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DECORATION

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CONSTRUCTION

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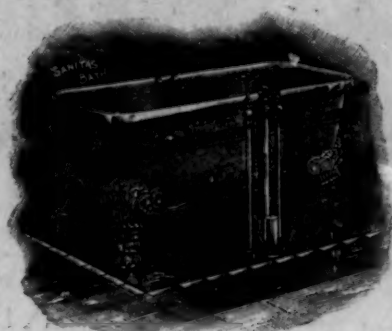
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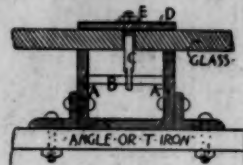
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THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XLV.

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SEPTEMBER 1, 1894.



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MR. WILLIAM H. BRAINERD, a well-known young architect of Boston, has been studying the tenement-house problem with a coolness and common-sense which it is refreshing to see displayed in connection with the subject. For a long time, the word "tenement-house" has acted upon the oratorical class of reformers as a red rag affects a bull; and the whole subject of improving the habitations of the poor has been obscured by the rantings of people apparently totally ignorant of the subject they were talking about. According to Mr. Brainerd, "a clergyman of large experience in New York City" has the assurance to say, "I have about concluded that no soul ever went to heaven from a tenement-house." As two-thirds of the population of New York live in tenement-houses, this observation, as a contribution to social science, deserves to stand alongside the speech delivered in Congress, a few years ago, in which the orator informed his hearers that there were three hundred thousand professional thieves in New York City. We do not pretend to know so much about heaven as a clergyman, but we do know something about New York tenement-houses, and if modest contentment under unnecessarily wretched conditions, and brave effort to resist the temptations incident to those conditions can prepare people for heaven, the tenement-house population of New York, as a whole, has quite as little reason to dread the sound of Gabriel's trumpet as the society of Murray Hill. Nevertheless, although, as we sometimes think, the people who live in clean and comfortable houses might, with advantage, humiliate themselves occasionally by considering whether they could keep themselves as pure, physically and morally, in the midst of filth and temptation, as their poorer brothers and sisters in city tenements, there is no reason why the filth and temptations of those tenements should not be ameliorated.

AS Mr. Brainerd sensibly says, tenement-houses must be accepted as a necessity of city life. A certain part of the city population can be induced to remove to the suburbs, but much the larger number will not, or cannot, go so far from their work and friends. As these people must, therefore, live in tenements of one, two or three rooms, the question for them is to have such tenements as decent and wholesome as possible. Everybody knows how much has been accomplished in this direction within the past few years, and more would probably have been done, had it not been for the senseless clamor which has been raised of late in regard to the whole matter. Already, thousands of people live in little city homes of two or three rooms, which are in every respect as well suited to family decency and health as apartments in the Fifth Avenue Hotel; and the number of such tenements ought to increase rapidly, and would do so, if as much

eloquence could be expended in commending them as in the indiscriminate abuse of every kind of tenement-house; and, with the growth of the system would come, as a matter of course, improvements in planning, to suit increased knowledge of the requirements to be fulfilled, and, perhaps, the development of appreciation in the tenants. As fast as better houses were provided, the municipal authority, in our large cities, could be depended upon to draw more strictly the sanitary regulations governing tenement-house construction and maintenance. People do not always realize that these must, at present, be very lax, for the reason that, if the tenants are ordered out of houses unfit for habitation, they have no other place to go to; and, until good houses are provided by those able to build them, the rookeries must be endured, or the people who live in them will have to camp in the streets.

AS another branch of the subject, Mr. Brainerd advocates the adoption of some system by which portions of houses can be purchased and held by their occupants. He cites the Scotch practice, under which a man can buy, sell, or inherit a "flat," or single floor of a house, subject only to some slight contribution to general repairs, and the New York "Home Club" statutes, by which a similar result is indirectly accomplished through a perpetual trust; and observes that, in his opinion, the extension of such a system would do much to attach the poorer part of the population to the community, and satisfy that longing for some fixed possession, which, as he thinks, finds expression in the socialist dreams of the universal ownership by the State. This idea is new to us, and is certainly an interesting one; and the people who have leisure and knowledge for such matters might well make inquiry into the subject.

