

PRICE 13 CENTS.

534W²

JUNE 6, 1891.

THE AMERICAN ARCHITECT
AND BUILDING NEWS

VOL. XXXII.

* REGULAR EDITION *

NO. 806.



ARCHITECTURE

ENGINEERING

DECORATION

TICKNOR & COMPANY

CONSTRUCTION

BOSTON MASS.

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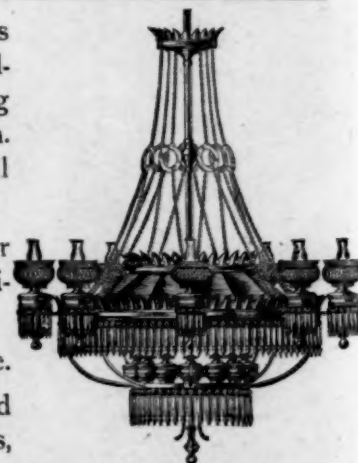
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THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XXXII.

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No. 806.

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

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THE Course in Architecture at Columbia College will next year undergo considerable changes. Hereafter, not only will all the elementary scientific studies, such as Mathematics, Physics and Chemistry, Geology and Mechanics, be included in the first three years of the course, but all those technical studies which are merely preparatory and disciplinary, such as Free-hand and Architectural Drawing, Modelling, Shades, Shadows and Perspective, Ancient, Mediæval and Modern Architectural History—and much of the work in Ornament and in the Theory of Architecture—will be included within the same period. At the same time Architectural Design will be introduced earlier than hitherto. Time for all this, which will virtually accomplish in three years what has hitherto taken four, is obtained by omitting from the Course some irrelevant studies. This will leave the fourth year free for strictly professional work. In this a student will be allowed to take an optional course, giving himself, if he chooses to do so, mainly to Construction, both scientific and practical, or mainly to work in History and Design of a more advanced character than has hitherto, in the multiplicity of other studies, been practicable. At the same time the Trustees have established post-graduate or University Courses in Architecture, so that a student who spends his fourth year mainly over problems in Design may come back and study Construction, or, if he has elected Construction before graduating, may return at any time and take a year of Design. This is an opportunity of which students in offices, who are disposed to take a year of serious study, but have not time nor means for serious study abroad, may be expected to avail themselves. Such men would hold somewhat the position of the *anciens* in a Paris *atelier*, a position equally advantageous to themselves, to their younger fellow-students and to the School. It will be seen that this virtually establishes a five-year course; studies in the fourth year being elective, and the fifth year being taken, if at all, whenever it may be most convenient to each student.

AS the time is short we desire to call attention to the fact that the new School of Architecture attached to the University of Pennsylvania announces that the first of its entrance examinations takes place June 15. A later opportunity will be offered to aspirants September 21.

WE have been asked to give currency to the statement that *Architectural News*, formerly published in San Francisco, has been compelled to abandon its struggle for a prosperous existence. It is with sincere regret that we make this announcement, as the few numbers issued exhibited a satisfactory capacity on the part of its conductors to discriminate between what it was worth while for such a journal to attempt to do and that which it would be well to let alone. Perhaps its career might have been longer if it had been its lot to be published in some other part of the country; but this is by no means sure, the journalistic nest is so full of hungry fledglings, each extending its yawning bill to the advertisers of building supplies, who are gradually learning they cannot afford to keep the whole nestful alive at their own cost.

ARCHAEOLOGY at Athens appears to be in a very flourishing condition just now, and an unusual number of important discoveries have already been made. The students of the American School have had the good fortune to discover what appears to be the tomb of Aristotle. During the winter, they have been excavating in and about the site of the town of Eretria, in the island of Eubœa, just off the Hellenic coast. Running from Eretria to the neighboring city of Chalcis, they found the remains of a street of tombs, such as is attached to many Greek towns, and, among the tombs, they discovered the foundation of one of remarkably fine workmanship, which had apparently belonged to some distinguished person. Near this foundation was a later tomb, made of materials taken from the ancient ones, which contained a stone inscribed with the name of Aristotle. About the place they dug up a skull, with a gold circlet near it, two silver styli, or points, for writing on the wax-covered tablets which usually served the ancients instead of paper, as well as a real pen, probably for use on the papyrus sheets imported, for special occasions, from Egypt. There were also several other gold circlets, and a terra-cotta statuette, representing a man with the dress and air of a philosopher, with the hands folded. A Greek author describes a statue of Aristotle in this attitude, and as Aristotle is known to have died at Chalcis, it is quite likely that he would have been buried in this street of tombs, and, in that case, the finding of the stone inscribed with his name certainly seems to indicate that his tomb was not far off.

ANOTHER curious investigation has been going on in Athens itself. One could suppose that the Parthenon had been so thoroughly examined that there would be nothing left to discover; but Dr. Bruno Sauer conceived the idea that some of the doubtful points in regard to the pediment groups might be elucidated by a careful inspection of the bare pediments. With the help of a staging, furnished by the German Archaeological Institute, he mapped with the utmost care the holes and marks in the blank marble, and soon deduced from them some valuable and important conclusions as to the statues which once stood in front of it. All the statues were secured to the background with iron or copper bars, and the forcing out of the bars has left the holes in which they were once inserted in plain view. From these it appears beyond doubt that the eastern pediment, instead of having a central sitting figure of Zeus, had no central figure at all; but that the middle portion was occupied by two statues, of nearly equal size, presumably those of Zeus and Athena. At each side of the eastern pediment is known to have been a figure of a horse. At one side, two horses drew a chariot, but, to balance this on the other side, it has been supposed that there was a figure of an equestrian, riding a single horse. Doctor Sauer's inspection shows, however, that the attachment for the head of the supposed equestrian figure was too far away from that of the horse, or horses, to admit of any other conclusion than that it was, like its pendant, driving, instead of riding; and, to confirm this, the remains of two horses' heads were found actually in place, in the position which they would occupy if shown harnessed to the chariot.

BESIDES defining more exactly the positions of the pediment figures, these observations show that they were more symmetrically, not to say stiffly, arranged than had been supposed, and our ideas of the Phidian freedom in grouping will have to be somewhat revised. The success which the English,

German, French and American Schools are having in antiquarian investigations, and the renown which a healthy rivalry secures to any special good fortune, has induced the Spaniards to claim a share in the business, and a Spanish School of Archaeology is soon to be established at Athens. There is something new in the idea of Spanish participation in classical inquiry, especially as the Spaniards have not done very much to elucidate the early history of their own interesting country; but the common foreign opinion will see quite as much propriety in a Spanish School of Archaeology as in one managed by Americans, who are firmly believed, by a great number of Europeans, to dress, when at home, in a costume composed of eagle's feathers and scalps, and to spend their leisure moments in hunting buffaloes through the streets of New York.

A RATHER questionable story is in circulation, to the effect that a plan has been prepared for buying the Roman Colosseum, and transporting it, in pieces, to Chicago, there to be set up, stone by stone, as one of the attractions of the World's Fair. According to the newspapers, a "syndicate" has been formed, under the laws of New Jersey, which is to be called the "Chicago Roman Colosseum Company," and is to negotiate with the present Finance Ministers of Italy, who, finding difficulty in "making both ends meet" in their administration of their office, "are not in a position entirely to ignore a fair offer"; and, on securing the prize, which, we are told, as "Chicago is the Colosseum City of the West," "belongs of right" to a town which claims "all that is good or great of other cities and countries older than she, but which are not for an accident of birth, greater or better," is to proceed to set it up in Jackson Park. As an appropriate introduction to the Colosseum, it is proposed to purchase and erect "a section of the Appian Way," which will lead to the great building, and will serve to accommodate the persons who are to collect the "small fee" to be charged visitors. As the negotiations with the impecunious Finance Ministers of Italy, are, apparently, not yet begun, we will suggest that although Chicago, as the Colosseum City, might, on abstract grounds, prefer the Colosseum, the people who will go to the exhibition would be likely, in practice, to find a building with a roof on it more interesting, and that St. Peter's Church would be about as easily transported and reerected as the Colosseum, and would draw much larger crowds. Whether the Finance Ministers would part with this structure as readily as with the Colosseum is uncertain, and the Pope would probably claim a lien upon it, which would have to be satisfied; but, to the businesslike Chicago intellect, the process of "freezing out" the owner of property that one has taken a fancy to presents few difficulties; while, as to the Pope, it seems quite probable that if an opportunity of transportation, with his church, to "the Colosseum City of the West," should be offered him, he would seize it with joy, as an equivalent for his sacrifice. This arrangement would, we are sure, prove more attractive even than the combination of the Colosseum and the Appian Way, and a higher admission fee might be charged; for, while anybody can see large buildings in Chicago without paying, and there might be comparisons between the Colosseum and the Auditorium, to the detriment of the former, there is, at present, no object in Chicago with which the Pope, sitting in state upon his throne under the dome of St. Peter's, could be compared, and it is possible that the glory of the "Colosseum City of the West" would not, to devout spectators, entirely eclipse the lustre of the triple crown of Heaven, Earth and Hell, on the head of her reverend visitor.

M. DELAHAYE, in the *Revue Industrielle*, makes some sarcastic remarks about the new style of bullets for military purposes, which, according to a German surgeon, are to be welcomed with delight as the most humane bullets yet employed in war. The new projectile, which is made to be fired from a rifle of small calibre, is long, so that "its weight of section," as the military engineers say, is large, while its actual weight may be smaller than that of bullets of the old shape. By combining great weight of section with small diameter, the projectile is made to move with great velocity, and has immense penetrating force, easily going through two or three men at a distance of a mile. M. Delahaye finds the process of being

drilled through by a bullet shaped like a lead pencil not much more humane than that of being shattered by an old-fashioned "slug;" but the German doctor thinks that the new projectiles will not remain in the wound, but will make a straight perforation through the body, simplifying the surgical treatment greatly. There is no doubt that the camp undertaker will, in future, have more to do after a battle, and the surgeon less, than under the old regime, but, as a soldier dreads long suffering from a wound as much as death, the balance of "humanity" may be on the right side. As lead bullets of the modern shape would be likely to bend, they are cased with steel or nickel tubes, which give them the property of penetrating the hardest bone without deviating from their course.

WE are glad to see that something has been done at last to suppress the ridiculous and disgraceful habit which small newspaper reporters, and some still smaller physicians, have fallen into of late years, of attributing deaths from all sorts of causes to "heart failure." We need not go out of our own profession to observe how a cant expression like "Queen Anne," or "Colonial," grows over popular ignorance like dry-rot fungus on a decayed log; but no one suffers seriously in anything but temper from seeing the advancement of real art sacrificed to these idiotic catchwords, while the meaningless medical phrase may be, and often is, used to conceal, not merely the ignorance of those who use it, but more serious things, which it is of great importance to know. Every intelligent schoolboy, as may readily be inferred from the uncomplimentary remarks upon the medical profession which are to be heard in public places after the announcement of the death of a distinguished person from "heart failure," knows that the heart does not "fail" except at the termination of some mortal disease, and that to attribute to such a cause the extinction of a life is as scientific and satisfactory as it would be to quote the old joke, that the patient died "from want of breath." It is easy to see that if this way of accounting for a death satisfies the public, it can be used to conceal the occurrence of fatal cases of diphtheria, small-pox, cholera or other contagious diseases, all of which terminate in "heart failure," and there is reason to believe that it is so used by unscrupulous medical men, to the danger of the public, which is in the highest degree interested in the immediate discovery of cases of contagious maladies. In Illinois, where the public health is guarded by Dr. Rauch, one of the most intelligent and energetic of sanitary officials, an order has been issued to registrars and town-clerks not to accept any more certificates of death from "heart failure," but to require definite particulars of the disease by which the failure was produced; and it would be very much to the public advantage to have similar action taken in other States.

THE Russians have shown their advance in civilization by copying one of the devices that has long been in use by the bishop of one of the large dioceses in the Western States and, we believe, by certain missionaries—a travelling railway church. It seems to be thought desirable in Russia that the laborers on the great railways now in process of construction should enjoy regular religious services, and, for a time, temporary churches were erected for them in the places which they successively occupied with their camps. The erection of one of these small buildings every few weeks was inconvenient and expensive, and it was decided, as a better solution of the problem, to build a car, which, while capable of being attached to any train, and transported to the place where it might be wanted, should, as to the inside, form a perfectly appointed church. Such a car was completed and consecrated last autumn, and is now in service on the Trans-Caucasian Railway. On the outside it presents the appearance of an ordinary car, except that the panels are ornamented with double crosses, while a gilded cross is placed over the chancel end, and a belfry, with three bells, surmounts the other extremity. The only entrance is, naturally, at the belfry end. This leads into a room decorated in white, with a blue ceiling, sprinkled with golden stars. A chancel, ten feet long, is divided from the auditorium by the usual railing. As usual in Russian churches, the altar stands near the chancel-rail, and the iconostasis, or sanctuary, behind the altar, is finished with oak, richly carved, enclosing panels, on which are depicted the saints, on gold backgrounds.

SPANISH ARCHITECTURE.¹—II.

ROMANESQUE PERIOD.

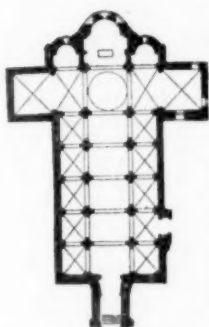


Fig. 5. Old Cathedral of Barcelona.

THE earliest distinctly Romanesque monuments in Spain, are for the most part of a heavy, squat appearance; especially is this true of those at Leon [San Isidoro, eleventh century]. In general, the plans of the churches are similar to those of the Romanesque structures of Southern France (Figure 5); it is, however, a noticeable fact that the decoration and architecture are either in the vein of the Romanesque of Auvergne (Figure 6) or they display the wealth and abundance exhibited in Burgundian Romanesque works, or even in the beautiful north and south doors of the Cathedral of Bourges (Figure 7). This sumptuousness is sometimes carried to a great extreme; the portal of San Vincente at Avila may be cited among the noblest examples of the Spanish Romanesque. The character of the interior (Figure 8) is grand also, and the sturdy, solid ordering of the nave cannot but remind one of the Romanesque churches of Burgundy. The vaulting, which was rebuilt at the end of the twelfth century, is wholly ogival, so far as the constructive system is concerned. However, though French Romanesque forms are frequently employed in Spain, as in the examples just cited, a marked originality appears in the solutions adopted in certain cases: though the Tower of the Cock at Salamanca is conceived in the French style of the twelfth century, the solutions employed for the central spires are without precedent; as, for instance, in the Cathedral of Toro, province of Zamora, which has a sixteen-sided central tower, cantoned with four small turrets.

The fashion of thus marking the centre of the structure by a lofty spire is one of the earliest indications of the peculiarly Spanish disposition by which the altar is stationed at the true centre of the church, that is, at the intersection of the axis of the nave with the axis of the transept, or even in front of that point. In this way the choir is much elongated, and it is lengthened still more by the rows of stalls which precede the altar. These stalls (*silleria*) form, as it were, a prelude to the choir, which occupies the enclosed space about the altar; the choir is further prolonged by an additional portion, or *trascoro*, which is often closed-in also, either by decorated walls or by grilles, so that the service is really conducted in an inner church, and so that the altar is nearly, if not quite, hid from the lay worshippers. This unique disposition of the Spanish church, which was very frequently adopted in the Middle Ages and the Renaissance, has called out ingenious and sumptuous compositions of great beauty; but, it seems to us to possess the

great defect of detracting from the grandeur of the whole interior by creating a church within the church itself.



Fig. 6. San Nicolas, at Segovia.



Fig. 7. Door of St. Julian, at Salamanca.

At Santander, the antique cloister of the Collegiate Church exhibits some curious capitals, with rounded interlaced decorative patterns: in style, the edifice approaches very nearly the Romanesque churches of Béarn.

Among the most remarkable structures of the Romanesque

¹ From the French of H. Saladin, in Planat's "Encyclopédie de l'Architecture et de la Construction." Continued from page 129, No. 805.

period must be cited, the churches of Tarragona (Romanesque apse) and Barcelona, the cathedrals of Lerida and Solsona, San Domingo at Gerona, San Pedro at Olite, San Cucufate del Vallés, Santa Magdalena at Zamora, which is almost a copy of the church at Tarragona; San Domingo of

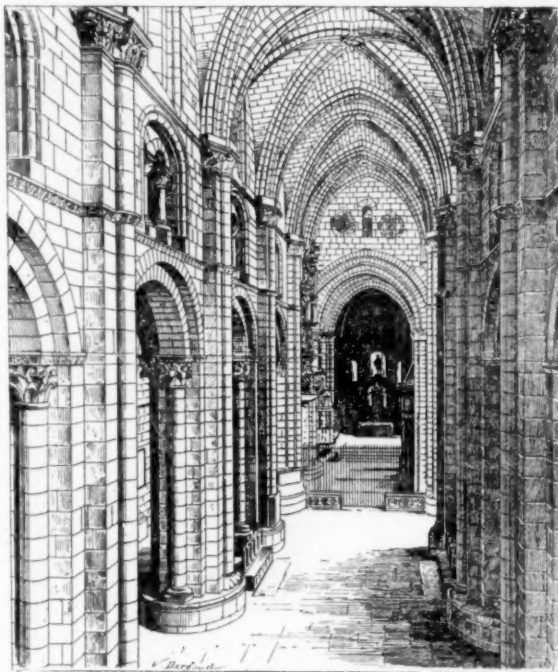


Fig. 8. Interior of San Vincente, at Avila.

Silos, similar to the Romanesque churches of Provence; and the collegiate church of San Isidoro (Leon), with its Romanesque paintings, its archivolts adorned with representations of the months and of the prophets, and its vaults on which grand themes are unfolded, as for example, the "Last Supper." In tone, these paintings are exactly like the paintings in Saint Salvat, near Poitiers. At Oviedo, the churches of Santa Clara, San Juan and Nuestra Señora de la Vega are in a style which reveals at once the elements of the Romanesque of Berry and Auvergne. The church of Santa Maria de Val de Dios is Romanesque although it dates from 1218 [Galterio, architect]; its plan, except for the anterior porch, is quite similar to that of the Cathedral of Autun, with its slightly developed transept and its three parallel and juxtaposed apsidal chapels; a tradition of the preceding period is also to be observed here in the

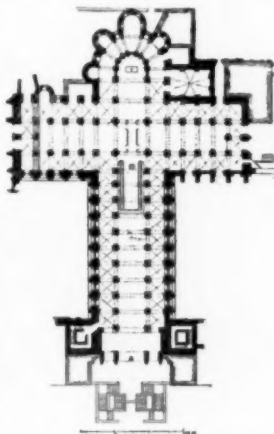


Fig. 9. Santiago de Compostella.



Fig. 10. Tower of San Esteban, at Segovia.

queer windows of open stonework. In the Cathedral of Valencia, there is a Romanesque door of a remarkably energetic style, the door of Lerida. Lastly, at Santa Maria de Villamayor (*Concejo de l'infesto*), we note a mixture of the styles of

Burgundy and Auvergne in the architectural elements and in the decoration, while the oblong plan, the system of barrel-vaults and the choir, which forms a sort of chapel with a rectangular sanctuary and terminates in a semicircular apse, carry us back to the latter part of the preceding period. The same is true of the parish church of Ujo.

