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ENGLAND has just lost one of the two men who in common estimation stood first among her architects. As yet we hear by telegraph only that Sir Gilbert Scott died last week. He was perhaps the busiest architect in the profession. Born in 1811, he was grandson of the Rev. Thomas Scott, whose "Commentary on the Bible" was a household book a generation or two ago. His natural bent showed itself early, and it was his taste for studying and drawing old churches that led his father to set him to the study of architecture. The fondness for Gothic work thus early shown—or acquired—remained with him; it was only under constraint, apparently, that he designed in any other style. The Martyrs' Memorial at Oxford, a piece of Decorated Gothic, pretty closely studied from the crosses of Queen Eleanor, especially that at Waltham, and built in 1841, was his first conspicuous work, and was quickly followed by others. The next year he built the new church at Camberwell in London, and soon after was successful in a universal competition for the church of St. Nicholas at Hamburg, which was built from his designs—an extremely elaborate church in fourteenth century Gothic, which is said to have cost three quarters of a million of dollars, a great sum then in Germany. In 1855 he won again in a general competition for the new town hall at Hamburg; but his design, though accepted, was never carried out. He was also the architect of the cathedral at St. John's, Newfoundland, begun in 1848. At home he has done an immense amount of work, most conspicuously in restoring the cathedrals, the most of which, it would seem, with Westminster Abbey, have passed under his hand. He made great renovations,—which have brought mingled honor and reproach upon him,—at Ely, Lichfield, and Hereford; and at Salisbury, where he restored the chapter-house with great splendor. He remodelled the east end of Chester, and rebuilt, in conjunction with Mr. Slater, the great fullen tower and spire of Chichester. He built many country houses and other secular buildings, including the famous St. Pancras Station in London. When the new Foreign Offices in London were awarded, in competition, to comparatively inexperienced architects, a Parliamentary committee set aside the verdict and selected Scott, who was also employed with Sir Digby Wyatt on the India Office, and afterwards was the architect of the Home and Colonial Offices;—work which apparently brought him more kicks than pence from the government officials. He was one of the twelve architects chosen to compete for the new Law Courts in 1867, when Mr. Street was selected. He also built, for several of the colleges at Oxford and Cambridge, buildings of which the most successful is the chapel at Exeter College, Oxford, a manifest study from the *Sainte Chapelle* at Paris. At Glasgow he rebuilt the whole University Buildings. He was made an associate of the Royal Academy in 1852 and a fellow in 1860. He was subsequently knighted, in recompense, we believe, for his service as architect of the Albert Memorial at Kensington, for which he was chosen by the Queen. The Royal Gold Medal for Architecture was awarded him, in what year we do not remember. He was one of the founders of the Architectural Museum at Westminster; and an active member of the Royal Institute of British Architects, of which he was president from 1873 to 1876, being Mr. Barry's predecessor.

SIR GILBERT was a man of great activity of mind, and apparently of great tact and practical sagacity. He was warmly interested in everything that belonged to his profession, a learned archaeologist, and contributed many papers to the proceedings of the Institute, writing also several treatises for publication,—among them "Gleanings from Westminster Abbey," and some papers on restorations. He was a thorough-paced Gothicist, although when the Foreign Offices were given him, Lord Palmerston, then premier, obliged him to change his design and build in Renaissance. His preference in English Gothic seems to have been for Decorated work, if we may judge by his designs; but he was somewhat given to eclecticism, with a stronger bias toward French detail than most of his countrymen. The amount of work he undertook was prodigious,—probably much greater than he could do full justice to. His multifarious restorations habituated him to a great regard for precedent, and while they were carried to a degree that brought him much reproach from the opponents of restoration, they were executed with a careful regard for authentic style. A chief characteristic of his design was its elaborate refinement and exuberance in detail; he was stronger in this than in composition and outline. Among his most characteristic works are the screens and inner decorations which he designed for the cathedrals he restored and the churches he built; we may mention especially the metal screens in Ely and Hereford, which are marvels of elaborate design and workmanship. Perhaps the chapel of Exeter College shows him to as good advantage as anything he did. Some of his fellows, Street for instance, (who was his pupil), and Burges, have shown a truer instinct for the mediæval, and especially the English style, in which they work. In fact, we can fancy that Scott, in spite of his predilections, retained to the last a trace of influence of the classic training to which he was compelled at the beginning of his studies. It seems to crop out here and there in his work, as it did in the Gothic of Italy. When he took leave of the conventional types of building he was apt to fail in the disposition of his design, and fall into a baldness of outline that was essentially un-Gothic. The wilfulness and spontaneity of true Gothic were apparently not in him. His designs for the Law Courts were Italian rather than English. They included an attempt to ally the round dome with the pointed arch, and showed a feeling for squareness and absolute symmetry of disposition, and for horizontal lines rather than vertical, which reappears elsewhere in his work. The Albert Memorial, a great Italian canopy sixty feet high, gaunt and meagre in outline, but absolutely incrustated with minute detail elaborated to the last degree of refinement, shows the strength and weakness of his work as well as any of his buildings that we can recall.

A CORRESPONDENT of the Philadelphia *Daily Telegraph*, writing from Washington about the Corcoran Gallery there, is moved by the unfortunate Carpenter picture just hung in the Capitol, and the painting by Brumidi which is still going on, to urge the importance of missionary work in art at Washington. The question of art at the capital is certainly a difficult one. The enterprises of Congress in the direction of art have been persistently unhappy, and the last state is at least no better than the first. We dare say that all the *Telegraph's* dispraise of Brumidi's present doings in the rotunda is deserved. The radical difficulty is that the patronage of art is in the wrong hands, or perhaps that the right hands are not to be found. The men who wield the patronage have been appointed for entirely different duties. It is no affront to men who are chosen for purely political reasons to say that they are not likely to be qualified as patrons of art; and that so long as their disposition to immediate control of all details leads them to act as patrons, they will probably succeed as well as a parish meeting or a caucus would, and no better. There being no provision in the government for the administration of matters of art, they are dealt with in the same rough manner, but with not so much understanding, as the political matters to which our legislators are more used. Under these circumstances it is perhaps as well that the government should have no more to do with them than is really necessary. Art is a thing so exacting of special preparation, and so apart in its quality from the ordinary concerns of life, that a government in whose theory there is no recognition of it may very reasonably decide to let it alone. The only safe al-

ternative seems to be the appointment of special officers whose duty it should be to advise the government and shape its action in questions of art; but we see no indication that the country is ripe for this.

It is a mistake to assume that the traditional functions of a capital city, as a centre of the activity of a nation in all its important concerns, are fulfilled in Washington. It is doubtful if they will ever be, unless the character of our government changes considerably; nor are they, except by accidental coincidence, in the state capitals. The purely political constitution of our government, the short terms and the character of its officers, who are all chosen and changed for political reasons make Washington simply a political capital. There is even a common disposition to argue that state and national capitals ought to be removed from the great cities, in order to seclude their political work from the interference of other interests. It is true that the houses of Congress, partly from solicitation of individual axe-grinders, partly from a natural desire to control everything, are apt to put their hands to all kinds of work; but it is merely by the application of political gauges and political methods to outside concerns. Moreover, the character of our politics makes the people of Washington essentially an average community. There is no conflux of commanding ability, still less of special acquirement and cultivation. There is even a noticeable jealousy — common nowadays among average men, and perhaps not altogether unwarranted — of the claims of superior cultivation, as of something arrogant and domineering, and a disposition to flout it. It is true that legislators and rotating office holders do not make up the whole community at Washington. The permanent branches of the public service and the diplomatic corps bring a good many men of superior acquirement, but these are an element apart. Not only the administration of the government and the city, but the tone of the place, is given by the political element, and against this it is not of much use to contend at its focus.

On the whole, we are disposed to doubt if Washington is a fruitful missionary ground for art. Its continually changing population, the engrossment of everybody in other affairs, and the migratory feeling that takes possession of everybody, are hostile to any real interest in art. The people who come there are what they have grown to be at home, and are likely to remain so till they return. They have no leisure to cultivate themselves there. Whatever thought they give to anything outside their political business is only to be had by demanding it; and artists who clamor for attention are not the kind that advance their art. Therefore, making all due allowance for the stable element in the population, and a fair average interest among the shifting part, we should not expect that Washington would ever become a city favored in art. We could not think of a place where a school for art would be more thrown away, or where museums and other such appliances would bear less fruit. As the capital of the nation, claiming to be a city of the first rank, where wealth and fashion congregate every year, it should naturally be embellished, and it will be. The taste with which it is embellished will depend on the judgment of individuals who, like Mr. Corcoran, are generous enough to give their money and care in such ways as there is opportunity for, and upon that discretion of legislators which has already adorned it with the works of Mills, Vinnie Ream, and Carpenter; to expect that it will come to be a city of high artistic influence in the country is, we fear, to invite disappointment.

THE people of Philadelphia are awakening, not too soon, to the need of arranging a proper system of sewage in a city so large as theirs. At present there is, as in most cities, no system but different parts of the city are drained independently and some not at all. The old-fashioned way not yet abandoned, was to drain the soil-pipes into a cesspool, and let the sink waste run over into the street gutters. The cesspools were sometimes in the yard and sometimes under the houses. They were of brick laid dry, allowing the liquid from the soil-pipes to soak away and saturate the ground in the yards and cellars. Where there are sewers they are of brick, and therefore porous like the cesspools. Most commonly they only receive the overflow from these and the water of the drains. The question of building some new sewers has brought out a controversy, such as could hardly exist in most places, between advocates of the old habit

of building brick sewers and those of the modern system of pipes. The Councils have before them now a memorial from a body of physicians requesting the appointment of a commission to examine and report upon the methods in use in the other large cities in the United States and in Europe. It is encouraging to be told, meanwhile, that the danger to the piling of the Back Bay district in Boston from lowering the ground-water by the proposed new sewers is less than was feared. The dread was that the water in the ground, finding its way into the sewers laid below tide water, would leave the piles dry, and that they would decay. (See *American Architect*, Nos. 104, 105.) Experiments have been tried for several weeks successively to see if there could be infiltration enough into the sewers to perceptibly reduce the moisture in the ground. Continuous pumping of the sewer in Berkeley Street has failed to produce any considerable effect on the level of the water in the ground close at hand. The Sewerage Commission has concluded that its expectation was not justified, and that the effect in this way of the new sewers must be very slight, not enough at all events to injure any houses but a few of those which were first built, where the piles were cut off above grade five, — the height afterwards fixed by the building law.