WHERE are some things about the career of the late Edmond Guillaume which have a peculiar interest, as showing at once the respect for art, and the sincere democracy of feeling, of the French people. M. Guillaume was born in an extremely humble station, being the son of one of the town bill-posters of Valenciennes. Even in this country, although a person of such origin might, by other means, become immensely rich, it would be next to impossible for him to gain distinction, or even employment, in a profession where so much depends on personal relations as in that of architecture; and in England the difficulty would be even greater; yet the poor little "afficheur's" boy, even during his school-days, found his industry and talent just as much appreciated by his fellow-citizens as if he had been the handsomest and best-dressed child in Valenciennes. As he grew older, he developed a marked artistic talent, and, on his graduation from the town schools, he was sent, as a reward for his good conduct, to complete his studies in Paris, at the expense of the municipality of Valenciennes. He entered the School of Fine-Arts as pensioner of his town, and there remained for eleven years, gaining much distinction, until, in 1856, he carried off the Grand Prize, becoming thereby the pensioner of the Empire at Rome. A Grand Prize man is never afterwards lost sight of by the Government, and on completing his course at the Villa Medici, he was sent, at the public expense, to Asia Minor, with M. Perrot, now one of the most distinguished of archaeologists, and Dr. Delbet, to study the archaeology and architectural remains of that almost unknown region. The report of the three explorers was published, on their return, at the Government expense, and M. Guillaume was decorated with the star of the Legion of Honor, and elected Member of the Geographical Society, and the Society of Antiquaries, and Corresponding Member of the Institute of France. This was in 1863, the poor little Valenciennes boy having been for more than eighteen years maintained at the expense of the city or the State, which, far from feeling him a burden, was happy to encourage him still further by showering its honors upon him. His actual professional career did not begin until about 1866, when he was admitted to the Société Centrale des Architectes. The following year, he won, with the sculptor Doublemard, a competition for a monument in the Place Clichy. It was, however, the favor of the Government which brought him most employment, and, although he afterwards had a large private practice, he retained his appointments as architect to nearly all the Imperial palaces, and some of the Government Departments. To his subsequent

services, as Professor of the Theory of Architecture in the School of Fine-Arts we have already referred. His reputation in later years was that of a scholarly, though rather cold and haughty artist, but he is said to have been very kind to his pupils, and always courteous and helpful to other architects.

THE *British Architect* tells a story which will give young architects food for reflection. A young engineer of good standing, a member of the Institute of Civil Engineers, was called in to advise a lady in regard to the sanitary condition of her house in London. He found that much needed to be done, and made a report to that effect. The lady then commissioned him to have the work that he thought necessary carried out, and soon after went abroad. When the work was done, the young engineer sent in his bill, amounting to thirty guineas. The lady being still absent, the bill was sent to her solicitors, a highly eminent firm. These eminent gentlemen took no notice of the bill, nor of the letters in which the engineer, after the lapse of a considerable interval, ventured to remind them of it. After several months of waiting, the engineer applied at the office of the eminent solicitors, but was put off on some pretext by the managing clerk. He thought then that he had waited long enough, and went to his own solicitor, and instructed him to bring suit for the amount of the bill. His solicitor was quite shocked at this proposal, and said that he really did not like to do such a thing with such a highly eminent firm of solicitors, but would see them himself about the bill.

SOON after this, the young engineer received a letter from the eminent solicitors, saying that they had received a communication from the lady, their client, and that they were instructed to offer him twenty guineas in full satisfaction of his claim. The engineer took this letter to his own solicitor, and said that his bill was thirty guineas, and he should not take a penny less. His solicitor told him that he had seen his eminent brethren, who had stated that they considered the bill too high, and were instructed to offer twenty guineas. The engineer then requested suit to be brought at once, but his solicitor refused absolutely to have anything to do with bringing suit against so eminent a firm. The engineer, then cast upon his own resources, determined to do what he had better have done in the first place, and wrote to the lady herself, in India, stating what had happened, and asking her whether she was really dissatisfied with his bill, and if she had instructed her solicitors to offer him a smaller sum. The next mail brought him a letter from the lady, enclosing a check for thirty guineas, with many apologies for the annoyance that her solicitors had given him, and assurances that she had never given them any instructions or authority whatever to ask any reduction from the bill. The engineer took the letter to his own solicitor, who was rather disconcerted, but said that he was sure there must have been some mistake, as the lady's solicitors were so very eminent. The letter was then shown to these eminent personages themselves, who made such apologies and excuses as came into their heads, and here the matter ended, unless, indeed, it should turn out that the engineer's solicitor sent him a bill of twenty-nine guineas for his own "services" in the matter.