Santiago de Compostella (Figure 9) is a Romanesque church exhibiting, with its *coro* and *trascoro*, a disposition quite peculiar to Spain. The apse resembles the apses of the churches of Poitou and Auvergne, with their small semicircular chapels; but the arrangement of the transept is wholly unique. This portion of the edifice is exceptionally important here; it constitutes, properly speaking, two secondary churches on the right and left of the axis of the nave, perpendicular to the great church and possessing, like it, a nave and two side-aisles.

The monuments of Segovia have a character of their own; they are more soaring in appearance than the other edifices of the same period, and in such churches as San Millan and San Estaban there is a lateral portico on either side of the nave for the shelter or accommodation of worshippers. The tower of San Estaban (Figure 10) has an airiness about it which in France is displayed only in edifices of the transitional period in Ile-de-France — this spire was reconstructed in the sixteenth century.

The plan of San Millan includes a nave and side-aisles, each of which terminates in a semicircular apse; rectangular porches form the transept, and these projections on the lateral façades correspond to the porticos spoken of above. The apses alone are vaulted; the aisles are covered with exposed timber work, the decorative elements of which are of a very pronounced Arabic type. It must be observed that the principles of Arabic decoration often found their way into the works of the Romanesque era in Spain and especially in the productions of the goldsmith's art, as was the case with so many religious structures of the same period in Southern Italy and even in France [abaci in the cloister of Moissac, door of the church of La Voulte-Chilhac, wooden doors of the Cathedral of Le Puy]. In this rapid glance at the Spanish monuments of the Romanesque style we have noted the existence of a clearly defined French influence. This influence will be seen strengthening during the thirteenth and fourteenth centuries, mingling with the influence of Flemish and Rhenish artists in the fifteenth century, and disappearing at the beginning of the sixteenth, before the preponderant influence of Italy.

[To be continued.]

THE RENAISSANCE IN PORTUGAL.



Royal Palace at Cintra.

IN the following lines it is proposed to treat of the effects produced by the terrible catastrophe at Lisbon. The brilliant capital has even yet hardly recovered from the blow it received on the eventful morning of All Saints' Day, in 1755. Here and there, between the repaired and rebuilt houses and the many churches and palaces which have since been erected, are to be seen striking evidences of the destruction wrought on that eventful day, in particular decayed churches, ruins without roof or vault, with gaping empty windows, walls black with age, and overgrown with broom; partially destroyed cupolas, spires, towers and façades. With the exception of the remains of the cloister of Madre de Deus, in the suburb of Xabregas, and in the transept façade of the church, S. Maria da Conceição velha, both of which are to be ascribed to the Emmanuel style, the formation of the most of them counts from that time just before the sinking and fall of the country. Portuguese architects — who were, to be sure, of the Italian school — have devel-

oped a particular type and this with a severity and completeness of character as to a harmony of exterior and interior effect, which is combined with such decorative art as seems to have been developed only in this land. In their majestic and imposing ruins these magnificent works merit, with every right, the name of Portuguese Renaissance.

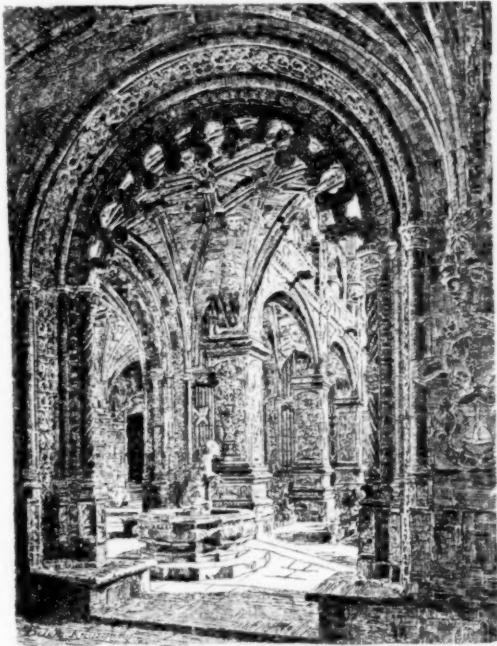
But a no less sad remembrance than that of the sacrifice of the 30,000 unfortunate beings, a large proportion of whom found an early grave in the collapsing of their noble temples where they had sought shelter, is that of the number of persons of royal blood who lie buried in one of the most beautiful mausoleums belonging to the Portuguese royal families. For valuable information concerning these mausoleums, of which each single one shows to a certain extent the highest development in the history of the country, we can refer to an admirable work but recently published, by the architect Albrecht Haupt.¹

The House of Burgundy became extinct with the decease of Fernando the Polite. He was formerly a vassal of the Castilian kings, he tore the land away from the Moors, in the battle of Ourique won for himself the title of king, conquered Santarem, Lisbon and Algarbien, constituted the orders of Aviz, St. Michael and Christ, founded the University of Coimbra, and by wise legislation laid the foundation of the subsequent high standing which Portugal held amongst European nations. Immense castles and well fortified towns are striking evidences of the industry and efficient ruling of the House of Burgundy. Their cathedrals are unassuming and small, their palaces poor but proud, built in a simple half French half Spanish Gothic, with heavy pillars and arches, and with battlements, the whole severe and almost gloomy, the true monumental embodiment of that most distressing and warlike time in which they were founded. In this same style is the family tomb of the House of Burgundy in the church of the large cloister of Alcobaça, the same cloister in which according to the "*Weisskunig*," the ambassadors of Frederick III, when on their expedition for Eleanor of Portugal rested for the last time, before she was conducted in solemn procession to Lisbon. The crypt of the church contains the bones of nearly all of those related to the old family of the House of Burgundy. With these princes was buried the unfortunate Inez de Castro, the wife of the first and mother of the last king, and whose fate and fortune so many poets have honored and dramatically represented, and who has received from the pen of Luis de Camoens an inestimable literary tribute, written in the noble, sounding language of the country.

With John I, the House of Aviz ascended the Portuguese throne, a powerful, high-minded, far-seeing race. The epoch in the history of Portugal which now began has been written about by mankind with golden letters in their annals. He changed the gravitating point of the hemisphere from the Mediterranean to the shores of the Atlantic Ocean, made Portugal the first sea power and Lisbon the animated commercial centre of Europe. It is the glorious epoch of Henry the Sailor, John II, and Emmanuel the Great; Bartholomäus Diaz, Vasco da Gama and Cabral; the time in which a Boutaca and a Castilho built, the poet Gil Vicente lived and of which Luis de Camoens has sung in his immortal "*Lusiade*." The battle of Aljubarrota (1385) shattered all claims of the Castilians. The Cloister Nossa Senhora da Victoria, commonly called Batalha, lying between hills, covered with vineyards and firs, stands as a monument of this great engagement. It covers the remains of the princes of the House of Aviz until Emmanuel the Great's time, who with his successors were buried at Belem. The builders of Batalha were English architects, who came to the country with Filippa of Lancaster, the spouse of John I. The castle of Cintra erected on one of the finest spots in Europe, presumably already commenced by the Moorish invaders, but built by John I, Alfonso V and John II by the aid of Moorish talent, enlarged by Emmanuel the Great who was born there and who grouped the buildings in such an apparently methodless manner that the castle partakes the character of an alcázar rather than a Christian dwelling, shows us what effect Arabian art was able to accomplish in the Christian era, in a style which in the fifteenth and sixteenth century was produced in Portugal and which we call "mozarabic" and in Spain "mudejar." The architecture of this Portuguese Alhambra, whose immense conical fireplaces are yet to be seen in various cloister kitchens — there is one in use in Alcobaça and it may be mentioned incidentally that these were of Moorish device — could easily assimilate itself with the late Gothic motives without losing its specific character — with its smooth walls, battlements, narrow pillars, pinnacles and arches. With regard to the treatment of details, the Gothic has had some influence. The material used on the buildings round about Lisbon, for instance on the Batalha, is a snow-white limestone, so soft that it can be readily cut with a knife; on the Spanish frontier from Estremoz to Beja white marble; in the north granite, and in correspondence with the material so is the form, the one refined and delicate and the latter massive, heavy, ungainly and rough. The Arabians taught the Portuguese the noble art of stone masonry, as is noticeable in the bake-ovens which were erected in the Province of Beira alta, and especially in the neighborhood of Evora, until the sixteenth century, when they were finally driven from the country. In the most southerly province of the country, in Algarbien, where even the

¹ "*Die Baukunst der Renaissance in Portugal*" from the time of Emmanuel the Great until the end of the Spanish dominion. Vol. I, Lisbon and its Suburbs. By Albrecht Haupt, architect, private tutor at the royal high school of Technology at Hanover. Published at Frankfurt-a-main, by Heinrich Keller, 1890.

simplest lime and sand stone are not found in such ample quantities. There is yet standing and in use an old Arabian mortar-mill, where tiles are made which are used all over the country, these tiles being called "azulejos," because of their prevailing blue color. Whilst



An Angle of the Cloister at Belem.

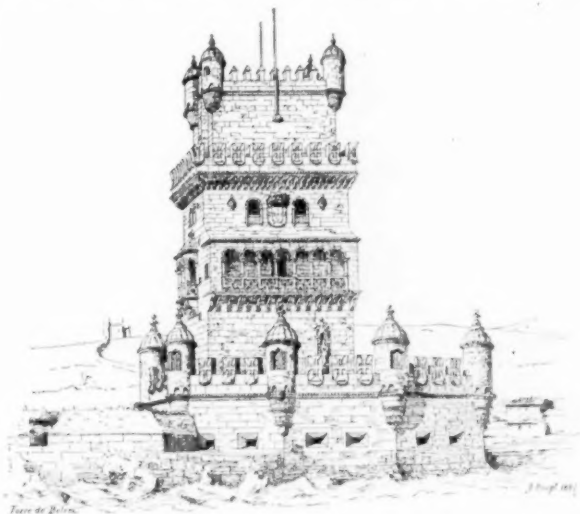
this means of decoration became extinct in Spain, where it is known the Alhambra, the Alcazar and the House of Pilatus, at Seville, are so ornamented, the Portuguese proceeded with it and in the seventeenth and eighteenth centuries especially the art was highly developed. In place of the intricate Arabian line-work, Renaissance ornament appeared in the richest colors finally, comprising paintings of historical, allegorical, religious and every-day life scenes, which spread themselves in most lavish abundance not only over the domes, corridors, stairways and walls of the halls and chambers, but also through the court-yards, towers, house and church façades. The azulejos which decorated the star-shaped basin in the court of the transept at Belem and whose influence in this place must have been a very unique one are destroyed, but there still are some to be found on the altars in the Capella dos Jeronymos itself. Besides these just mentioned, there are yet worthy of notice the bas-relief ornaments on that most curious circular building on the ramparts, the Church of São Amaro at Alcantara (ca 1580) that one assigned to F. de Matos (1588) in the third right-hand side chapel in São Roque at Lisbon, and lastly those in the Grace Church at Santarem and in the Hospital Church at Braga. The first are the most comprehensive, the second the finest of that kind of work in the Renaissance period and both the last show the stupendous undertakings of a combination of styles of a later date.

And as the Portuguese have copied from others in that kind of decoration, so have they most notoriously in the pendentives of the arches and vaults with their many cornered and star-shaped patterns, and decorated trough-shaped wooden coverings, the same as are found in the whole of the Pyrenean peninsula, and in Portugal for instance in the castle church at Cintra, and in the Cathedral at Coimbra, until into the seventeenth century and of course further developed by substituting caissons in place of Moorish decoration. The best proof of this development is again in the castle at Cintra on the ceilings of the Sala dos Pegas, Sala dos Cysnes and Sala dos Escudos, which all originated about the period from John I to Emmanuel, perhaps later, but in any case in the original primitive style. Each ceiling bears its name according to the painted decoration of the caissons, the first after the magpie, which is a probable allusion to the condition of the court so far as the ladies of the court were concerned, the second after the swans with crowns about their necks, about which, so the story goes, John I used to flatter his wife, the third after the seventy-two coats-of-arms of the Portuguese nobles. The cylindrical vaults, also, of the church were carved in wood and then decorated with plaster, as in São Roque, Igreja dos Anjos and other buildings in Lisbon, by Filippo Terzi and his followers.

The Moors excelled besides in certain handicrafts, such as leather work and ivory-turning and imparted much to the Portuguese, but there are many other things in which the Orient influenced the destiny of the country. The two Sanscrit writings in Penha verde are by no means the only Indian remains in Portugal. Here the famous fourth vice-king of India, Johann de Castro, found his resting place in the Church of Nossa Senhora da Monte, which lies far up on the wooded heights, above his richly ornamented summer residence filled with trophies and statuary. Whatever the Portuguese discov-

erers saw in the magnificent monumental world of India, they left all the wonderful ideas of the beauty and richness of the East far behind them. Was it any wonder, then, that each newly arisen building, in particular that of Thomar, the chief seat of the Knights and commanders of the order of Jesus Christ, should remind them of the glorious climate in which they had won their laurels; that in Joao de Castilho, who as the royal architect went with the king's fleet to those distant shores, should have awakened the burning wish to surpass as far as possible the overwhelming impression made on him by the works of those unknown masters, in his own buildings in Alcobaça and in Batalha, in Thomar and in Belem? In the famous window of the Chapter-hall at Thomar, in the mouldings and pilasters of the window at Belem and elsewhere the Indian sources are observable; also in the magnificence of the sculpture of the portals of the buildings just mentioned. The panel on the Pelourinho (Pillory—now a fountain) in the market-place at Cintra is without any doubt an imitation of an Indian work. One does not need to go very far to prove the truth of this allegation, for the original, a "contorted mass of bodies and ornaments" is to be found in the Castle of Cintra itself. An example of masonry, the Torre São Vincente, just as distinctive a type as the cloister for whose protection it served, rises opposite Belem on a rock in the middle of the Tagus, in all its magnificence. Proudly and in striking silhouette the terraces and corner-towers, the battlements, ornamented with the cross of the Order of Jesus Christ, stand out and point as it were to the sea and to the land of the heathen. It were idle, with these strong evidences, to question the architecture. Only a superficial comparison with one and that indeed a pronounced type of Indian temple, leaves no doubt of the fact of the impression produced by the Orient.

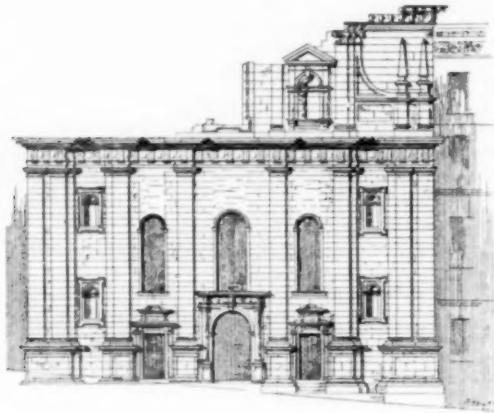
The Gothic first of all began to assimilate the Oriental influence and was probably brought from the Netherlands. It not only changed the pilasters, but gradually included also the columns and dome-ribs, as similarly happened in Spain. Peculiarly noticeable, however, in decorative objects is the late Gothic. In John II's reign, Andrea Contucci dal Monte San Sovino, abbreviated to Andrea Sansovino, was called to Lisbon. Though the influence of this master in the development of the Portuguese Renaissance and what Raczyński relates of an existing relief at Coimbra, quoting Vasari, which however is an error, must not be overrated, yet the period of his operations mark a turning-point in the art of the country. This turning-point is marked by that early Renaissance of fantastic character and must be looked upon as the most curious phase in the history of Portuguese art; unless one contemplates it as one of the most interesting art episodes of all times. Classical studies had long been in vogue in the country before John II summoned Andrea Sansovino and before Emmanuel the Great allowed young painters to travel to Rome for a broader education and had received, in return for his gift of the first Indian gold sent to Rome, the celebrated Bible of Belem, in seven volumes, the wonderful work of Florentine illuminators. The direction of the style has therefore its own development and has several groups of buildings to show for it. The Portuguese name them with perfect right after the king in whose reign they produced their greatest monuments, before Garret and Hieroclaus, the Emmanueliana. It has been thought to trace this to the influence of certain Spanish buildings. A thorough investigation proves that it is just the reverse, that the method of building the court of the College San Gregorio, at Valladolid, as well as parts of



Tower of S. Vincente, Belem.

the Ducal Palace del Infantado at Guadalajara, originated in Portugal. It is characteristic of the Emmanueliana that the composition remains late Gothic, but that the Renaissance ornament is related to the previously mentioned spiral parts, to the broken and interlacing arches, to the cinquefoil arch, the chancel arch, elliptical

arch; to the one-half and three-fourths plain and decorated mouldings and to these wonderfully carved immense crockets and finials; but this tends only to increase the richness of the various forms and in the painted composition masses by its quiet and frequently artistically finished treatment. Vasari says "Andrea devoted himself to strange



Facade of the Church of S. Antão, Hospital of S. José, Lisbon.

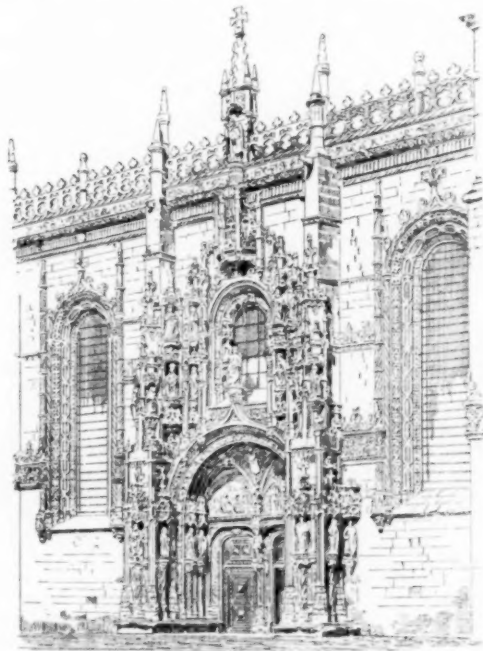
and difficult architectural matters after the custom of the country, in order to please the king."

