; but the present British Commissioner, Sir William McGregor, is untiring in his efforts in this direction. His predecessor, Sir Peter Scratchley, fell a victim to the unhealthiness of the climate, which on the south and east coasts has proved so deadly to Europeans, that the British Government discountenances, for the present at any rate, all attempts at colonization. The white population is therefore still very small.

To Australian eyes, there is something very homelike in the scenery of New Guinea mixed with much that is altogether foreign. The soft, gray, mist-like effect of the forests of blue gum on the hill-sides is essentially Australian; but the feathery-fringe of cocoa-nut and other palms, which skirt the beaches, and the clustering native villages give a tropical air to the place which



Chief's House.

is entirely missing on the shores of the island continent. It is curious to note, by the way, that the cocoa-nut palm does not grow

on the Australian coast, while less than ninety miles away across the narrow shoaling strait it flourishes everywhere.

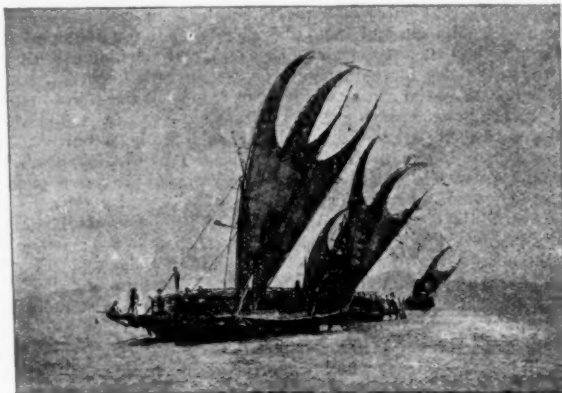
Nearly all the Australian fauna and flora are indigenous to New Guinea, but it has in addition the more luxuriant growths and the more brilliantly plumaged birds of the equatorial regions.

Almost the first objects which appeal to the curiosity of a stranger entering Port Moresby, are the large trading-canoes, called by the

singular type of habitation in the interior. It would appear that at a far remote period wandering tribes from some of the myriad islands of the north and east, settled on the coast of New Guinea, and being well acquainted with the Malay method of building, erected these



Afternoon Lounge.



Trading-canoe.

natives *lakatois*, with their graceful and strange-looking mat sails and long streamers of dyed grasses fluttering, like pennants, from their mast heads. These trading-canoes are merely two or three ordinary canoes lashed together with rattans and decked over with bamboo and pandanus leaves. The sails are sometimes square, not unlike the small sail of a yawl, but for the most part they are elliptical as shown in the accompanying illustration. Unwieldy though these boats may appear, they seem to sail well and speedily and, from the fact that the natives undertake voyages of three and four hundred miles in them, they are evidently sea-worthy. The "trade" generally consists of a rude kind of pottery, which the women excel in making, and body ornaments which they exchange for sago, sweet-potatoes, taros, and betel-nuts, etc. Betel-nut chewing is practised all over the eastern portion of the island and was probably acquired from the Malays, as was the mode of house-building. The people in this locality, differ very much in appearance from the real Papuans who dwell in the west and who are a tall and powerful black-skinned race, whereas those in the south and east are a small and light-bronze-colored people, who wear their hair frizzled out like a large mop, ornamented with bands of cowrie shells and dogs' teeth. The Papuans of the west, on the other hand, usually shave their heads and wear wigs so artistically constructed that it is difficult to discover the fact. The term "Papua" is supposed to be derived from the Malay words, *pua-pua*, meaning curly or frizzy, which was first applied to the natives on account of this peculiar mode of arranging their hair.

The houses of the natives, even on the hillsides and far inland, are almost invariably built upon piles, after the Malay manner. The advantages of this curious and troublesome method of construction are apparent in the villages along the coast, but the builders themselves seem unable to give any adequate reason for adhering to this

marine houses in order that escape in their canoes might be possible in the event of a successful attack being made upon them by the savage and resentful natives. Then, in the course of time, as they worked their way inland, the descendants of these aliens, though living under entirely different conditions, constructed their houses

in this manner because their forefathers had done so, and for no other reason. This explanation, however, though generally accepted, is not altogether satisfactory; for while the houses built wholly or partly in the water are all of much the same type, those in the different localities on shore vary so greatly in form, that it is hard to believe that a people who could so adapt and improve the primitive dwelling, and who are very much averse to doing more work than they can possibly help, should blindly and laboriously follow a precedent for which no reason can, in their case, exist.

The marine villages, however, with which we are now chiefly concerned, are clustered along the coast in every sheltered bay and, as I have previously said, they differ so little in appearance and construction that a description of one may well serve for all.

The piles upon which these houses are framed are rather slight-looking unwrought saplings which are roughly pointed and driven into the sand at low water, and vary in height from about ten feet to twenty-five feet above the water-line.

On these piles a rough floor is laid which is, like the framework of the

house itself, lashed to them, and the whole clumsily braced. An opening to serve as doorway is left at each end, and a rude veranda constructed on the water-front; the high-pitched roof and the sides are then covered with a thatch made either of long grass or palm leaves; a few ornamental features in the shape of finials, etc., are, perhaps, added; a ladder fixed at each end, and the house is finished.



Tree-house, Korari Village.

The proprietor then proceeds at his leisure, in some localities, to decorate the exterior of his strange abode with strings of cowrie shells and trophies of grinning heads of the enemies he has slain—and perhaps eaten. Blanching human bones arranged in various forms are also considered to add to the general effect, and serve, besides, to proclaim the owner's prowess as a warrior.

Each house is merely one apartment, used in common by men, women and children, and as no provision is made for light and ventilation, beyond the openings at either end, and as chimneys are unknown and a fire for culinary purposes generally kept burning on a stone hearth in the centre of the floor, it may be imagined that the interiors are not too airy or wholesome.

In the western part of the island, it is said the houses are capable of accommodating many families: one visited by Mr. Chalmers, the missionary, "was 160 feet long, and it had a large peaked portico 30 feet wide, supported by posts 80 feet high." These large houses are not found to the east of Torres Straits. All the houses about Port Moresby, however, are swarming with natives—the men quite naked, and the women and girls dressed only in a short petticoat of palm leaves, no longer than the abbreviated skirt of a ballet girl, though of a less diaphanous material. Both men and women wear armlets and necklaces of pearl, shell and a long-pointed piece of shell through the nose. The women do nearly all the work, while the men fish or hunt when so inclined, or attend to their plantations; for though some of the villages stand at a considerable distance from the shore and are wholly surrounded by the sea, the majority are built on the shore itself, and are very often almost high and dry at low tide. Dogs and pigs, both indigenous to the island, abound in all the shore-side villages, and on the hills they abide with the other live-stock in the open space beneath the floors of the houses.

I should have remarked that no iron or other metal is used in the construction of these houses, the natives' only tools being knives and



Chief's House, Marine Village.

axes made of a coarse kind of green stone. Nails are, of course, unknown, the timbers being simply lashed together with tough vines and pieces of bark. The benighted Papuan is—or rather was till very lately—still living in his "age of stone." Captain Moresby relates that some of the tribes he visited in 1875 had no knowledge of the use of iron, but were willing to exchange their stone axes and adzes for strings of red beads in preference to the iron implements which were offered them.

The natives are uncleanly in their habits, and subject to many forms of skin diseases; and there are very good reasons for supposing that those at least, in the southeastern portion of the island still indulge in occasional cannibalistic orgies. It is singular to note that the habit of smoking tobacco, which prevails throughout the island, was practised on the south coast long before the advent of the white man.

Though the title of this paper precludes more than passing reference to them, one can hardly take leave of New Guinea without mentioning the extraordinary tree-houses of the interior. These houses are very similar to those already described, though somewhat smaller, and are all of two stories in height. A platform above the ridge serves as a lookout—from which the tree-dweller may observe the approach of his enemies.

The houses of the chiefs, whether marine or otherwise, have generally some distinguishing features, and many fanciful forms are indulged in; the most common, and perhaps the most peculiar being an erection in the shape of a spire over the principal entrance.

Anything more lovely than some of the scenery on the New Guinea coast, between Port Moresby and South Cape, would be difficult to imagine, and some of the islands off the shore are veritable

"Summer isles of Eden lying in dark purple spheres of sea";

but the climate, strange to say, is deadly to Europeans, from the malarial-laden breezes which blow across the marshlands of the coast.

To one, the greater part of whose life has been passed in the din and dust of a city, it is a pleasant memory to look back across the intervening years to the happy weeks spent in cruising along the coasts of this strange land. He has but to close his eyes to see again the sparkling sapphire of the sea outside the soft, fleecy line which

marks the coral reef; the green translucent waters within the bay; the picturesque canoes; the strange, frail-looking villages; the stretch of glittering sands and waving cocoa-palms, with the gray greenness of the hills for background; and above and beyond all the great Owen Stanley range, looming up vast and vague in the farthest distance. The fear of fever, the infinite torment of flies and mosquitoes and the other minor drawbacks to life under a tropical sun have long since been forgotten.

J. B. B.



THE MCGREEVY SCANDAL.—ANNUAL SESSION OF THE ROYAL SOCIETY OF CANADA.

THE parliament of the Dominion of Canada had not long been engaged with its 1891 session, when a new member, returned to parliament for this very purpose, brought up the matter of the "McGreevy Scandal," and after reiterating the charges, demanded a special committee to take up the affair and sift the charges to the bottom. The allegations are that Mr. McGreevy used his political influence for securing contracts to certain contractors and was paid handsomely for so doing; these contractors were not the lowest tenderers and thereby it is claimed the treasury was robbed, and that the Minister of Public Works was a party to the fraudulent transactions and possibly a sharer in the plunder. Mr. Tarte, the member, a newspaper editor of Quebec, has for a long time been showing-up the supposed fraud in his paper and with such success as to form himself a party who returned him to the House where he might make, and has made, his charges. The case is one of unusual interest: the charge amounts to this—that fully three-quarters of a million have been taken from the Treasury under the eye of the Minister.

The Royal Society of Canada, founded in 1882 by the Marquis of Lorne, then Governor-general of Canada, has been holding its annual session this year in Montreal. Hitherto the Society has remained in Ottawa, but last year it was determined that if a formal invitation were extended to it from any city of the Dominion, the Society should avail itself of it. The Natural History Society of Montreal was the first to give an invitation that could be accepted, and the result has been that the Society went to Montreal and held its annual meeting, beginning on the 27th of May. The object of this Society is stated, in its official papers, as being "the promotion of literature and science within the Dominion." The membership is limited to eighty, and restricted to residents in Canada or Newfoundland. There are two departments, literary and scientific, subdivided into four sections. The first section is devoted to French literature and allied subjects, the second to English literature, etc., the third to mathematical, chemical and physical sciences, and the fourth to the geological and biological sciences. An annual grant is made to this Society by Government of five thousand dollars, for the purpose of publishing the results of the researches made as given in the form of papers which are read at its meetings, whereby the benefit of these researches is diffused. It is a curious fact that the English-literature section has hitherto been weak and ineffective, and has consequently done little, and has little to show, but the other sections are doing well and the Society is being gradually felt to be of great service to the State. That a section devoted to English, in a English country, should fail in its work, is a matter that very decidedly needs correction.

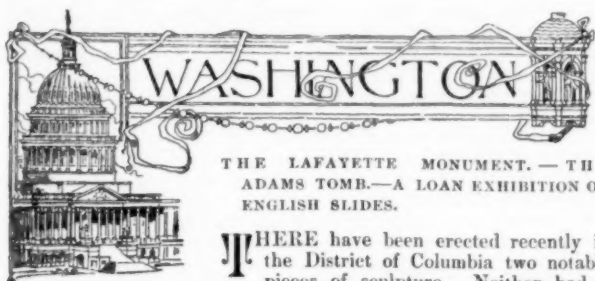
The report of the Council contained an account of the work that had been done at the instance of the Society with reference to determining the exact longitude of Montreal. The position of Montreal has heretofore been determined by Harvard, but as doubt has been thrown upon the supposed position of Harvard, it is, of course, uncertain what the position of Montreal really is. It is a matter of great importance and the Marine Department of Government is especially interested. To arrive at a proper conclusion it has been necessary to enlist the services of the Imperial Government and to obtain permission for the coöperation of the officials of the Royal Observatory at Greenwich. The British Government has seen the force of the arguments in favor of the work and a grant of £650 (sterling) has been made for the expenses by the Imperial Treasury. The assistance of the Royal Observatory at Greenwich has been granted, with instruments and observers. In addition to this the Canadian Pacific Telegraph and Cable Company has offered the free use of its wires for the purpose and the aid of the McGill University, Montreal, with instruments and observers, has also been promised. It only remains now that the Dominion Government should grant the sum of \$2,000 to meet the expenses of new and necessary instruments. This will, no doubt, be voted, and the work will proceed without further delay.

This annual meeting of the Association has proved in every way very successful. A large number of American gentlemen were present as representatives of, or delegates from various societies in the

States, among whom were Major Powell, Director of the Geological Survey, Professor Prescott, of Ann Arbor University, representing the American Association for the Advancement of Science, Mr. Williams of St. Paul, Minnesota, representing the Historical Society of that city, and General F. A. Walker, representing the National Association of Science, the American Economic Society and the American Statistical Society. The morning of the 28th was devoted to the reception of delegates from all parts of Canada and many parts of the United States. Public lectures were given in the evening and the Society was entertained at receptions by various scientific and artistic societies, the rest of the time of the three days' session being taken up by the reading of papers in the different sections.