THE whole little comedy is one which is so often played, under slightly varying circumstances, that most architects of experience will recognize the characters at once. The zealous young professional man; the good-hearted client; the eminent solicitors, whose reputation has been built up chiefly by their ingenuity in "making favorable settlements" for their rich clients, that is, in docking the people to whom their clients owe money of a portion of their just dues; the solicitor of less eminence, whose awe of his distinguished brethren is so great that he cannot even conceive of resisting their demands,—all these personages move through scores of little dramas, the dénouement of which is not often so satisfactory as in the present case.

THE *Builder* gives an interesting history of the Bank of England, illustrated by plans and elevations copied from drawings in the library of Sir John Soane, who was architect and surveyor to the Bank for nearly fifty years. The Bank, now the greatest financial institution in the world, is not, as most people suppose, a branch of the British Government, but a private corporation. The idea of it was, according to the *Builder*, due to William Paterson, a Scotchman, who,

in 1691, proposed to some of his friends, rich merchants, like himself, who were accustomed to meet at what they called the "Wednesday Club," that they should raise by subscription the capital necessary for starting a banking business on a large scale. The merchants of those days must have had plenty of money, for, when the subscribers received their charter of incorporation, in July, 1694, as the Governor and Company of the Bank of England, their capital was set at twelve hundred thousand pounds, all of which was invested in a loan to the Government, at eight per cent interest, while, in addition to the interest, the Government allowed the Bank an annual subsidy of four thousand pounds. The first Governor was Sir John Houblon, who lived in a handsome house on Threadneedle Street, where he had a garden. For a year or two the business of the corporation was carried on in Mercers' Hall. It was then moved to Grocers' Hall, where it was continued for forty years. About 1730, however, the Governor and Directors decided to erect a building of their own, and for the purpose, bought the residence of their late Governor on Threadneedle Street. George Sampson was employed as architect, and contracts, which still exist, were made for the erection of the building, which was to cost £13,153 7s. 9d. in addition to the old materials on the ground, and was to have an "Intabliture with mouldillions," and "double Ionic pilesters," all "enriched according to Palladio," besides "a tin pan" in the front pediment. A part of this structure, including the "tin pan," still exists, forming one side of the open court entered from Threadneedle Street. From 1766 to 1783 extensive additions were made to the Bank buildings, by Sir Robert Taylor, who was not only an architect but a sculptor, and completed his work by executing a figure of Britannia, which still stands in the Bank. At Taylor's death, 1788, Sir John Soane was appointed architect to the Bank, and under him the present street fronts were erected, and very extensive additions made, the present building occupying the site, not only of Sir John Houblon's house and garden, but of a church, with its churchyard, two ancient taverns, the "Ship" and the "Crown," and of the original "Sun Fire Office," an institution apparently as old as the Bank itself, together with a large number of smaller buildings.

A VERY curious case came up in the Brooklyn Special Term of the New York Supreme Court the other day. It seems that Mr. Walter Parfitt, the well-known architect, who has been building a church in Brooklyn, found some stones used in the church which, as he testifies, had already been rejected and condemned, as unfit for use. However that may be, finding them there, he made sure of his directions being followed for the future in regard to them by getting a hammer and smashing them. The contractor, one Shrumpp, sued the architect for destroying his property, and a commission allowed him some fourteen hundred dollars. The present suit is brought to have this award set aside, the architect claiming that the stones were destroyed by him in pursuance of his duty in defending the structure against danger, and after due warning to the contractor. The judge took the case under advisement, so that we do not yet know the result; but, as the points involved relate to the extent of an architect's powers in compelling compliance by contractors to his directions, the judgment will be looked for with interest. There is a story, whether authentic or not we cannot say, which relates that an owner found that a wall in his new house was being built with bond-courses only every ninth course in height, instead of every seventh course, as required by the contract, and knocked it over with a piece of heavy timber, and was sustained by a court in doing so; and, if it is lawful for an owner to destroy, without warning, a wall which is a little less perfectly bonded than the contract requires, it must be still more lawful for him to destroy, after due warning, stones which constantly menace the whole structure; and, if an owner could do so, there is certainly ground for claiming that his architect, who is unquestionably his agent for averting obvious peril to his building, not only could, but should, take, in emergency, such measures as the case seemed to him to require. Whether the New York court will hold this view remains to be seen, but New York courts have, particularly as compared with those of some of the agricultural States, a very good understanding of the relations of architects to owners and contractors, and the decision will, probably, be of great interest and importance to the profession.