A league below Lisbon in the place of the small S. Maria chapel erected by Henry the Sailor, the anchoring place of Rastello, and in which Vasco da Gama on the night before he sailed had uttered his last prayer and on his return his first, there rises "a view sweetly pleasing to the eye," that wonder of masonry—Belem, a fine proof of the abilities of that time, the gorgeous thanks offering of the Portuguese people for the success of those deeds which had made Portugal the first of sea-faring nations. It was founded as such by Emmanuel the Great on April 21, 1500, and completed by John III, although never quite finished. Once it served as a cloister for the monks of the Order of St. Jerome, but now is a royal orphan asylum—a *casa pia*. Boutaca must have conceived the plans of the whole foundation before João de Castilho, whom we have already spoken of, designed and carried out the building. On the church which terminates in the east in the somewhat heavy Renaissance choir of Diego da Torralva there rears, in the north, the immense square transept, surrounded by the chapter-house, sacristy and refectory, and in the west the huge dormitory building, 185 metres long, with an open hall on the ground floor over which at that time were the cells, sleeping and dwelling rooms of the monks. The immense portal on the south side, which is 32 metres high and 12 metres wide and which embraces the whole arch of the church, has nowhere its equal. The transept is, in the majesty of its proportions, in the richness of its decorations and in the unparalleled treatment of its double hall, the most perfect of that kind of building in the whole world. Its architecture is ascribed to João de Castilho and also the entrance, but on this latter the artist Nicolas, the Frenchman, claims also some portion. He was the leader of the French art colony at Coimbra, whose aims towards the end of the reign of Emmanuel showed a sympathy toward the styles of the Middle Ages and also the Indian. In the seventeenth century in Portugal we notice all walls and ceilings of the churches covered with richly carved and gilded woods. The effects attained by these panellings surpass everything of a like character in magnificence as is shown on the old church S. Francisco in Porto. The coffers in the sacristy whose rich and artistically modelled figure ornaments and above all the choir-stalls, form the introduction to Renaissance decoration. The choir-stalls at Belem are the first example of this wood-carving in Portugal. The master of these is most probably Diego da Carta or Carça, who also made the likewise remarkable choir-stall in the Cathedral of Evora, and those of Nossa Senhora do Carmo at Lisbon, once very celebrated but not now in existence. Flemish masters fostered the art of wood-carving, which developed itself at the same time as that of the Portuguese school of painters whose paintings, as Justi has demonstrated, show a reflected splendor of the best days of the people and continue the traditions of the Van Eycks in a truly national sense until late into the sixteenth century, while the mannerisms of the Italians have flooded the rest of the world. The church of the Cloister of Christ at Setubal, the earliest specimen of the new style (commencing in 1490) was built by Boutaca, who, as we have just seen, was the first architect of the cloister at Belem and the S. Maria Church. Both houses of worship are composed of nave and two aisles a form at that time not to be found in the country nor perhaps on the whole Iberian peninsula; to be sure, though, the church at Setubal in no manner approaches that of the Hieronymus Order in dimensions and boldness of conception. As in that, notwithstanding certain misconstructioned parts, the happy effect of the good proportions is substantially enhanced by the twelve large paintings by the brush of some clever master in the early part of John III's reign, and others made in the seventeenth century, with their richly carved and gilded frames; so in the S. Maria Church at

Belem is the whole affected in the same way; the roomy interior with its single *ensemble* of architecture and decoration, with its net-work dome and tapering decorated pillars. It is a most worthy Pantheon for the ashes of Vasco da Gama and Luis de Camoens, for Emmanuel the Great, John III, Cardinal Henry and Dom Sebastian.

At the death of Emmanuel the Great the lucky star of Portugal began to wane. The amount of gold drawn from the country by the colonies, and the number of its best people settling in distant latitudes both combined to upset the existing administration of the kingdom; the suppression of the industrious Moors and the zealous Jewish merchants depopulated the country, unexpected and fearful droughts and famines broke out and with greedy hands laid hold of Spain, France, Holland, England, and even included all those lands which the Portuguese people had acquired for themselves with the most strenuous exertions. To these misfortunes brought about by the short-sighted policy of John III other domestic troubles were added, enemies to be feared, the Inquisition and the Jesuits. On the battlefield of Alcacer el Quiver (1578) that over-learned scholar, Dom Sebastian, reaped the result of their unfortunate instructions and sealed, with the surrender of the army and his fall, the end of Portuguese greatness and glory. Only a few of the buildings erected in the reign of John III are to be traced to royal initiative. Through Filippo Terzi (Tercio, Terzio—at the Archduke Ferdinand's court there was likewise a Ferzio—Burgemask by birth, an efficient painter and copper-plate engraver) who came over from North Italy, perhaps from Verona, Portuguese architecture received a new impetus in this epoch, and by this is manifested already the power of the Jesuits in the country.

The high standard of excellence in his São Roque (1570) was the inducement which led King Sebastian (1557-76) to name him the architect to the royal palaces, and honor him with high favors. Cardinal Henry released him after the battle near Alcacer, in which he was captured in the retinue of the King and restored him as *Architecto dos Paços Reaes*. The general character of his buildings makes it easy for one to recognize in him a pupil of Sanmichele and the Church of S. Georgio in Braida, Verona, as the pattern he somewhat followed in the beginning; most of these buildings were partially or totally destroyed during the earthquake. They are as we have said, of a grand character, and in real monumental effect and nobleness of form far surpass those buildings erected in the same period in Spain. Doric pilaster orders rule the exterior and the interior is a nave only, with rows of chapels on each side and above these the galleries. A dome, with or without a low drum, marks the intersection; large vaults—only São Roque is flat-roofed—divided by stone ribs in various caissons and fields cover the inside, and these are decorated in the manner previously mentioned, as well as by a kind of marble-mosaic—a costly embellishment—the best instances of which are in those churches so many times alluded to already—São Roque and São Antão. Balthasar and Alfonso Alvarez, as well as João Nunes Tinoco are the most renowned of the pupils of Filippo Terzi. There are standing yet of the buildings in Lisbon



South Doorway, Church of S. Maria, Belem.

by this master and his school: São Roque; São Antão and the Hospital of S. José and S. Maria do Desterro are in ruins since the earthquake. Yet there is another which is evidence of what houses of worship were like in those days—the Church of São Vincente da Fora, the dome only being destroyed. The whole air

of the interiors, the imposing pilaster orders, and the restored black-and-white marble caissons rank these buildings as the most eminent in Portugal, perhaps in all Europe.

After the country had surrendered to Spain, Filippo Terzi still remained court architect. Unfortunately, his principal work in palace buildings—the one erected for Philip II, the Torreão do Paço da Ribeira—was carried away by the raging waters of the Tagus on the awful day in 1755. With the close of the Spanish rule the history of the Portuguese Renaissance ceases. The blooming time of Terzio's school was only of short duration, and the downfall rapid.

The monuments of Portugal have not escaped the restoring mania of our times. The Cloister Madre de Deus, besides having become an asylum for the insane, most unfortunately, is no longer to be trusted as to its early forms. The Torre Sao Vicente has suffered by the extensive renovations in the details of the hall and the balcony. In Belem, a great deal of "restoration" has been energetically carried on for about thirty years, or perhaps better said, additions have been extensively made, with good materials truly, but with so little foresight and prudence that the middle building of the dormitories has fallen in.

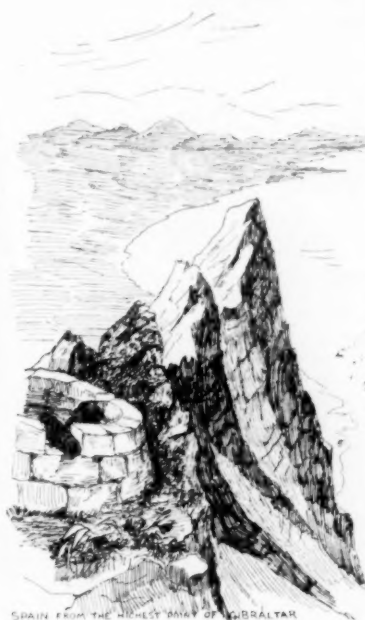
That which Herr Albrecht Haupt offers us in the shape of illustrations in general in his work, a second volume of which we are eagerly awaiting, is very successful. In many cases, though, one regrets that he took such rough and incomplete sketches, seemingly copying the ways of certain German illustration manufacturers, who are careless about the correctness of the details, for these sketches, although not without value, give only a general impression, and then only to those to whom the object is known either by inspection or by being the fortunate possessor of photographic prints, which serve as a mnemotechnic means of help. In other respects he has agreeably undeceived us. Taught by experience, and receiving an unpleasant foretaste by a certain wording of the preface, we feared an extremely dry and, therefore, dull book. We find, instead, matter well made up, a free style of writing, always suitable to the passage, occasionally an extraordinarily striking part, and, in places where the author describes what he has actually seen and lived, a vivid and enthusiastic portrayal. We were apprehensive of finding it one of those books which are hastened in the preparation in order to satisfy the demands of a speculative publisher, and which are, consequently, so often slighted; we find, instead, a profound study into the history of art. We expected a number of artist biographies gathered from every known and unknown encyclopedia, hastily put together, and, of course, with the inevitable "historical introduction"—a jumble of all the aid that "Schlosser" can afford, and in which every word reveals the utter want of real historical meaning; in place of all these pretentious absurdities, we read real learned sense, and meet, instead of a compiler, an historian. How he discovered the influences and impetus to which the Renaissance in Portugal owes its high standing, and traces it in such a strictly methodical manner, is demonstrated in his simple though very correct sentence: "The development of Portuguese architecture is only made intelligible in the hands of an historian" (page 31)—clear enough. Biographies exist in abundance in his work, but always in subordinate places, and never as an objectionable feature. He does not trace the development of art to the power exerted by men of natural genius by causing a revulsion in art circles, but to a series of political, religious, social and literary facts, which, in turn, influenced these same masters.

The high standing of Portugal among European nations in the fifteenth century is most amply demonstrated by the alliances of its princes with Burgundy and Hapsburg, the most powerful families in those times. A little later, and the illustrious scion of these two houses would have joined—to make one huge empire—Austria, Burgundy, Spain and Portugal, which would have crumbled away about as quickly as it could be formed, as did the Spanish Hapsburg branch, the representative of fallen glory. It was in Germany, during this same period, that Dürer produced his great "Passion," Burgkmair found his vocation, Peter Vischer became a great master; yet the building of the Cologne Cathedral came to a standstill, Schongauer was dead, whilst Schüchlin, Zeitblom, Holbein the elder and Wohlgemuth only endeavored to please the pious yet narrow-minded masses of the people. At the same time, Italy blossomed with the wonderful art productions of the High Renaissance, in Flanders the period in which the large court-houses were erected, and, after the Van Eycks, Rogier v. d. Weyden and Memling, there came the epoch of Quintin Matsys. In France, at the close of the Gothic style, they neared the end of that period over which King Francis exercised such influence; in Spain, the completion of the richly-decorated towers and domes of its cathedrals was carried on, and that style of beaten-silver panelling for ornamentations had just started, and in Portugal the Castle of Belem was founded. Maximilian I was, by blood, just as good a Portuguese as German. No wonder, then, that in the wood-carving which those two great masters produced for him the Portuguese reminiscences were not forgotten. In the triumphal procession of Burgkmair are pictured the Kaleut folk, the "wild men," who, according to the "Weisskunig," have their dwelling in one corner or angle of the world in "that distant island in the ocean, and who were subjects of the King of Portugal"; and also the Olifant is to be seen in this same carving, who, by the same authority, had drawn on himself the eyes of the multitude during the wedding festivities of Eleanor in Lisbon.

As a concluding evidence, we mention Dürer's triumphal arch, upon which shines the chain of that order which Philip the Good founded on the day in which he was married to the Portuguese king's daughter. As we have seen above, art excelled in Portugal, and, after 1500, spread itself over Spain; and, in a like manner, during the renowned monarchy of the Hapsburgs a new element was introduced in the European intellectual world by the pupils of Loyola, the expression of which is to be beheld in the architecture of Vignola as well as in Borromini's, in the paintings of Eklekteker just as much as in Caravaggio's, Rubens's and Murillo's; yet for a long time it is observable that Portugal followed its own peculiar style in the furtherance of art. As we note in the work of Albrecht Haupt, the effect of the Dürer period in Germany is to be traced to the banks of the Tagus. History of Art will have asked itself the question: How many of the characteristic features of German Renaissance has, perchance, had an influence on the architecture of Lusitania?—Josef Dernjac in *Zeitschrift für Bildende Kunst*.

A RUN THROUGH SPAIN.—XII.

"THE ROAD TO SPAIN."



SPAIN FROM THE ROCKY MOUNTAINS OF GIBRALTAR

AS we tramped along preparatory to leaving Tangiers, the same old sheik who had made us pay a small fee to get into the town, halted us and demanded a coin before we left. As this was rather maddening I started to expostulate, when I saw a suggestive motion from Patecola, so, thinking that discretion was the better part of valor, I paid the old wretch a few pesetas, whereupon he allowed us to go on. So little system is there in regard to this old fellow's duties, that he simply gets all he can from every traveller, knowing full well that he has but one year's service to perform, and that he must therefore rake in all he can. Had we refused his rapacity he would undoubtedly have caused us no end of trouble, and delayed us indefinitely. But he was feeling particularly happy, for he had just gone through a poor Englishman's luggage, and made him pay for everything he had and then robbed him in a terrible manner because he carried a large green bath-tub on his shoulder. The man certainly did look very funny with the thing slung over his shoulder, and I can imagine that it caused him no end of trouble: such would-be clean people shouldn't travel in such dirty countries, for if one wishes to be happy he must do as the natives do.

Our run through Spain has already carried us across the sea and into another country. Like the impetus of a runner the exhilaration of travel was so strong that we could not stop, and had to go on. Now, having seen some of the beauties of such a strange land as Africa, we are returning to our first love, and strange enough, must pass through a bit of mother country to attain it. Our little boat is steaming across the sea, and already we get a glimpse of a far off peak of land that seems cut off from any main land, and stands alone. We are returning to Spain, and yet to an English town.

The Rock of Gibraltar stands at the extreme end of Spain, and across a flat band of sand which connects it with the mainland is an enormous board fence, a quarter of a mile long, possibly, and forty or fifty feet high. Not content with wresting from Spain her rightful property, England followed up her thievery by building this huge bit of carpentry, and painting upon it the sarcastic assertion that

"THIS IS THE ROAD TO SPAIN."

The effect of might gaining the victory over right was never better exemplified than by this board fence, and the simple sight of it gives the traveller a vivid picture of John Bull's grasping spirit, and makes the blood of a true Spaniard run swifter as he thinks of the outrage upon his weaker nation.

Old Don Diego de Salines, its old Spanish governor, was moved one day to capitulate. It reminded us of the story of Mark Twain, where he was practising with a new revolver, and accidentally shot a mule. He explains his buying the mule by the fact that the owner, who held in his hands a double-barrel shot-gun, persuaded him to buy the mule, although he didn't want the animal. So the old Don down here in this rocky fortress although a brave man, saw that resistance was useless, and was thus persuaded to haul down the flag

¹ Continued from No. 803, page 100.

of Spain, and allow the usurper to plant above it the hated British ensign.

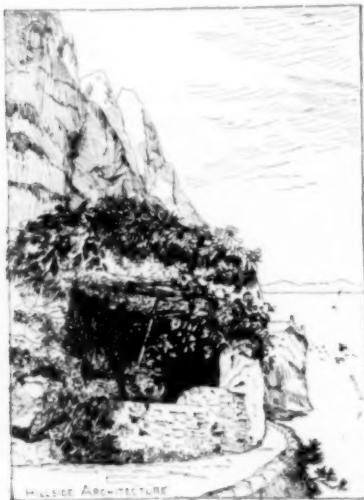
Spain meanwhile, of course, looked over from her hills across the sandy strip of land with disgust. To think that another power held sway and dictated terms was in itself a most bitter pill, but to find that this foe held the very front door fast, and would allow neither entrance nor exit without the permission of the Lord High Chancellor — this was indeed more bitter still. To then plant under their very nose a board fence, and to paint upon it the sarcastic direction "that this was the road to Spain," made every Spaniard hate his obnoxious neighbor.

Time went on, the big guns of England pointed their mouths towards Spain for seventy-five years, until at last, patience being exhausted, she agreed to join forces with France, and fight to regain what she had lost. Time and again they gathered their combined forces, and threw them across the sandy peninsula against the rocky sides of Gibraltar, but to no end. England's tenacious grasp could not be shaken. Ages before this, Gibraltar had been a kind of shuttle-cock between the Moors and Christians, but of this time I need not speak.

Spain, as I have said, was disgusted at seeing another power directly under her nose, and she again resolved to recover it if possible. From June, 1779, to January, 1783, therefore, she kept up a siege, only to be repulsed at every endeavor to gain an entrance. Fleets came to England's assistance, destroyed the fire-ships of the Spaniards, and left only a narrow strip of land as the ground on which any dispute could be fought out; and as this strip was very small, and at best only a few thousand men could be worked to any advantage, the English were enabled to hold the forts and prevent any breach in the walls. But these attacks, however, troubled John Bull a good deal, and he was most anxious to fortify himself in the most perfect manner possible. General Elliott being in charge during the last great struggle observed that the power of the enemy was greatest on the land side, English ships-of-war being fully able to cope with almost any power on the water sides. Here, then, was the weak point, and so troubled did the old general become, that he was led to offer a reward of a thousand pounds for any method suggested that would give a flanking fire on the enemy. As the north and land side of Gibraltar is a sheer perpendicular rise of rock, hundreds of feet high, this seemed a perfectly safe offer. But immediately came forward a sergeant of Royal Artificers, who suggested that a gallery be cut in the rocky sides, openings left and manned with guns, and a veritable fort be formed that could drop shot and shell upon the invaders from the very heavens. This suggestion was at once acted upon, but history does not tell whether or no the sergeant ever received his reward; he deserved it at any rate, for it was the inauguration of one of the most glorious pieces of engineering on record, which forms the chief attraction of Gibraltar.

To-day with the increased fortifications and these rock-cut defences of the cliffs, together with the force that could be thrown into action on the water, it is doubtful if Gibraltar could not hold its own against the world so as to be absolutely impregnable.

What a beautiful picture it was that gradually became more clearly defined as the ship approached the Spanish coast; first a dim bank of apparent clouds, hardly distinguishable from the fleecy masses above, then a blue, hazy peak gradually turning into a well marked "loaf of rock," and at last walls of stone, defences, groups



of palm and tropical foliage, an irregular line of old Moorish wall running half-way up the hillside, and at the very top a little tower station clearly defined against the blue sky.

Hundreds of small boats begin to be seen on all sides as we run up into the inner harbor and cast anchor. This meant the passing through a fire of hungry guides and boatmen, all anxious to garner in the shillings, and ready to skin us alive, metaphorically speaking, did the chance but offer itself, and it is a question whether we

preferred the volley of mother-tongue or the more picturesque mutterings of the Africans whom we had just left across the Straits.

Groups of sailors, brawny fellows in blue shirts with bright red caps and scarfs, pictures which would delight the eye of the artist, jaunty English soldiers with their funny little caps stuck on the side of their head, as if glued on, and a few solemn old Moors with yellow sandals and loose flowing robes and turbans — all these greet us as we clamber up the pier, and go through the operation of proving that we are not dangerous subjects, nor do we carry dynamite, nor whiskey, and furthermore that we do not intend to try and

carry off the place surreptitiously; that on the contrary we are only bent on seeing all that is to be seen on their rocky little fortress, and that we desire to sketch and photograph its beauties.

The western slope of Gibraltar is one succession of gardens filled with the luxurious foliage of the tropics; ancient cork trees, oleanders



and rhododendrons, palms and large cactus plants growing to immense size, and toward the southern part of the town the fortress walls are actually overhung with their growth.

The rules of Gibraltar in regard to what may and what may not be done are very strict, and exceedingly amusing to an American. If you sit down a moment to sketch, a soldier taps you on the shoulder and stops you, for you must have a permit. If you set up a camera to get a bit of the beauty of the place, it is either felt to be an infernal-machine, likely to go off and knock out the bottom of the town, or a recording machine which might give an enemy a point as to its strength. You can buy photographs by the dozen at the store, but you must have a permit to take them yourself. If you walk around the massive fortifications to examine the huge guns standing like sentinels looking toward the bay, you are stopped, you must not examine them, they are patented and require a permit to look at them.

"Great Caesar!" I exclaimed at last to a prim-looking soldier who saluted at the name of Gunner Saunders, "can I blow my nose around this hill, or take a view of Africa without a permit?" "No, sir, I think you must get a permit," he answered, but he smiled at my sarcasm.