An invitation was received from the Corporation of Toronto to hold the next annual session in that city, and the matter was left with the Council to decide.

The election of officers for the ensuing year resulted in the establishment of Abbé J. C. R. Laflamme, D. D., M. A., of Laval University, Quebec, in the Presidential Chair; Mr. J. G. Bourinot, C. M. G., L.L. D., D. C. L., Ottawa, was made Vice-president and Dr. Hoffman of the Geological Survey, Ottawa, Honorary Secretary.



THE LAFAYETTE MONUMENT.—THE ADAMS TOMB.—A LOAN EXHIBITION OF ENGLISH SLIDES.

WHERE have been erected recently in the District of Columbia two notable pieces of sculpture. Neither had a formal unveiling. One, the monument to Lafayette, did not receive a dedication to the public on its erection, because no appropriation for the purpose was made by Congress. The Adams tomb, as a token of grief erected in memory of a departed beloved one, required no public ceremony at its erection. The commission first had the base for the Lafayette monument built in the park of the same name, on a line between the White House and Andrew Jackson's statue (on the rearing horse) by Mills. This incensed the friends of the hero of New Orleans and, at the last moment, after a large part of the base was finished, Congress required the commission to change the position of the structure; so the bronze pieces of which the statue was composed were kept for months awaiting their final resting-place. At last they have been erected in Lafayette Square on the corner of Pennsylvania Avenue and Madison Place, one of the most conspicuous points in the city. The Adams tomb is erected in Rock Creek Cemetery, which adjoins the Soldiers' Home, a retired and quiet spot.

The Lafayette monument was modelled by two of the most prominent French sculptors. The single figure on the Adams tomb was from the hands of the foremost American sculptor, St. Gaudens.

The first has a rather florid Renaissance marble pedestal, a little small, apparently, for the figures which are grouped about it. The whole resting on a simple terraced granite base.

The second has a slab of red granite rising up behind the figure as a severely classical background, while facing the figure is a settee forming three sides of an octagon, cut from the same kind of stone. The lonely figure sits on a rough, dull-gray granite boulder, its edges rounded by time or the elements.

In the French sculpture the base was designed by the sculptors, in the American example the stone surroundings were designed by an architect, Mr. Stanford White. The effect produced shows the advantage of architect and sculptor working together in monumental work.

The Lafayette Monument is the most ambitious effort of the kind in the city of Washington, grouping together, as it does, five historical, and three ideal or suggestive characters in one harmonious group. The Adams tomb has one sad, lonely figure.

Lafayette, on the top of the pedestal, and his four friends just beneath him are typical French gentlemen of their period, graceful, dignified, polite. They are natural in their poses and presumably good likenesses of the patriots represented. At the base is a female figure handing a sword to Lafayette. The figure is full of action and life. In the case of this figure the stonework is apparently deficient, as the figure gives one the impression that it might slide from the ledge on which it is supported. Many comments are made on the apparently abnormal size of the heads of the two cherubs. They may be properly proportioned, but they certainly convey a disagreeable impression. The monument as a whole is decidedly the most successful piece of outdoor sculpture we have yet had in the city; the figures are natural, the grouping is good, and the effect of the whole is pleasing, and I think the effect will be lasting.

The figure at Rock Creek Cemetery sits alone on a gray granite boulder. The figure droops slightly, the limbs are relaxed, it is draped in a coarse mummy or sackcloth sheet which is drawn around the figure and over the head in the form of a cowl. The bare arm and the face resting upon the hand are the only portions of the body

exposed, the eyes are half-closed, looking down towards the grave. This piece of sculpture produced a greater effect upon me than anything of the kind ever has done before. Its sadness is touching and not to be erased from the memory. It is an image of tearless, hopeless grief.

Mr. J. R. Robinson, of Dublin, kindly sent the Washington Chapter American Institute of Architects, more than a hundred lantern-slides, which were taken by him during one of the summer excursions of the Association of Architects. The most interesting art and architectural subjects, as well as many and various groupings of the members of the Association are photographed and preserved for future use, reference and instruction, and by the kindness of Mr. Robinson, they have been both pleasurable and profitable to the Chapter in Washington. A description of this excursion, and reproductions of many of the cuts may be found in the *London Builder*.

These slides were exhibited in the hall of the Cosmos Club, on the regular meeting night of the Chapter in June. Although taken by an amateur, the views were in every way equal to professional work. The illustrations were taken in Oxford and its vicinity. The domestic, school and church architecture of this portion of England was realistically shown on the screen. Oxford and its many colleges, New, Merton, Christ Church, Magdalen and St. John's, etc., with their churches, libraries, the cathedral and private houses were all well shown. The interiors of many of the buildings were illustrated, the tower and doorway to Magdalen, and views of Christ Church Colleges, the windows in St. John College Chapel, the Bodleian Library, etc.

The many interior views of the Cathedral were particularly interesting among the views from Oxford. The doorway, with its twisted columns, broken scroll pediment, with niched pediment inserted, was a fine example of the exaggeration to which Classic architecture was debased in Renaissance times, and a warning to modern architects who are revivifying this style.

In the vicinity of Oxford, Iffley, Dorchester, Burford, Kidlington, Water Eaton and other places of interest were visited and photographed. The Kidlington, Burford and Iffley Churches and the Evesham detached tower were particularly notable. The north doorway of the Iffley Church is a very interesting and good example of a Norman Gothic doorway. The Asthall manor-house and small church showed the very happy effect produced by quiet simplicity in treatment. The combination of scenery, church and manor-house produced a charming effect as a whole. The Kidlington almshouse and old houses at Evesham are very picturesque. Last, were illustrations of Shakespeare's house, the grammar-school and church at Stratford-on-Avon.

Professor Gore of Columbian University, who is familiar with this section of England, gave a descriptive talk in connection with the Exhibition.



THE PAINTINGS AND ARCHITECTURAL DRAWINGS AT THE SALON.

THE rupture which took place last year between the artists still exists, and this year we have again two *Salons*, that in the Champs-Élysées and that in the Champ-de-Mars. There is even a suggestion of organizing a third, that of the rejected and discontented would-be exhibitors. But, as we already have quite enough in two, we will not speak of this third. Moreover, the artists are beginning to be tiresome, and are taking up too much of public attention with their doings and sayings. Everywhere there are public and private exhibitions, about which more noise is made than they generally deserve.

The *Salon* remains, as always, the most interesting artistic manifestation, and cannot be neglected. This year it presents matters of real interest. The works received are less in number, and we have only to examine 1,773 pictures—quite enough; but be assured I will mention only those which deserve attention, or which, by their importance, stimulate discussion and criticism. This task will be quite enough, for there are many good things this year. It is pretended that the jury was more strict than usual. It could have been still more so. But we ought not to complain, as absolutely bad pictures are rare.

First, let us examine the grand compositions which the modern artists inflict on us only too often, and of which the *Salon* this year offers some interesting examples. We will begin with the colossal work which M. Rochegrosse exhibits under the title "La Mort de Babylone." This is an immense picture of almost equal breadth and height. It represents the interior of Belshazzar's palace, who, besieged in Babylon by Cyrus, King of the Persians, forgets, in the midst of his festivities and debauches, the tiresomeness of the siege. Upon divans, in languorous attitudes, slumber nude, or—very slightly clad—females beside men brutalized with drink. Here and

there are scattered rugs and hangings of brilliant colors, flowers, fruits and half-eaten food. It is the close of an orgie. The door at the end of the room opens before the troops of Cyrus, who has just taken the city by surprise. A woman awakes, sees the danger and springs up in terror. At the left, at the top of the staircase leading to the throne, Belshazzar, surprised and terrified, feels lowering over him the image of Death, whose physical presence the painter makes visible. The lights placed on the backs of twelve little lions, ornamenting each end of the steps to the throne, flicker and pale before the blue light of the springing day, which enters through the great arcade in the background. The whole painting, arranged like an apotheosis at the opera, is a real archaeological restoration, and pictures the splendors of that feast which has remained one of the most celebrated of ancient history—the feast of Belshazzar, which formerly tempted the brush of Rembrandt. This picture of M. Rochegrosse's is the work of a great artist. There are in this colossal canvas, upon which he has labored for three years, as they say, and which must have called for very serious study and research, qualities of the first rank. Here are to be found a quantity of pretty details—female bodies ravishingly modelled. The one on the right in the penumbra is placed against a scheme of color at once fine and charming, while in the group at the left the flesh-tones gleam under a brilliant light. The ensemble has great depth and relief, and the painting is called a great success. It must be acknowledged that a certain confusion is apparent at the first view, and some of the postures of the women are a little equivocal—of one, especially, very strongly lighted, who wears no other costume than a garland of roses, which is very indiscreetly misplaced. But in spite of the easy criticisms which so important a work perforce suggests, the painting has indisputable interest, and indicates a temperament in the artist that is far from commonplace. Considering the youth of M. Rochegrosse, it may be hoped that his name will long remain in the history of the art of our time. "La Mort de Babylone" is more than a promise, and M. Rochegrosse will find that in it he has given a pledge for the future.

The most important painting after this one is signed by M. Jean Paul Laurens, and has for title "La Voute d'Acier," an episode of July 17, 1789. The King, Louis XVI, is ceremoniously visiting the Hôtel de Ville. At the foot of the steps of the main entrance the King is received by Bailly, the Mayor of Paris, who gives him the tri-colored cockade. The King affixes it in his hat, and begins to mount the steps. Upon each side of him on the steps are arranged the sheriffs of the city, who at this moment draw their swords and form with their blades a vault of steel, under which the King shall enter. Such is the subject of the picture. The effect is cold and without grandeur. The tonality is clear, but of a uniform effect, in spite of the opposition made by the brilliant costumes of the King and the noblemen of his suite with the dark garments of Bailly and his sheriffs. The chief personage, the King, is well in view, but the composition lacks balance. The left side is overloaded with figures, but the right is taken up only with the steps, which, in the foreground, form very hard and dry lines, which one would prefer to have somewhat concealed. In short, much talent is displayed, but unequally distributed.

The composition of M. Henri Martin is serious in quite another way, and we speak of it only because of the insistence of certain critics, who wish to force from us admiration for an incomplete and weak work. "A Chacun sa Chimère" represents a cortège of men conducted across a desert by the winged genius Illusion. It is an illustration of that phrase of Baudelaire:

"Ils allaient avec la physionomie résignée de ceux condamnés à espérer toujours." And, in truth, they do go, enveloped in a cloud of dust, each one bearing his chimera. This conception of Boudelaire's is pretty enough. The artist has made an enormous sketch of it, in which are discovered certain qualities of air and light, but it is disagreeable to look at, and the greatest illusion of all these personages would be to believe that they had been drawn. Their boneless bodies are supported on limbs that have no muscles. Not one of these wretches has even a toe, and the hands are no better indicated. In short, all the difficulties of drawing are shirked. As we have said, it is only an enormous sketch, and we protest vehemently against the admiration which the impressionists assert should be felt before such inferior work as this.

Other artists better deserve encouragement in spite of their faults. We will mention M. Michelena, whose large "Combat of Amazons," does not lack for movement, but is lighted by an effect of the rising or setting sun, which casts disagreeable tones over the canvas.

Among the larger compositions must also be mentioned the "Death of Sardanapalus," by M. Chalon. Everybody knows that Sardanapalus did not want to fall alive into the hands of his enemies, and so made for himself a huge funeral pile upon which he heaped up all his wealth, including his wives and bodyguards. It is only a pretext which M. Chalon has adopted, in order to paint sumptuous costumes and hangings, and precious objects of gold and diamonds, and naked women, maddened at the sight of the flames which begin to reach them. The painting is brilliant, but rather confused, yet it contains some good bits.

M. Rouffet also has desired to do a big thing. He has taken from the "Waterloo" of Victor Hugo a subject which he styles "La Fin de l'Épopée." Here are gigantic men on colossal horses. The gaping ravine is there, and men and horses push one another over in a terrifying mêlée. The ravine is filled with corpses. Whose is

that head? Whose that leg and that arm? One cannot tell. Everything is pell-mell: much movement, but movement which does not succeed in creating a dramatic impression. It is this feeling which we find in almost all these great compositions, except that of M. Rochegrosse; and it is only before paintings of more modest dimensions that we find emotion and sentiment better expressed. So we regret the more to find many easel subjects losing their legitimate interest by being treated at too great a scale. But the first necessity is to attract the eye of the public, which pushes its way towards these great sheets, and too often neglects the work of real but modest talent. Art perhaps suffers by it, but one secures attention, and that, after all, is the only aim of many artists.

In a general article like this, where one only endeavors to indicate the physiognomy of the general appearance of the *Salon*, it is difficult to mention all of the works which deserve attention. A certain number of them must be neglected, and a halt can only be made before those of indisputable merit. So, we can only name among the *genre* painters MM. Geoffrey, Heyermans, Jameson, who have good pictures, but have chosen subjects that are lugubrious and painful. One point must be noted, that the painters present us a majority of paintings which are more than merely severe. Are artists as a rule not gay? In any case, the idealistic school is not very numerous, and the most ordinary episodes of life exhibit themselves on the walls of the *Salon*. These are charming enough, when the artist works with conviction, and knows how to add that little note of poetry which art generally succeeds in finding almost everywhere in nature. Sisters of Charity in their white caps teaching young peasants to sing in a bare hall is a simple and commonplace subject enough, yet this is the subject of Mr. Walter Gay's painting—one of your compatriots, born at Boston; but this artist has enshrouded his scene with air and light. One can almost hear the fresh voices of the young girls, and in the whole work there is a good deal of the sentiment of melancholy.