SPECIFICATION WRITING.¹

I HAVE been asked by Professor Laird to talk to you on a subject connected with the practical side of my profession.

Now I do not know anything more practical than the matter of the preparation of building specifications, and if you will bear with me for a little while in discussing this uninteresting, but quite important question, I will try to tell you something about them based upon my own experience.

In reality, an architect commences to write his specifications when he commences his drawings,—one involves the other. The knowledge requisite for the one is as necessary for the other, and as the lines are drawn, the specifications form themselves. The insight into construction necessary to draw correctly indicates the ability to describe the work shown on the drawings. Without this ability the drawings and specifications alike will be failures.

There is no one thing in our profession that has as much to do with personal success in its practice, as the ability to properly prepare specifications. And I do not in stating my idea as to relative importance except the question of design; because to one person able to discriminate at all between good and bad design, there are a great many who very clearly distinguish between good and bad business ability, and who will not fail to express their opinion of the architect who does not properly protect them, who, for instance, forgets to specify the stripping of walls, or the traps on plumbing fixtures, or the rain conductors. And the fact that the exterior of his house is an architectural "dream," or that the detail of his mantels and stairway is "out of sight," will, in a certain sense, be only an aggravation of the offence,—a sort of adding insult to injury which he will not forget. And your chance of making a living at your profession, not to speak of a fortune, which is hardly possible, at least I have never heard of an architect dying rich, depends upon the reputation you make as a careful practitioner.

To carefully write your specifications is indispensable to successful and conscientious supervision of the work; it is impossible where they are drawn loosely or in a slovenly manner, and it is not worth while to handicap yourself in this way, and add unnecessarily to the inevitable load of responsibility and worry which will come legitimately with the practice of your profession. It does not do for a professional man to make mistakes, and there is no hiding them in building; they are apparent for all time, and, like the fly in the pot of ointment, spoil the whole. Mistakes are two-edged swords. They destroy your client's confidence, and your own, the latter perhaps more disastrous to you than the first. Of course all this philosophizing applies also to the drawings, but if you prepare your specifications with care and minuteness you will escape most of the pitfalls, and they will greatly help you to accuracy in the drawings.

The specifications bear somewhat the relation to the drawings that the arteries and veins do to the body, and they should, like them, extend from the foot to the head; from the footing stones to the cresting of the roof, and ramify in all directions, covering each little point of construction and material. They cannot be too full. Nobody ever got into trouble because he too minutely described the work to be done, or the materials to be used.

To draw good specifications requires exact knowledge. You must know precisely what you want, and how you want it done. Your directions must be specific, as the name implies, and clear and simple in expression. Make your paths straight, so that the way-faring man, tho' a fool, shall not err therein, but make them narrow as well, so that he shall not have room to wobble. It does not follow necessarily that he will be a fool, though it has sometimes seemed to me that nothing short of idiocy could explain what seems to be an irresistible impulse that forces the average workman to do things exactly the wrong way, when the reverse is really easier.

It does not do to specify things generally, or to assume that "Oh, they will understand that." Believe me that they will not; if there is any possibility of a misunderstanding, it will be embraced. Do not leave your phrases until they are clear beyond any possibility of ambiguity, remembering always that it is too late to change the specifications after the contract is signed, and that it may be exceedingly inconvenient to have to explain clauses which are capable of more than one reasonable construction.

It is a great help to use the trade terms, names and grades. The builders understand them, and it will enable you to ascertain more readily whether you are really getting what you specify, and where it is practicable I would specify materials which have their quality marked on them. But, unless you have some reason for requiring a particular make, it is better to specify two or three makes, equally good, rather than the make of any one manufacturer. I know no class of men more disinterestedly honest than architects, or who so little let questions of money or profit have any bearing on their professional conduct. But it is possible that a misconception may be put upon a perfectly innocent act, and the requiring of the product of a particular manufacture may give rise to question, particularly if there are other goods of the same grade and general worth in the market, and it is well to avoid even the appearance of evil. In addition to this reason which I express with some hesitation, and which I am very well aware may be open to the charge of timidity, there is this other,—that to close out the goods

of all manufacturers but one, destroys the chance of competition. That these remarks are perhaps rather less practical than ethical is true, but they have something to do, nevertheless, with what has been my practice in preparing specifications.