So I put in motion the red-tape machine, and after three visits to as many persons, managed to get a mysterious paper which would allow us to sketch or photograph anything but the fortifications, and including no doubt the possibility of blowing one's nose if necessary.

Our little hotel was backed-up by the mountains: in fact, we could almost step out of the second-story window onto the mountain side, so close were the houses as they huddled under the hillside. And since all there is to Gibraltar may be summed up in the word mountain, the prominent excursion is up its sides, through its rock-cut fortifications, up to its signal top.

One beautiful morning at eight o'clock four little donkeys drew up in line and began their morning devotional exercises directly under our windows. Thus called upon, we descended, straddled their backs, and were soon ascending the hill in good earnest. The irregularities of wall which we had seen from the ship gradually came in view, and we soon passed through an old archway, now a part of the barracks. The view began to be magnificent, but it could be easily seen that it was but the beginning of things. It was only when we had ascended 700 feet above the water-level that our guide stopped and gave us an account of the different sights unrolled before our eyes.

It is at this point that the first tier of galleries begins, cut from the solid rock, and with large openings looking down from the precipitous sides, and through which poke the noses of enormous cannon.

The first suggestion of the inventive sergeant has been carried out, with several tiers of excavations, all mounted with huge batteries giving a flanking fire bearing upon the very entrance and land-approach to Gibraltar. To do this on the east would be useless as the rock is a sheer descent, from top to bottom, of 1,400 feet, and is certainly a stupendous sight as seen from the shore of the little fishing village of Catalan Bay.

No less secure are the defences of the westerly side, so far as fortifications are concerned, for the whole extent of coast-line is laid out with a double casement wall of immense thickness, and literally living with cannon.

As we entered the passages it became perfectly dark, and the little donkeys picked their way carefully over the stony floor, where the width is about ten to twelve feet. Here and there were large chambers hewn out of the solid rock, and large enough to hold a hundred men, possibly. At one or two of these points were steps reaching to upper galleries, and a tour of the whole gave one the impression of a honeycomb of fortifications, which could pour down tons of shot and shell without receiving any injury to itself.

When standing out upon a little promontory guarded by a railing the view is truly stupendous. Away to the eastward rolls the blue Mediterranean Sea, with here and there a sail or the smoke of a steamer, each looking like a mere speck. To the north is the flat, sandy connecting link to Spain, beyond which the mountains of

Spain loom up, pile on pile, bringing to mind the famous old brigand Don Diego, whose house was in their fastnesses, and who though a "gentleman of the road" used not to be averse to squeezing the windpipe of the unlucky voyager to an unpleasant degree, should he resist the old rascal's demands.

Those mountains, too, were the harbor of all the smugglers of Gibraltar, who, whatever may be said of their diabolical character, add so much romance to Spanish history. They belonged to a special class who enjoyed a singularly brilliant reputation, and were the friends of artists and sculptors alike. The lower classes adored them, and delighted in nothing better than to urge them on as they jauntily sang their merry couplet "*yo qui soy contrabandista.*" A bottle of wine and a cigarette opened their hearts, and their presents of snuff to the curate, cigars and good stories to the tradesman, and gossip to the old women, kept them constantly in the good graces of the people, and smoothed over the little irregularities connected with the possession of their booty. You look for them now but you don't find them. They do not exist. Their *majo* costume and picturesque trappings have disappeared, and if you chance to see them at all, it will be in the cosmopolitan dress of the commoner.

Still to the westward we look over the bay, and discover a little straggling town known as Algeciras, lying under the low hills of the Spanish coast.

But you have at this point only gone half the distance up, and if your staying powers are good and your little donkeys in a happy frame of mind, you may climb away up, 700 feet more, and visit the sentinel tower, or the ruins of poor O'Hara's little pile, which occupies the extreme southern point. But the view is magnificent and repays the hard climb. From this point you may look down into the straits of Gibraltar and see the ships of all nations, as they pass and re-pass, and if the day is at all clear, the hazy, blue hillsides of Africa are perfectly plain, and look as if they might be reached in an hour or so.

It is a charming sight either at sunrise or sunset. A sense of sadness and mystery cannot but fill one's soul as he looks out over the sea to the westward and sees the apparently unending reach of ocean. No wonder that the spirit of the ancients shrank from passing the unknown horizon behind which the sun sank from view. Up to the era of Augustus, they had never ventured beyond this rocky promontory on which we stand, but had written their verdict of the hardihood of such an attempt in the words of Ariosto "*La meta qui posse ai primi naviganti ercole in vito.*"

Whatever goes up must come down, is a saying of old, and represents the natural course of things, in regard to humanity in general, who persist in ascending heights such as Gibraltar presents. After drinking-in this wonderful panorama, we turned the little donkeys' heads downward, and under the inspiration of their expected fodder they jogged rapidly along jolting us in a terrific manner and making our very teeth to chatter. "Gunner Saunders, sir," meanwhile enlivened the journey by reminiscences of his life at this strange fortress town. "Eight years I have been here," said he.

"But you have been home to England during that time?"

"Never thus far, sir," he replied.

"And you go up over this rocky path nearly every day?"

"The same, sir, and shall go over it I suppose for years to come."

With this he touched his cap as he reached his station, while we jogged down the mountain-side wondering that such an existence could be endurable, and thanking our stars that we were not English soldiers, whose very life is little better than that of a horse who treads the mill day by day.

As I was saying, we jogged down the hill after what might be considered a hard day's work. Our little imps of drivers prodded the donkeys from a spirit of pure deviltry, I am sure, for they shouted and prodded until the poor beasts came to a dead halt, refusing to go on. The small boy has described the donkey to be a piece of architecture with a leg on each corner, and when these pieces of architecture came to a halt, they set up such an unearthly noise that we were all convulsed with laughter, and at last left their backs and ignominiously walked home.

It is impossible to speak of any architecture at Gibraltar, because there is none of any importance. The Cathedral Church is a grotesque Moorish attempt, and the Roman Catholic Church, still unfinished, shows no point of interest. In fact, the grand fortifications are far more interesting even architecturally speaking, their simple lines and stupendous masonry being fine examples of engineering skill.

One notices at the very top of Gibraltar, a little tower, known as O'Hara's Tower, which is said to have been connected with a highly sensational love affair of the old general of Gibraltar, but as it was struck by lightning some time since, it may be supposed that the arrows of Cupid could not prevail over the bolts of Jove. Following up the old Moorish wall, which has been built to cut off the enemy, the Signal Tower is seen; a point on which beacons are lighted in case of threatened attack.

No less interesting is the walk out of the town and around Gibraltar, towards the sea, with the huge mass rising above in all its grandeur.

Imagine to yourself, the huge rocky sentinel starting from the seas, and throwing up its proud head above the sands of the Spanish main. It is literally the end of things. At its base, nestling among the boulders, is the straggling town, made up of rampart and barrack,

with a few stores and houses, two churches, a school and a large parade-ground. Farther along a beautiful garden is filled with tropical growths, spreading out their great leaves and palms under the warmth of the hot sunlight. Presently the town is left, and the hillside is reached, where great gorges are spanned by light iron bridges, and where little cottages nestling among the rocks, proclaim the abode of some of the officers and their families. Almost like Capri is the view, and we can hardly wonder that the officers are pleased with their homes, and vie with each other to be stationed at such a delightful spot. Soon the extreme end of the rocky promontory is reached, whence the mountains of Africa are seen, blue and hazy. We are at the end of a continent and before us are the huge batteries which are drilled to belch out fire and shell upon any invader. Troops are practising even now, and every few moments we see a soldier pull a lanyard with all his might, and a shell goes ricocheting across the water at a target far out at sea.

We can go no farther around the rocky Mediterranean coast, as the rocks fall away nearly perpendicularly into the sea, and the huge waves dash themselves against a mountain of rock, 1,400 feet high.

At sundown the views are beyond description. The mossy sides of the mountain grow soft in the golden light, while the crevices and caves are thrown into deep shadows.

We left Gibraltar after three or four days. It was evening and the boat was to start after dark. Crowds of red-coated soldiers lounged around the big gateway and a few red-slipped Turks sat sedately in their bazaars. The sun sank slowly down below the horizon. Boom went the big cannon on top of the signal-tower! The big gates swung slowly on their hinges, and we were outside of Gibraltar. Woe to the Englishman who gets caught outside, or to the Spaniard who gets caught inside, for he must wait until the gun has announced another day and the big gates are again opened.

It commenced to rain shortly after we had left, and the little boat which was to take us across the bay to Algeciras being entirely open, we wrapped our *mantas* around us, and huddled together around the smoke-stack, Englishmen, Spaniards, Jews, Moors and Americans. An hour after, the big side of the Mediterranean steamer loomed up and we were hoisted to its deck. Soon she slipped her moorings and ran out around Gibraltar, while the huge mass of the old town arose like a grim spectre, cold and solemn. The lights at its base twinkled through the mist, and away up at the top shone one lonely light at the signal-station, a beacon for travellers, a ray of light upon a mass of darkness.

(To be continued.)

EQUESTRIAN MONUMENTS.¹—XXXIX.

THE DUKE OF WELLINGTON.



Vase Decoration. After "*La Vie Privée des Anciens.*"

ONE of the English participants in the Napoleonic war absorbed during his life the greater share of praise which the English people, long kept in a state of constant dread of a French invasion, delighted to pour out upon those of every rank, both in the army and in the navy, who had a hand in the downfall of Napoleon. The Duke of Wellington was and still is the idol of the English people in only a less degree than was and is Lord Nelson, whose popularity is due, largely, to his being a sailor and partly to his being swayed by certain human failings which the impeccable Wellington did not yield to, or, if he did, knew how to keep his follies out of sight. Still, for a man of his retiring and unbending character, he achieved an unusual measure of control over those who surrounded him, which must have been due to personal qualities and not merely to position and influence. It seems unquestionable that he was to a very great degree loved by many for himself alone and not merely for the successes he had achieved.

It does not fall to many to have an active career covering fifty-nine years of active public service of the most varied and important character and to acquire himself in most respects with the most absolute discretion. A man who has led such a life is worthy of all the fame that bronze and marble can bestow, and Wellington has received more of such honor than other Englishmen in about the proportion that his performance in intrinsic value exceeds theirs. Of the many statues of the duke no less than five equestrian have been erected, while several others have been modelled.

The latest of these, one of the last works of Sir Edgar Boehm, at Hyde Park Corner, has already been illustrated,² and at the time it was set up, in 1888, just forty-four years had elapsed since the first equestrian statue was erected. This, the statue in front of the Royal Exchange, London, is the work of Chantrey who had shown his competency to deal with equestrian sculpture by the statue of George IV in Trafalgar Square, which he had finished some fifteen years

¹ Continued from No. 803, page 104.

² See the *American Architect* for January 10, 1891.

before. Chantrey was, however, about sixty years of age when the Wellington commission was placed in his hands, in 1839, and that he was willing to undertake at that age so lengthy and laborious a piece of work betokens a courage and confidence which may well be envied. He was not allowed to finish his work, however, and at his death, in 1841, his pupil Henry Weeks took up the task and finished



Wellington, Chantrey, Sculptor.

it, it is understood, exactly as Chantrey would have. The statue embodies the same great "invention" which Chantrey devised when modelling the George IV, that is, the horse is resting quietly on his four feet and neither capers nor prances as bronze horses are most wont to do. That Chantrey should have made a second use of the principles of composition he had evolved in his earlier statue was only to be expected, but that the facile Marrocchetti should adopt them and for once turn the cold shoulder on the theatrical poses he habitually used for his equestrian statues is notable, and shows how great a novelty the standing pose was at that late day. This statue of Marrocchetti's was also erected in 1844 and like Chantrey's represents the Duke of Wellington in his marshal's uniform partly covered with the horseman's cape, and while the latter's statue stands in front of the Royal Exchange in London, the Italian sculptor's work stands in front of the Royal Exchange in Glasgow. The two statues cost practically the same sum, the Glasgow statue causing the expenditure of £10,000 and the London one £9,000 to which must be added £1,500, the value of the captured French cannon which were used for the cast. Both statues are of about the same size, the difference being mainly in the height of the pedestal which at Glasgow is only 8½ feet while at London it must be fully twice as much, at any rate, the entire group is 28 feet high. The Duke in both cases is shown bareheaded, in uniform with draped military cloak, and the poses are very similar. In both cases the treatment is markedly academic and in both cases the portraiture is good; in short, in date, in size, in pose, in cost, in detail there is a singular parallelism between these two statues.

What special influence brought the Glasgow statue into being we do not know, but in the case of Chantrey's statue the prime mover was a member of the London Common Council, Mr. Thomas Bridge Simpson, who had been much impressed with the merits of Wyatt's equestrian statue of George III, in Pall Mall. Being an ardent admirer of Wellington's and moreover possessing a becoming pride in "the city," which had been brought out of financial straits by the cessation of the war with France, he conceived the idea that it would be a graceful thing for the city to acknowledge the debt it owed to Wellington. Accordingly, having first ascertained that Wyatt would be willing to model a statue of the Duke, he broached the idea to the authorities and the men on 'change, who took up the scheme promptly



Wellington, Chantrey, Sculptor.

and quickly raised the needed fund. But here arose a difficulty; Mr. Simpson could start the ball but he could not control its course, and he found himself unable to carry out his implied contract with Wyatt, for the reason that a bare majority of the committee pre-

ferred that Chantrey should have the commission, the Lord Mayor giving the casting-vote.

But Mr. Simpson was a man of resource; he was loyal and sympathetic and he did not rest satisfied with the unique public acknowledgment, stated in the form of a vote of thanks, that he had been the "first man" to suggest the creation of such a memorial. London



Wellington at Hyde Park Corner, Wyatt, Sculptor.

is a large town and the distance between the Royal Exchange and Hyde Park is but an outward symbol of the distance between a city man and a dweller at the West End—Londoners both, but none the less ever conscious of a kind of rivalry with one another. Mr. Simpson took advantage of this failing in order, perhaps, to save Wyatt from a too great disappointment, and immediately appeared as the promoter of a movement to erect a statue of Wellington at

the West End, which should be not only a statue but the statue. There were several points in favor of the scheme; the more open character of the town at the West End affords better sites than could be found in the city, the people who dwelled there, though perhaps not richer than their neighbors who lived under the immediate control of the Lord Mayor, were wealthy and cultivated and, greatest of all, the Duke himself lived there, and it was ascertained that he would graciously raise no objection against the proposed memorial; on the contrary, would be becomingly gratified, and would give the artist sittings at his convenience.

So much being settled, the work of securing subscriptions was busily pushed, and at length a contract was made with Matthew Cotes Wyatt to execute a colossal statue for the sum of £30,000, and the sculptor and his son James began their work upon it in May, 1840, and were busily employed on it for somewhat over three years. This was expeditious work considering the size of the statue, for it is one of the largest ever executed, measuring about thirty feet in height twenty-six feet from the nose to the tail of the horse, which girths twenty-two feet eight inches, and whose fore-arm girths five feet four inches, while his head is six feet and his ears over two feet long. The weight of the completed group is between thirty and forty tons,



Wellington at Aldershot, Wyatt, Sculptor.

while over one hundred tons of plaster were used in making the model. The group was cast in eight pieces, the largest requiring the melting of twenty tons of metal, which were afterwards bolted and brazed together at the foundry adjoining the sculptor's studio

before the statue was moved, rather more than a year being needed for the several processes.

Finally on September 28, 1846, the statue, slung on a car, itself weighing twenty tons, especially designed for the purpose at the Woolwich Dock-yard, was drawn through the aperture cut in the wall

of the foundry, and under the traction afforded by twenty-nine brewery horses was successfully drawn to its place of erection, the operation being managed skilfully with the aid of a large detachment of riggers from the Dock-yard. Nearly four hours were consumed in the transit, which was the occasion of a general partial holiday.

The site selected for the statue was the arch at Hyde Park Corner, through which entrance is had to Green Park, designed by the architect Decimus Burton, who did all in his power to prevent his modest bit of architecture



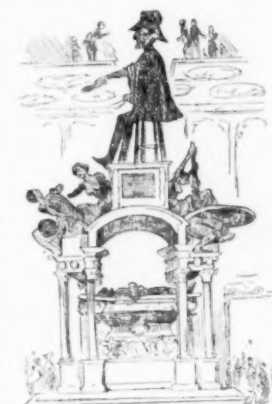
Wellington at Hyde Park Corner as seen by Mr. Punch.

being put to a use for which it never was intended. He represented that, for a triumphal arch, his arch was one of the smallest, while wrong to both, and that, moreover, the structure of the arch was not such as to give sure and safe support to the mighty mass of metal above. Burton was not the only person who opposed the use of the arch as a pedestal for the statue. Never has a question of the kind caused the expenditure of more ink, heat and spleen: the forensic battle was joined as soon as the arch was suggested, and it was waged with little interruption for over thirty years before the opponents of the scheme finally had their way. Before the statue was erected, the Royal Academy was appealed to, and twice responded by solemnly protesting against the proposed use of the arch, and Parliament was petitioned, the Queen appealed to, but all in vain. Some one, it does not appear who, possibly it was the Duke himself, had enough influence to thwart all the pressure the protestants could oppose to the use of the arch as a pedestal. Ridicule and satire, calm expostulation and vehement protest, diatribes of every kind, poetical and prose alike, have been showered on this unfortunate statue as never before or since upon any other. The editor of *Punch*, aided by his able cartoonists, was unwearied in his efforts, and it is more than probable that the efforts of this journal had more to do with manufacturing public opinion than those of the recognized critics. But all protest proved fruitless. Burton was ordered to strengthen his arch to receive its load and do what he might to connect the long horizontal line of the cornice with the base of the statue.

After all, we believe that all the great ado made over this statue was factitious and needless, and based largely on a preconception, which had become too deeply rooted before the statue was set in place for those who once had harbored the idea to see that, although

arch and statue were not designed to go together, the result was far from being as bad as it was asserted to be. To be sure, the arch was not designed for the statue, but the statue was modelled for a place upon the arch, and, moreover, before the work was begun, the sculptor had the benefit of seeing a wooden model upon the arch which the Government, without consulting the sculptor or the committee, had placed there for the purpose of determining whether any equestrian figure would look well in such a position. The general trend of criticism has always been that the statue was too

large for the arch, but we believe that, on the contrary, the real defect was that it was too small when seen from front or rear, or from any point save nearly a full side view. If the sculptor had modelled at the side of the Duke one of his aide-de-camps receiving his orders—a course which would have still more overloaded the arch, from the general standpoint—we believe that the additional breadth in this way given to the group would have stilled the voice of adverse criticism.



Punch's Suggestion for finishing the Wellington Monument in St. Paul's.

a formidable scaffolding having been built at one of the ends of the arch, by the aid of which the statue was swayed up to the proper height, and then, by a travelling trolley-car, moved horizontally over its intended place on the arch.] But, after the statue had been lowered to the ground, no one knew what to do with it, and it remained in front of the arch while a discussion—seemingly as endless as that which attended the taking-down and re-erection of Temple Bar—was joined by individuals and newspapers of every

party. A site in St. James's Park, near the Horse Guards, was the one which met with most general approval, but it was finally decided that Aldershot, where the autumn manoeuvres are held, was the best place for it; so in August, 1884, the group having been cut into its original sections, the great mass of dismembered metal was carted to Aldershot and there put together upon a low pedestal, which aids in giving a just impression of the immense size of the group, but which, if the arch was too small, must indeed be "overloaded."