We will say the same of M. Emile Adan, although his methods are somewhat artificial, and his landscapes extremely proper and precise; and we will make the same comment even more pointedly in the matter of M. Knigt, whose "Les Amies du Berger" recalls a little too strongly the varnished peasant women of M. Bouguereau.

M. Lobrichon is far from melancholy in his work, and his picture is very amusing. A crowd of little pauper children are ranged in file, one behind the other, with bibs about their necks, waiting the signal to take their places at the table and eat their soup. All these little faces, smiling, serious or scowling, are very amusing.

A pretty little picture by M. Victor Gilbert shows us the Rue du Temple at supper time. The workmen and their wives fill the streets, and the handcart of the pedler of cherries is attacked by a cloud of young and joyous epicures. It is luminous and lively.

I need not speak of M. Henner. It is almost enough to mention his name, for he is always the same—flesh of greenish ivory hue. I prefer to stop before the two canvases of M. Munkacsy. One, the less good of the pair in my opinion, represents a gypsy scene: musicians playing his favorite melody before their chief. It is a little black in general tone, but the artist, leaning on his elbow and listening, is extremely well studied, and his expression has a great deal of artistic expression. M. Munkacsy also exhibits a fine portrait of a woman, one of the best in the *Salon*, which possesses the same qualities as that which he sent last year. Moreover, the arrangement is almost the same. The model, in a light toilet, is sitting gracefully and simply, surrounded by accessories which interest without drawing attention from her. The general effect is perfectly harmonious. How much more agreeable is a portrait of this kind than one which stands out coldly upon a vague and uniform background.

The portrait of a woman which M. Bonnat exhibits is of this latter kind. It is a magnificent work, and recalls the "Madame Pasa," by the same artist. M. Bonnat put a curb on the vigor of his pallet in modelling the flesh tones, which are quite soft, although at the same time strong. The white satin dress is handled with great ability, but the subject rests upon nothing, and stands out against the plain background, which gives it a brutal air, and causes it to lose life and charm.

Before mentioning the authors of many of the fine portraits, we will first finish the too brief list of the *genre* painters and the painters of decorative subjects. One of the prettiest paintings of the latter kind is signed by M. Gervais, and represents the "Three Holy Marys," who, adrift, almost naked, in a disabled boat, miraculously float ashore midst the marshes of Provence. It is altogether charming. The blue water, cut here and there with yellow reeds, stretches out to the horizon, while the figures of the saints, calm and serene, are extremely graceful, and the general tone of the painting is tender and agreeable.

Among the artists to be remarked, I will mention M. Haquette, whose "First Embarkation" is a pretty scene of fisher's life; M. Chigot, with his large marine view; M. Brouillet, whose "Ambulance of the Comédie Française during the war," is well painted; M. Bouguereau, who always handles the same subjects in the same manner; M. Weiss, who exhibits some pretty subjects in the Louis XV style; M. Vibert, who always paints very red and very gay cardinals—those of this year are at the end of their jovial banquet, have summoned the cook and drink a toast to him. It is quite amusing and witty. A pretty little Oriental scene, the court of a khan on a market-day filled with life and sunshine, is signed "Pasini." M.

Bourgain exhibits an amusing group of sailors, and M. Georges Cain sends a very graceful picture, which represents the presentation of Lord Byron to the Countess Guiccioli. We find another painting by M. Bonnat, an academic subject "The Youth of Samson," which is not pleasing. In M. Bonnat's method there is an employment of stippling and hatching, which injures the effect.

After M. Munkacsy, we must speak of M. Benjamin Constant. His portrait of his wife is magnificent and grandly attractive. The superb head is framed in white hair, and the gleaming bosom under the black velvet of a low-cut dress is most admirably rendered. The adorable little portraits of M. Chartran must also be mentioned. One of them is Mlle. Brandès of the Académie Française, which recalls Bastian-Lepage, in its handling.

Next, we must examine the not less interesting exhibits of the landscapists, who are always making progress. In the first rank we must place him who is considered their dean, M. Francais, who, in spite of his great age, is this year represented by a very beautiful landscape, in which can be found the idyllic feeling of the antique landscapes but instinct with real naturalness: a nude figure is seated on a rock on the shady lake shore, while a gleam of the setting sun is mirrored in the water. The picture is full of freshness and charm. The paintings of M. Gagliardini have quite another air. His "High Noon in Auvergne," is a burst of sunshine. With the exception of M. Montenant no one knows as well as he how to render such effects of excessive light. One feels warm merely in looking at it. The method of M. Gagliardini is also very interesting to study. He works largely with the palette knife, which in no way prevents his obtaining transparent effects of great delicacy, as he proves in a little sunny marine view of great merit. M. Guillemet is, as always, an able landscapist. This year, in a canvas which somewhat recalls the one at the Luxembourg, he shows us the "Quai de Bercy at Charenton," during a storm; a black cloud hovers over the horizon, while a burst of sunshine striking upon the wet ground presages a return of fair weather. M. Harpignies also is a veteran of great talent, but I cannot avoid finding his landscapes always cold and dull. As to M. Jan-Mouchablon, he makes a specialty of landscapes carried to the farthest limit, and elaborate with the utmost detail: nevertheless, they have much truthfulness and give an exact impression of great stretches and distant horizons in spite of their small size. M. Loir Luigi also produces this impression of exactitude, but uses a broader and more vigorous brush. He exhibits a view of Paris at dusk, when the street lamps are lighted, and the fair booths illumine the surrounding obscurity with rays of light. M. Bompard brings us a bit of Oriental sunshine. His two canvases are very good and luminous, and he should be mentioned in the first flight, as well as M. Charnay, who is for a landscapist what M. Chartran is for a portraitist. He exhibits two little gems full of delicacy and distinction. I have forgotten a great canvas by M. Renouf, which represents Brooklyn Bridge in rather a panoramic manner, but interesting nevertheless. The bridge, in perspective, detaches itself in dark color against the ruddy sunset sky, which is reflected in the water, leaving the distance blotted out in gray tones. There is in this painting a great deal of atmosphere, and the subject is ably treated, and draws attention by reason of its great size.

We come at length to the architectural exhibition which consists of 210 numbers, instead of 149 as last year. In this figure are included many water-colors; but we do not complain of that, for it is the most charming and the most practical method of presenting architectural subjects to public attention. Among the prettiest we must first mention those of M. Ghesquier, who exhibits a series of Flemish towers and belfries, as well as public monuments and buildings of Lille, which are charmingly done. MM. Camut, Guillaume, Henry, Libaudière, Martin, Picot, Ridet, Umbdenstock and Warren must also be enumerated among the more skilful; likewise M. Daumet, with some interesting views of the interior of the Church of St. Stephen at Vienna, whose organs are so curious.

But what a number of old and forgotten competition drawings! How many School *projets* spreading themselves on huge *chassis* in a manner startling to behold. They are not at all interesting, and the "envois de Rome" and all the academic restorations of monuments partly destroyed are hardly more so. In the first place it is nearly always the same thing, the same fragment restored with the use of india ink — capitals, friezes and entablatures rendered with a greater or less degree of perfection. They are always works of considerable magnitude, but I would like to understand what is their real usefulness. Nevertheless, let us pay our respect to the talent expended in this way by MM. André ["Theatre and Forum at Ostia"], Defrasse, Chedanne ["Theatre of Marcellus," which we have seen often enough before], and Charles Normand, with less commonplace restorations of the ruins of Metapontum in Greece according to the latest excavations, a work which has its interest from an archaeological standpoint. M. Paulin has given a more interesting character to his studies of this kind. His "Piscina of the Baths of Diocletian" is filled with a crowd of persons and accessories, and is full of movement. It is the very life and manner of those times restored at the same time with the architecture, and thus interest is made more complete.

M. Benouville exhibits a very conscientious drawing of the Château de Vizille (Isère). This château, begun in the twelfth century, became the royal palace at the time of the union between Dauphiny and France. Under Henry IV it had passed to François de Bonne, Duke of Lesdiguières, 1593, and was finished between 1611 and 1620.

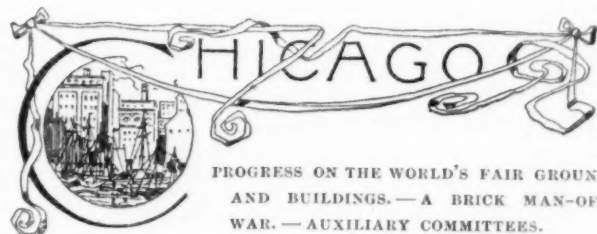
It is considered the work of J. Richier, the author of the statue of Lesdiguières, which ornaments the main doorway. It belonged once to Créquy, then to Villeroy, and in 1775 it was sold to Claude Péter, who there established a dye-works, and the château still belongs to this family. It is an interesting structure, of fine character, all of stone, and M. Benouville has represented it in a very charming manner.

M. Courtois-Suffit has in his study for a ball-room for the City of Béthune, a competition drawing, gathered together all his remembrances of the Universal Exposition. Iron and ceramic work play a leading rôle in this curious construction. It is a little too vivacious and overloaded with decoration. The abattoirs of Havre, by M. David, which are very well studied, bring us to an order of architecture of quite a different time, but which merits praise; and MM. Delaporte and Deverin have given themselves much trouble in restoring, after the drawings of M. Delaporte, a naval lieutenant, the Temple of Baion at Angkor. This Indian architecture, sculptured in enormous blocks, is certainly curious, but on the *chassis* it becomes dry and cold. In this case, again, we must do homage to talent and labor. Near by, the little compositions of M. Robert de Massy are very interesting: these charming little Moorish fountains are the recreations of a real artist. M. Dutocq has undertaken to draw and restore the château at Ecouen (Seine-et-Oise). This château, built by Jean Bullant for the constable Anne de Montmorency, to-day is used as the branch establishment of the Legion of Honor for young girls at St. Denis. M. Dutocq has made a very conscientious study; the restoration of the chapel and the *salon d'honneur*, with its fine fireplace, has given occasion for very harmonious studies in decoration.

The rampart of Aigues-Mortes, built by Philip the Bold, is shown in its present condition by M. Louzier, who has made rather a dry bit of work of it, for the archives of the Commission of Historical Monuments.

Now let us look at the ruins of the old St. Vincent de Mâcon, drawn in ink in a charming manner by M. Malo; at some pretty sketches of Breton architecture, by M. Maveux, and the north transept door of the Church of Maclou at Rouen, carefully drawn but rendered in a chilly manner by M. Paulme. Then let us stop a little longer before the restoration of the Château de Bressuire, by M. Barbaud. It is an interesting and complete study of a fortress, dating between the eleventh and sixteenth centuries, whose ruins still form one of the most curious and important groups which the Middle Ages have bequeathed to us. M. Raymond Barbaud, in the course of his excavations, found very interesting traces of the early structure, amongst others those of a chapel dating to the time of the Romans. Let us also mention M. Rouillard's extremely curious drawings of the paintings in the church at Pontigné (Maine-et-Loire), and the ancient convent of the Jacobins, now a *petit-lycée* at Toulouse, sixteenth century. These frescos are rendered in water-color with a really marvellous skill and commendable exactitude. These are good documents for the archives of historical monuments.

There are many other interesting things, but we have sought to give an idea only of the most interesting works of this *Salon*.



At present the greatest architectural interest seems to centre around the World's Fair matters. Work at Jackson Park is being pushed with great activity and a good beginning is being made on the colossal task of perfecting the plans and preparations for the buildings.

With the exception of the loop for the railroad which may be changed, the apportioning of the land and the grouping of the buildings, is entirely settled, and as will be seen the general lay-out is practically the same as that indicated on the small plan published in these letters some months ago. At the most northern limit of the Park is the reservation for the State buildings and buildings of foreign nations. South of this and to the east is to be the fishery exhibit, situated on an island, while to the south and west of the State exhibits is the women's department. Between the fishery and women's exhibits, lies the northern end of the lagoon, which extends southward from this point, and around which all the principal buildings will cluster, the Government and Manufactures and Liberal Arts on the east, the Electrical and Mines-and-Mining on the south, and the Transportation and Administration Building on the west. As already stated in a previous letter the centre lagoon is to be occupied by a wooded island, and if one can judge from the newspaper cuts the general arrangement and grouping of the buildings, with the accompanying setting of land and water will be

very satisfactory. South of the building for Manufactures and Liberal Arts, stretches a basin which separates this allotment of land from that designed for the Agricultural Building. West of this structure and divided from it by a stretch of water is Machinery Hall, while still farther south, below these latter buildings, are the sixty-three acres set apart for the live-stock exhibit with its pavilion. Space in these sixty-three acres will also be assigned for the building for the forestry products and one for dairy interests.

The eleven-hundred-foot-high Columbian Tower if built at all, which now appears improbable, will be situated in the Mid-way Plaisance between the Illinois Central tracks and Stony Island Avenue, while west of the tracks and covering about nine acres, will be the Bazaar of all Nations.

The naval exhibit will, of course, be on the shore of Lake Michigan. One interesting feature of this exhibit will be a facsimile of the caravel in which Columbus sailed from Palos four hundred years ago on his memorable voyage. It will be equipped exactly as was the original Pinta or Nina, and will be manned by sailors in the costumes of those times. It will be completed in time for the grand naval reviews in New York and Norfolk in 1892 and will then be towed through the St. Lawrence and Welland Canal for the opening of the exhibition in Chicago. It is to be hoped the great lakes will deal gently with the caravel, for after the frail original had crossed the stormy Atlantic it would be a sad case of degeneracy to have its facsimile wrecked on an inland lake no matter how large and stormy that lake might be.