The sin peculiar to the specification is the sin of omission, and the greatest particularity will hardly insure against it. I use as a sort of safeguard a scheduled synopsis, and use it always, which I will show you and explain farther on, and which I have found of the greatest use, but which must be added to continually as the complexity of work and the increase in the number of appliances and methods become greater with the passing of each year.

In making drawings it is my custom, and that of other men as well, I have no doubt, to print upon them many notes as to things not of a nature to be clearly shown by the drawings, placing the notes on the parts to be explained, noting girders, beams and their sizes, sizes of flues and their linings, if any; finish of rooms; kind of flooring; kind of glass; and many other matters of that kind. They are really part of the specifications, and should be specified in them also, or, at least, attention called to the fact that such notes are to be taken as part of the specifications, in the general clauses of the specifications to which I will refer later on. One advantage of placing these notes is, first: That as they are made at the time the drawing is made, they are fixed there once for all, and are not liable to be forgotten, as they may be if you wait until you write the specifications; and secondly, that they are right before the builder's nose when he looks at the drawings, and he is not likely to miss them.

A not very usual thing, but a very convenient addition to a specification is a table of contents, giving the page-number, and a list of the subjects on the page. It saves a good deal of time in the use of the specifications, and is very little trouble. And somehow, as there is never enough time and always too much trouble going, any labor and time saving devices are of value.

The working or detail drawings, in contradistinction to the contract-drawings, i. e., the plans and elevations, are the final exponents of the contract-drawings. These drawings are made up from the contract-drawings and the specifications, from which last the methods of construction, size and kinds of materials must be derived. They embody both, and if it were possible to make the working-drawings with the contract-drawings before estimates are made, the specifications might be shorter, which would be desirable; and as it is impossible to make in many cases the word written as readily understandable as the word drawn, there might be less misunderstanding, which would be still more desirable. In this connection let me say that exact and minute specifications and full working-drawings will enable you to build cheaply, an important thing to your client, who, if he be like most of us, is generally scheming to get a dollar's worth for ninety cents, because the bidders will not have to allow so much for "laps and slams," for the things not clearly shown or definitely specified, but which look the larger and more dangerous because they are undefined. As a general thing, when great differences in the amounts of bids occur, you may make up your mind that there is some want of clearness or of particularity in the specifications of drawings. The exception to this rule is caused by the irresponsible bidder who throws his hat at the drawings and guesses how much the work is worth, and who is either very high or very low; but in fact he should not have a chance to bid, as generally his hope triumphs over his experience, and he bids low and sometimes gets the building, to the ultimate scamping of the work, his own loss and also the owner's, and to the despair of the architect. It is this sort of bidder who grizzles the locks of the superintendent, and eventually brings his gray hairs in sorrow to the grave. Avoid him, if possible, and care and firmness will generally enable you to dodge him, but you must avoid him before he bids; afterwards it may be too late, for your client having the easy idea that the architect is paid to watch the builder anyhow, is apt to turn a deaf ear to your suggestion that he take a higher bidder at an ostensible loss of the difference, expecting you to play stop thief, a sort of "I spy" game with the contractor, with the usual result of making for yourself, at the least, two enemies,—the owner and the contractor, and of having been unable to entirely protect the owner or curb the contractor.

There are some things you will require to specify which are difficult, almost impossible, to describe so that their value can be gotten at: stained or leaded glass for example, or an elaborate stairway or carving, and matters of that sort. My method in such cases is to put a price on them: for glass, by the foot, unless I intend very elaborate work, in which case I omit it and say so. If for a stairway, I name a lump sum, and specify whether that includes the horsing or not, and the finishing. For carving, I specify a sum of money to be allowed, or if very costly, like figure-work, omit it and say so. When a sum of money is allowed, you should state that the owner is to buy where he pleases, otherwise you may find some trouble in putting the work where it will be best done.