While the statue was being removed *Punch* had a final fling at it and suggested that now that the Duke and his favorite steed, "Copenhagen," were separated, they should not be brought together again, but that Copenhagen should become one of the permanent attractions of Astley's circus while the Duke should find a place on Stevens's unfinished mausoleum¹ in place of the equestrian group which Dean and Chapter refused to receive. As to this group, by the way, a petition signed by influential men is now in circulation with the purpose of procuring so strong a presentation of public opinion that the cathedral authorities

will allow Stevens's model to be cast and placed upon the monument which shall be removed from its present position in an aisle chapel to a place beneath one of the nave arches for which it was designed.

Perhaps the West End no longer felt the need of rivaling the City's statue of Wellington, but Hyde Park Corner without a visible reminder of the conqueror of Napoleon seemed a veritable desert, so, at length, the Queen, who had always cherished a strong personal



Wellington, Edinburgh, Steell, Sculptor.

¹ See the *American Architect* for October 12, 1889.

friendship for Wellington, one of her early advisers, commissioned her Sculptor-in-Ordinary, Sir J. E. Boehm, to execute a new one¹ which as has been said already was unveiled in 1888, having occasioned the expenditure of £15,000 including the cost of pedestal, platform, etc.

Both Chantrey and Wyatt had the benefit of the sittings which the Duke was pleased to give them, a benefit which Boehm had not, and in both cases the portraiture is considered excellent. Still another sculptor had the advantage of modelling from the life, and his success was greater than either of his compeers', so great, in fact, that the Duke ordered two copies of the head and bust, one to be placed at Eton and the other in Apsley House. This fact seems to prove that, so far as portraiture goes, Sir John Steell's equestrian statue that stands in front of the Register House, not far from Scott's Monument in Edinburgh, is the most satisfactory statue of Wellington that exists. Yet when after his death, a few years ago, the sculptor's effects were disposed of at public sale no one was found to make a bid for the full-size model of this group — or for any other large models — and so it had to be broken up; whereas it might well have found a resting-place in some Scottish museum or the vestibule of some public building. The fact may simply show a lack of appreciativeness of a good thing which is not exclusively a trait of the Scotch character, or it may indicate that the public disapproves of the original statue which is hardly likely, for whatever may be thought of the unquiet and exaggerated pose of the horse, the figure of the rider is a fine piece of modelling.

The statue was erected on the anniversary of the Battle of Waterloo, June 18, 1852, and there were present at the unveiling a considerable number of veterans and pensioners who had taken part in that battle. Steell not only modelled but cast the statue, which is

fourteen feet high, and is placed upon a pedestal thirteen feet high. The weight of the group is twelve tons and the cost was £10,000, a figure which recurs so often that it may be taken as an axiom that a bronze equestrian statue of colossal size cannot be executed by a sculptor of established reputation for less than \$50,000.

Five equestrian statues only have been erected in honor of the Duke of Wellington, though, if the efforts of Sir Frederic Leighton and others are successful, Stevens's group may soon be added to the list, for his nearly completed plaster model stands in the crypt of



Wellington, Terra-cotta Statuette. Bell, Sculptor.

St. Paul's, and it is estimated that to cast it and re-erect the completed mausoleum in its intended position would cost little more than £3,000.

Other equestrian statues have, however, been projected, thus the annexed cut represents a little terra-cotta sketch after the model prepared by Mr. John Bell for the City of Manchester, which was intended to typify the Duke's, perhaps mythical, order "Up Guards and at 'em!" After Bell's model was accepted, the authorities changed their minds and erected a pedestrian statue by another sculptor.

Ireland, too, felt some degree of interest in the Duke, though his interest in the island of his birth was never particularly marked, and it was the intention that an equestrian statue should accompany the great obelisk in Phoenix Park, Dublin, known as the "Wellington Testimonial." It is not known whether this intention received even the development of models prepared by one or more sculptors; if any were offered there was probably not enough money to be had for the execution of any one of them. But the original idea is still kept in sight by some, and when Wyatt's statue was dismantled, one of the spots suggested for its final resting-place was Phoenix Park.

The Count d'Orsay once modelled a statuette of the Duke which was esteemed so successful by his friends that this Admirable Crichton afterwards modelled several other equestrian subjects which were cast in bronze.

Mr. G. G. Adams also modelled an equestrian figure, far from being a bad one, which we conceive was presented in either the Edinburgh or Glasgow competition.

WELLINGTON. — Arthur Wellesley, afterwards created Duke of Wellington; born in Ireland about May 1, 1769; educated at Eton and at the military college at Angers; entered the army, 1787; went to India, 1796; major-general, 1802; won the battle of Assaye, 1803; returned to England, 1805; elected to Parliament, 1806; Irish Secretary, 1807; lieutenant-general, 1808; won the Peninsular campaign, 1808-1814; British ambassador at Paris, 1814; represented England at the Congress of Vienna, 1815; gained the battle of Waterloo, June 18, 1815; member of the cabinet, 1819; prime minister, 1828; secretary for foreign affairs, 1834; retired from active public life, 1846; died at Walmer Castle, September 14, 1852.

(To be continued.)

¹ See the *American Architect* for January 10, 1891.

DUST AND FRESH AIR.¹



Cathedral of Basil the Happy, near Moscow. From *La Semaine des Constructeurs*.

IT is curious to contemplate how patiently the world puts up with small miseries, and never even asks the question whether they can be done away with. The entrance of dirt, *i. e.*, dust, into rooms, cupboards, closets, cases and drawers is so universal — worst in smoky towns, but not entirely absent in the country — is such a source of labor, discomfort and expense that the wonder is that, as a public question, it has never been made a subject of serious inquiry and study. The cost of dust to the whole country is enormous, whether we consider our museums or the cupboards and drawers in private houses.

The subject may be best treated in two divisions — one that of closed cases, cupboards and drawers; the second that of rooms containing a fireplace. The first division is perhaps the most far-reaching and important, and may be taken first. In dealing with closed spaces I may take it for granted that, do what we will, have as good workmanship as we can get, dust will get in. It is barely possible by mere "fitting" alone to keep out the dust. Grant me this, and we have a starting-point of common agreement, which will perhaps be but strengthened by any exceptional instances in a contrary direction, which prove, or put to the test, the general rule. Our next point is to inquire, How does the dust get in?

There are probably none of my audience who have not heard of the barometer. Many are in the habit of observing its movements day by day, and not a few, no doubt, understand the reason of the rise and fall of quicksilver in the glass. What do these changes mean and what do they record? When the air around us becomes condensed, shrinks into a smaller volume, it becomes heavier, puts greater pressure on the surface of the mercury, and makes it ascend in the tube. Then the barometer is said to rise. When the air expands, swells into a larger volume, it becomes lighter, the pressure on the mercury is less, the mercury sinks in the tube, and the barometer is said to fall. Therefore every change of height of the quicksilver which we observe is a sign and a measure of a change in the volume of the air around us. Further, this change in volume tells no less upon the air inside our cases and cupboards. When the barometer falls, the air around expands into a larger volume, and the wall inside the cupboard also expands, and forces itself out at every minute crevice. When the barometer rises again, the air inside the cupboard, as well as outside, condenses, shrinks, and air is forced back into the cupboard again to equalize the pressure; and, along with the air, in goes the dust. The smaller the crevice the stronger the jet of air, and the farther goes the dirt. Witness the dirt-tracks so often seen in imperfectly framed engravings or photographs. Remember, ladies and gentlemen, whenever you see the barometer rising, that an additional charge of dust is entering your cupboards and drawers. So much for the barometer, which is a very restless creature, rarely stationary for many hours together. But this is not all. We also have the thermometer. The temperature of our rooms varies daily, often considerably between midday and midnight, and greatly between summer and winter. What does the thermometer tell us? Not less than the barometer does it tell of change of volume of the air, though it is probably not so rapid in its effect upon air in enclosed spaces as is the change of volume indicated by the barometer. Most of you are familiar with a fire-balloon. The heated air filling the balloon expands and becomes lighter than the surrounding air, and up goes the balloon, until, the source of heat having become exhausted, the contained air cools, contracts, becomes as heavy as the surrounding air, and down comes the balloon again. So also, as temperature rises outside our cases, the increased warmth is slowly conducted to the air inside the case, when the air expands and escapes through the crevices. Then, when the turn for cooling comes, the air inside slowly contracts, and back rushes the air through the crevices, and again in goes the dust. Thus we see we have two factors constantly acting, one or other tending to produce daily, nay, hourly, changes of volume of our dirt-carrying air. In order to inform myself of the amount of change of volume that could, under extreme conditions, possibly take place, I asked Professor Rucker to kindly calculate for me the change of volume that would take place in 100

¹ A lecture by Mr. T. Pridgen Teale, delivered before the members of the Leeds Philosophical and Literary Society.

cubic feet of air between a temperature of 30 degrees, *i. e.*, just about freezing point, in combination with the barometer standing at 30 inches, or about "fair"; and a temperature of 60 degrees combined with the barometer standing at 29 inches, or stormy." He told me that the difference would be about 10 cubic feet, or one-tenth; in other words, that a closed case of 100 cubic feet, if hermetically sealed at a temperature of 30 degrees, with the barometer standing at 30 inches, would have to resist the pressure equivalent to the addition of 10 cubic feet, when the temperature rose to 60 degrees and the barometer fell to 29 inches. Have we not now discovered the reason why dirt enters closed spaces? What shall be the remedy? Seeing that air will find an entrance, and in the nature of things must get in, why, then, you must let it in, not at innumerable uncovenanted small crevices, but at your own selected opening, specially provided. Then you are in a position to shut off the dust by providing your selected opening with a screen, which acts as a filter. But, you will say, there are still the crevices; will not the dust enter by these as before? Probably not to any great extent if you have fulfilled this one condition—that you have provided entrance for air through your screen, which is easier than entrance through crevices. This is approximately true for narrow chinks and wide crevices are bad workmanship and inexcusable. But, you may ask, what grounds have I for thinking that air will not squeeze through narrow channels if it has an opportunity of going through much larger ones? Let me remind you of a diagram of an experiment in my book, "*Dangers to Health*," plate III. You can make the experiment yourselves on your return home. In a room with a good fire and doors and windows shut, take a candle and hold it opposite an open keyhole, so that the flame, though blown horizontally, is not quite extinguished. Then let some one slowly open the window. As the window opens the flame gradually recovers an upright position, and as soon as the window has been opened to the extent of 3 or 4 inches the flame will be at rest. The air current through the keyhole has been as effectively stopped as if the keyhole had been plugged. This observation seems to lead to two important points which, however, my experiments have hitherto failed to establish—one, that if we can ascertain what for each instance, or for a given cubic space, is a sufficient screened opening, we can prevent the entrance of dust-laden air by the uncovenanted narrow chinks and small openings; the other, which is the converse, that if we can make our fittings nearly air-tight we can in such instances afford to admit the air through a comparatively small area of screen. I fully believe the principle to be true; but I have not yet discovered how to secure its perfect application in detail. These, then, are the general principles on which we must act. The rest is a question of detail. The details range themselves under three heads: 1. What is the most effective, or the most generally applicable, filtering material? 2. Given the filtering material, what ought to be the proportion between the area of the screened opening and the cubic contents of the case to which it has to be fitted? 3. What, in any particular instance, is the best situation for the filter?

What is needed in our filtering material is that it shall readily allow air to pass through, and shall also possess the quality of arresting in its meshes fine particles of dust. For some purposes it may suffice to use a coarse canvas, the threads of which are not too closely twisted, and have an abundance of fine fibres projecting from them, thereby reducing the small squares of the woven texture to a still finer mesh. The material I have used most frequently is "bunting," but it has disappointed me. When examined by the microscope, many of the small squares of mesh are deficient in delicate fibres standing out from the threads, which would enhance the filtering power of the texture. Lately I have tried other materials, velvet, demette, flannel and cotton-wool between layers of muslin, such as is used for dressing wounds under the name of Gamgee tissue. Cotton wool is probably the most perfect filter. Indeed, so perfect is it that in the new science of bacteriology it is used as a most effective means of excluding dust and germs from flasks in which experiments are carried on. In order to put various textures to an exact comparative test, experiment was tried. A series of boxes were made, one foot square by two feet in length, open at each end. One end of each was closed by a square of glass loosely fixed by small nails, to imitate a badly-fitting door. The other end was closed, in the case of one by wood, to represent the ordinary unventilated cupboard, in the case of a second with bunting, of a third with flannel, of a fourth with cotton velvet, of a fifth with cotton wool. In each were placed slides and cards on which dust might settle. The slides were placed in the boxes on December 14, and were removed February 26, *i. e.*, at the end of nine weeks; but the results are imperfect, chiefly owing to the contraction of the wood, which in three instances broke the glass, and so invalidated the experiment. But some facts of importance come out. First and foremost, the fact that in nine weeks a serious amount of dust entered several of the boxes. The box without a filter had by far the most dust. The box with cotton wool had the least. This is about all that can be said about an experiment which, with reference to this lecture, is perhaps a failure, but will prove an incentive and a guide to further experiments in the same direction. Failure in detail not unfrequently points the way to eventual vindication of principle.

This is a question which experience alone can decide. Doubtless the larger the area of screened opening, the more effective the filtration. For a bookcase with glazed front probably the whole of the back might be made of canvas stretched over the necessary skeleton

framework. For a cupboard or closet, every panel should be replaced by screen. If the closet have a window, all crevices and joints in the window should be pasted up to exclude the soot, otherwise the wind from the outside, or the fires of the house from the inside, will force the air and soot through.

Where shall we place our screen? This is a question which admits of a variety of answers, and gives scope for endless ingenuity. In anything which is being newly made, such as the cupboards and closets of a new house, or in new furniture, we are masters of the situation. In many of them we may substitute at the back our filtering texture for wooden boards, and perhaps even save expense thereby. In closets we may replace the panels of the door by filtering texture, guarding the closets, if necessary, against thieves by wire netting or iron bars fixed on the inner side. As a rule chests of drawers may have the filter over the whole surface at the back, care being taken that the back of each drawer falls half an inch short of the top of the drawer to allow free entrance of air from the screen at the back. In one set of drawers, so placed that I could not get at the back, the difficulty was got over in this way. In the front of each drawer a series of about twenty holes of an inch diameter was made for admission of air. The filter, on a frame, was fixed on the inner surface of the front of the drawer so that the material should stand half an inch away from the holes. A somewhat similar plan was adopted in a mahogany bureau. About twenty large holes, two inches in diameter, were cut in the woodwork at the back, some of the holes being opposite drawers, some opposite pigeon-holes. Then the whole was covered with bunting, on a frame so arranged that the bunting was fully half or two-thirds of an inch away from the wood. Another method has been adopted at the Yorkshire College for some of the cases. The filter was applied at the roof, somewhat after the fashion of a weaving-shed roof, the vertical face being filled-in by the screen. Again, Mr. Branson has provided a roof-filter for a case of scientific instruments by placing the screen in the roof of the case, and protecting it by a false roof two inches above it, to prevent its being choked by falling dust.

We are now in a position to ask two questions: Has the plan been tried? Does it answer? To the first, I may reply that I have tried it, more or less, for twelve years, my earliest views having been published in 1879, in the first edition of "*Dangers to Health*," when my first experiment was made in the entrance-hall of this building. To the second, Does it answer? I may reply that I can hardly give a more convincing proof of my confidence in its value than this, that I have gradually applied a filter to nearly every cupboard and closet that I possess. In drawers so treated at my chambers at Cookridge Street, I can now leave papers and books uncovered, whereas formerly they had to be carefully wrapped up and labelled. The same statement may be made as to a large closet in the same house, where I have placed bunting panels, and have pasted up the window crevices. My house at Headingley being absolutely devoid of a box-room, I erected some ten years ago a large box-closet in the granary—a dusty place, if there is one. It was constructed of a wooden framework, covered with coarse canvas, the roof being made of boards. In this closet portmanteaux and boxes can lie for months without becoming either dusty or mouldy. Perhaps the most perfect proof of the accuracy of these views that I possess is the following: Some five years ago, by the advice of a friend, I doubled the panes of glass in the north window of my bedroom, in order the better to keep out the cold, or, more correctly speaking, perhaps, to keep in the heat. Each new pane was fixed inside the old pane at a distance of two-thirds of an inch. The new pane was made to rest against a rim of wood about a quarter of an inch in width. In order to keep out dust, I had the rim against which the pane rested covered with cotton velvet. The pane was simply fixed against the velvet by about eight small nails. The whole of these years the inner surface of the panes has remained perfectly clean, and they have never been removed for cleansing. I may here just mention a few illustrations that occur to me, bearing out to some degree what I have been saying. I once suggested to the late Mr. Bell, watchmaker, the idea I have just mentioned for excluding dust from his cases containing watches and other valuables. I am afraid I did not persuade him to adopt it; but he was a very thoughtful man, and he told me it explained a thing he had often remarked, namely, that old-fashioned clocks which had open framework backs covered with silk always kept very clean. The silk had evidently acted as a filter. Then, not long ago a member of my family made the remark that there was very little dust in ottomans, and on examining their structure, you will find a framework of wood with nothing but some textile material outside which admits the air and acts as a filter. I was once on the point of buying an ice-safe in London, and while looking at some I was told that it was necessary to put a ventilator into these safes, and that it had been found that if cotton-wool was filled into the ventilator the meat in the safe kept much better than if it was left open to the air. Another point many of you will have noticed are the marks on a ceiling—the dark and white streaks. I believe these will be found to occur in a bedroom which is just under the open roof. The air is drawn through the plaster, and some dust filters through with it; but where the beams are the air cannot get through, and the ceiling is left clean. Then, as to the dust-marks on pictures, caused by dust drawn in owing to the changing volume of air, I am told that in the new museum at Berlin every case is fitted with a cotton-wool filter with a view of excluding dust.

The second division of my subject deals with the exclusion of dust

and soot from rooms containing a fireplace. Let us pause for a moment, and consider what idiotic arrangements we submit to. First of all, we have the fireplace and chimney. The chimney throat, instead of being contracted, is generally a yawning chasm, providing the best attainable opportunity for smoking. Suppose we have a fire, as we must have for nine or ten months of the year. The fire draws up the chimney about 150 cubic feet of air per minute. Whence come the 150 cubic feet of air? If the windows fit well, as is sometimes the case in a new house, in vain the fire pulls upon the windows. If the door and floor boards and skirting-boards fit, they are appealed to in vain, and the poor fire has no other chance left but to smoke and smoke and smoke, until a charitable individual opens a door or a window. After a while no doubt woodwork shrinks, crevices and chinks open out, and our fire wins its much-wanted supply, and then, perhaps, ceases to smoke. But what next? In a town with an atmosphere laden with soot, in come the blacks, and cover our window-sills, our papers, our tables, and our books. Why do we submit to this? You may ask, Can it be avoided? I reply that it can. First provide an inlet for the air which has to supply the chimney, so that cold air coming in shall not be a draught. The best device that I know of for achieving this is the "Harding diffuser." It was patented. After a while the patentees ceased to make it. Then the patent lapsed, and now it is open to all the world to make. The Harding diffuser delivers the fresh air near the ceiling in a series of small jets, which mix with the warm air of the top of the room, and do not form a cascade of cold air, such as is produced by a Tobin's tube. At the same time it is but fair to say that we have learnt much from Tobin; first, that we ought to provide a definite inlet of fresh air to every room; and second, that we may mitigate the ill effects of a current of cold air by studying how to give it a harmless direction. Having provided for the entrance of air without producing draught, the next step is to filter the air and cleanse it. This is done by making the opening through the wall about five feet from the floor, and carrying the air up to the "diffuser" in a flat shaft, about eighteen inches broad and four inches deep, and about four feet in length, in which is placed diagonally a screen of canvas or other filtering material, through which the air must pass on its way to the "diffuser." The screen should be taken out and brushed with a soft brush at least once a week. This need of vigilance and attention to cleansing is the one drawback to the system. Having thus secured the entrance of cleansed air, the next point is to stop the window crevices. If the window can be cleaned from the outside, this may easily be done by putty, glue and strips of canvas. If the window cannot be cleaned from the outside—well. If you are putting in new windows, why not make them air-tight and wind-tight; do away with sashes and their abominations, and make the middle part on hinges to open inwards, so that the other parts can be cleaned without going outside? I trust, ladies and gentleman, that I have now said enough to make you uncomfortable and dissatisfied when you see your toilet-table covered with smuts or your drawers patterned in dust. Such things, I fully believe, need not be, ought not to be; and if you, the public, instruct yourselves and demand it, will not be.—*The Architect.*

DRESDEN.