By the time of the publication of this letter, the contracts for the battle-ship will be let and work on that commenced. The naval architect who has charge of the matter has been on here giving all necessary information to builders. The contract calls for separate work on the piling and super-structure and two forms of bids will therefore be forthcoming. The idea of the battle-ship is to build an immense structure similar on the exterior to our new war vessels, and which while it gives an exact idea of their external appearance, will afford space in the interior for a naval exhibit and also offer an illustration of the mode of life in the navy. The structure will have all the fittings of a ship such as guns, turrets, torpedo-tubes, torpedo-nets, etc., though neither spars nor sails. The structure will be of brick covered with concrete and will be over three hundred feet long. The entrance to the vessel will be from the pier at the foot of Fifty-ninth Street. The entrance will be on the main-deck, down companion or hatchway to the berth-deck, where a spacious room the whole length and width of the structure is to be reserved for the naval exhibit. Beneath the deck and directly below the turrets of the thirteen-inch guns are to be the magazines, showing the storage, lighting and flooding, according to navy regulations. On the berth-deck will be shown the various fittings pertaining to the hull, machinery and ordnance. Portraits of all the men famous in the annals of the navy from Paul Jones down to Farragut, Porter and Cushing, will be hung in the various apartments.

The work of dredging is being pushed with all speed, so it is to be hoped the lagoon will be completed by the end of this month and the grading completed which makes the sites ready for the foundations of all the buildings. Over nine hundred men have been at work in this especial department and three large steam dredges have been constantly at work.

Over one hundred thousand plants have been shipped to the place and are being cared for by a large force of gardeners. The proposed wooded island is already converted into a nursery, while on one part of the island it is proposed to lay out a primeval swamp, such as formally occupied the site of Chicago, the plants for the purpose being already on the grounds. Three greenhouses have already been built and a storehouse for palms, and preparations are being made to receive wild herbaceous and aquatic plants from all parts of the country. Sixty thousand willow cuttings are already in the ground, ten thousand of them being sent as a gift by the Park Commissioners of Buffalo, N. Y. Mr. Olmstead has presented the Exposition with bamboos from Asheville, N. C., near to the park he is there laying out for one of the Vanderbilts.

The construction of the railroads is being pushed forward with all speed, and the road-bed for the spur that is to run to the Mines-and-Mining Building will be finished by the time this letter is published. Fifteen miles of track have already been laid.

The working-plans for many of the buildings are completed and approved. The Electrical, the Agricultural, the Transportation and United States Government Buildings have all the plans completed. To this list may be added the building for the fishing exhibit and Machinery Hall.

The contracts for three of these buildings have already been let, and it is a noticeable fact that the contractors have been largely parties from other cities. The Women's Building, the Manufactures-and-Liberal Arts and the Mine-and-Mining Buildings are the structures which have so far progressed. For all of this work firms from Minneapolis, Cleveland and Omaha have taken large contracts. Much dissatisfaction is felt on this account among the Union men here, as they say that the outside bids being so much lower than the Chicago ones, of course the contractors made their figures on the rate of wages paid in their own towns, which is much lower than the regular schedule wages of this city. A Minneapolis firm who has the largest contract in the Mines-and-Mining Building, is in the habit of paying twenty-five cents an hour or two dollars and fifty cents for a ten-hour day, while the Union-rate of wages here for a

day of similar length, as containing over-time, would be three dollars and eighty-five cents.

The Directory, having once again, and this time finally, refused to incorporate into the contract the minimum rate of wages or the employment exclusively of Union men, the contractors are free to hire men where it best suits them so to do, and to pay them whatever wages they please. The labor leaders claim they will antagonize the Fair in all labor organizations both in this country and in Europe. This, however, looks like an empty boast made in an endeavor to "keep a stiff upper lip."

While on the subject of labor it is interesting to note that the question concerning the alien-labor law has been recently addressed to the State Department by the various governments, as to whether under said law skilled workman would be debarred from coming to this country with exhibits for the World's Fair, and setting up and operating the necessary machinery. Attorney-General Miller in reply to this question submitted to him is of the opinion that there is nothing in the statutes of the United States which will prevent exhibitors using their own discretion as to the placing of their exhibits in the hands of their own skilled workmen. To prevent such proceeding was not the intention of the contract-labor law, but only to protect citizens of the United States from the encroachment of laborers on their rights. Sending over men skilled in the use of operating ponderous and complicated machines, could never be construed as a violation of the contract-labor law, and hence there can be no objection to this course of action.

Among the foreign exhibits that has taken definite shape and bids fair to be an extremely interesting one from an architectural point of view, is the exhibition from Honduras. Plans have been forwarded to the Latin-American department at Washington, which show that the exhibit will be in the form of a square, one side representing ancient Spanish-American architecture; another, a mountain range; a third, agriculture in the form of a native ranch, and the fourth, the antiquities of the country. To this latter department one enters through portals made of casts from the two great carved stones of Copan. Inside the square the space is divided into eight divisions for the exhibition of timber, agriculture, mines, etc.

The laws governing the buildings for the State Exhibits have been adopted by the Committee of the Directory and Board of Control. They are as follows:

"2. Each of the States of the Union, the Territories and the District of Columbia, shall be entitled to erect and maintain on the Exposition grounds, a building for the use of such State, Territory, or District of Columbia (or two or more States or Territories, if so desired, may erect and maintain a building in common) and each State or Territory desiring to erect such a building (or two or more proposing to erect a building to be used in common) shall, through their official representative, or the State World's Fair Boards, file with the Director-General, an application in writing for ground space for such building, and as soon as possible, in writing give a general description of the character and style of the building proposed to be erected, and the sum of money appropriated for the construction thereof; and after the ground space shall have been allotted, and before any occupation thereof, there shall be filed with the Chief of the Bureau of Construction, detailed plans and specifications for each of such proposed buildings and when such plans and specifications shall have been approved by the Chief of the Bureau of Construction and by the Director-General, a permit to erect a building shall be issued by the last-named officer.

"3. Preparatory to the assignment of ground-space for State buildings, the Director-General, after conference with the Grounds-and-Building Committee of the Exposition, shall cause the States and Territories of the Union to be grouped in such manner as shall appear most likely to produce the best results to the Exposition as a whole, and shall allot suitable ground-space to each of such groups; and after such allotment shall be made, the space in each allotment shall be again properly subdivided so as to provide suitable independent location for each State or Territory, and the location of each individual State or Territory within the territorial space assigned to that group wherein they are included shall be determined in the order of their application; subject, however, to harmony of grouping of buildings, which shall be determined by the Supervising Architect and Landscape Engineer and Director-General.

"4. Either duplicates or originals of the plans and specifications for every State building as approved by the Chief of the Bureau of Construction and the Director-General, shall, before the issuance of the permit, be filed in the office of the Director-General and be preserved as a record of the Exposition.

"5. In the construction of such State buildings each State or Territory may use such material or materials produced in such State or Territory as the State Board shall determine, with a view of promoting a full exhibition of the structural materials produced in such State or Territory."

For some months past has been organized by the officers of the Fair under the title of the World's Congress Auxiliary, a series of committees to promote gatherings of celebrated persons of all professions, here in Chicago, in 1893. A glance at some of the committees will indicate the extent of the undertaking and the variety of interests it is hoped to have represented here in that much-to-be-crowded summer.

Committee on Educational Congress including Common School, Kindergartens, etc.

On Scientific and Philosophical Congresses.
 On Mural and Social Congresses.
 On Labor Congresses.
 On Literary Congresses (including languages and libraries).
 On Law Reform Congresses.
 On Agricultural Congresses.
 On Musical Congresses.

The above-mentioned congresses are only a few for which committees have been appointed from men prominent in their special professions. The one that most interests us is the committee on "Artists' Congress, including Architects, Painters, Sculptors, Decorative Designers, Photographers, etc." This committee is composed of J. W. Ellsworth, N. H. Carpenter, Walter C. Larned, S. S. Bemman and Lorado Taft, the secretary.

To this scheme of the World's Congress another department has been added, that of Engineering. Representatives of the principal engineering societies of the country have been in the city attending a convention for the purpose of planning for the establishment of this congress.

It is intended to make the headquarters a bureau of technological information of all kinds, for the convenience of engineers from all parts of the world, having in connection with it a publishing establishment for preserving all literature on engineering subjects that may be presented. The congress will continue in session a week. It is hoped the Directors will provide suitable quarters for the Bureau. About ten thousand dollars would be required for the expenses of the congress, and various schemes for raising the amount have been suggested. One is that a one-dollar assessment upon the members of the engineering societies be made, and a two-dollar fee be paid by members of the congress.

At the convention the Committee on Organization made the following report which was finally adopted.

"This body shall be called the 'General Committee of Engineering Societies, Columbian Exposition.' The objects of the committee are:

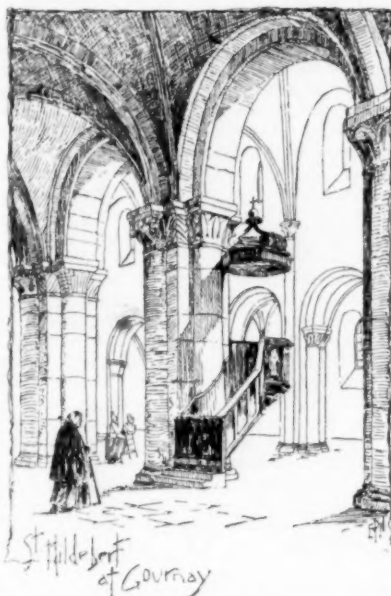
"1. To provide on behalf of the engineering societies represented on this committee, an engineering headquarters for members of all engineering societies of the world who may visit Chicago during the World's Columbian Exposition.

"2. To promote an international engineering congress to be held at the World's Exposition in 1893, under the auspices of the World's Congress Auxiliary of the World's Columbian Exposition. This committee shall be composed of one member from each society of the United States and Canada, which has or may join in the plan, except the American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Institute of Mining Engineers and the American Society of Electrical Engineers may each appoint two members, and the Western Society of Engineers three members. The officers of the general committee shall be a chairman, secretary, treasurer, and an executive committee of seven, the chairman of the general committee to be *ex-officio* of the executive committee." After the adoption of the report a resolution was offered and accepted to the effect that it was the feeling of the meeting that the importance of engineering should entitle it to a place among the congresses to be held in 1893 in the city of Chicago.

A movement has been started to forward an architectural display at the Fair. A committee consisting of several leading architects and the former promoter of the Institute of Building Arts conferred with Director-General Davis concerning the possibility of obtaining space for an exhibit. It was decided quarters could be given them in the Manufactures Building, and that if a suitable man could be suggested by the architects he could be appointed Chief of the Architectural Bureau. The idea would be to obtain from various societies in different parts of the world models, drawings, building materials, models of buildings, etc. The object would be to arrange in a conveniently small space all materials and inventions interesting to architects and others interested in building. In this way the difficulty experienced at Paris during the last Exposition will be obviated and those interested in architectural matters will be able to study points of interest and compare different processes and materials without the necessity of visiting numerous buildings, walking over a large extent of country and often missing many of the objects of their search in the general mass of exhibits. As soon as this Bureau is in working order there will probably be issued circulars from the Chief of the Bureau, stating the object and asking for co-operation by all persons interested in the success of the enterprise. Certainly, as the architects themselves cannot but be greatly benefited by an exhibition of this character, it is to be earnestly hoped that they will generously respond to such an appeal.

WHO IS REMBRANDT?—Great excitement has been caused in the artistic world of Germany by a book entitled "*Who is Rembrandt?*" by Max Lautner, who contends that a great part of the paintings attributed to Rembrandt are the work of one of his scholars, Ferdinand Bol. With a new photographic magnifying process, invented by himself, he discovered, he says, on a great number of works bearing the name of Rembrandt, the clear traces of the name of Ferdinand Bol, scratched in the original fresh paint, and under the varnish. Thus, in the case of the celebrated picture "*Joseph and Potiphar's Wife*," purchased at a high price by the Berlin Museum, the photographic apparatus has discovered a very clear impression of Bol's name to the left of the raised foot of Potiphar's wife, on the pedestal of the seat on which she reposes.—*Galignani Messenger*.

REFRIGERATORS IN NEW ZEALAND.



THE subject of refrigerating machines is one of considerable magnitude in New Zealand, embracing, as it does, one of the most important industries of the colony.

All the refrigerating machinery used in New Zealand is manufactured in England, and is known as the "Haslam dry-air refrigerator," and is used exclusively for freezing beef and mutton for export to the London market.

The manufacture and sale of ice in this colony is very limited indeed. Machinery intended for the manufacture of ice alone would not, in my opinion, pay here. Ice is not used in any

considerable quantities, as the climate in most parts of New Zealand is mild and equable, and, in consequence of this, the necessity for ice is correspondingly reduced. Whatever ice is required is procurable from any of the "freezing-works" throughout the colony, and at very reasonable rates, considering that none are manufacturing it specially for sale. Ice is obtainable at the rate of one cent per pound.

The following will afford some idea of the size, cost and capacity of a few of the refrigerators in use in this consular district:

In the Christ Church district there are two meat-freezing establishments, both of which machines are manufactured by Haslam & Co., Derby, England, as, indeed, are all the machines used for freezing purposes in the colony. I will give the size and power of one of those in use in Christ Church, which will suffice for both. One of these machines is capable of delivering 110,000 cubic feet of cold air per hour. The cost of this machine in England was \$18,248.87.