THE Metropolitan Board of Works in London has never been renowned for gentle dealing; but a story told of it in the *British Architect* rather outdoes what we have heard of it before, and shows an enforcement of personal responsibility which would look strange on this side of the water. The Rev. Dr. Lee is incumbent of All Saints, a poor parish in Lambeth, in the south of London. The church having fallen into dilapidation and the parish being too poor to provide money to put it in order, the incumbent spent some four or five thousand dollars of his own in repairing it, and then, finding that he could spare no more money, his income being small, declined to do more. A part of the tower fell down, and the Board of Works, under the law which allows them to repair an insecure building at the expense of its owner, repaired the tower at the cost of five hundred dollars, and summoned Dr. Lee, as the constructive owner of the church, to pay for it. This the incumbent refused to do, and the Board applied to a magistrate for a distress warrant against his private property. That being refused by the magistrate, on the ground that the act of Parliament did not intend such severity, the Board threatened the magistrate with a writ of *mandamus* to compel him to issue the warrant, and there at the last account the matter stood. Under the law the Board had the alternative of selling the church, but, being asked by the magistrate why it did not do this, declined to do it on the ground that it would be useless, since there was no one to buy.

If our readers notice anything unfamiliar in the aspect of our paper to-day, they may ascribe it to the fact that the change in its publishing house, which has already been made known, has brought with it a change in the printing-house, and that the *American Architect* is henceforth to be printed at the Riverside Press.

SCHLIEMANN'S MYCENÆ.¹

I.

DR. SCHLIEMANN'S discoveries have probably attracted more universal interest than any other archaeological discoveries of the day. This interest is twofold: literary and historical, in that it connects itself directly with the exegesis of the greatest of classic poets, of the early traditions of Greece, and of the plays of the Attic dramatists; archaeological, as it bears on the study of ancient art. Into the historical discussion we shall not presume to intrude. The unlearned must be satisfied to remember that there is no record, in history or tradition, of more than one era at which Mycenæ was powerful enough to justify either the sounding praises of Homer or the splendors discovered by Dr. Schliemann. Whatever its power once was, — and its ruins have borne witness of its power since the days of Pausanias, — it was broken at the time of the Dorian invasion, near the beginning of the eleventh century B. C., and it never was reestablished. At the time of the Persian war Mycenæ was only strong enough

¹ Mycenæ: A Narrative of Researches and Discoveries at Mycenæ and Tiryns. By Dr. Henry Schliemann, citizen of the United States of America. Author of "Troy and its Remains," "Ithaque, le Péloponnèse, et Troie," and "La Chine et le Japon." The Preface by the Right Hon. W. E. Gladstone, M. P. Maps, Plans, and other Illustrations, representing more than 700 types of the objects found in the Royal Sepulchres of Mycenæ and elsewhere in the Excavations. New York: Scribner, Armstrong, & Co. 1875.

to send eighty men to Thermopylae, and four hundred to Plataea. Very soon after, it was overthrown by the jealousy of the neighboring city of Argos, and from that time has been known — when not absolutely forgotten — only by its ruins. If it ever had a race of splendid kings, they must have lived in the dim prehistoric time to which Homer's poems are believed to refer; that it had such, the prodigal display of treasure in the tombs which Dr. Schliemann has laid open would have led us to believe, if the Homeric poems had said nothing about them. When it comes to the identification of individuals and the corroboration of particular events, the questions that arise are difficult and complicated, and we may leave them to the learned. Two or three points will, however, suggest themselves to a careful reader: that it is contrary to all analogy that such a series of legends as are embodied in the Homeric poems and the Athenian tragedies should have become established without a basis of facts; that it is the tendency of tradition to group a variety of incidents about a few names chosen by natural selection; and that a historical *mise en scène* is an entirely modern idea, in other words, that as far as manners and customs go any early legend will reflect the characteristics of those by whom it was recorded rather than of those whom it describes, as the legends of the Arthurian cycle depict the ideas and habits of the twelfth century rather than the days of Briton kings; and although in primeval times manners altered slowly, so that generations made less change than years do now, and therefore the record might not very rapidly diverge from its prototype, the process of adjustment to changing ideas would not end until the legends received their permanent form. Many curious correspondences are found between the Mycenaean discoveries and things described by Homer, and there also is a plenty of discrepancies, but for these the reader is referred to the book itself, and to the ingenious but perhaps not always discriminating preface of Mr. Gladstone.

To our knowledge of the architecture of Mycenae Dr. Schliemann does not add very much, his interest being mainly concentrated on other things. His illustrations of the masonry found in the walls of the acropolis are substantially the same as those given by earlier examiners, showing the three kinds of so-called Cyclopean work, — the irregular rubble pinned up with small stones, the close-jointed polygonal work and the coursed rubble, all which he thinks are more likely to have been in use simultaneously than successively. In spite of considerable embarrassment from the Archaeological Society at Athens, which insisted on his waiting till they should strengthen some of the adjoining walls, but apparently never did it, he succeeded in laying bare the threshold of the famous Lions' Gate. The opening, when exposed, proved to be of peculiar form, being nearly square, 10 feet 8 in. high, 10 feet 3 in. wide at the bottom, and 9 feet 6 in. at the top. The threshold is a block of hard breccia, like the adjoining masonry, and contained two holes of quadrantal plan at the feet of the rebates in the jambs, as if to receive bronze plates for the pintles of the doors; in the middle is a rectangular hole for the bolt. The jambs as well as the threshold are deep enough to receive the folds of the gates when swung back inward, and in each jamb are two oval slots near the inner edge, where it is difficult to assign them a use, and a square hole close against the rebate, as if to receive a bar. The threshold is furrowed longitudinally, as if to keep horses' feet from slipping on it, and is crossed by two or three channels, which Dr. Schliemann thinks must have been cut to carry off the water, which would have run down from the rising ground of the acropolis within, though they would seem to be both unnecessary and inadequate for this use. But he entirely rejects as travellers' inventions the ruts of chariot wheels which he finds ascribed to it in "all guide books." He can not discover them in the water channels that he represents, and the threshold itself, he thinks, "no mortal eye can have seen for more than 2300 years." It is curious, then, that they should have got into the guide books. The threshold is a huge block of stone, fifteen feet long and eight wide, and apparently three and a half high (the scale attached to the plan is figured wrongly), having on its outer face a curious large cuneiform cutting, of which Dr. Schliemann says the counterpart is to be found in the large flat stone in the middle of the gate at Troy. Unless the threshold was exposed so as to be inordinately high, this mark must have been almost covered by the soil or the pavement outside. If it was uncovered, there was certainly no chance for chariots to enter at the gate. Dr. Schliemann says nothing of any pavement, nor of any effort to discover the level of the roadway within the gate or without. About the famous lions above the gate he has a new suggestion. Their heads, he says, are

not simply broken off, as is commonly taken for granted, for they were not cut from one stone with the bodies, but dowelled on, as is shown by the straight joints and holes at the necks. He makes the suggestion, which is not unlikely, that they were of bronze.

In one part of the walls themselves, and in several places in the enormous walls of the neighboring city of Tiryns, which Dr. Schliemann first examined, he found longitudinal galleries in the thickness of the walls. The galleries were of triangular or rudely arched section, the overlapping courses of masonry meeting in a line overhead. In one of them, at Tiryns, was a series of triangular openings in the outside wall, built in the same way, which he imagined to have been loopholes, or rather windows, for the archers that defended it. They must have been rather exposing, however, for they reach to the floor of the gallery, which is the surface of the rock on the edge of the cliff, and are apparently as high as a man.

The most interesting structures at Mycenae are the well-known domical subterranean buildings. It has been the custom, following the lead of Pausanias, to call them treasuries, though some archaeologists have argued strenuously that they must be tombs, and others, plausibly enough, that they may have been both. Of these Dr. Schliemann's plan shows five, and the one nearest the gate tempted Mrs. Schliemann to excavate it, being apparently the only one, except the so-called "treasury of Atreus," which remains in tolerable preservation. It was circular in plan, like all the rest, and essentially like that of Atreus in construction, being built of overlapping horizontal courses, but rather more rudely, and perhaps earlier. If the section given in the book is drawn with accuracy, this building is simply conical, whereas in the treasury of Atreus the inner face of the wall is dressed to a well-wrought curve, said by Professor Donaldson, somewhat vaguely, to be "a species of parabolic curve."¹ It is entered through the same sort of roofed passage, or *dromos*, as the other, the entrance fronting down-hill in both buildings, as is natural in subterranean structures, but is smaller, being apparently only thirty feet in diameter inside. It has the same square-headed door-way, of almost identical dimensions, 8 ft. 4 in. wide by 18 ft. 5 in. high, covered in the same way with a lintel which is relieved by a triangular opening above. The jambs and lintel do not seem to have been dressed like those of the treasury of Atreus, where two broad sinkages are carried around the whole opening, but the lintel, which is thin, has a projecting band that still shows traces of a scalloped ornament in plain semicircles. Although the outer face of the door-way does not give the same indications as in the other building of having been faced with applied stone or other material, Dr. Schliemann thinks he saw proof that there had been an attached column on each side of the door-way, after the manner of Professor Donaldson's ingenious restoration of the Atreus treasury, and found outside a fragment of one of them, 4 ft. 3 in. high, of one foot 4 in. diameter, and fluted, of which it is to be regretted that he gave no illustration. He does not say of what material it is; but two decorated fragments which were found, one of white and one of blue marble, would seem to indicate that this building as well as the other had a decoration, probably an entrance façade, of polychrome design. The carved ornament on these is very like that on the pieces found at the door of the treasury of Atreus. One of them has a series of discs in low relief, with two lines of herring-bone ornament above it. Another is decorated with the compact continuous spiral or running scroll, like the Greek wave ornament or so-called Vitruvian scroll, which characterizes the ornament of the Atreus treasury; and this, since it is found on two adjacent sides, suggests that the block must have been applied to a jamb or a lintel. With these one is tempted to associate the fragment of red porphyry represented on page 97, carved with ornaments which Dr. Schliemann calls palmettos, and which might suggest either an Egyptian or an Assyrian relationship. As far as we can infer from the not very precise statement in the book, this fragment was found inside the wall of the acropolis, but it is entirely unlike anything else in the book, while it is very closely analogous to a fragment found in the other treasury, which is not included in Professor Donaldson's restoration, but is accessible to most readers in Gailhabaud's "Monuments." Nevertheless it is to be noticed that the porphyry fragment shown in Schliemann's book appears inferior in execution to the other pieces found in his treasury. The interior of this treasury does not show, like its neighbor, the holes and the bronze nails by which the bronze