Forms of specifications vary somewhat, but in essentials they are alike. I presume you are familiar with their general make-up; in fact, it has been a matter of some debate with me how much of this talk is threshing of old straw and an old story to you. However, I have concluded that it won't hurt you to hear again what you have already learned, and I may have said something that will help to impress upon you the instruction probably received before.

The specifications begin with the recital of the general clauses.

¹ A lecture delivered before the Architectural Department of the University of Pennsylvania, by Mr. T. Roney Williamson, architect.

The general clauses are those which are to be observed and followed by all the trades connected with the work of the building, which call attention to requirements common to all, and are binding upon all.

The first of these refers to the architect and his authority, whether he is to supervise the work or not. If so, the clause is worded thus: "The work to be erected under his supervision and to his approval without reference to any other person." The sentence "without reference to any other person" is an interpolation of my own, but it is a good one, as it makes you the dictator as it were, the sole arbiter of the drawings and specifications. And while it seems to add responsibility, really lessens it, or at least simplifies it and will rid you of a good deal of foolish and annoying interference from both contractor and owner. It is occasionally objected to, sometimes by the contractor, but not often, the contractor knowing from experience the safety that lies in a court of last resort; more often by the owner, but I think it well to insist on it. It defines the authority of the architect positively, and rids him of the annoyance of having his decisions overruled. This does not refer to any question of values necessarily (the agreement usually providing that dispute as to prices, etc., shall be decided in some other way, as by arbitration), but to matters connected with the design and the meaning and intent of the drawings and specifications, where the architect is the only person who is qualified to decide, after all.

The second clause refers to the unity of the drawings and specifications, calling attention to the notes written upon the drawings as being part of the specifications and that drawings and specifications are to be taken together and not separately. Work shown or mentioned in either to be taken as if in both. This clause is intended to insure against omissions in either of the two, and is a valuable one. The utmost care may fail to include in both what may be in one or the other.

The next provision is one requiring the contractor to follow the detail-drawings as the final exponents of the contract-drawings, with the implied guaranty on your part that they shall show no new work or work not suggested by the contract-drawings, but which insures you an opportunity to correct or improve on your design up to the last moment within the bounds of the rights of the contractor.

Next, a claim of importance requires the builder to follow the figures on the drawings rather than to measure them with scale. Builders will use the two-foot rule if they are permitted, with unfortunate results, particularly where you have worked things down in your planning to a very fine point. This same rule, generally the worse for wear, is not a safe instrument to use, particularly if your drawing is one ninety-sixth or one forty-eighth the full size, while the figured drawings, if properly checked, can be made exact without any possibility of doubt.

The last clause of the general clauses is one requiring the contractor and all trades to comply with all city ordinances and requirements; to pay for all permits, and to hold the owner free from all penalties for infringement of ordinance, or failure to comply with the same.

Some copies of specifications I have seen have more than these clauses; but I think that these embody all that apply directly to the work of the building, any other requirements belonging more particularly to the agreement.

The methodical arrangement of specifications should be this: Excavation, stone-mason and cut-stone, marble, bricklayer, terra-cotta, mosaic floors, tiling, cement pavements, carpenter, mill-work, plumber, tinner, plasterer, galvanized-iron, roofer, iron-worker, beams, etc., painter and glazier; heater, steam-work, engines, electric-work, dynamos, etc., lifts. Each trade should be complete in itself, and the specification should embody all of the work and materials required, and any work or materials to be done or supplied in connection with any other trade, as for instance, the tinner sometimes supplies registers, to sizes given by the heater contractor, which are set by the plasterer. You see these three trades require each notice that the others have to do with them. It is necessary, also, that if, for any reason, you vary the work usually done by any one trade, you shall give notice to it, that either it shall include work not generally taken, or exclude work usually taken, as for instance, the painter I always require to furnish the glass. In some localities, the mill-man furnishes the glass for the general trade. If you wish to avoid any trouble, you must always say in the mill-work specification that he shall not furnish the glass, or omit it from the painter, and let the mill-man furnish it. You can require the plumber, if you choose, to put enamel paint on a tub or on a wall of a bathroom, or to supply casings of wood or marble for his fixtures. And the reason you do this is to avoid interference of one trade with another, and to make the plumber entirely responsible for his own work, so that he cannot plead for any breakage or spoiling of work that the carpenter, mill-man, or painter, or marble-worker, did it. Now when you have done this, you must notify the painter, mill-man, carpenter, the marble worker, that the plumber does this work, otherwise you may pay twice for it; that is, both trades may estimate on it, seeing it required on the drawings and clause No. 2 of the general clauses before them, which would be unfair to your client of course.