There are also two freezing-works in the Wellington district. The Gear Meat Preserving and Freezing Company of Wellington have two machines, each capable of discharging 45,000 cubic feet of cold air per hour. The cost free on board in London was \$13,139.55. This company will have an additional machine in about two months hence, with a capacity equal to 150,000 cubic feet of air per hour, which will cost, including condensers, free on board, London, \$21,899.

The Wellington Meat Export Company have three refrigerating machines in constant use. Two of these machines deliver 120,000 cubic feet of cold air per hour, at a temperature of about 70 degrees below zero at the point of discharge. The third delivers about 50,000 feet of air at about the same temperature. The two larger machines will freeze 500 sheep per diem, while the smaller one will only freeze about half the above number. They are all air-compressing machines. The larger ones cost, in London, \$17,032, while the smaller one would be supplied now for about \$10,949.32.

This company has been sending away for the last six months an average of 1,100 cattle and 17,000 sheep per calendar month.

It may be said of all the machines used in this colony for meat-freezing purposes that no special or peculiar features are required, except that they have to be adapted to freezing large quantities of meat in a short time. None of these machines are used for chilling or storing meat for local consumption.

It may be somewhat interesting to many to get a pen-picture of one of these great meat-freezing works and the *modus operandi* of meat-preserving, and the disposition made of a sheep from the time it enters the slaughter-house until the final process is gone through with. For this purpose, I will select the freezing-works of Nelson Brothers, at Tomvana, near Napier, N. Z., commencing with the slaughter-house, which is a long shed where the sheep have arrived at the "sticking-point," and come under the hands of twenty butchers, who are busily engaged killing, skinning and dressing them. Through this shed runs a miniature railway, which takes away the fat to the boiling-down house, the skins to the fell-mongery, the intestines in due time becoming fiddle-strings to charm or torture, as the fates decree. Overhead are a number of rails, on which run friction-rollers, to which the carcasses are hooked, and here they begin the long journey which is to end in London. Along these rails they are rolled into the cooling-room, in which they remain till all their animal heat has been expelled, when they are passed into the refrigerating chambers, where they are frozen for thirty-six hours, by the end of which time they give out a bell-like sound when struck. From these chambers (which hold from 200 to 600 carcasses) they are removed to storing-rooms, and in due course are taken away to

the port of shipment in specially-constructed railroad cars; 1,400 sheep can be prepared per day, and there is a storage for 40,000 carcasses.

From the slaughter-house we pass to the boiler-house, in which we find, in addition to four 20 horse-power boilers, a striking novelty in the shape of a 60-horse-power Babcock & Wilcox boiler, in which the steam is generated in groups of tubes, between which the heat from the furnace circulates, which tubes depend from a horizontal steam-drum mounted on trunions at its ends, which arrangement allows for an unequal expansion of the parts, the drum being luted to the brick-setting inclosing the tubes. The flues of all the boilers lead into one of "Green's Economizers," containing 168 tubes 12 feet long and 4 inches in diameter, for heating the feed-water which is passed through them on its way from the condensers to the boilers, and is thus heated by the waste-heat circulating between the tubes.

Adjoining the boiler-house is the refrigerating machine. Here are four Haslam dry-air refrigerators busy at work, in which the air, on its way to the freezing chambers, is first heated by compression, then cooled by passing through pipes surrounded by cold water, and then passed into a chamber containing dry-air pipes. After passing through these pipes the air is expanded, by which means its temperature is reduced to 80 degrees below zero. It then passes through air-trunks into the freezing-chambers, and, after doing its duty, passes back through exhaust-trunks to the compressors. In the freezing-chamber the cold is, indeed, most intense—frost on the roof, on the walls, on the floor, and here and there a little snow. In this chamber are countless carcasses undergoing the freezing process.

The engine-room and freezing-chambers are lighted at night by a Siemens electric-light, the dynamo for which is driven by a three-horse-power engine.

Leaving the engine-house, we pass two large reservoirs, from which 700,000 gallons of water are daily passed through the machines.

Entering the wool-shed, here is an invention which will probably revolutionize all those processes in which wool requires to be dried after being washed, dyed, etc. Sheep-raisers, tellmongers, wool scourers and dyers have long sighed for some inexpensive and efficient apparatus which should render them independent of the weather, and enable them to do their work with satisfaction, precision and absolute certainty. This desideratum is at last supplied in these patent wool-drying machines, two of which are here at work, and by which the wool to be dried is exposed to a blast of warm air, so that its fibres may be repeatedly acted upon thereby, and thus be regularly and rapidly dried, the dried wool being expelled from the machine by means of the blast. Each machine consists of a sparrow drum, open at both ends and revolving on friction-rollers in a casing, between the bars of which (drum) air is forced from a longitudinal air-trunk. The interior of the drum is furnished with sparrow shelves, which, as the drum revolves, successively take up portions of the wool and allow them to fall, and thus expose them fully to the current of air, and also shake out any dust or other foreign substance, which in itself is a great advantage. Both drums are 8 feet in diameter, one being 14 feet long and the other 30 feet. The shorter drum is worked intermittently; that is, a charge of wool is thrown in at one end, and, when dried, is blown out at the other by turning on a blast. In the longer drum, the feeding and discharge of the wool are carried on continuously, the wool fed in handfuls through a hopper at one end, and the blast from the air-trunk being directed by means of adjustable "feathers" onto the wool in an oblique direction, so that the blast both dries and propels the wool through the drum. The apparatus, which is exceedingly simple in construction, can in two hours be taken to pieces for transmission, and as readily set up on its arrival at its destination. Upon examination, the dried wool is found to be of an extremely silky lustre. I have devoted considerable space to this "wool-drying" apparatus, in the hope that it may be of interest to the wool-growers and others interested in the wool industry in the United States.

One noticeable feature around these great meat-preserving establishments is that there is positively no waste. Everything fit for human consumption is utilized and prepared in the most careful and painstaking manner. Thus the skins of the refrigerated sheep are cured for subsequent manufacture into parchment, "morocco" and "roans"; the clippings from the pelts are washed and dried by patent machines already referred to, and turned out as short wool; the kidneys, tongues, etc., are tinned, and even the horns and bones of the bullocks are sent to the bone-dust factory to be ground, and thus again assist in the production of additional comforts for mankind. In my description of the cooling-chamber, I find I have omitted some important details. The cooling-room is constructed with a double ceiling, through which a current of air is drawn by a fan driven by a donkey-engine. In this cooling-room the carcasses are permitted to remain for ten hours, when all the animal heat has been expelled. The carcasses are then placed in the refrigerating chamber, the walls, floors and ceilings of which are insulated with a charcoal lining, and the cold air is supplied through an inlet air-trunk direct from the engine, and afterwards passes back to be cooled down and used over again. By this means there is a constant circulation of cold air throughout the freezing-chamber.

All the steamers and sailing-vessels plying between England and New Zealand, and engaged in the frozen-meat carrying trade, are supplied with Haslam refrigerators. It is asserted that 95 per cent

of all the frozen meat placed upon the London market is treated by the Haslam process.

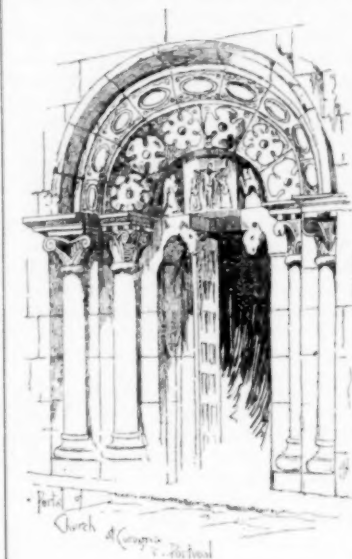
There are seven refrigerating machines in the Auckland district, with a capacity ranging from 2,000 to 120,000 cubic feet of cold air per hour.

The cost of the smaller machines is about \$3,400 each, while the cost of the larger machines, those capable of discharging 120,000 cubic feet of air per hour, is \$17,032 in England.

There are ten large meat-freezing establishments in the colony, and about five smaller ones, as near as can be ascertained. The total number of Haslam refrigerating machines in use in New Zealand for meat-freezing purposes is twenty-six. It is asserted by all who are interested in the meat-freezing industry that the "American ammonia-machines" are useless for meat-freezing; consequently, could not be sold here at any price for meat-freezing purposes.

JNO. D. CONNOLLY,
U. S. Consul.

THE FOUNDLING ASYLUM AT BORDEAUX, FRANCE.



FACING the busy quay that traverses the western portion of the city of Bordeaux, and overlooking the fertile banks of the Garonne River on the opposite side, is a low, sombre, three-storied building of Munich gray granite. The structure possesses neither magnificence nor attraction, and a few tall poplar trees throwing their shadows across the portico scarcely lend charm to the picture. There is nothing particularly noticeable to the passer-by in this conventional pile of stone and mortar, with the exception, perhaps, of a curious-looking, double, reversible armchair, fixed into the wall at the right of the entrance about four feet above the ground and turning on a pivot, so that, if one side be directed toward the exterior of the building and facing the

observer, the other must necessarily be directed inward.

The building is the foundling asylum of Bordeaux (L'Hospice des Enfants Assistés). The chair is the well-known "tour," or wheel, intended for the reception of abandoned infants and now, of necessity, fallen into disuse.

The asylum was founded in the year 1619 by a benevolent maiden lady named Tanzia. Over the door is inscribed the following words: "*Mon père et ma mère m'ont abandonnés, mais le Seigneur a pris soin de moi*" ("my father and mother have abandoned me, but the Saviour has taken me into his care").

Within, the stillness is almost audible. The sound of one's footsteps echo and reëcho along the vacant halls and dormitories, until, seeking out quiet nooks in the dark distance, they lie down to repose and whisper "silence." The asylum has two hundred and fifty beds, or cribs, each as neat and as clean as the active, white-capped Sisters of Charity who move noiselessly among them.

The wheel, or chair, just described is a well-known institution in France, serving, until a comparatively few years ago, as a general receptacle for outcast children. An infant had but to be placed by any one wishing to rid herself of the little creature upon the chair, a turn given to the same, and immediately, as if by magic, the embarrassing object has disappeared within and another chair awaits the new comer.

It is rare that so apparently insignificant an object has given rise to such violent discussion as has this chair, or "tour," in France. By some its existence is held as a never-failing incentive to illicit love; by others it is held that its abolishment would promote infanticide. . . .

By the decree of January 19, 1811, two hundred and thirty-five "wheels" were established throughout France. On November 1, 1837, the same were by law partially suppressed. In the year 1860, twenty-five remained; in 1870 but four were in existence—one in Paris, the three others in Marseilles, Rouen, and Evreux.

When the "wheel" at the asylum of Draguignan was suppressed in 1859, the number of foundlings sank from 103 to 14. When, a year later, the "tour" was suppressed in Antwerp, the number of infants left surreptitiously at the asylum fell off 25 per cent.

Let us now, by way of parenthesis, compare the foregoing figures and some of the rather limited statistics furnished us by the metropolis of the New World. When, in 1869, the Sisters of Charity established a foundling asylum in New York City, they received the first year almost a thousand infants under three weeks old. A crib was

placed in the vestibule at night, and dishonored mothers found the plan a very convenient one. . . .

Soon the gloomy old asylum on the Quai de Palandate at Bordeaux will be no more. A score of laborers will be at work at its demolition making way for a more necessary adjunct—a railway station. Where once the wailing cries of many a little waif waked the slumber of the silent night; where once a long-drawn respiration, a gasp, and the absence of a mother's care ended a life just begun, the piercing shrieks and groans of steam whistles, the mournful and incessant rolling of iron wheels, the dismal clanking of brakes and couplings will leave but a memory of what has gone before.

But what a memory! If all that imagination has pictured, all that fancy has created, all that delirium has raved or nightmare painted in the brain of man; if all that romance has conceived, visions conjured, or reveries awakened; if all the sighs, the tears, and suffering; if all the grief, distress, and heartache—if these and every other human passion that sways thought and incites action were to unroll themselves before the mind, the volume that contained them all would be but a paragraph, a murmur, to the silent echoes now hastening to destruction within these four sombre, grim walls.

The history of the founding asylum at Bordeaux never has, never will, never can be, written. HORACE G. KNOWLES, U. S. Consul.



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

ENTRANCE TO THE UNIVERSITY CLUB, WALNUT ST., PHILADELPHIA, PA. MR. WILSON EYRE, JR., ARCHITECT, PHILADELPHIA, PA.

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

A GENERAL VIEW of this building was published in our issue for December 13, 1890.

VENETIAN RENAISSANCE WORK. SKETCHED BY MR. ALBERT KAHN, *American Architect* TRAVELLING-SCHOLAR.

[Issued with the International and Imperial Editions only.]

VENETIAN WELLS SKETCHED BY MR. ALBERT KAHN, *American Architect* TRAVELLING-SCHOLAR.

[Issued with the International and Imperial Editions only.]

THE CHURCH OF THE SUPERGA, TURIN, ITALY.

AFTER a long day spent in travelling over the level plains of Lombardy, this building, looking down from its exalted position, creates a lasting impression since for a long time after it has first been seen there is no sign of a city in sight, and the apparent isolation of the great buildings gives it great impressiveness. As the train pursues its way the city is revealed, and the Superga, the burying-place of Sardinian princes, is seen to overhang the city upon the opposite side of the river. The church was begun in 1715 by Victor Amadeus II, in fulfilment of a vow made, at the time the French besieged the city in 1706. Had it not been for the unification of Italy, which made it almost imperative that he should be buried in Rome, the ashes of Victor Emmanuel would have rested in the Superga, beside those of his ancestors.