¹ Most of our readers will not need to be reminded that there is but one form of parabolic curve, all parabolas being exactly alike except in size, like all circles.

plates which lined it are supposed to have been fastened, but a piece of such a plate was found so firmly jammed in the joint between two of the stones that it could not be pulled out. Embarrassing interference of the Archaeological Society troubled the work here too, and only allowed the floor to be cleared in the middle, leaving a bank from seven to ten feet high against the wall. This may possibly, though not probably, have prevented Dr. Schliemann from seeing whether there was an inner excavated chamber attached to the principal structure, as to the treasury of Atreus,¹ a very important question of which he says nothing in his book, but which we can hardly suppose he forgot to consider.

The excavations made within the acropolis walls, where the most remarkable discoveries were made, were of a much simpler kind, in one way, than the previous ones at Hissarlik in search of the site of Troy; for although in the superficial earth there were fragments of pottery of a later date, all the important remains were substantially of one stratum and one date, with the possible exception of the tombstones found above the sepulchres, to which we shall refer later. Once inside the walls, Dr. Schliemann soon came upon a series of walls of Cyclopean masonry, inclosing rooms of various sizes and shapes, and since there are no openings in these walls he naturally inferred that they were but foundation-walls, and that here as at Troy the superstructures must have been of wood. A little farther from the gate he came upon an inner wall, running parallel to the outer which here makes a sweep toward the south, roughly laid as if to serve as a retaining wall to level up the ground, which ascended from the gate. It was covered by a double row of upright slabs which seemed likely to be part of a complete circle. Here was the clue to the subsequent discoveries, for, uncovering the circle, he traced its whole circumference and found that the double row of slabs had inclosed it. The two rows had been continuous and concentric, standing about three feet apart, and inclining toward the centre of the circle, and were connected by a covering of flat stones, of which some remained in place, neatly fitted with tenons and mortises which held them in position. The slabs rose some four or five feet from the ground; but the earth within the circle had been levelled and raised, so that men might sit, and doubtless did sit, on this circular stone bench, in a ring of a hundred feet in diameter, as spectators of what went on within it. Here, then, Dr. Schliemann justifiably concluded, was the famous Agora of Mycenæ, the place of meeting of the elders, celebrated by Euripides; and the adjacent houses, he decided, must naturally be the royal palace, — the palace of Atreus and Agamemnon, the scene of the crime of Clytemnestra and Ægisthus and of the vengeance of Orestes.

Excavating within this circle, among a great accumulation of vases and fragments of pottery, figures of animals and rude images which he calls idols, swords and ornaments of bronze, bone, stone, and terra cotta, Dr. Schliemann found, at a depth of ten or twelve feet below the surface, four tombstones which stood or had stood upright, and fragments of others, carved with figures of men and horses, and with ornaments analogous to those on the marbles found in the treasuries, but, if we may judge by the illustrations, of incomparably ruder execution. At a lower level he found other and curious slabs in positions that suggested a sepulchral use, and in one place a remarkable oval structure, like a well-curb filled up, seven feet long and four high, which he took to be a funeral altar. Finally, still lower down, from twenty-five to thirty feet below the surface, he reached, one after another, five great sepulchres, burial pits sunk some feet into the rock, the largest eighteen feet wide and twenty-four long, lined with battered walls of rough stone. Of the contents of them, the important part of Dr. Schliemann's discoveries, we must speak in another article. They contained in all remains of fifteen human bodies, and an amount of treasure in gold which has been valued at twenty-five thousand dollars.

GOOD WHOLESOME EARTH.—The suit of Charles G. Waterbury, against the city of New York, now before the Supreme Court, is on a contract for filling in with good wholesome earth a portion of First Avenue which runs through a swamp. The city's witnesses testified during the case that in various openings in the "good, wholesome earth," made for sewerage, testing, etc., they found jute, broom corn, rags, wire, crockery, shoes, bones, glass, and earthenware. We are not surprised to learn that Win. M. Tweed was called to testify that the contract was fraudulent in its inception.

¹ A correspondent of the *Boston Daily Advertiser*, writing from Mycenæ a month ago, makes the astonishing statement that this inner chamber cut in the rock, which has just been cleared in the course of the excavations now going on, which has been shown as rectangular by all the authorities, and of which the measurements have been given with great precision, is really round.

THE RESTORATIONS AT GOSLAR.²

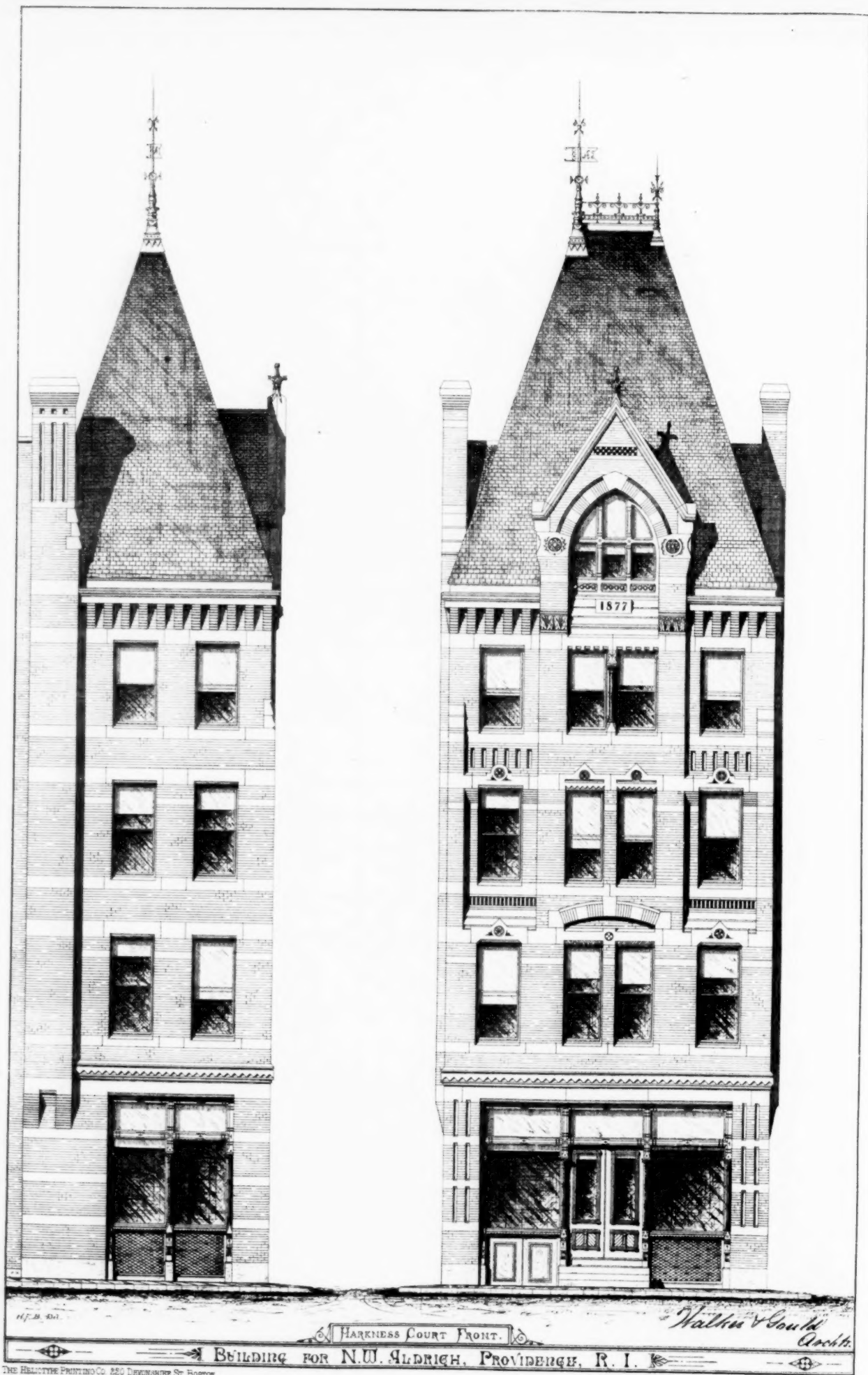
SINCE the restoration of the Wartburg³ no more important architectural work has been undertaken in Germany than the rehabilitation of the imperial palace at Goslar. Perhaps, indeed, when we consider the nature of the building, it will not seem necessary to limit my statement to Germany. The restorer's aid has in all countries been principally afforded to ecclesiastical structures. Here, owing to the number of more or less perfect contemporary models, his work, however locally important, is less difficult, and even the most successful result must be less instructive than if he had been employed on the restoration of a great civil building. Such buildings of the eleventh and twelfth centuries do not exist except in a state of ruin. Little remains to give the art-student a picture of the interior of a Romanesque building; nothing to give the German people in general as true an idea of the surroundings amid which their ancestors lived, as they can easily gain of these amid which they worshipped. So when the question as to how the ruinous Wartburg should be treated was first started, it is easy to see why the method ultimately chosen was the most desirable. The choice lay, as ever, between the two rival methods of conservation and restoration. The former contents itself with clearing away every probable accretion of more recent times, and taking every possible precaution for the preservation of what may remain of primitive work. The other method, — to restore the relics under our hands according to the testimony of historical record, of literary illustration, and of æsthetic analogy to as nearly as may be the appearance they wore when fresh from the fingers of architect and decorator, — was the method applied to the Wartburg. It may be a question, whether the complete restoration of a Romanesque church that had fallen into such decay as had overtaken the Wartburg, would have been a laudable, much less a necessary, work. Enough remains of ecclesiastical architecture of that period to give the most careless student a fair idea of its character and æsthetic value. What might remain of old work in such a ruinous example would be more valuable than the pseudo-perfection of a restoration. But, as I have said, no building remains sufficiently perfect to give a fair idea of the civil architecture of the time, or to characterize the mode of life and thought of Romanesque builders. Difficult as it was by a minutely careful scrutiny of existing monuments to gather sufficient data for the work of restoration, yet the most intemperate advocate of simple conservation can hardly fail to find the result satisfactory, and must at all events approve of the scrupulous archaeological judgment with which the work was done. All students who have seen the Wartburg are far better able, even if some of the details are presumably rather than demonstrably correct, to conceive in their perfection and appreciate in their ruin the numberless remains of Romanesque dwellings scattered throughout Europe, than they would be if its restoration had been confined to conservation. Whatever original work may be covered by or lost amid modern work is amply atoned for by the increased legibility and value of every contemporary ground-plan and chisel-stroke in Europe.