THE most picturesque general view of the Alt-stadt is to be had from the windows of the Kaiserhof, which overlook the river and the old Augustus bridge. The latter was rebuilt in 1319, the money being raised by a Papal Indulgence; and the fact of its having withstood for more than five centuries the effects of ice, snow and floods (the water frequently rising eighteen or twenty feet in twenty-four hours) attests its solidity and sound workmanship. In 1814 the fourth pier upon the Alt-stadt side was blown up by the French to facilitate their retreat to Leipzig, two other arches falling at the same time.

Architecturally, the buildings of Dresden are in no wise remarkable. The old Zwinger Palace, now used as the National Museum, is in the style of the German Renaissance, or rather, Rococo; but the way in which the various wings of the building are grouped together, the quaint onion-shaped steeples, the stiff, sculpture-ornamented gardens, and the general appearance of worn-out grandeur and decay, make up a picturesque and not uninteresting mass. Then on the other side, the copper-roofed steeples of the Royal Palace (the Schloss) and the Catholic Church form, with the statue-decorated roof of the latter, a group which, if not architecturally imposing, is at least original. The Schloss was built in 1534, and, excepting the Renaissance façade of a portion in one of the inner court-yards, is a sufficiently ugly building, unimproved by a hideous fresco frieze painted by Bendemann in 1845, representing the history of Saxony. From the tower, 357 feet high, a fine view of the neighboring country may be obtained.

The Hof-Kirche, built by Chiavese in 1739-56, is an excellent example of the bad taste of the period, the decadence of Italian art, when the Jesuits had the upper hand and covered the churches with sprawling saints whose draperies were apparently blown by the four winds. Why the Cardinal Virtues, Saints, Angels, Cherubim and Seraphim, should have been conceived to flourish in another world, tossed and torn by the gales and cold blasts of our earth, it is hard to understand, but such was the case, and we see the results wherever we go. In Romanesque or Gothic architecture each coun-

try has its own individuality, but Rococo is of no nation; as the Jew is the Jew, and the Jesuit is the Jesuit, whatever his parentage or language may be, so is Rococo, Rococo. The organ, by Silbermann, is of a fine tone, and the music generally of first-rate character, the orchestra and singers being those of the Court-theatre.

The glory of Dresden is its Raphael, the "San Sisto Madonna," which the museum honors with a room to itself. Undoubtedly, Raphael's finest oil picture, it is also the main attraction of the gallery, and well worthy a pilgrimage to Dresden to see. Broader in treatment than any of the other Madonnas, it is in color richer and in handling freer than the Anselei, the Della Sedia, the Granduca, or the Canigiani. But when one has seen the Raphael, the three or four Velasquez portraits, the Holbein portrait of Morett, one or two of the Rubens and Riberas, what remains to warrant the tremendous reputation of the Dresden gallery? There are no Rembrandts to compare to those at Cassel, no Vandycks to equal those at Munich, and no Titians of the beauty of those at Paris or Venice; of the Correggios I say nothing, and of the numberless "cabinets" filled with the Dutch or Flemish painters, it is needless to speak, these masters being everywhere, and always at their best; though it is remarkable, that, amidst the crowd of Dutchmen at Dresden, there should be no specimen of the best painter of the school, de Hooche.

But if the gallery is overrated, the theatre cannot be. Whether one hears a cycle of Wagner's operas, or of Schiller's plays, the art displayed is consummate. Acting, music, singing, scenery, all are of the best, but all keep their right places; and when one thinks of the highest price being under a dollar, and the lowest twelve cents, one can only wish that elsewhere we had the same opportunities of improving our minds, and of enjoying great poetic works dramatically represented. Of course the theatre is subventioned by the king; but elsewhere, although we pay six or seven times as much, we certainly do not get the same artistic finish. To witness the perfect ensemble of the "Walküre" or the "Götterdämmerung" in Dresden, and then to attend one of the mutilated, ill-arranged performances at Covent Garden of "Lohengrin," is not flattering to English art, or creditable to a great nation. But then, are the English artistic in the true sense of the word? I fear me, no. S. BEALE.



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

BLOCK OF HOUSES AT THE CORNER OF NORTH CAPITOL AND B STREETS, WASHINGTON, D. C. MR. H. L. PAGE, ARCHITECT, WASHINGTON, D. C.

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

TORCH-HOLDER FROM THE PALAZZO DEL MAGNIFICO, SIENA, ITALY. SKETCHED BY MR. J. M. GOODWIN, JR.

A STREET IN ROUEN, FRANCE. SKETCHED BY MR. J. M. GOODWIN, JR.

THE AUGUSTUS BRIDGE, DRESDEN, SAXONY.

SEE article on "Dresden," elsewhere in this issue.

COMPETITIVE DESIGN FOR THE AMERICAN FINE ART SOCIETY BUILDING, NEW YORK, N. Y. MR. E. B. WELLS, ARCHITECT, NEW YORK, N. Y.

This design was awarded the fourth place in the competition which was held last winter.

PLAN AND SECTION OF THE SAME DESIGN.

MAIN CORRIDOR OF THE SAME DESIGN.

COMPETITIVE DESIGN FOR THE AMERICAN FINE ART SOCIETY BUILDING, NEW YORK, N. Y. MESSRS. GILBERT & TAYLOR, ARCHITECTS, ST. PAUL, MINN.

[Additional Illustrations in the International Edition.]

DOORWAY OF THE HOTEL FELZIN, TOULOUSE, FRANCE.

[Copper-plate Etching.]

ONE of the characteristics of Renaissance architecture, whether executed in stone, wood, or iron, is the surprising skill shown in the sculptured compositions. For instance, take this old doorway, of which the leading lines and proportions are sufficiently Classic up to the top of the main entablature, and show no great innovation except in the rather extraordinary treatment of frieze. But above the entablature comes a kind of attic, loaded with sculptured decorations, yet combined in design and treated with a boldness evidencing a surprising degree of skill and knowledge: here are found fantastic animal forms, cartouches, masks and caryatides which indicate the possession of great artistic skill by the designer. And yet the interpretation of these details manifests an ignorance in their working [ignorance "d'outil"] which is altogether singular and can only be accounted for on the supposition that the designers still had before their eyes the wonderful remains of splendid works of Gallo-Roman architecture and copied them as best they could.

VILLA SCHÖN, WAHRING, AUSTRIA. HERR J. WATASEK, ARCHITECT.

[Gelatine Print.]

CHAPEL ON THE EAST SIDE OF CHOIR, MONREALE CATHEDRAL.

[Gelatine Print.]

This plate, like the others of the series, is reversed in printing.

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

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

NEW GIRLS' HIGH SCHOOL, BLACKBURN, ENG. MESSRS. STONES & GRADWELL, ARCHITECTS. BLACKBURN, ENG.

This building, a view of which we give in our present issue, is designed to take the place of the existing school in Preston New Road, Blackburn. The present buildings were taken by a limited company in 1883, and opened as a girls' high school. The premises have now become much too small to accommodate the number of pupils applying for admission. The new building will stand on the site of the old one, which will consequently have to be taken down. In order to keep the school working, one-half of the scheme will be carried out first; the contract for this portion, amounting to 6,331l., has been let and operations commenced. The school when complete will accommodate 480 pupils, including 70 in kindergarten. The arrangements have had most careful consideration, and it is thought that the school will be one of the most complete of its class. The buildings will be of red brickwork, with buff terra-cotta dressings from the Burmantofts Company, Leeds. The roofs will be covered with brown-red roofing tiles from Raubon.

NEW RESIDENCE, TILEHURST ROAD, READING, ENG. MR. GEO. W. WEBB, F. R. I. B. A., ARCHITECT, READING, ENG.

This house is being erected for Mr. W. H. Staveley, on high ground, and contains three reception-rooms, housekeeper's-room, and the usual domestic offices, bath-room, and ten bedrooms, including servants' rooms. The facing and moulded bricks are by Messrs. Lawrence, of Bracknell. The upper part timber and rough-cast.

ST. BENET'S CHURCH, PAUL'S WHARF.

COMMUNICATIONS.

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

INFORMATION WANTED.

66 Barth Bldg., Denver, Colo.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Believing that a list of noted American architects, now deceased, with their principal works, and also a list of public and private buildings of note, with the names of their architects, put in permanent form, would be valuable and interesting to architects, I have compiled the following lists for publication in the "Architects and Builders' Pocketbook." There are many dates in the first list, that I do not know, and very likely there may be errors in both; for this reason I would be pleased if you will publish them in the columns of your journal, with this letter, and if any of your readers can supply me with the missing dates, or inform me of any errors in either list, I shall consider it a great favor. I should also like to make the list of State Capitols complete.

Yours truly, F. E. KIDDER.

[We publish these lists with pleasure, for we feel sure that our readers will be edified by the facts stated, and amused at the inclusion or omission of certain buildings and personages in the following lists. Such attempts make strange bed-fellows indeed, and, if Mr. Kidder proposes to give so wide a meaning to the word "noted," his lists will have to be quadrupled in extent. — EDS. AMERICAN ARCHITECT.]

LIST OF NOTED AMERICAN ARCHITECTS.

John Haviland, b. 1792, d. 1825. Practised in Pittsburgh Penitentiary, Eastern Penitentiary at Cherry Hill, Hall of Justice, New York, Naval Asylum, Norfolk, New Jersey State Penitentiary and many other jails, asylums and public halls.

Jonathan Preston, b. 1801, d. July, 1884. Practised in Boston, Mass. Principal works: the first building of the Massachusetts Institute of Technology, and the building of the Boston Society of Natural History.

William Washburn, b. in Lyme, N. H., 1808, d. in Boston, November 8, 1890. Practised in Boston. Principal works: The Fifth Ave. and Victoria Hotels in New York, and the Parker House, Tremont, Revere, Adams, Young's and the American House in Boston, the Tremont Temple, Boston, Charlestown City-hall and many other public and private buildings.

Thomas Ustick Walter, LL.D., b. d. October 30, 1887. Practised in Philadelphia, Pa. Was one of the original members of the American Institute of Architects, and President from 1870 to 1872. Received the degree of LL.D. from Harvard University, being the first architect to receive that degree in this country. Principal works: The five original buildings of Girard College, designed in 1833 and completed in 1847, extension of the National Capitol, 1851-65, also the extensions of the Patent-Office, Treasury and Post-office Buildings, the dome on the old Capitol, the Congressional Library, and the Government Hospital for the Insane, also numerous other buildings of lesser importance. Mr. Walter was a member of the Franklin Institute, and of many literary and scientific associations.

Arthur Gilman, b. d. Practised in New York and Boston, in partnership with Mr. Bryant. Principal works: Boston City-hall, First Church on Arlington St., Boston, and numerous dwelling-houses in New York and

Boston. In association with Mr. Edward Kendall, designed the Equitable Life Assurance Co.'s building on Broadway, New York.

R. G. Hatfield, b. in Elizabeth, N. J., 1815, d. February, 1879. Author of the "American House Carpenter," and associated for thirty-five years with his brother, Oliver P. Hatfield. The firm became widely known as experts and consulting architects in matters pertaining to building construction. Principal works: House of Refuge, Randall's Island, N. Y., Westchester County Buildings, White Plains, N. Y., New York Institution for the Deaf and Dumb, Seaman's Bank for Savings, City Bank Building, Security Insurance Co. Building, all of New York City.

Oliver P. Hatfield, b. d. April, 1891.

John McArthur, Jr., b. in Scotland, 1823, d. January, 1890. Practised in Philadelphia, Pa. Principal works: House of Refuge, Continental Hotel, Girard House, Public Ledger Building, First National Bank Building, the Assembly Building, the Broad Street Presbyterian Church, all of Philadelphia, and the Philadelphia City-hall, also the Hospital for the Insane at Warren, Pa., Lafayette College, Easton, Pa., and numerous other public and private buildings in Pennsylvania and other States. Was twice tendered the position of Supervising Architect to the United States Government, but declined.

Ebenezer L. Roberts, b. 1825, d. Practised in New York City. Principal works: Standard Oil Co.'s Building on Broadway, The Ninth National Bank, The Baptist Church of the Epiphany on Madison Ave., St. Paul's Methodist Church on Fourth Ave., all of New York City, and the Phoenix Insurance Co.'s Building in Brooklyn, N. Y.

Alexander R. Esty, b. 1827, d. July 2, 1881. Practised in Boston. Principal works: Union Congregational Church, Boston, Harvard Street Baptist Church, Cambridge, Mass., Grace Church, Newton, Mass., Emmanuel Church on Newbury St., Boston, Buildings of the Colby University, Waterville, Me., Massachusetts State Normal Schools at Framingham and Worcester, and the University at Rochester, N. Y.

Carl Pfeiffer, b. in Germany, d. May, 1888. Practised in New York City. Principal works: Fifth Ave. Presbyterian Church, New York, Fifth Ave. Riding School, New York, and many private houses, apartment-houses, hotels, etc.

Charles Dexter Gambrill, b. 1832, d. September 13, 1880. Practised in New York, first in partnership with Mr. George B. Post, later with H. H. Richardson.

John H. Sturgis, b. d. Practised in Boston, Mass., with Mr. Charles Brigham, as Sturgis & Brigham. Principal works: Boston Museum of Fine Arts, Building of the Boston Young Men's Christian Association, Church of the Advent, residence of Mr. F. L. Ames, and many other fine residences in Boston and vicinity.

A. B. Mullett, b. 1834, d. October 20, 1890. Supervising Architect of the Treasury from 1860 to 1880; also Engineer of the District of Columbia for several years. The Post-office buildings in New York, Boston, Cincinnati, St. Louis and Chicago were designed by him, and also the State, War and Navy Building in Washington.

Henry Hobson Richardson, b. in Louisiana in 1838 or 1839, d. in Brookline, Mass., April, 1880. Graduated at Harvard University in 1859, studied seven years at the Ecole des Beaux-Arts in Paris. Was associated for a short time with C. D. Gambrill, of New York. Following is a list of the works executed by him, arranged in chronological order:

1. Grace Church, Medford, Mass.
2. Boston & Albany Railroad Offices, } Springfield, Mass.
3. Church of the Unity, }
4. The Agawam Bank, }
5. House for William Dorsheimer, Esq., Buffalo, N. Y.
6. The State Asylum for the Insane, Buffalo, N. Y.
7. Exhibition Building, Cordova, Argentine Republic.
8. American Express Company Building, Chicago, Ill.
9. Brattle Street Church, Boston, Mass.
10. Worcester High-School.
11. The Hampden County Court-house, Springfield, Mass.
12. Trinity Church, Boston, Mass.
13. Cheney Buildings, Hartford, Conn.
14. Phoenix Insurance Building, Hartford, Conn.
15. House for B. W. Crowninshield, Boston, Mass.
16. The North Church, Springfield, Mass.
17. William Watt Sherman's House, Newport, R. I.
18. Portions of the New York State Capitol, Albany, N. Y.
19. Public Library, Woburn, Mass.
20. Ames Memorial Library, North Easton, Mass.
21. Sever Hall, Cambridge, Mass.
22. Ames Memorial Town-Hall, Easton, Mass.
23. Trinity Church Rectory, Boston, Mass.
24. Monument to Oliver and Oakes, Sherman, Wyoming.
25. Gate Lodge for F. D. Ames, North Easton, Mass.
26. Crane Memorial Library, Quincy, Mass.
27. Bridges for the Back Bay Park, Boston, Mass.
28. City-Hall, Albany, N. Y.
29. Depot for the Boston & Albany R. R., Auburndale, Mass.
30. New Law School, Cambridge, Mass.
31. House for F. L. Higginson, Esq., Beacon Street, Boston, Mass.
32. House for General N. L. Anderson, Washington, D. C.
33. Railroad Depot, Holyoke, Mass., for Connecticut River R. R.
34. Depot, Palmer, Mass., for Boston & Albany R. R.
35. Depot, North Easton, Mass., Boston & Albany R. R.
36. Dairy Building, North Easton, Mass.
37. House for Grange Sard, Esq., Albany, N. Y.
38. Store on Kingston and Bedford Streets, Boston, for F. L. Ames, Esq.; also store on Washington Street.
39. Billings Library for University of Vermont, Burlington, Vt.
40. Depot, Chestnut Hill, Mass., Boston & Albany R. R.
41. Converse Memorial Library, Malden, Mass.
42. Baptist Church, Newton, Mass.
43. House for Henry Adams, Esq., Washington, D. C.
44. House for John Hay, Esq., Washington, D. C.
45. Allegheny County Buildings, consisting of Court-house and Jail, Pittsburgh, Pa.
46. Wholesale Warehouse for Marshall, Field & Co., Chicago, Ill.
47. Armory, Detroit, Mich.
48. Chamber of Commerce, Cincinnati, O.
49. Dwelling-house for J. J. Glessner, Esq., Chicago, Ill.
50. " " " B. H. Warder, Esq., Washington, D. C.
51. " " " J. J. Glessner, Esq., Chicago, Ill.
52. " " " Robert Treat Paine, Esq., Waltham, Mass.
53. " " " Prof. E. W. Gurney, Beverly, Mass.
54. " " " J. R. Lionberger, Esq., St. Louis, Mo.
55. " " " William H. Gratwick, Esq., Buffalo, N. Y.
56. Store on Harrison Avenue, Boston, for F. L. Ames, Esq.
57. Railroad Depot, New London, Conn.
58. House for Prof. Hubert Herkimer, A. R. A., England.

Thomas Wisnedell, b. in England in 1846, d. in New York, July 31, 1884. Educated in the office of Mr. R. J. Withers, of London. Associated with Mr. F. H. Kimball, of New York. Principal works: Madison Square Theatre and the "Casino," both of New York City.