THE TAYLOR HOUSE, ROXBURY, MASS. MEASURED AND DRAWN BY MR. W. S. ALDRICH, BOSTON, MASS.

DETAILS OF THE SAME.

A GELATINE print of this house, which was built by the Coolidge family about 1790, was published in the *American Architect* for December 4, 1886.

DOORWAY AT MEILLERS (ALLIER), FRANCE.

[Additional Illustrations in the International Edition.]

XVIII-CENTURY WROUGHT-IRON RAILING, SCHLOSS ORTH, AUSTRIA.

[Gelatin Print.]

TOMB OF PHILIPPE POT.

[Etching.]

HOLY TRINITY CHURCH, SLOANE SQUARE, LONDON, ENG. THE LATE J. D. SEDDING, ARCHITECT.

SCHOOL-HOUSE, REDRUTH, ENG. MR. JAMES HICKS, ARCHITECT, REDRUTH, ENG.

THE building is being erected for Mr. T. Collins, who has been many years associated with science and art teaching in the mining district of Cornwall. The walls are being erected of local granite, with granite dressings on the ground-floor, and light-red terra-cotta for the upper floors. The roofs are of Cornish slates.

RESIDENTIAL SHOPS, ALCESTER ROAD, KING'S HEATH, ENG. MESSRS. ESSEX & NICOLL, ARCHITECTS, BIRMINGHAM, ENG.

THIS block of shops is now being erected for Mr. John Collins. The front elevations are faced with best-pressed red bricks, and the whole of the ornamental work is executed in buff terra-cotta. The roofs are covered with Broseley brindled tiles.



AN INTERESTING LIGHT AND POWER INSTALLATION. — Mr. C. F. Brush, the well-known electrician, has erected an interesting plant to supply his residence at Cleveland, Ohio, with electricity for light and power purposes. The installation consists of a large windmill 50 feet in diameter with a total surface of 1,800 square feet, which is mounted on a tower 60 feet high and drives a dynamo working into accumulators. The whole tower is carried on a wrought-iron pivot 14 inches in diameter, round which it is carried, by suitable wind-vanes, to rotate as the direction of the wind alters, so that the mill is constantly kept in a proper direction for the wind to drive. In the upper part of the tower is the main shaft, which is 6 1-2 inches in diameter, and 20 feet long. One of its ends projects through the side of the tower, and carries the mill-wheel. Inside the tower, about the middle of the shaft is keyed a pulley 8 feet in diameter and 32 inches wide. Below this, having the whole of its weight supported on the above belt, is the countershaft, the ends of which run in bearings, which slide in vertical guides. This shaft is 3 1-2 inches in diameter, and has keyed to it one pulley 16 inches in diameter and 32 inches wide for the main belt, from the shaft above, and two narrower pulleys, on each side of the one just mentioned, for the dynamo belts. By means of these belts the dynamo is slung in the same way as the countershaft, so that the whole of the weight of dynamo, countershaft, pulleys, and belts is finally carried by the main shaft at the top of the tower, the total weight borne being 4,200 lbs. The dynamo makes fifty revolutions to one of the main shaft. Automatic switches are fitted which set the dynamo in operation when the speed is sufficient, and an additional regulator is provided which prevents the electromotive force rising above 90 volts. The circuit opens automatically at 75 volts and closes at 70. The current is led to a set of 408 accumulators divided into 12 batteries of 34 cells each. Each cell has a capacity of 100 ampere hours. The house is fitted with 300 incandescent lamps, about 100 of which are in use nightly, and there are two arc-lights and three electric-motors. Experience shows that the maintenance costs but little, but the first cost was very high. — *Engineering*.

THE CENTENARY OF AVIGNON. — Verily this is the age of centenaries. Avignon is now about to have hers, and according to the programme it will leave nothing to be desired. It is in honor of her annexation to France, and the fêtes will last from Sunday to the end of the month. It was in 1791 that Avignon, after having long been under the domination of the Popes, was finally united to France, in conformity with the wish of several ancient kings. The decree of annexation was pronounced by the Constituent Assembly and led to serious troubles throughout Provence, but they were soon suppressed and the reign of the Church there came to an end. From an historical point of view perhaps no town in France is so rich in recollections of all kinds. If we are to place our trust in some authors, the foundation of the ancient papal town dates from the Deluge. This is going back with a vengeance, but historians do not stick at trifles. Avignon, as everybody knows, still possesses its Palace of the Popes, a part of which is now used for barracks. A piece of the old bridge rendered famous by the popular *ronde* is also to be seen on the banks of the Rhone. Avignon has preserved her old ramparts and historical monuments; among the latter the tourist will remember the Church of Notre Dame des Doms, a majestic masterpiece of architecture. Of course the event will be accompanied by the raising of a monument in memory of the centenary. The spot chosen for it is the Place de l'Horloge, where the statue of Crillon, the brave general of Henri IV, formerly stood, but which has now been removed to the Place du Palais des Papes. This removal created a great deal of indignation at the time, but it has calmed down and there is no longer any fear of the fêtes being disturbed by it. The monument is called "La France," and comprises groups of figures symbolizing liberty, equality and fraternity, surmounted by the statue of the Republic bearing the tricolored flag. An attempt has been made to induce President Carnot to honor the celebration with his presence, but he has so many engagements of the kind to fulfil that he cannot promise to undertake any more for the present. — *London Globe*.

THE OPENING OF A GREEK CATHEDRAL IN JAPAN. — The last mail from Japan brings news of the opening on March 8, of a magnificent cathedral of the Greek Church in Tokio, which stands on the highest site and is one of the most conspicuous objects in that city. It is described as an imposing structure. The plan is that of a Greek cross having equal arms; the main edifice measuring 91 feet in each direction, and the western end having an additional vestibule 35 feet in

length, at the sides of which are the baptistery, sacristy, and treasuries, in two stories. The central space is covered by an octagonal dome, 50 feet in span, supported upon solid piers 8 feet thick. Internally the apex of the dome is about 80 feet from the floor; it is ornamented by an arcade and lighted by eight arched windows. The main arches of the transepts are about 40 feet in span and height. Inside are a gilded and painted screen—which occupies the whole eastern end, dividing the chancel into three closed sanctuaries—and rich silver candelabra hanging from the dome and principal arches. Opposite to this reared, its tiers of massive gilt frames and richly chased interspaces enclosing colored representations of scenes from the life of Christ and the saints, the upper part of the western end of the edifice is occupied by an iron gallery for the choir. As an additional precaution against earthquakes the whole of the brickwork at different heights is bound with stout iron ties spanning the arches and serving as supports for the ornamental candelabra. In the tower at the west end is a spacious belfry, containing eight bells. It is crowned by a light, copper-covered spire, carrying a gilt ball and cross at the apex. The height from the ground to the top of this cross is 126 feet, and that of a similar cross crowning the lantern of the octagonal dome is 115 feet. At the consecration a congregation of over 3,000 Japanese thronged the building, and most of the foreign representatives in the capital were also present. The service lasted nearly four hours, and at its conclusion the first peal of bells ever heard in Tokio rang from the western tower. — *London Times*.

THE CATHEDRAL OF PONCE, PORTO RICO.—After breakfast Ponce unfolded her wonders to us. The cathedral is the centre of everything, with its big plaza in front, and in its neighborhood most of the business is gathered. There are some excellent stores, well stocked with Spanish, French, English and American goods. There is nothing native to be seen in any of the shops, except cigars, and not as many Spanish goods as might be expected in a Spanish colony. The Porto Ricans, I imagine, do not care to send any more of their money to Spain than they are compelled to. The cathedral, of course, was open, and we entered it through a little postern door and a vestibule in the centre of which the bell-rope dangled. A circular flight of heavy stone steps led to the tower above, but it was too hot to climb. Many years ago the cathedral was a monastery, and the cells that the old monks occupied, now are merely arched niches in which shrines and paintings are placed. In several of these niches were rare old pieces of furniture, benches and chairs, heavily carved, and blackened with age. There were the same gaudy and impossible Virgin Marys and Apostles that are to be seen in all Spanish countries, in costumes that would attract attention at a masquerade. An old servitor went about with a switch, bestowing liberal cuts upon the legs of boys who exhibited too much animation. The most noticeable thing about the building was the arched ceiling. Some wild architect had imitated the groined arches of a Gothic cathedral, but had done it with boards instead of stone. — *W. Drysdale in the N. Y. Times*.

THE LIGHTING OF EGYPTIAN TEMPLES.—In certain papers by J. Norman Lockyer, printed by *Nature*, that astronomer takes up the Egyptian temples with reference to the light their builders permitted to enter. He thinks the ruins prove that the intention was to limit the sunlight which fell on its front into a narrow beam, and to carry it to the other extremity of the temple or into the sanctuary. Sometimes as many as seventeen or eighteen narrow apertures are found between the outer pylons and the wall of the naos. Although he thinks the Egyptians knew nothing of telescopes, yet in the construction of their temples they had the same problem to solve. As we lead the light into the eye-piece of a telescope, so the Egyptians kept the light pure and led it into the dark naos at the extreme end of the temple. To keep the light pure in a telescope, there are diaphragms within the tube, the largest diameter of aperture being nearest the object glass, the smallest nearest the eye-piece. The apertures in the pylons and separating (transverse) walls of Egyptian temples exactly performed the office of the series of diaphragms in a telescope filtering and keeping straight the light entering through the opening between the pylons, preventing reflections from the sides of the temple, and conducting the light a vast distance—as in the case of the great temple at Karnak, for example, a distance twice the length of St. Peter's at Rome.

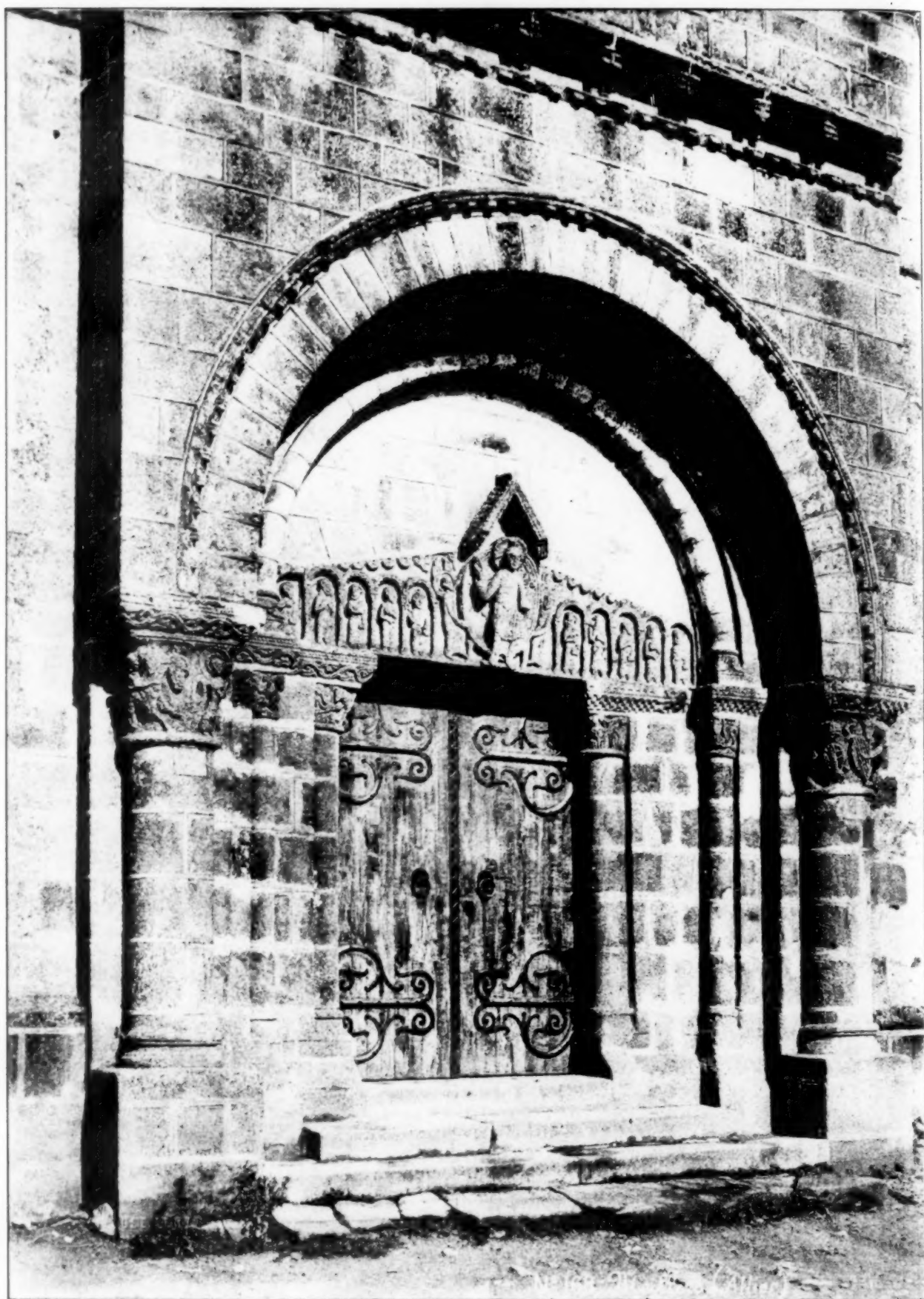
PLACARDING THE COST OF PUBLIC BUILDINGS.—We observed during our late visit to Bombay that all the public buildings have marble slabs erected in some conspicuous position giving information with regard to their construction. Besides noting under whose Governorship the building took shape, we saw that the names of the Architect, Executive and other Engineers connected with the operations, the dates of the commencement and completion of the work and (*nota bene*) the estimated and actual costs of each structure were given. These last items of information should, where furnished, have a particularly marked effect in checking extravagances, and we therefore put forward the suggestion that the Bombay procedure should be generally followed in the case of all public buildings. — *Indian Engineering*.