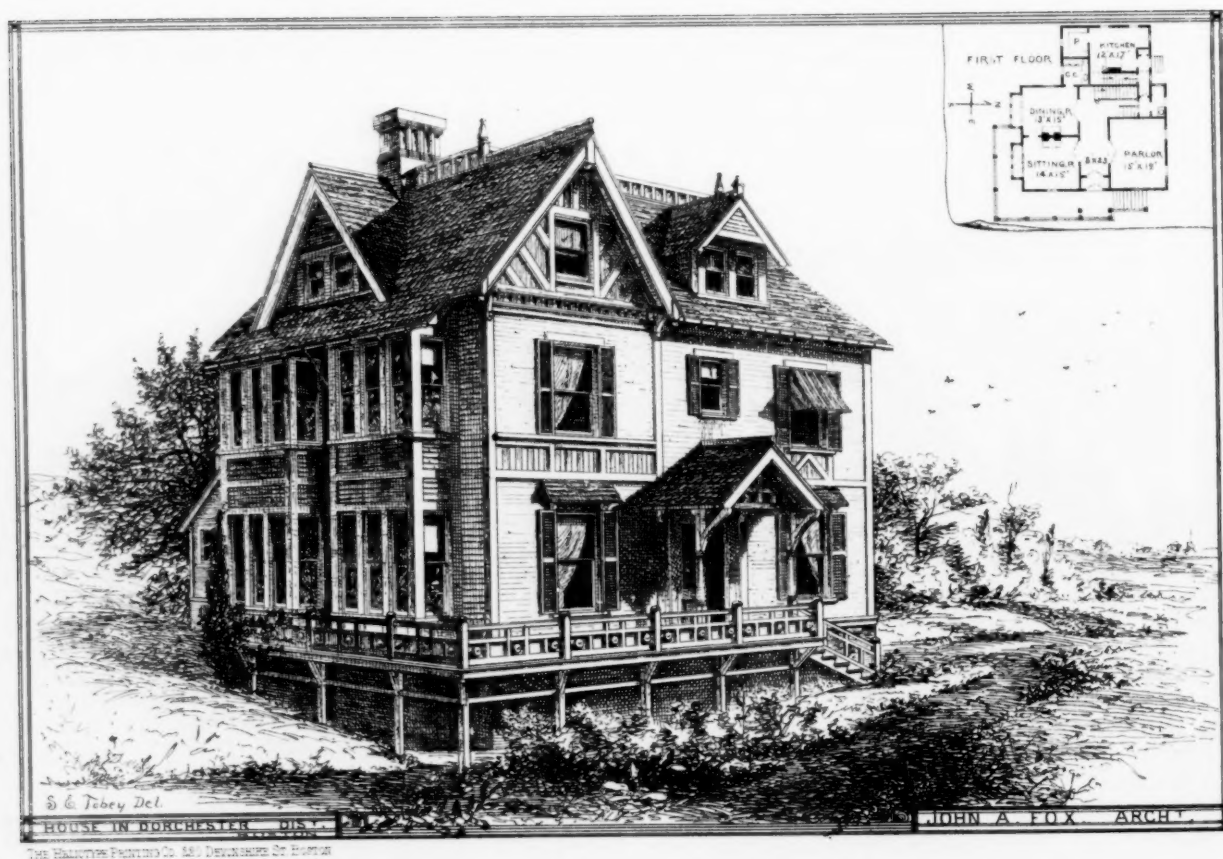
When it came to be a question of restoring the great imperial palace at Goslar, things stood differently. The Wartburg was ready to serve as interpreter, — should not Goslar be purified and preserved, but left untouched by the restorer? A decision either way, had such decision been conscientiously carried out, would have met with approval from all impartial observers. But it must be universally deplored that neither of the two courses indicated above was chosen, but a course that has made out of the once superb residence, noble even in its ruin, a monster neither old nor new, a lie, as has been said in Germany, against which every tourist, every art-student, every German ought to be strenuously warned. The Wartburg was the stronghold of romantic and legendary Germany. Goslar, one of the most important centres of historical and heroic Germany. Against the beautiful and reverent treatment of the one, we have to set the desecration and transformation of the other. The Franconian emperors were nearer to us in the half-ruined corn-magazine of twenty years ago than they can ever be in the travestied and modernized palace of to-day.

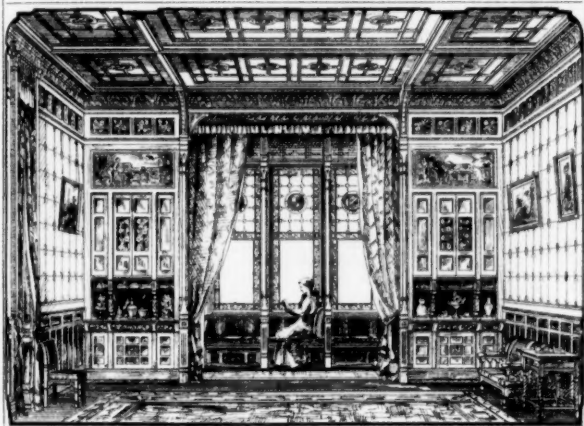
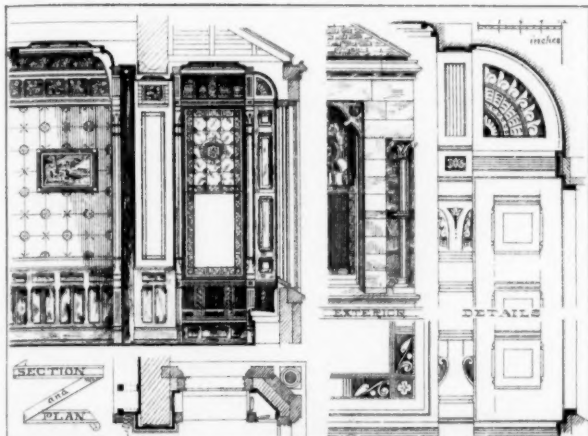
The old "burg" of Goslar needed enlargement, we find, as early as the year 925, but the celebrated royal residence and chapel were not founded till 1056, becoming the favorite residence of their builder, Henry III., and his son, Henry IV. The city was sacked and the buildings much damaged by Henry, the Lion, in 1180, and it was very probably then that the palace fell from an imperial residence proper to become the residence of imperial delegates. Later it was ceded to the city, and has been used in succession as court-house, arsenal and armory, Jesuit college, prison, hospital, theatre, and grain depot; and in parts for still other purposes. It will be imagined that the work of restoration was likely to be both necessary and difficult. First determined upon by the last king of Han-

² The following details of the work in progress at Goslar have been in great part drawn from different numbers of the *Weser-Zeitung*, Bremen.