John Wellborn Root, b. in Georgia, January 10, 1850, d. in Chicago, Ill., January 15, 1891. Entered into partnership with Daniel H. Burnham in 1873, which continued until his death. Mr. Root was the designer of the firm. They designed and executed 77 public buildings, many of them of the first class, and 129 residences. Of their public buildings, the following were, perhaps, the most important: Calumet Club-house, Art Institute, Academy of Fine Arts, Montauk Block, Calumet Building, Rialto Office-building, Insurance Exchange Building, Grannis Block, Phoenix Building, The Rookery, Masonic Building, Women's Temple, First Regiment Armory, all of Chicago; the Mills Block, San Francisco; Midland Hotel, Board of Trade Building, American National Bank Building, of Kansas City. Mr. Root was Secretary of the American Institute of Architects at the time of his death.

Henry O. Avery, b. d. 1890. Studied at the School of Fine Arts, in Paris. Took an important part in designing the houses of W. K. Vanderbilt and Henry G. Marquand, a prominent member of the Architectural League of

New York, the Archaeological Institute and the Society of American Artists.
Herbert C. Burdett, b. in Boston, 1855, d. in Buffalo, April 10, 1891. Associated with J. Herbert Marling, as Marling & Burdett, and practised in Buffalo, N. Y. Principal works: the Saturn Club-house and numerous fine residences in Buffalo.

A [PRELIMINARY] LIST OF NOTED ARCHITECTS AND BUILDINGS.

GOVERNMENT BUILDINGS:

United States Capitol, Washington, D. C., Messrs. Hallet, Hadfield, Hoban, Latrobe, Bullfinch, Anderson, Walter, Clark, Architects.
 National Museum, Washington, D. C., Cluss & Schulze, Architects.
 State, War and Navy Building, Washington, D. C., A. B. Mullett, Architect.
 Treasury Building, Washington, D. C., Robert Mills, T. U. Walter, Young, Rogers, and A. B. Mullett, Architects.
 U. S. Post office and Court-house:—
 Baltimore, Md., James G. Hill.
 Boston, Mass., A. B. Mullett, W. A. Potter.
 Chicago, Ill., A. B. Mullett.
 Cincinnati, O., A. B. Mullett.
 Detroit, Mich., M. E. Bell.
 Kansas City, Mo., James G. Hill.
 New York, N. Y., A. B. Mullett.
 St. Louis, Mo., A. B. Mullett.

STATE CAPITOLS.

Capitol of:—
 Colorado at Denver; E. E. Myers & Son, Architects.
 Connecticut, at Hartford; K. M. Upjohn, Architect.
 Illinois, at Springfield; A. H. Piquenard, Architect.
 Indiana, at Indianapolis; Edwin May, Architect.
 Iowa, at Des Moines; A. H. Piquenard, Architect.
 Georgia, at Milledgeville;—Edbrook, Architect.
 Louisiana, at Baton Rouge; W. A. Freret, Architect.
 Maine, at Augusta; Charles Bullfinch, Architect.
 Massachusetts, at Boston; Charles Bullfinch, Brigham & Spofford, Architects.
 Michigan, at Lansing; E. E. Meyers, Architect.
 New York, at Albany; Messrs. Fuller, Eldlitz, and H. H. Richardson, Arch'ts.
 Ohio, at Columbus; Henry and William Walter, Architects.
 Rhode Island, at Newport; James Munday, Architect.
 Tennessee, at Nashville; James Strickland, Architect.
 Texas, at Austin; E. E. Meyers & Son, Architects.
 Virginia, at Richmond; Thomas Jefferson.

COUNTY BUILDINGS.

Suffolk County Court-house, Boston, Mass., Geo. A. Clough, Architect.
 Cook County Court-house, Chicago, Ill., J. J. Egan, Architect.
 Arapahoe County Court-house, Denver, Colo., E. E. Myers & Son, Architects.
 Jefferson Market Court-house, New York, N. Y., F. C. Withers, Architect.
 County Court-house, Omaha, Neb., E. E. Meyers & Son, Architects.
 Court-house and Jail, Pittsburgh, Pa., H. H. Richardson, Architect.
 Court-house, Providence, R. I., Stone & Carpenter, Architects.

CITY AND TOWN HALLS.

City Hall:—
 Albany, N. Y., H. H. Richardson, Architect.
 Boston, Mass., Gilman & Bryant, Architects.
 New York, N. Y., (1803-1812) John McComb, Architect.
 Philadelphia, Pa., (new) John McArthur, Jr., Architect.

Town Hall:—
 North Easton, Mass., H. H. Richardson, Architect.

CHURCHES, ETC.

All Saints' Cathedral, Albany, N. Y., R. W. Gibson, Architect.
 St. Peter's Episcopal Church, Albany, N. Y., R. M. Upjohn, Architect.
 First M. E. Church, Baltimore, Md., McKim, Mead & White, Architects.
 Brattle Street Church, Boston, Mass., Gambrell & Richardson, Architects.
 Church of the Advent, Boston, Mass., Sturgis & Brigham, Architects.
 First Church, Arlington Street, Boston, Mass., Gilman & Bryant, Architects.
 First Presbyterian Church, Boston, Mass., R. M. Upjohn, Architect.
 Spiritual Temple, Boston, Mass., Hartwell & Richardson, Architects.
 Trinity Church, Boston, Mass., Gambrell & Richardson, Architects.
 The (new) Old South Church, Boston, Mass., Cummings & Sears, Architects.
 Emanuel Baptist Church, Brooklyn, N. Y., Francis H. Kimball, Architect.
 Jewish Synagogue, New York State, Buffalo, (Temple Beth Zion) E. A. & W. W. Kent, Architects.
 Calvary Presbyterian Church, Cleveland, O., C. F. Schweinfurth, Architect.
 St. Stephens Church, Lynn, Mass., Ware & Van Brunt, Architects.
 Fifth Avenue Presbyterian Church, New York, N. Y., Carl Pfeiffer, Architect.
 Jewish Synagogue, New York, N. Y., L. Eldlitz, Architect.
 Madison Avenue M. E. Church, New York, N. Y., R. H. Robertson, Architect.
 St. Patrick's R. C. Cathedral, New York, N. Y., Renwick & Sands, Architects.
 Trinity Church, New York, N. Y., Richard Upjohn, Architect.
 Park Avenue M. E. Church, Philadelphia, Pa., Hazelhurst & Huckel, Arch'ts.
 Church of the Messiah, St. Louis, Mo., Peabody & Stearns, Architects.
 Church of the Covenant, Washington, D. C., J. C. Cady & Co., Architects.

COLLEGE AND SEMINARY BUILDINGS.

Harvard Medical School, Boston, Mass., Ware & Van Brunt, Architects.
 Mass. Institute of Technology (first building), Jonathan Preston, Architect.
 Harvard Memorial Hall, Cambridge, Mass., Ware & Van Brunt, Architects.
 Hemenway Gymnasium (Harvard College), Peabody & Stearns, Architects.
 New Law School (Austin Hall), Cambridge, Mass., H. H. Richardson, Arch't.
 Osborn Hall (Yale), New Haven, Conn., Bruce Price, Architect.
 Columbia College, New York, N. Y., C. C. Haight, Architect.
 Union Theological Seminary, New York, N. Y., Lord & Potter, Architects.
 Girard College, Philadelphia, Pa., T. U. Walter, Architect.

LIBRARIES.

New Public Library, Boston, McKim, Mead & White, Architects.
 Lenox Library, New York, N. Y., R. M. Hunt, Architect.

THEATRES AND MUSEUMS, ETC.

Museum of Fine Arts, Boston, Mass., (Sturgis & Brigham, Architects.
 Sturgis & Cabot, Architects.)
 Academy of Fine Arts, Chicago, Ill., Burnham & Root, Architects.
 The Auditorium Building, Chicago, Ill., Adler & Sullivan, Architects.
 Casino Theatre, New York, Kimball & Wisedell, Architects.
 Metropolitan Opera-house, New York, J. C. Cady & Co., Architects.
 Academy of Music, Philadelphia, Pa., C. Runge, Architect.
 Museum of Fine Arts, St. Louis, Mo., Peabody & Stearns, Architects.

CLUB-HOUSES AND LODGE BUILDINGS.

Algonquin Club-house, Boston, Mass., McKim, Mead & White, Architects.
 Art-Club Building, Boston, Mass., W. R. Emerson, Architect.
 Calumet Club-house, Chicago, Ill., Burnham & Root, Architects.
 Masonic Temple, Chicago, Ill., Burnham & Root, Architects.
 Women's Temple, Chicago, Ill., Burnham & Root, Architects.
 Denver Club-house, Denver, Colo., Varian & Sterner, Architects.
 Union League Club-house, New York, Peabody & Stearns, Architects.
 Art-Club Building, Philadelphia, Pa., Frank Miles Day, Architect.
 Masonic Temple, Philadelphia, Pa., J. H. Windrim, Architect.
 Masonic Building, Pittsburgh, Pa., Shepley, Rutan & Coolidge, Architects.

OFFICE-BUILDINGS.

Ames Building, corner Court and Washington Streets, Boston, Shepley, Rutan & Coolidge, Architects.
 Fiske Building, Boston, Mass., Peabody & Stearns, Architects.
 N. Y. Mutual Life Ins. Co.'s Building, Boston, Peabody & Stearns, Architects.

Board of Trade Building, Chicago, Ill., W. W. Boyington, Architect.
 Pullman Building, Chicago, Ill., S. S. Beman, Architect.
 The Rookery, Chicago, Ill., Burnham & Root, Architects.
 Chamber of Commerce, Cincinnati, O., H. H. Richardson, Architect.
 The New York Life Ins. Co.'s Building, Denver, Colo., Andrews, Jacques & Rantoul, Architects.
 Board of Trade Building, Kansas City, Burnham & Root, Architects.
 New England Building, Kansas City, Bradley, Winslow & Wetherell, Arch'ts.
 The New York Life Ins. Co.'s Building, Kansas City, McKim, Mead & White, Architects.
 N. Y. Mutual Life Ins. Co.'s Building, New York, C. W. Clinton, Architect.
 Produce Exchange, New York, G. B. Post, Architect.
 United Bank Building, New York, Peabody & Stearns, Architects.
 D. O. Mills Block, San Francisco, Cal., Burnham & Root, Architects.

HOTELS AND APARTMENT-HOUSES.

Revere House, Boston, William Washburn, Architect.
 Tremont House, Boston, William Washburn, Architect.
 The Hollenden Hotel, Cleveland, O., George F. Hammond, Architect.
 Midland Hotel, Kansas City, Mo., Burnham & Root, Architects.
 Aurelia Apartment-house, Fifth Avenue, New York, J. C. Cady & Co., Arch'ts.
 Fifth Avenue Hotel, Fifth Avenue, New York, William Washburn, Architect.
 The Hotel Imperial, Broadway and Thirty-second Street, New York, McKim, Mead & White, Architects.
 The Yosemite, Park Avenue, New York, McKim, Mead & White, Architects.
 Victoria Hotel, New York, William Washburn, Architect.
 Hotel Ontario, Salt Lake City, Adler & Sullivan, Architects.

RESIDENCES.

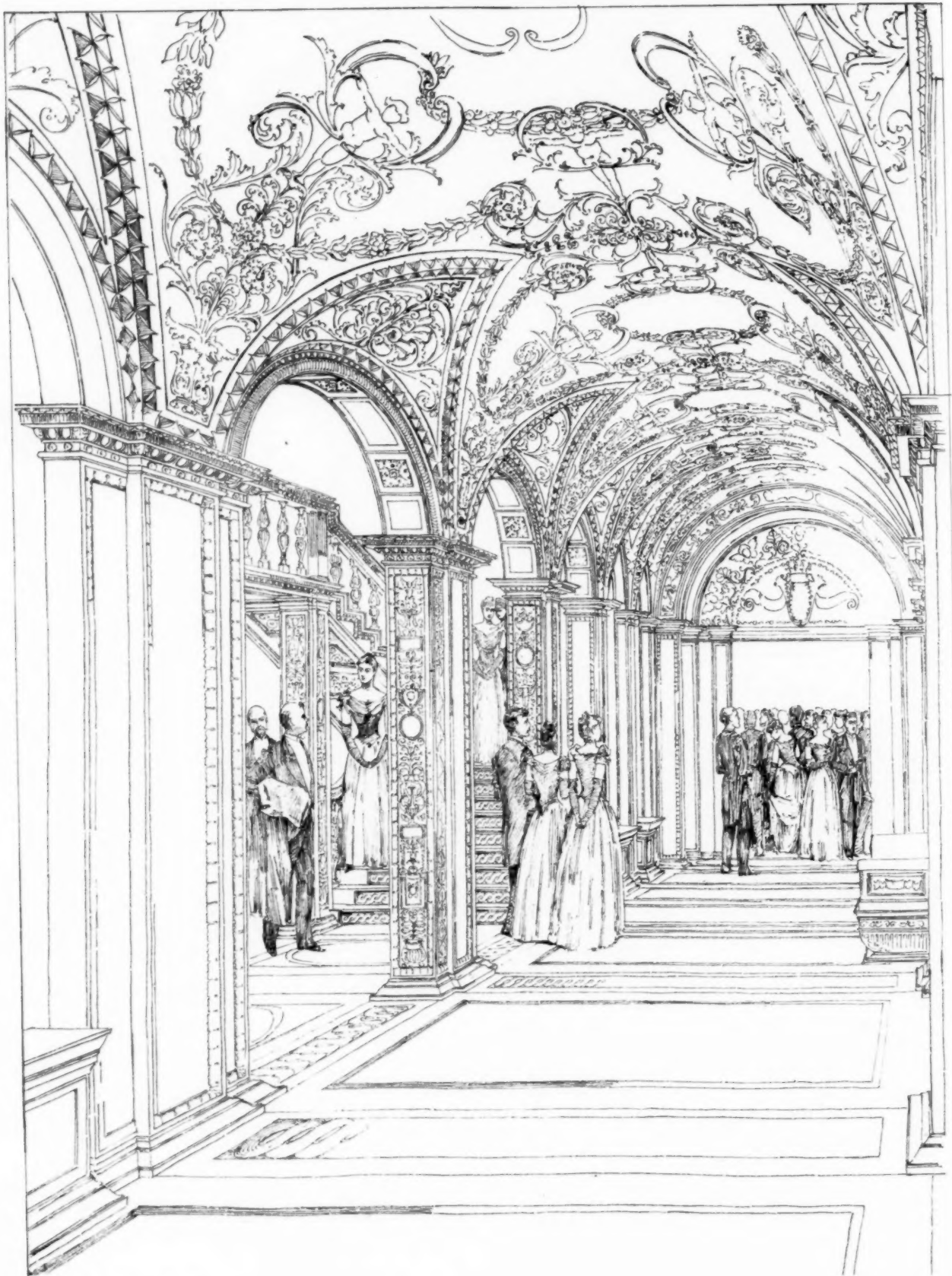
House of:—
 Ross Winans, Baltimore, Md., McKim, Mead & White, Architects.
 F. L. Ames, Boston, Mass., Sturgis & Brigham, Architects.
 J. F. Andrew, Boston, Mass., McKim, Mead & White, Architects.
 Cornelius Vanderbilt, New York, G. B. Post, Architect.
 W. H. Vanderbilt, New York, Herter Bros. and Atwood & Snook, Architects.
 W. K. Vanderbilt, New York, R. M. Hunt, Architect.
 Louis C. Tiffany, New York, McKim, Mead & White, Architects.
 Houses of Henry Villard, New York, McKim, Mead & White, Architects.

MISCELLANEOUS.

Boston & Providence R. R. Station, Boston, Peabody & Stearns, Architects.
 Fifth Avenue Riding School, New York, Carl Pfeiffer, Architect.
 Broad Street R. R. Station, Philadelphia, Pa., Wilson Bros. & Co., Architects.
 Central R. R. Station, Providence, R. I., T. A. Tefft, Architect.

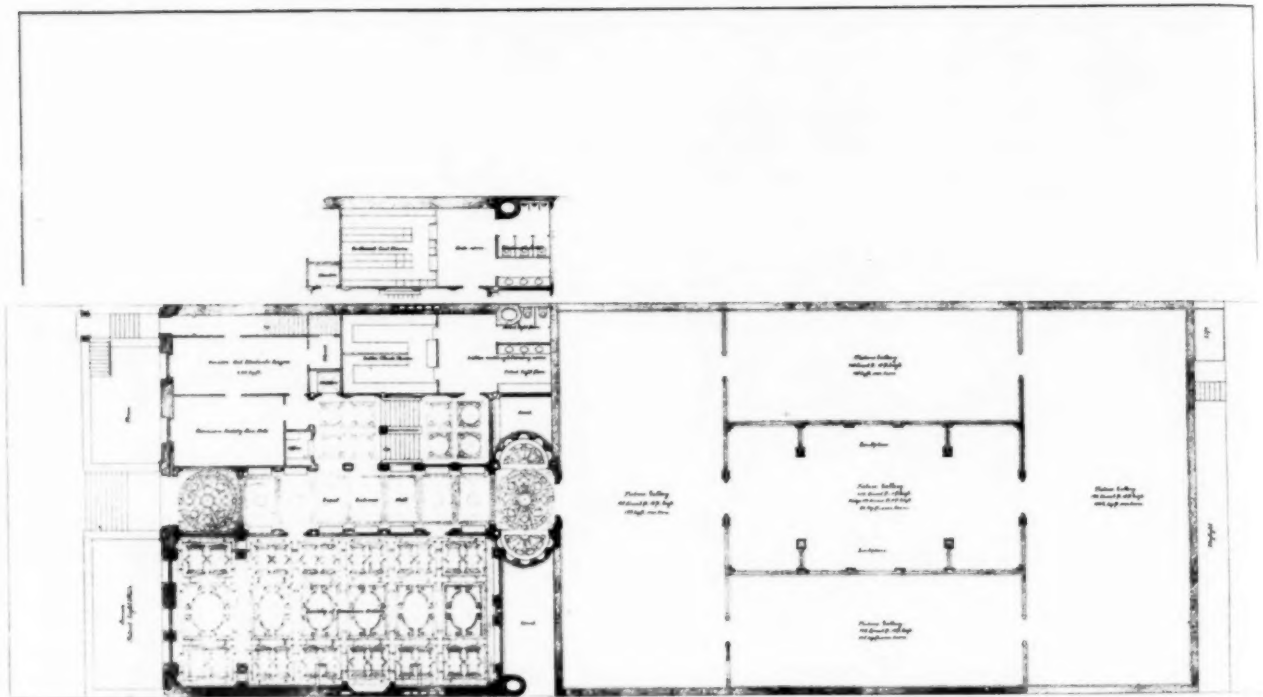


RAILWAY managers are prosecuting their policy for the improvement of their respective properties in a manner which is gratifying to those who are supplying material and equipments. Leading railway authorities have recently stated that at no time has there been as much activity in the improvement of road-beds, and in furnishing equipments for the accommodation of freight and passenger traffic. Locomotive-builders attest the correctness of this statement: during the past thirty days, more orders have been placed with locomotive-builders than during the preceding three months. Iron-makers who furnish material for car-builders state that they have filled more orders for car-iron than for a very long time past. Car-builders themselves are very busy indeed. The manufacturers of equipments, such as wheels, axles, the manufacturers of lumber for car use and all others engaged in the manufacture of equipments are now, after several months of irregular work, crowded with engagements, which will probably keep them busy until late in the autumn. The statistics of railway traffic and earnings substantiate these statements. As earnings improve, operating expenses are permitted to increase. As stated some months ago in this column, it is the policy of railway managers to steadily improve their properties, and this policy is being rigorously pursued, even to the dissatisfaction of short-sighted stockholders. Referring for a moment to the mining industry of the United States, it is to be said that more coal is now being mined than at any time in the country's history. The anthracite output exceeds that of last year to the extent of two million tons. The bituminous output is also ahead of last year. Manufacturing demand is absorbing the entire production. The opening of mines in the West is to be noted, and the demand for fuel in the South is leading to the more vigorous prosecution of mining in the Southern States. In regard to lumber, a less favorable report can be given. Last year, extraordinary activity was displayed in the erection of saw and planing mills, especially in the Southern States. In anticipation of an extraordinary demand for all kinds of lumber, this year large stocks were manufactured, and the rather sluggish distribution for the past three months is leading to some complaint, and may result in a lower range of prices for both hard and soft woods before the season is over. The financial situation has apparently improved, but it is to be doubted whether the improvement is genuine. Bank failures here and there still keep confidence unsettled. The decrease in loans in large financial centres is not to be passed over slightly. The heavy exports of gold in themselves are not fraught with as much danger as surface observers imagine; a favorable point to be noticed is the promptness with which loans from Western States are returned. Another favorable point is that loans are being promptly made on nearly all kinds of Western securities; the West will pay if it can; it is becoming yearly more able to pay, and to carry a heavier load of indebtedness. The political agitations there, especially with reference to a third-party movement, certainly aim at bringing about an increased supply of currency, but this does not point, even remotely, to the possibility of the repudiation of debts. This agitation can be safely continued for years to come without doing any harm; it will probably result in some sort of a compromise with reference to an increased silver coinage, which can be granted without serious results to the general financial interests, because of the recognized need of a greater supply of money. Building operations are of a limited character in nearly all cities and towns; in the rural districts, more building is going on than last year, but it does not appear in the general reports made. Farmers, cotton-planters, miners, lumbermen and all those interests scattered throughout the country outside of cities and towns are and probably will continue to be as large buyers of material, equipments and supplies as they were last year. This factor is ignored by those who write the financial and commercial reports in the larger cities. In other words, the actual consumptive demand, when we come to count up the year's business, will be found to be very little behind what it has been in years past. The low prices of commodities are favorable to a steady consumption and demand. The low price of land throughout the country is also favorable to expansion; speculation is doing very little harm. Values are mainly based upon cost. There is no real estate boom, and very little room for any. The great mass of the people of the country are employed, and at good wages. Strikes are keeping fewer people unemployed than for many years.