THE EXPLOSION IN ROME.—Signor Rodolfo Lanciani, writing to the *London Athenaeum* about the recent explosion in Rome, says: "As students of physics and meteorology seldom have the opportunity of experimenting with 265,000 kilos of gunpowder, it may interest your readers to know what results have been gathered by men of science from this colossal blast. A kilo of gunpowder is said to develop in exploding 216 litres of gas; therefore 57,000,000 litres were developed from the Polveriera di Vigna Pia. The power of this mass of gas was such that it could have raised to the height of 450 metres a weight of 117,000 tons. Although the powder magazine was located in a hollow between the hills of Vigna Pia, Monte Verde, and Pozzo Pantaleo, and the main force of the explosions was thus directed upwards, the pressure of the air has been felt equal everywhere—on the tops of the

Gianicolo as well as in the deep recesses of the Tre Fontane—and it has acted with equal energy on flat and vertical surfaces. Gates secured with heavy bolts and doubled with sheets of brass or iron, have been blown open in the Lateran and at S. Saba; and the same effect has been felt even in shut and covered places. Thus at S. Paolo fuori le Mura the pressure of the air penetrating through the gaps of the broken windows was strong enough to break into splinters the heavy glass doors of the four chapels of the transept. The action of the blast manifested itself in two ways—by an earthquake and by an air-wave. The vibratory movement of the earth travelled with greater velocity than the air-wave; so much so that the shock was felt in the city and the suburbs several seconds before the report was heard. Flower-pots, *bibelots*, lamps and bottles were upset in closed rooms protected from any inrush of air. The blast set the barometrical column in violent motion, beginning with a pressure wave of 204 kilos per square metre, followed by a counter-wave of suction. The first was marked by an increase of 14 millimetres in the barometer, the second by a decrease of 14+11 25 millimetres. The power of suction of this last wave was such that 90 per cent of the windows have been blown not inwards, but outwards, the fall of broken glass in the streets wounding some three hundred passers-by. The movement in the barometrical column lasted sixty-six seconds. It is believed that one-third only of that prodigious mass of gunpowder had time to ignite; the greater portion was blown up bodily, its explosion taking place gradually. Granules of powder have been collected as far as Ponte Milvio. I, myself, found a charred piece of an ammunition box in a field two and a half kilometres from the Vigna Pia. The report was heard and registered not only at Subiaco, Viterbo and Anagni, but also at Caserta, Ischia and Pesaro, at a distance of more than two hundred miles."

TRADE SURVEYS

LIQUIDATION is the watchword of the hour. Commercial reports show that the volume of business transacted from week to week is about twenty per cent below last year. Strictly speaking, this is an incorrect and delusive statement; it means that wholesalers, jobbers and others are doing twenty per cent less, but it does not mean that retail traders are doing that much less. In point of fact, if the fact could be had, it might and probably would appear that the deficit, as compared to last year, is less than ten per cent, probably five per cent. If the facts could be shown, it would probably appear that stocks of goods in retailers' hands are declining steadily; and are lower now than they have been for twelve months. Salesmen and agents of manufacturing concerns whose business it is to travel up and down the country constantly confirm this statement. Retail buyers are very careful, and salesmen find it more difficult to make them load up with goods than last year. They have become frightened at failures, depression, gold exportations and the general fear of further troubles. The truth is, this liquidation as to accounts and as to merchandise is going to be productive of excellent results; manufacturers have been obliged to restrict production. Fortunately, there are no enormous stocks in warehouses, which are being carried by the banks. Never in our history has production and distribution been in better control. There is an undertone of confidence as a result of this. No matter in what line of trade inquiry is made, the same general answer is given: that stocks are under control, that production is equal, or not in excess of consumption, that prices have reached the lowest possible, or, at least, probable limit, and that trade generally is in a healthy condition. It is better to do a business of twenty per cent less, and do it safely, than run up to last year's volume and have enormous stocks of goods in retail hands, with slim chances of prompt settlement when notes mature. There is a general hesitancy among small business men to stock up just at present, and it will be well if this fear continues. The absence of an urgent demand for money is one of the results of present conditions. The revival of a demand for money may be assuredly counted upon; banks are putting themselves in shape for such a demand. Financial conditions abroad are becoming more healthy; confidence is returning both in home and foreign monetary circles; business men are coming to clearly comprehend the drift of things; the outflow of gold is no longer a source of apprehension. All crop reports are most favorable. European requirements for American exports will be heavy; a better feeling exists throughout the West than in the East. Pig-iron production has suddenly increased thirty thousand tons per week; the coke output has increased from fifty to over a hundred thousand tons. Bridge-builders and the builders of elevated railroads are now placing heavy contracts for material. The lumber trade continues in a rather depressed condition. There is a falling off in the number of projected industrial enterprises in the South; this is partially offset by an expansion of capacity in existing establishments now going on. When the industrial history of 1891 is written, it will be found to compare most favorably with that of 1890. Architects and builders are not at all discouraged under the restricted activity of the present season. Building material has not declined in price for three months. Those constructing engineers who speak for the profession predict that the last six months of the year will see as much activity as the last half of 1890. Railroad managers have a vast amount of work ready to be given out. The lethargy in the textile industries will probably continue until the fall trade is fully inaugurated, and the improvement which then sets in will be measured by the improving distribution of goods during the next sixty days. Mills on cotton goods, ginghams, prints and the cheaper lines of textile goods have been kept pretty busy both North and South. There is a dulness in all lines of hosiery and knit-goods which manufacturers think may not be broken until September; this dulness is not due to a lessening of consumptive demand, but to a desire on the part of the retail trade to meet actual demand and avoid large stocks. Besides, the fact has not been clearly determined to what extent recent tariff legislation will interfere with hosiery importations. A few months ago, manufacturers, in their glee, felt the American market was assuredly their own, and it is not yet clear that they are in error; but cheapening processes have been at work abroad, and some importers incline to think they will be able to hold a large proportion of their old trade. The little industries throughout the Western States are in a safe and healthy condition; very little labor is idle; very little steam-power is off duty. Reports from clearing-houses do not always indicate the actual condition of trade throughout the country, and just at present they are apt to convey rather erroneous impressions. Actual consumption throughout the country has declined very little, if any.



HELIO TYPE PRINTING CO. BOSTON.

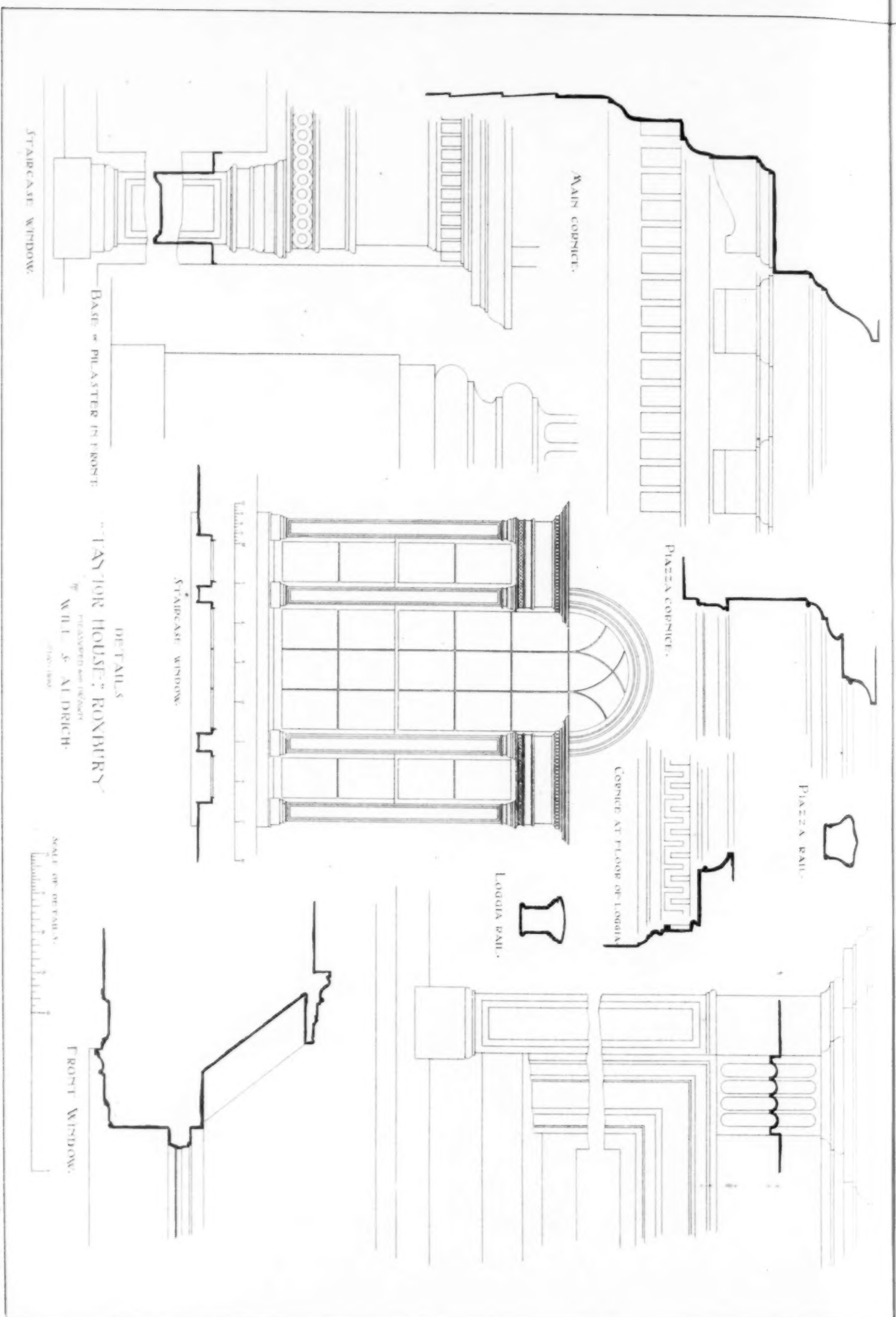
238 A DOORWAY AT MEILLERS, [ALLIER] FRANCE. 238

COPYRIGHT 1891 BY TOWNSEND & CO.



HALOTYPE PRINTING CO. BOSTON

CHURCH OF THE SUPERGA, • TURIN, • ITALY: • JUVARA, ARCHT. T. 181



STAIRCASE WINDOW.

BASE OF PLASTER IN FRONT.

DETAILS
TAYLOR HOUSE, ROXBURY
DESIGNED AND DRAWN BY
WILLIAM ALDRICH
1860

STAIRCASE WINDOW.

PIAZZA CORNICHE.

PIAZZA RAIL.

CORNICHE AT FLOOR OF LOGGIA.

LOGGIA RAIL.

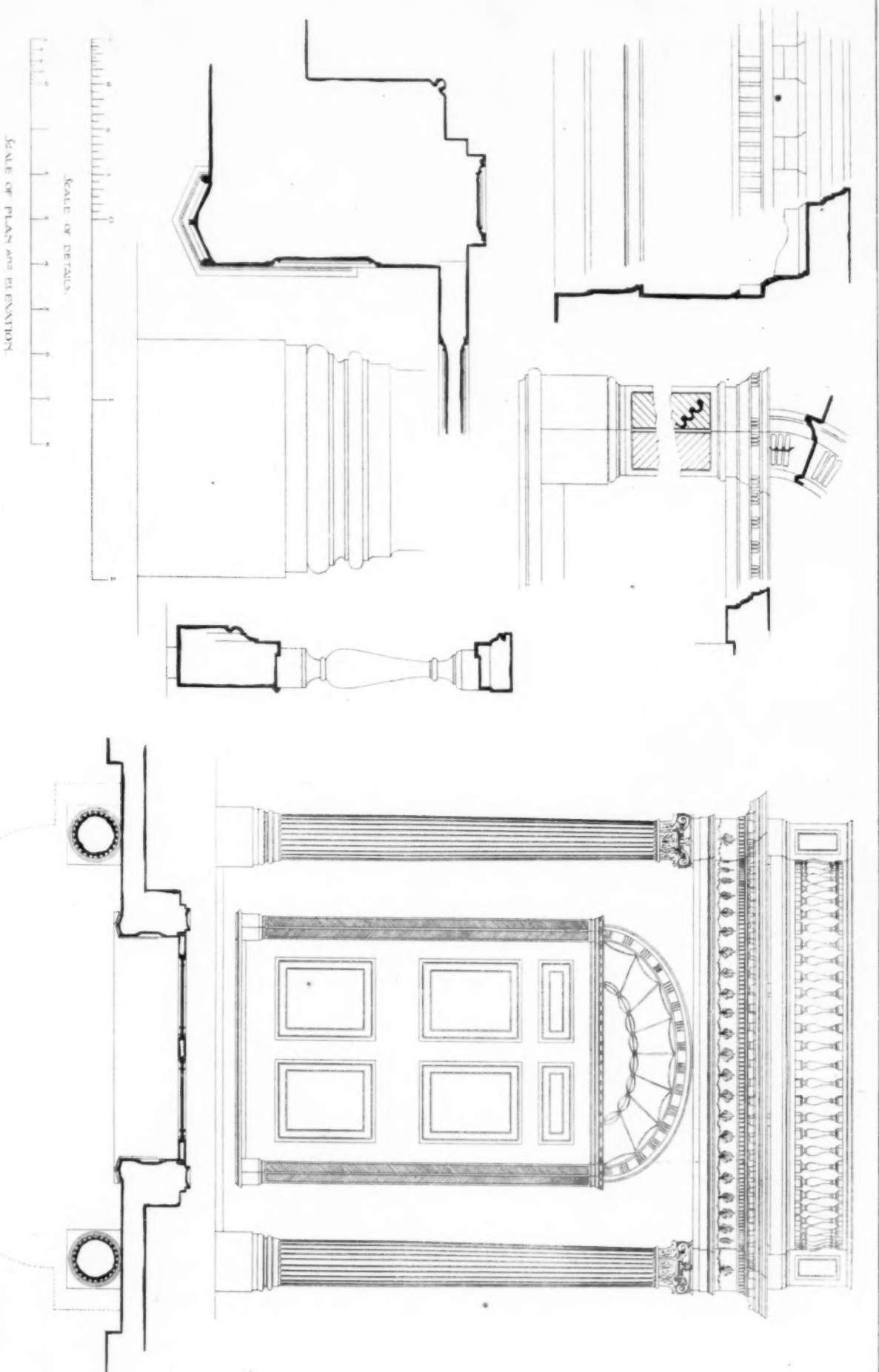
SCALE OF DETAILS.