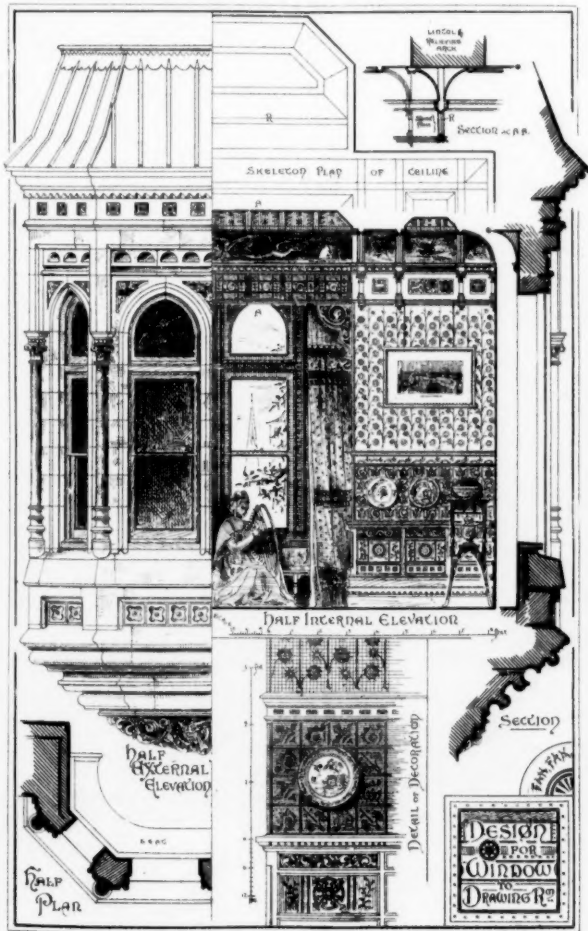
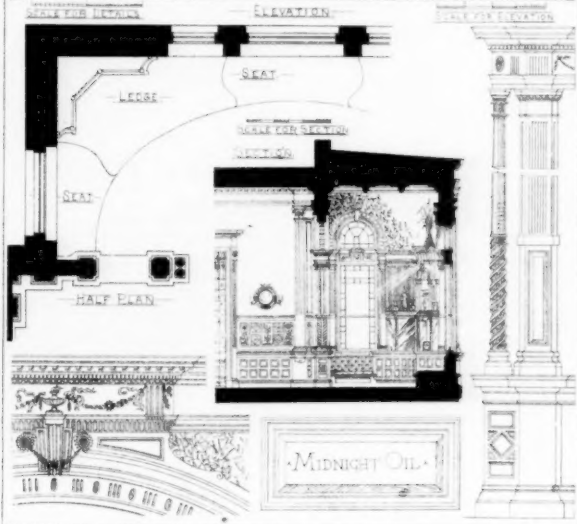
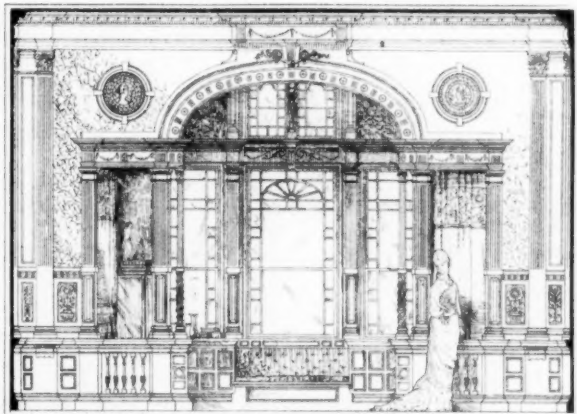
³ The Wartburg, a castle near Eisenach, long the residence of the Margraves of Thuringia, was built about the year 1070. The name may have been derived from an exulting cry of its founder, Ludwig der Springer, to the cliff which lowered over his little town: "Wart' Berg, Du sollst mir ein Wart-Burg werden." Within its walls lived Saint Elizabeth, the Margravine, and in later times the heretic Luther found a refuge; here is still shown the stain left by his ink stand flung at the Devil. It has since been remarked that the choice of a weapon was wise: nothing is so hateful to that Evil One as ink. Here also was the contest of the Minnesingers, and in our own century the seditious meetings of students from every University of the newly awakened Germany. The restoration of this castle referred to in the text has excited a national interest.



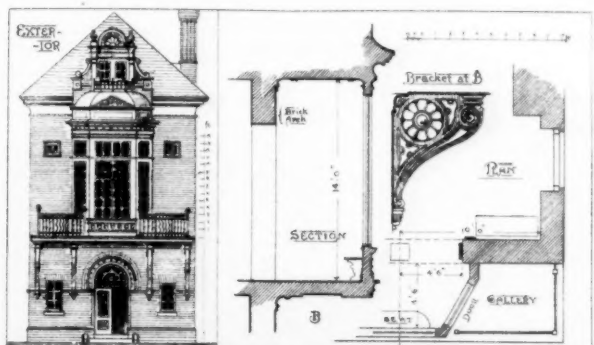


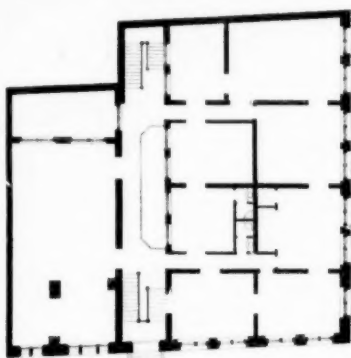


Scale of 1" = 10' Feet.



THE HELIOTYPE PRINTING CO. 280 LEVINGHOPE ST. BOSTON





Scale 1/8 in. = 1 ft.



TRINITY · PARISH · SCHOOL

— NEW YORK, N. Y. —

R. M. UPJOHN, ARCHT.

over, to whom the city ceded the palace, the project was furthered by the Prussian rulers, when in 1866 the city fell to them, and with it the ownership of the palace. It was a long and tedious work before an architect who had devoted years to the study of the buildings could clear away the accretions of centuries, discover the original plan of the structure, and throw into a model his ideas as to its original appearance. So carefully and so cleverly was this done at length, that there seems to have been no exception taken to his translation of present dilapidation into past perfection. Unfortunately, however, no sooner had he accomplished this much than the Prussian government took the proposed work out of his hands and put it into those of the government architect of the district, — a man who, capable enough in his own field, had until this time been chiefly occupied with railway buildings. Associated with him was a practising architect of Goslar, superintendent of the works, and two others as advisers, so that four brains were set to work on the same problem, with the hope that a successful unity might result from their efforts. It can hardly be a matter of surprise that no measure of success has in fact been attained, but that the restoration must be adjudged something worse than a failure. That some parts of the original structure have been preserved from further decay is all that can be said, and this by no means compensates for the damage that has been inflicted on the buildings as a whole, nor for the alteration and falsifying of the parts in detail.

The imperial residence consisted of four parts, — the large hall, a wing on either side of it and the chapel of St. Ulrich. The great hall was a two story-building, 189 (German) feet in length, 60 in width, and 42 in height to the eaves of the high-pitched roof. In the middle was a sort of transept, which projected little from the building but made a great gable in the front of the roof. The low ground-floor was occupied by one large room, — the gathering-place for the emperor's attendants, the flat wooden ceiling of which was supported by a row of piers and arches running through the middle of the apartment. The upper and principal story was likewise of one room, forming the hall proper, its front consisting of an immense open arcade of seven windows, the centre and largest one being 36 feet high and 24 wide; each window was divided into three by two free columns. Stately exterior staircases gave access to this story. This, the main portion of the palace, had been preserved to the present day in great perfection, considering the age and the vicissitudes it had seen. There is no arcade of the kind at the north that compared with this even in its decay.

Of the original structure of the north wing nothing remained; but the foundations of stone built into the rear wall of the existing building bore the date 1576, so that it was comparatively very recent. The south wing showed of the primitive structure only part of the front wall, and the foundations, including those of the inner partitions. This wing connected the hall with the chapel, — one of the famous double churches of Germany, — a circular building of eminently beautiful proportions, much injured, it is true, in parts, but showing many clear traces of original work.

Passing to the recital of the mistakes — to use the mildest term — that have been made in the so called work of restoration, be it premised that all the new work that has been superadded to this early Romanesque building has been put up in well-developed fourteenth century Gothic. Further, the original design of the building must undoubtedly have been that of a great hall with two mighty stories flanked on either hand by a wing less lofty and of less stately proportions. This is evident to those who have studied the ruins, and evident no less from the æsthetic necessities of the case when we consider that the wings must have contained the dwelling-rooms, inferior in size as in importance to the great hall. The restorers, however, have seen fit to build the north wing up to the height of the main building and to give it three stories. It need hardly be said that a three-story dwelling of the eleventh century, especially where space was available to any extent, would have been a very anomalous structure. Not only is such work a complete lie when it pretends to "restore" the original state of the wing, but it dwarfs and ruins the fine central structure which had so fortunately been preserved to us. Does not the excuse have an old and familiar sound when we read that this was done to provide a suitable residence for future official visitors to Goslar? Further, after much money had been spent on this modern erection, lack of funds was pleaded as an excuse for a shabby profanation of the main building. The pitch of the roof was lowered, among other things, and the high gable fronts, so distinctively German, cut off and hidden under an unbroken roof.

Thus far the restorations have now progressed, but still other desecrations are proposed for speedy execution. It was ascertained by careful scrutiny that the great arcade was originally provided with a defense against the weather in the shape of perforated inner shutters of wood, with small glazed panes inserted, and by heavy curtains. It is now proposed to render the hall more fit for use by nineteenth century officials by glazing the entire extent of the apertures, thus producing, as has been said, the effect of a badly planned greenhouse. Even the chapel itself is not free from the threats of the restorer. The principal interior decoration of the hall is to be an immense fresco representing the "Proclamation of Versailles" in 1871. Thus the aim is avowedly not to guard this fortunately preserved structure of the eleventh century against further decay, nor to restore it to the condition in which it was left by its founder, — the greatest, perhaps, of German sovereigns, — but to

transform it into a building fit for modern purposes, repaired and decorated not to the glory of Henry IV. but of William I. When we think of the pride the German people take in the pious and clever rehabilitation of the Wartburg it is hard to realize who in Germany has permitted such desecration, or who has been found to execute it. When we look to the cathedral of Speyer, — perhaps the finest of Romanesque cathedrals, — which was built at the southern extremity of their empire by the same dynasty who erected the "Pfalz" at Goslar in their northern mountains and which is sanctified by the tombs of all four Franconian emperors, — when we look at the careful and reverent and faithful way in which it has of late years been repaired and decorated, it seems almost incredible that in the same country, at the same epoch, — not, it is true, without many indignant protests, — men have been found to maim and desecrate and sheathe with falsehood the great Romanesque palace of the Hartz.

M. G. V. R.

THE ILLUSTRATIONS.

TRINITY PARISH SCHOOL, NEW YORK, N. Y. MR. R. M. UPJOHN, ARCHITECT.

TRINITY Parish School is built on New Church Street, opposite Trinity church-yard. As seen from Broadway, it forms a prominent architectural feature. Trinity square has in this building an exponent of thirteenth century Gothic, in the monument an exponent of the fourteenth century, and in the church of the fifteenth century Gothic. It is rare in this country that we see so prominent examples of the three styles at one glance one might say.

SEMI-DETACHED HOUSES, TRULL STREET, DORCHESTER DISTRICT, BOSTON. MR. JOHN A. FOX, ARCHITECT.

This pair of houses was built last summer for Franklin King, Esq., for the purpose of improving unoccupied land and meeting a want in the neighborhood for small, well-built houses with modern conveniences. They were rented readily at fair rates, while many houses owned by "speculative builders" in the neighborhood could not command tenants.

HOUSE IN DORCHESTER DISTRICT, BOSTON, MASS. MR. JOHN A. FOX, ARCHITECT.

This house, which stands on a steep hill-side, was built last season for James D. Scudder, Esq.

BUILDING FOR N. W. ALDRICH, PROVIDENCE, R. I. MESSRS. WALKER AND GOULD, ARCHITECTS.