Competitive drawings
for the proposed building
for the
American Fine Arts Society
West 57th Street New York City.

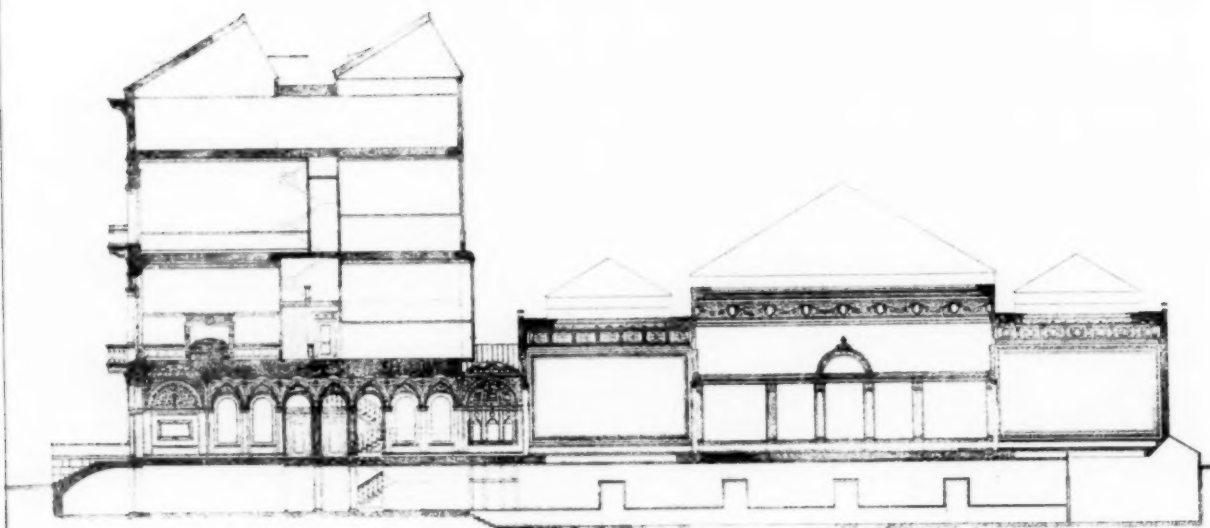
Submitted by {Edmund B. Welles Architect
111 Broadway New York.



Proposed building
for the proposed building
for the
American Fine Arts Society
No. 117 Street New York City

Architect
Charles McKim

Architect
Charles McKim



Proposed building
for the proposed building
for the
American Fine Arts Society
No. 117 Street New York City

Architect
Charles McKim

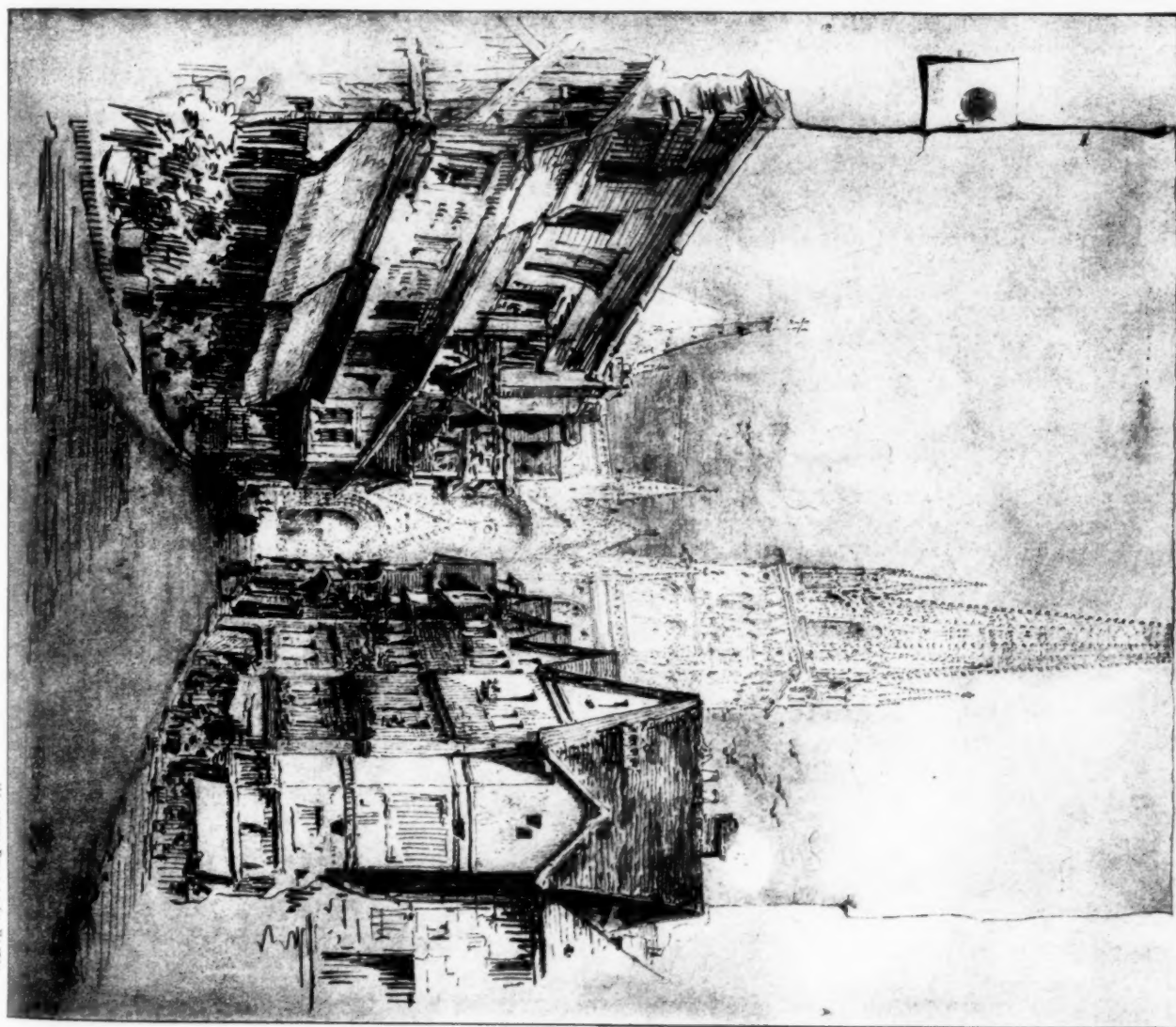
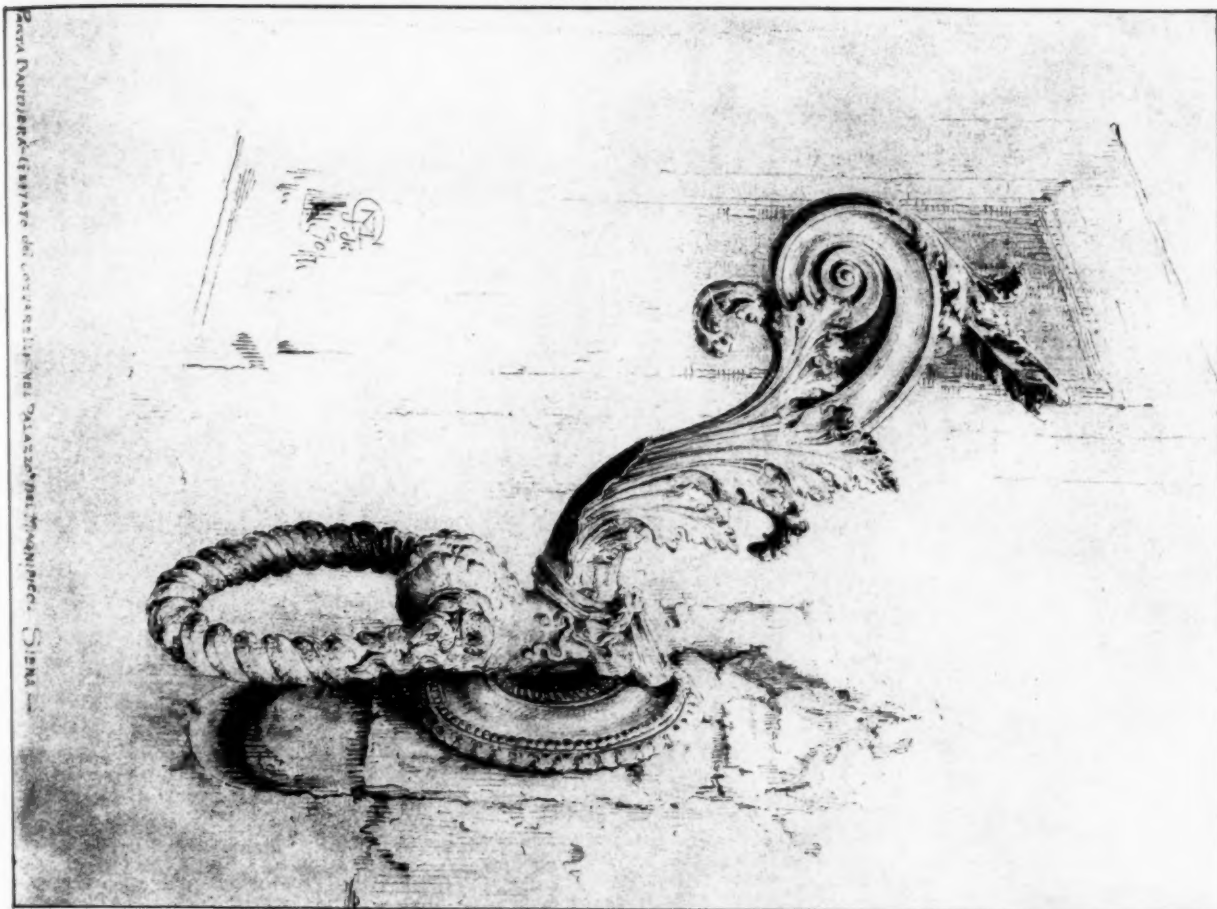
Architect
Charles McKim



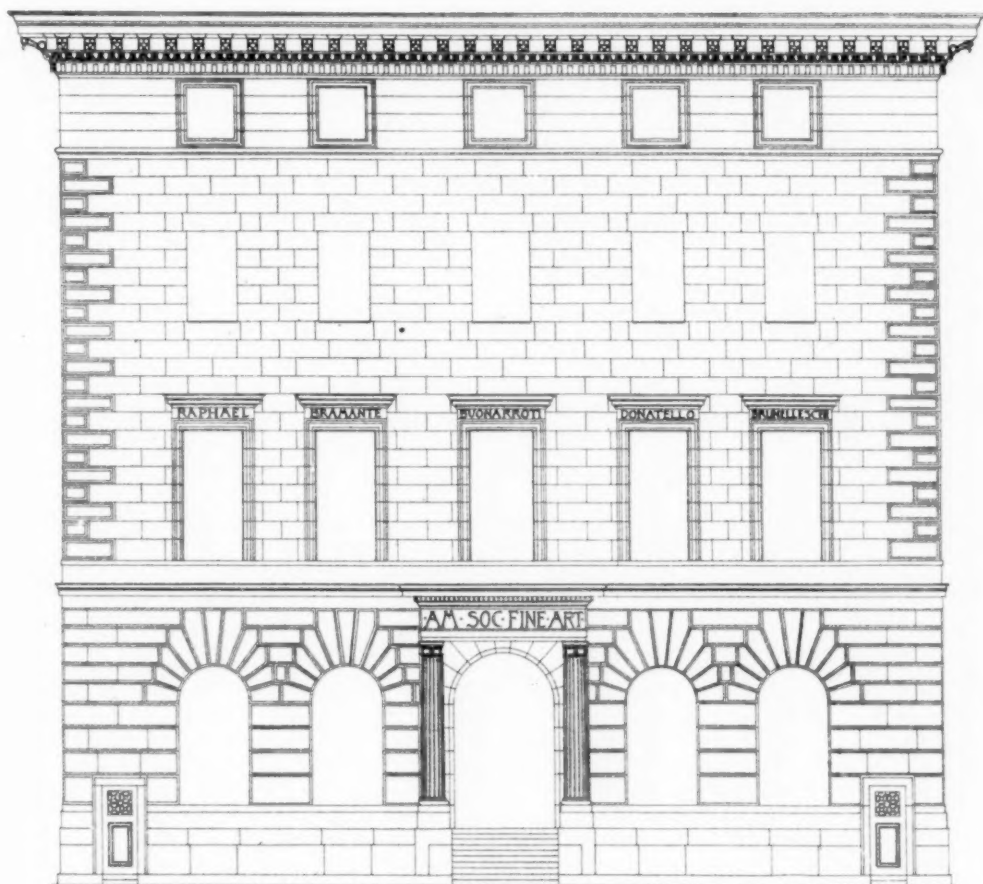
THE RUEDERSDORF BRIDGE IN DRESDEN, SAXONY.

Engraving by J. H. B. & Co.

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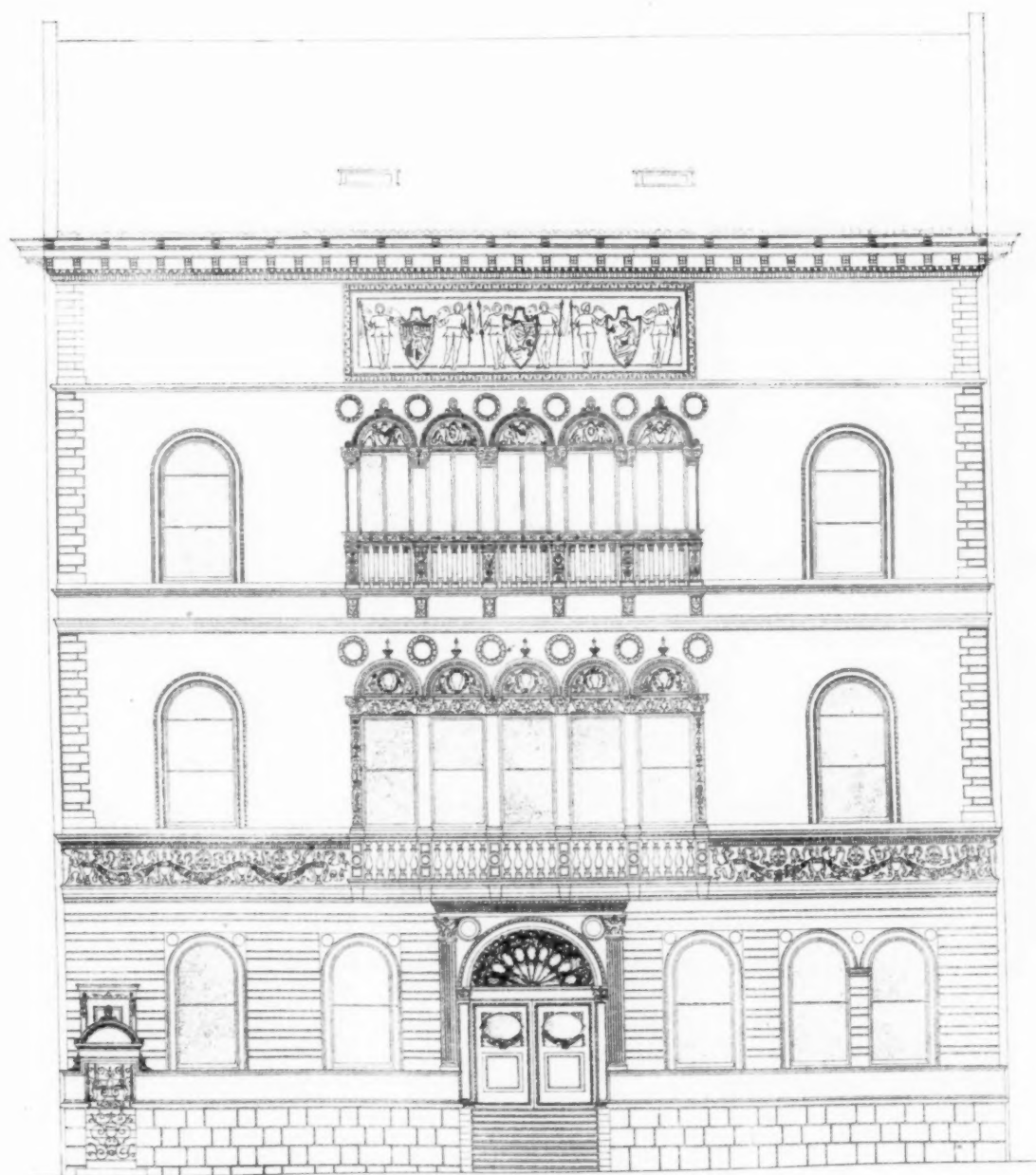


· FRONT ELEVATION ·

Scale. ————— 10 Feet

· COMPETITIVE DESIGN FOR ·
· THE AMERICAN FINE ARTS SOCIETY BUILDING · NEW YORK ·





Competitive drawings
for the proposed building
for the

American Fine Arts Society
West 57th Street New York City.

Front Elevation
Scale 1/4" = one foot.

Submitted by { Edmund B. Heller Architect
111 Broadway New York.