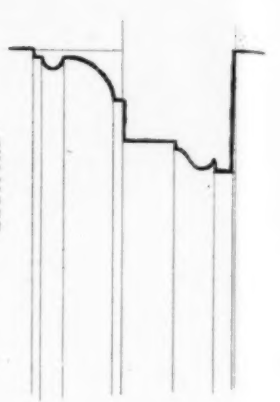
FRONT WINDOW.

No. 505.

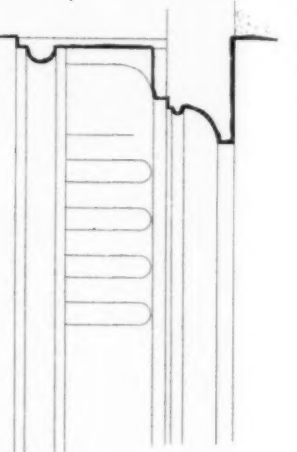
AMERICAN ARCHITECT AND BUILDING NEWS, JUNE 20, 1891.

COPYRIGHT 1891 BY TRENCH & CO.

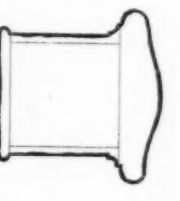
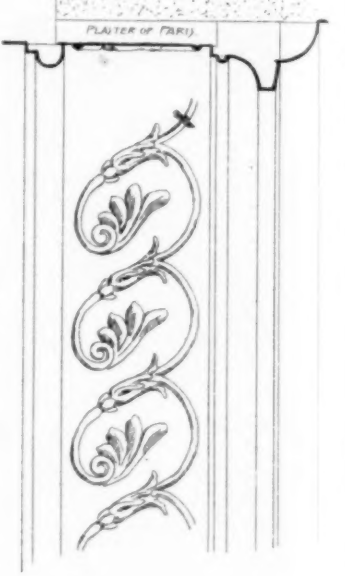




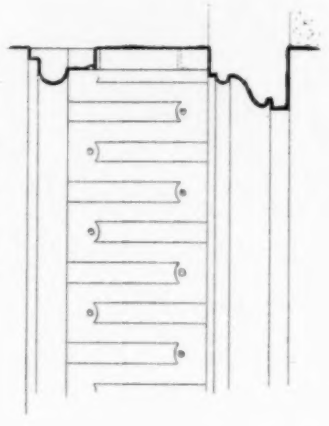
CHAMBER.



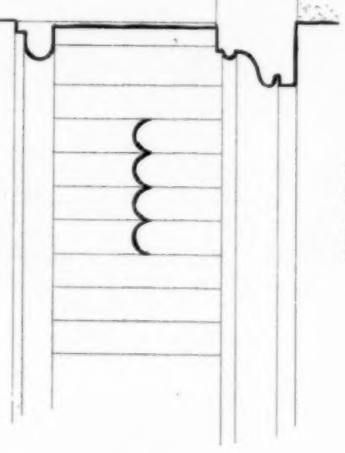
CHAMBER.



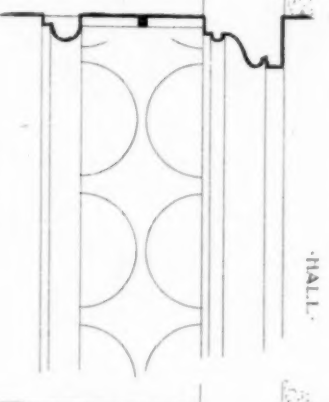
FRONT STAIRS.
(PLASTER OF PARIS.)



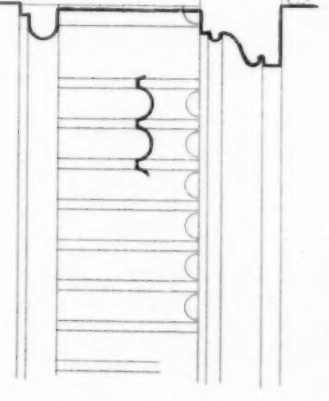
CHAMBER DOOR.



DOOR.



HALL.

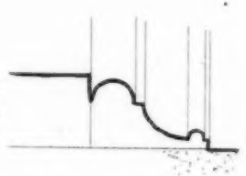


CHAMBER.

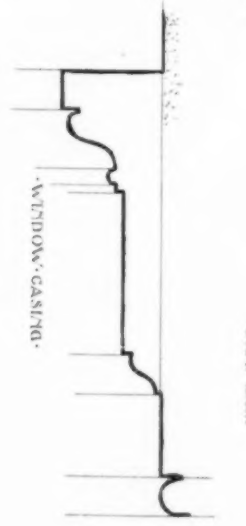
DADO CAPS.



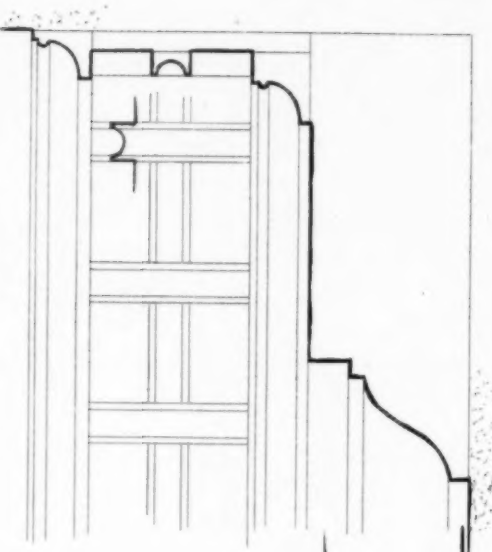
OUTSIDE DOOR PANELS.



BASE.



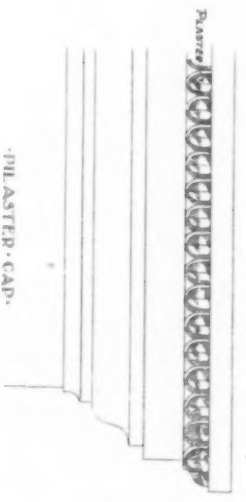
WINDOW CASING.



CHAMBER DOOR.



SCALE.



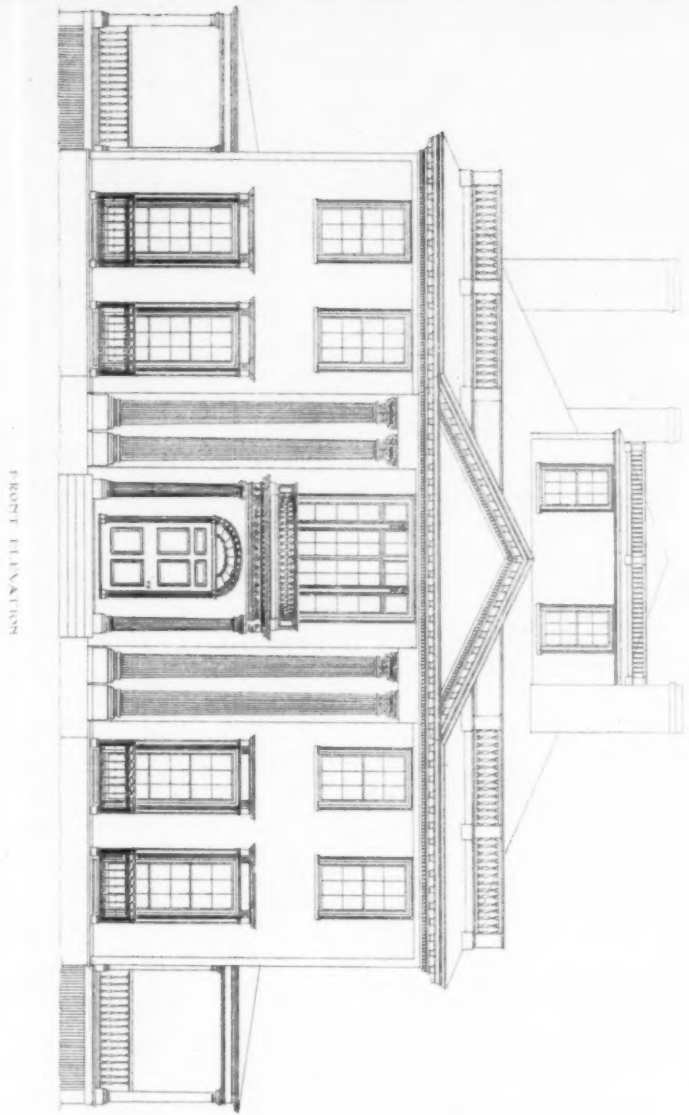
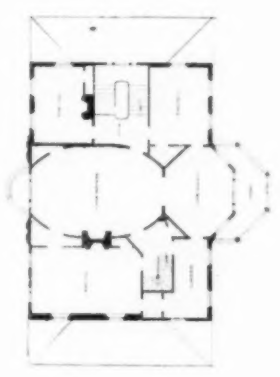
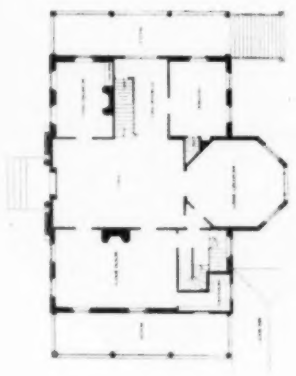
PLASTER CAP.

VARIOUS DETAILS.
"TAYLOR HOUSE," ROXBURY.
BY
WILL. S. ALDRICH.
PLASTER OF PARIS.
PAPER 1890.

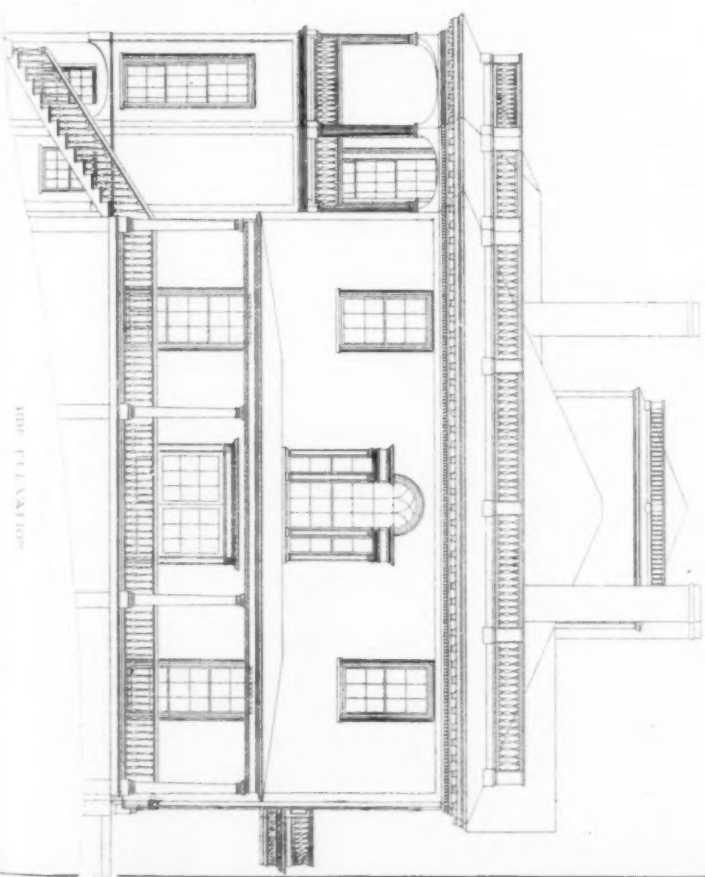
No. 505.

AMERICAN ARCHITECT AND BUILDING NEWS, JUNE 20, 1891.

COPYRIGHT 1891 BY TITCHELL & CO.



FRONT ELEVATION



REAR ELEVATION