This is one of a series of buildings which are to replace those destroyed by the fire of the 27th of September last. It occupies the site of the building in which the fire originated. Both fronts of the building are built of Philadelphia pressed brick, with Amherst stone finish, iron being used for the door-way and sash columns.

DESIGNS FOR THE INTERIOR OF A BAY-WINDOW — COMPETITION NO. II.

Twenty-three competitors have submitted designs in the second competition, and we are inclined to think that the average merit is greater than before. We propose to publish seven of them.

PAINTING AND SCULPTURE AT THE CENTENNIAL.

VI.

[The report of Mr. John F. Weir in behalf of Group XXVII., embracing Plastic and Graphic Art.]

THE UNITED STATES.

IN *genre*, Mr. Eastman Johnson contributed "The Prisoner of State," "The Old Kentucky Home," "Sunday Morning," and "The Old Stage-Coach," which are all representative of the acknowledged excellence of his style. Mr. Johnson's subjects are derived fresh from nature, and are generally illustrative of characteristic traits of American life and customs. They are carefully studied, and always expressive of genuine feeling. They are not altogether free from uncertainty of form and touch and monotony of tone, but no one has more decided individuality and independence in choice and treatment of subject than this artist. His pictures bear the unmistakable stamp of originality. We are never reminded in them of the influence of schools or foreign methods: they rest upon their own merits, and the only comparisons they suggest are those afforded by the truths of nature. "The Old Kentucky Home" is the picture that first gave him his reputation, which every succeeding work has sustained and increased. "The Old Stage-Coach" displays greater maturity of method and breadth of treatment, but in accurate delineation of character "The Old Kentucky Home" is hardly surpassed. The impression made by Mr. Johnson's pictures is a genuine one. We instinctively feel that the artist himself was impressed and sought to express something that touched his sympathies forcibly. This is their interest and power, and criticism starts from this source, rather than from the mere pictorial elements of technical merit that usually, in artists of less character, first engage the attention. Mr. Homer was represented by two pictures, "Snap the Whip" and "The American Type," — the latter a characteristic example of this artist's pronounced individuality. The expression of the figures is in-

tense, full of meaning, and the tenacity of his grasp upon the essential points of character and natural fact is very decided. No recent work of this artist has equalled the remarkable excellence of his celebrated "Prisoners from the Front," an incident of the late war, which is a unique work in American art; but all his pictures have the merit of genuine motive and aim. They are often bald and crude in treatment and unskillful in technical method, while breadth is sometimes attained by the sacrifice of essential details which greater maturity of power would supply without loss to the former; for true breadth is not vacuity, it contains the *sense* of fullness, if not the actual facts of detail. But that this artist evinces unique power and originality the slightest of his works amply testifies, and his aim is a sincere and true one. Mr. Perry exhibited three pictures,—"The Weaver," "Kept In," and "Young Franklin,"—all characteristic and distinctively American. This artist has made steady progress and adhered with commendable strictness to subjects within the scope of his powers and sympathies, and he has gradually but surely attained a command over his materials that is worthy of high praise. His pictures are illustrative and pleasing, and evince a conscientious study of his subject. He has not yet attained complete mastery of the figure, nor are his pictures free from labored manipulation and thinness of method, but they evince very genuine qualities of merit.

Mr. LaFarge sent five pictures,—two of figures and three of flowers. The latter are works of peculiar excellence for their purity and charm of color,—flowers forming but the theme for a most delicate and refined harmony that addresses the eye with occult power. Mr. LaFarge is learned in his art, working for profound and subtle results, and no one is more sensitive to the value of mystery in tone and color and of the emission of luminous lights through these qualities. His picture of "St. Paul at Athens" is stamped with great sincerity of aim, and bears unmistakable evidence of power and thought. His works, however, for the most part, give an impression of incompleteness or suggest a deficiency of form, and the drawing, as of the hands in this picture of St. Paul, is often defective. But these shortcomings are more than compensated by the superior aim which characterizes his work and renders it highly intellectual, spiritual, and poetic in feeling. The two artists who, with us, have best illustrated the charm of resource that rests in harmonies of color are LaFarge and Gray; and yet no two artists could be more utterly unlike in their methods and aims. Mr. LaFarge shows more profound intellectual aim, tintured with Orientalism, while Mr. Gray's work is influenced by simpler and more pervasive qualities of tone and the richness that is suggestive of a Venetian feeling. Mr. Gray is not always equal, and his pictures often remind one too strongly of the school that has influenced his style. But his "Apple of Discord" is, perhaps, in drawing, in purity of tone, and in the luminous quality of flesh-tints, unequalled in American art, and unsurpassed by any recent work of its kind in any country. Mr. Irving exhibited "The End of the Game" and "Cardinal Wolsey and his Friends," the latter a labored and skillfully-painted picture. Mr. Irving's style is imitative; but, while it lacks originality, it is not without decided merit, principally in technical qualities. His figures have often the appearance of actors dressed in the costumes of the stage and performing their parts cleverly, though not always naturally or unconsciously. But he has carried his art to that point of elaboration which is only surpassed by the most skillful artists working in the same field, by whom the French school is so largely represented. Mr. Brown contributed his "Curling Match," which is the picture that exhibits his merits to the best advantage. Mr. Brown's subjects are derived from the homely incidents of every-day life, and usually treated with simplicity and naturalness. His realistic powers are marked, but the sentiment of his pictures is not always equal to their technical qualities. Mr. Guy's subjects are of the same class. He contributed three pictures, "Evening," "Solitaire," and "Supplication," all domestic in character. His pictures are painted with skill, but over-elaborated and wanting in distinctions of texture. They are too studied, and consequently often lack spirit and life. Mr. W. H. Beard exhibited his "March of Silenus," a humorous picture, and one of his best, evincing remarkable powers of caricature. Mr. Henry exhibited "The Old Clock on the Stairs" and "A Morning Call in 1800," both very characteristic of this artist's cheerful humor and elaborate work. Mr. Henry's style is often ragged and unskillful, but his aim is a compensation, and he attains happily the sentiment of olden times. Mr. Shade exhibited a very charming picture called "Tantalizing," which evinced great technical skill, a fine sense of color, and a well-disciplined method of work. Mr. Shade is a pupil of the Munich school. Mr. Chase is likewise of the same school; and "Keying Up—The Court Jester" was a very clever example of his facility of method and rich coloring. Mr. Shirlaw, also a student of Munich, exhibited his "Toning of the Bell" and "Feeding the Poultry," two exceptionally strong and admirable works, evincing remarkably dexterous powers of manipulation. Mr. A. W. Thompson exhibited "On the Sands, East Hampton," and "Virginia in the Olden Time," both works showing marked evidence of discipline and careful study. There is a tendency towards the adoption of the French manner in this artist's work which shows whence he derived this discipline. It is a question whether a better manner may not be derived directly from nature without the interposition of another's method of viewing things.

This is not only for Mr. Thompson to decide, but for Mr. Chase, Mr. Shirlaw, Mr. Shade, and Mr. Bridgeman as well. Mr. Bridgeman exhibited three pictures of remarkable power,— "Bringing in the Corn," "The Nubian Story-Teller," and "Flower of the Harem," all painted with great skill and truth. Mr. Vedder sent his "Greek Actor's Daughter," a thoughtful and poetic conception, painted with rare feeling and learning. Mr. Benson exhibited his "Strayed Masquers" and several Venetian studies which bore evidence of earnest study and a fine sense of color. Mr. Benson's pictures have of late been characterized by very decided ability. Mr. Rosenthal's picture of the "Young Monk" in the refectory of a convent was one of the most poetic in sentiment to be found in the whole exhibition. It is pure and delicate in feeling, and skillfully painted. The "American Society of Painters in Water-Colors" occupied a gallery in the Annex, and the exhibit was an exceedingly creditable one. The paintings of most marked excellence were by Colman, Tiffany, Swain Gifford, Smillie, Boughton, Nicoll, Richards, Homer, Bellows, and Miss Bridges. Several of these artists were recommended for awards by the judges in this group, but, on learning that the society competed as a body and did not allow of individual competition on the part of its members, their names were stricken from the list.

In sculpture the American exhibit was not satisfactory. Many of our most prominent sculptors failed to participate, and the character of the display was that of being composed of odds and ends, with here and there an occasional work of decided merit. Mr. W. W. Story exhibited his "Medea," and Mr. C. Calverly an admirable bronze bust of "John Brown." Mr. Randolph Rogers sent "Atala," "Nydia," and "Ruth," three statues of ordinary merit. Mr. D. C. French exhibited a very clever model in plaster, larger than life, called the "Minute-Man," and also a bust of Whittier. Mr. Connelly sent a bronze group, "Honor arresting the Triumph of Death," full of spirit and excellently well modelled. This sculptor also contributed his "Ophelia" and "Viola." Mr. T. R. Gould exhibited "The West Wind," and Mr. R. H. Park a number of pieces of which were "Purity," "Summer," and "The First Sorrow." Mr. E. D. Palmer sent his excellent bronze statue of Robert Livingston, Mr. C. B. Ives his "Nursing the Infant Bacchus," and Miss Foley "Jeremiah" and "Cleopatra." Mr. John Rogers sent a complete exhibit of his statuette groups, which are well known for their clever, picturesque representation of incidents of the late war, and traits of American character and life.

The exhibit of sculpture, on the whole, lacked order and arrangement: the works were scattered, and were seldom to be seen to advantage. Nor was there any evidence of an attempt to illustrate the progress and present condition of this art in the United States, of which an interesting exhibit might well have been made.

CORRESPONDENCE.

HOUSES IN FLATS.—THE MASONS' STRIKE.—THE PARIS EXHIBITION.—COMPETITIONS.

LONDON, March, 1878.

WITH the opening of the Institute and the Association, began, as it were, another year of architectural record, and, singularly enough, the first paper at the Institute took up a subject which is at present occupying a large amount of public attention, namely, the introduction into London of the French and Scotch systems of building houses in flats. Various papers have been read in former sessions, and experiments on a limited scale have already been tried with considerable success; but the matter is now being taken up in a practical form, with a view to provide dwellings of varied accommodation to suit the wants of different classes of society. The paper above referred to, therefore, by Mr. William White, F. S. A., comes quite apropos. He endeavors to show how the middle-class houses of Paris may be made the types of similar dwellings for the same class in London, to their advantage in almost every way over the normal arrangement which has been so long the rule, and be fairly successful. There is no doubt the conditions of living in the metropolis have undergone great changes within the last fifty years or more, and that few or no alterations have been made in our type of house to meet those changes. There is no doubt also of the convenience and economy of living in a house the apartments of which are all on one floor, as against one where they are spread over four or five; but all the same, apart from our English prejudices there are certain disadvantages,—notably arising from living on the upper floors,—which will have to be got over. Doubtless they will in many cases be got over, and where they cannot it is only fair to set them against other drawbacks, under the old system.

Houses for the better or richer classes and houses for the lower or poorer classes, on the "flat" principle, have been to a limited extent in use for some time; but dwellings for the ordinary middle classes have yet to be tried. From these, however, is anticipated for the system the greatest success, if once we had some thoroughly good examples of it that its merits might become known. For years past the tide of middle class people has been flowing steadily to the suburbs, where a fairly commodious house can be had at a moderate rent; but whether it is that the suburbs are now so far off, or that

the amount of daily travelling necessary to reach them is beginning to tell, as it every year increases in amount, there is no doubt that quite recently a desire has arisen, and is growing every day stronger, with many people, to return and live in town, if only they could get convenient houses at reasonable rents. The suburbs are all very well in their way, but their way is very far out from the many advantages that are to be enjoyed by living in town. To meet this comes the proposal to build houses in flats in Central London; the experiment will be an interesting one, for on its success will depend in a great measure the future character of our city streets, since, as any one can imagine, a street designed for complete houses on each story must present a very different appearance from one composed of a number of narrow-fronted houses independent of each other from cellar to garret. The building, therefore, of the first few blocks, will be looked forward to with the greatest interest, from an architectural as well as a commercial point of view.

The masons' strike still drags on its weary course, and there does not seem to be any prospect of an early settlement. True, there have been some proposals made for arbitration, but the masters, who feel confident in their position, declined, and though it is said the funds of the men are getting low, and the strike money to those who are out has been reduced during the last three weeks, still there does not seem to be any talk of giving in, but rather of more aggressive measures. On the other hand, the German and Italian masons are improving in their work at the Law Courts, and are now reported to be very good workmen. The general trade, also, throughout the country is dull, so that there is now no lack of men willing to work at the old prices. This being the case, it is difficult to see how the strikers can hold out, notwithstanding the support (more moral than material) they receive from the country societies. The whole movement seems to have been made at a bad time, as far as trade prospects are concerned, as instanced by the withdrawal of the carpenters' and joiners' notice for an advance in their wages, and the reduction even of the present rates in some of the large country towns. The energetic action of the masters in the importation of foreign workmen seems to have destroyed any chance of the strike succeeding, while the action itself has been the cause of adding no small amount of bitterness to the struggle. When we have Belgian and Swedish iron and wood work imported ready for use, German and Italian masons at work on our public buildings, and the whole internal fittings of a Clyde steamer made in Japan, and sent home ready to put in their place on board, it seems high time that those who claim to have the interests of the working classes so much at heart, should devise some other method of improving their condition than by periodical strikes, such as we are having now, which is said to have cost the masons as much as will take them five or six years to make up, even if they now had the advance of wages they demand. This may be all very well for the sake of a "principle," but to any ordinary observer it seems the principle of being penny wise and pound foolish. They have the satisfaction of having driven work away from the country, of having put a stop to much that was projected, and of probably losing money in the end, even if they gain their point. The relations of capital and labor seem to be in the most unsatisfactory state, which the present proceedings seem little calculated to improve.

Now that Peace has been signed, the work for the Paris Exhibition goes on with more spirit. The Germans have even consented to become exhibitors in the fine art department. Should no more political troubles arise, the show promises to be a very fine one. In the English Department architecture and the arts connected therewith will be represented more fully than in any previous exhibition. Whole houses are being designed and built as examples of the taste now in vogue. There will be an English town house designed by Mr. R. Norman Shaw, R. A., and a country house by Mr. Calcutt, architect, besides the offices of the English Commission in the Elizabethan style. These houses will be fitted up and furnished complete in accordance with their architecture, by such firms as Messrs. Jackson & Graham, Gillow & Company, etc., so that we may anticipate that nothing will be wanting to illustrate in the fullest manner the latest development of household art amongst us. These buildings will form a separate group in the grounds outside the Exhibition, while in the British Section in the palace itself most of the firms which are now devoting themselves to decorative art will be well represented. It is astonishing to think of the immense progress in the way of "Art in the House," which has been made since the London Exhibition of 1862: probably no country in the world will show this so strikingly as England, and if what we have already seen preparing be taken as a fair example of the work as a class, possibly no people will be more surprised than our French neighbors themselves, who were wont to think their work in this department very far ahead of anybody anywhere. It is a healthy, generous rivalry, however, the result of which must possess immense interest for all connected therewith. On a future occasion we may have an opportunity of noticing some of the more prominent contributions, and of judging how far they succeed or fail in representing English art work of the present day.

Your professional readers will have heard with pleasure of Mr. Norman Shaw's election as R. A., and of Mr. Alfred Waterhouse as A. R. A., honors justly merited by the many excellent works erected from their designs. Some little disappointment has been expressed that Mr. Bodley was not made the new A. R. A. from among the architects, but we trust the honor is only deferred and that we may

hear of his election at no very distant date. Few if any men stand higher than Mr. Bodley as an artist, in the true sense of the term.

Architectural competitions, in spite of the exertions of the Institute, seem to be getting worse and worse. We have had one or two very bad cases lately, — not to mention the Kensington Vestry Hall, where the referee's award was completely overturned and the first prize given to a design he had placed sixth or seventh. The Reading Town Hall is a notable instance. Here the committee called in as referee a comparatively unknown man, who, after picking out three designs, said he could not say which was the best of them; the committee thereupon clubbed the three prizes together, gave a third to each, and ultimately gave the work to the precious referee! who actually accepted it! After this, the case of a city company keeping the designs sent in to them for some months, and then returning the lot because they could not make up their minds as to what they wanted; and the committee for a new hospital keeping the drawings beside them for seven months without coming to any decision, seem very mild indeed, yet all this has taken place within the last nine months, even though some of the best men in the profession were among the competitors, and sent in most excellent designs. Truly architects are a long-suffering race, and a cure for the evils of competition seems well-nigh hopeless.

The Thames Embankment site has finally been decided on for Cleopatra's Needle, so we may expect to see it there some day, unless it is confiscated by the Admiralty Court, in payment of its valuation of £25,000, for ship and cargo, to the owners of the steamer which picked it up abandoned in the Bay of Biscay, and towed it into Ferrol. It is to be hoped for the credit of every one concerned, the claim may be speedily adjusted, and no more "accidents" come in the way of the unfortunate Needle being set up on its final resting-place. In anticipation of a favorable result workmen have begun preparing the foundations on the site.

The Wellington Monument in St. Paul's, — the life-work of Stevens, the sculptor, — is at last said to be finished, but the chapel in which it is placed is not yet opened to the public; when it is, London will find itself at last in possession of a monument worthy of the name.

A NEW APARTMENT HOUSE DESIGN.

NEW YORK.

MR. HENRY J. HARDENBERGH, architect, has in hand an apartment house, which is to stand upon Seventh Avenue, between Fifty-fifth and Fifty-sixth streets, west side. With a frontage of 200 feet upon the avenue, and a depth of 100 feet upon either of the streets, an opportunity is given for a complete work, while the several angles and the chance given for distant views call for care in design. There are many points in which Mr. Hardenbergh has left the traditions which have thus far controlled the designing of this class of buildings in New York. The Hardenbergh flat is the first apartment house yet built which has a semblance of the Queen Anne features in it. They are kept under control. There is no riotous brickwork or exuberant trivialities of form and outline, but a general flavor of the new favorite in the great exterior. The building is really a double one, the main entrances being on the side streets, and each entrance leading to three flats, with six stories in all; this gives a total of thirty-six suites of apartments for the whole block. A feature of the plan is the absence of air shafts or light-wells, those chimney-like excavations which are so often thrust down into masses of structure, with the fond belief that they furnish all in the way of light and air which any ordinary dwelling room should require. In place of these deceptive and expensive little air funnels, the plan has been so arranged as to throw the entire sum of these air ducts into one great area, 90x35 feet; and instead of carrying his construction entirely above this, an artery is left open to the west, leading into the centre of the lines of dwellings beyond, and acting as a feeder to what might otherwise become the stagnant mass of air in the area. This whole question of air shafts would repay a few careful observations and experiments, to determine exactly what motions of air do actually take place, and under what conditions the mass of atmosphere remains strictly stagnant. With the ample space at his command, Mr. Hardenbergh has been enabled to make a real suite of apartments, placed in that juxtaposition which their uses and importance demand. Instead of being strung along a passage, like cells on a corridor, the rooms are grouped, the social or guest room about an ante-room or lobby, while the family or private rooms are placed in more retired situations. There are elevators and lifts, and the usual drying and servants' rooms in the seventh story, which does not show from the street. There will not be stores at present upon the first floor, though the construction is such that a change could easily be effected. The materials of the exterior will be Philadelphia brick and Nova Scotia stone, the latter freely used. There is also a liberal use of terra-cotta panels at various points; iron, except in the fire-proof construction, has been entirely avoided, and from foundation stone to cornice the construction is devoid of all sham and pretence. The whole, finished in a thoroughly first-class manner, by percentage or days-work, will cost about \$300,000. Edward Clark, the president of the Singer Manufacturing Company, is the owner, and so far no name has been selected for the structure.

W.

SOOT-STAINED PLASTER.

TO THE EDITOR OF THE AMERICAN ARCHITECT:

SIR, — Your subscriber, who finds his plaster stained by the soot from old bricks coming through, can find a palliative in sizing and whitewashing, two coats, which will cover up the stains effectually.

T. M. C.

NOTES AND CLIPPINGS.

STATUE OF GENERAL LEE. — Mr. Joseph Milmore, of Boston, has been chosen as the sculptor who is to make the equestrian statue of General Lee, which is to be given to the State of Virginia by two citizens of Winchester. The statue will be of bronze, and is to be cast at Chicopee, Massachusetts. The base and pedestal will be of granite and Tennessee marble. It is hoped that the work can be finished within the two and one half years now assigned to the task.

A HEAVY BLAST. — A very successful blast was made last week in the Middlesex quarry at Portland, Conn. Three drill holes were made, from eight to nine inches in diameter and of a depth of seventeen, eighteen, and nineteen feet, and about thirty-five feet apart. It required seven kegs of powder to load them, and all were fired simultaneously by means of an electric battery. The dimensions of the solid block of stone, moved over several inches, were as follows: One hundred and ten feet in length, fifty feet in width, and twenty-two feet in depth, containing 121,000 cubic feet of stone, or about 10,103 tons in weight.

DEATH FROM LEAD POISONING. — A boy of thirteen has just lost his life because of the poison absorbed into his system at a factory in New York where cheap wall-paper is made. The boy had been at work at the factory only one week when he showed symptoms of poisoning, and in three weeks was confined to his home by the disease which proved to be fatal.

ALMOST AN ACCIDENT. — During the examination of certain highway-robbers in a Brooklyn justice court on the 28th ult., so great a crowd had assembled that the floor sagged perceptibly and caused the spectators to rush from the room in a panic. The building had been condemned as unsafe.

VALIDITY OF THE HOLLY PATENT. — The Holly Manufacturing Company, of Lockport, N. Y., has just gained an important suit which involves the exclusive right of the company to construct water-works on the Holly system of direct pumping and without a receiver or stand-pipe. The suit was commenced about four years ago at Indianapolis, Ind., before Judge Drummond, in the United States Circuit Court, whose recent decision affirms the validity of the Holly patent.

A METALLIC CORNER-STONE. — The corner-stone of the shop of the Engineering Department now building in the Navy Yard at Washington, D. C., is a huge mass of metal, weighing five tons, obtained by melting down counterfeit plates and dies captured by the detectives of the Treasury Department.

THE CAPTIVE BALLOON AT PARIS. — Work is now going on upon the pit in the court of the Tuileries which is to receive the huge captive balloon which is to make ascensions during the coming exhibition. This pit is some fourteen feet in depth, and its sides are plastered with cement. Here are laid the gas mains which are to provide the balloon with the 3,250 cubic yards of gas which will be needed to inflate it. Close at hand is another excavation some hundred feet by forty, and thirty feet deep, wherein will be stationed the steam-engine and windlasses which are to compel its return to earth.

CEMENT IN THE RHINE. — We learn from *La Semaine des Constructeurs* that about two years ago a boat loaded with cement sank in the Rhine near Saint-Cunibert. The action of the water soon solidified the cement so that it formed a species of dam and greatly impeded the navigation of the river. The only way to get rid of the obstruction was to blow it up, and the government intrusted the work to Krebs, the manufacturer of dynamite. A charge of about 450 pounds was placed in the middle of the boat, without the aid of divers, and covered by bags of sand which were to keep the charge in place, and also to prevent splinters and fragments from flying. As may be supposed, the explosion of so large a charge produced a violent effect, and not only were the boat and its cargo annihilated, but a large hole was made in the river's bed. The bags of sand seem to have had but little effect, for the shore was strewn with fragments.

DRIVING PILES IN SAND. — The contractors who had charge of preparing the sheet-piling which was to protect the hospital at Berck-sur-Mer, in France, were much troubled in driving the piles, by the compactness of the wet sand, and finally made use of tubes which were driven at the same time with the pile, their lower ends being a few inches below the points of the piles; through these tubes water was forced by small hand-engines and so loosened the sand that the advance of the pile was easy and rapid. In the case of the panels of sheet-piling the benefit was even more marked. Careful observations showed that by the ordinary process it took, on an average, 185 strokes to drive a ten-inch pile ten feet, while 900 blows were needed to drive the panels. The hammer weighed 1,320 pounds, and had a fall of six and one half feet. The average time required to drive a pile and panel was eight hours and a half. After the device of loosening the sand by the pressure of water was adopted it was found that the average time required to accomplish this was one hour and nine minutes, while to drive a pile and a panel more than fifty blows were never required, and often the mere weight of the hammer was enough to sink the pile. It is evident that the same process made the breakage of piles rare, while it also made it easy to withdraw those which were broken or had been driven askant.

AN ANOMALY IN STRIKES. — Not long ago a number of able-bodied paupers were set to work to build a poor house at Sheffield, England, but not being satisfied with the quality of the hash that was served to them as rations, they struck work and even refused to pick oakum until the hash was examined by impartial authorities.

SOUND AND SOLID ROCK. — It now appears from an official statement made by Mr. Sutro last Saturday, that the header of the Sutro tunnel was at that time 1,193 feet distant from the point where it will strike the Savage incline. The statement is undoubtedly correct, yet the workmen in the Savage, at the 2,000 feet level, are able to hear the steam drills used in the tunnel header so distinctly that all have heretofore believed the face of the tunnel to be not farther away than 300 feet. It was thought impossible that the drills could be heard to a greater distance through solid rock. At the Combination shaft they now say that they were able to hear the blasts fired in the header of the Sutro tunnel when it was 1,200 feet distant. Afterward, when the tunnel was opposite to the shaft, they heard nothing of the blasts, nor could the men at work in the tunnel hear those fired in the shaft, and Sutro finally sent to inquire if they had discontinued work. It is supposed that the stratification and hardness of the rock have much to do with the facility with which it is traversed by sound. Hard rock no doubt conveys sound to a greater distance than that which is decomposed and mixed with clay. Sound would also be likely to follow the stratification. Of late the header of the Sutro tunnel has been in much harder rock than that through which it passed when in the neighborhood of the Combination shaft. At that point, indeed, the ground found, both in the shaft and tunnel, was of the kind called "heavy," being wet, spongy, and much inclined to swell. — *Virginia City Enterprise*.

A NEW EXPLOSIVE. — The *Scientific American* states that M. Nobel, the inventor of dynamite, has recently discovered a new explosive substance still more powerful than that. He has given it the name of "explosive gelatine," on account of its aspect, which closely resembles gelatine. The substance is composed of 94 to 95 per cent. of nitro-glycerine, and 5 or 6 per cent. of collodion, mixed together. It is viscous, but can be easily cut with a knife or with scissors, and placed in cartridges or shells. Dynamite, it is known, has the disadvantage of being alterable by water; when it is moist the nitro-glycerine separates from the absorbent. The new substance, on the contrary, does not give the least symptom of exudation; it is impermeable to water, which does not at all affect its explosive properties. It is inflamed in the same way as dynamite, and its power is at least 50 per cent. greater. Italy and Russia have, it is said, adopted this substance for charging bombs, torpedoes, etc.

NEW-FOUND WORKS OF MICHAEL ANGELO. — The Baroness Adolphe de Rothschild has just bought for \$70,000 two groups in bronze, discovered in an old Venetian palace and attributed to Michael Angelo. Each of them represents a panther, on which is leaning a graceful figure of either a satyr or a faun. They are to be shown at the Paris Exhibition.

THE RAIN-TREE. — Mr. Thistleton Dyer, using notes furnished him by Mr. Spencer, the traveller, disposes of the popular belief regarding the so-called rain-tree of Mayobamba, Northern Peru. [See *American Architect*, Vol. II. p. 300.] The water does not ooze from the trunk, and hardly ever falls in such quantity as to convert the ground beneath into a swamp. The fact appears to be that the liquid which seems to fall from the leaves and branches is produced by a multitude of cicadae that live on the juices of the tender leaves. This appears to be analogous to the production of honey-dew from the lime by the agency of aphides.

STATUE OF AN EMPRESS. — A white marble statue of a woman, supposed to be the Empress Julia Domna, has been lately dug up at Djimillah in Algeria. The statue, which is of heroic size and in good condition, is said to be an admirable piece of sculpture.

INDIAN RELICS. — The Smithsonian Institution has lately received some Indian relics from the mounds in Florida, and with them a piece of gold rudely beaten into a representation of the head of a woodpecker. This is said to be the first specimen of gold found among the remains of the aboriginal tribes of America.

A LARGE BRONZE STATUE. — A correspondent of the *San Francisco Bulletin*, who has lately visited Nara, one of the old capitals of the Japanese empire, thus speaks of a statue: "Here was erected, 1200 years ago, the largest bronze figure the world has ever known. It weighs 450 tons; and the third temple now covers it, without apparent injury to the immense statue. We went around it, but could form no estimate of its size. Our minister at Tokio told me that it was sixty feet from the seat of lotus-leaves to the top of its head, and that a man could climb through the nostril. An officer is said to have taken a chip of the casting, and an analysis of it gave 500 pounds of gold in the alloy. A great halo of gilded wood sets off the dark features as they are revealed in the shadows of the roof."

STUFFING EXTRAORDINARY. — What do they do with the old rhinoceroses? has often been a subject of thought to those visitors of the British Museum who know that the staff of the establishment invariably obey the Act of Parliament which renders it impossible to remove anything from Great Russell Street. Every one knows that a stuffed rhinoceros will in course of time become unrepresentable, nor can the toughest elephant-hide always keep the straw lining from appearing in a very objectionable way. All who remember the old staircase of Montagu House have felt that there is a limit to the exhibition of a giraffe which had been received at a period so remote that it was described as a "camel-leopard." The difficulty is got over in a way creditable to the ingenuity of the scientific staff of the museum, and honorable to their sense of obedience. They stuff the old rhinoceroses into the new ones; they line new elephants with the unrepresentable remains of their forerunners; in the bowels of the last giraffe lie the relics of his predecessors. Truly there are more things in heaven and earth, and even in rhinoceroses, than are dreamt of in philosophy. — *Furniture Gazette*.