Builders sometimes object to the grouping of work in this way, and unless the trade whose usual business it is to provide the work or material is notified in his specification, it may make confusion: notification is sufficient, however. And thus while you make the plumber provide all marble-work required, you have let the marble

mason know that, and also to know where the specifications for that marble-work will be found, by your intimation in his specification. Always draw each specification, so that if the work is let separately, each man's work is in his specification complete, with nothing left for implication one way or the other.

With a general contractor as the builder (one man who assumes all the work) he is, of course, responsible to you and to the owner, and work or material specified anywhere in the specifications would be held, from a legal point of view, to be his to do or furnish. But if your specifications are defective as to who of all those who contribute toward the work does each part, you can put your general contractor in a hole very easily, and he has a moral right to expect that when he gets his estimate from mason, plumber, or any one else, that they have taken all that is required, and that there is no such ambiguity as will cause him to lose money, instead of making his legitimate profit, and in which latter case he is likely to make your existence an unpleasant one as far as your connection with that building is concerned.

Your specifications must agree with the drawings. There must, of course, be no conflict between them. Each building is *sui generis*. There can be no general specifications prepared which will meet every case. There are forms of specifications printed which proceed upon the idea that you shall cross out any clauses not applicable to the house for which they are intended to be used, leaving in those which are; but you are very likely if you use them, to leave in parts which have no business to remain, and you will have specified cornices where outlookers are shown; turned posts where squares are drawn; stone heads where arches are shown, and a thousand other inaccuracies, small perhaps, but all requiring explanation, and lessening your control of the work; in addition to this, crossing out, or interpolating, gives rise to question sometimes, and it may be hard to prove, from such specifications, their correctness.

I have prepared some copies of the synopsis of the specifications I am accustomed to use. If you will refer to them I will go over them hastily, noting some of the more important matters, and will not further take up your time.

GENERAL WORKING SYNOPSIS OF SPECIFICATIONS.

EXCAVATION. — REFER TO GENERAL CLAUSES.

TOP soil. Disposal of earth, cart it away? deposit on lot — to grade — in piles?

Depth of cellar. Depth of trenches. Inside, outside.

Width of footings. Vault. Grease-trap.

Well: — Include walling; include man-hole.

Trenches for pipes. Include digging and refilling.

Shoring of walls — adjoining. Shoring of earth banks, if necessary. Pumping of water, if any. Cleaning of old wells; filling of same.

STONE-MASON. — REFER TO GENERAL CLAUSES.

Stone: — Cellar and backing: sizes, kind. Facing: sizes: kind of wall — broken-range, random-coursed, coursed.

Dressed — how? rock faced?

All on natural bed: jambs dressed, arrises cut. Specify bonding.

Footings, stone: — Depth, width, kind of stone, sizes; squared? edged?

Footings, concrete: — How mixed? who furnishes forms? Thickness layers, ramming. What cement? what sand? what proportion of each?

Testing of cement: — For fineness — what mesh? Tensile. Compression. Boiling.

Thickness of walls: — Piers, sizes. Cellarway. Foundation for steps.

Levelling of walls: — For joists, sills, frames, heads, plates.

Leaving chases for pipes, posts, flues.

Building in blocks, strips, frames.

Skew-backs for arches. Arches: what soffit, if necessary? cut?

rough-face?

Mortar: — Any cement? what kind?

Lime, any particular kiln or make?

Sand: — Bar, road, creek, bank?

What proportions of lime, sand and cement, if any?

Pointing: — Lime mortar. Marble dust. Cement: What kind? any sand? what style of pointing?

Anything as to bad earth foundations, rock in cellar: blast it, sledge it, plug and feather. Owner to pay per perch? owner to have?

Old walls: — Stone to be reused, removed, contractors, owners.

Who supplies water? scaffolding, who supplies?

Cut-stone: — Pier-caps, chimney-caps, girder blocks.

All sizes, kind of stone, dressed.

Ashlar: how thick? how clamped?

Sills: moulded? plain? Cut to wash, throated.

Heads: moulded? plain?

Platforms: steps, balustrades, moulded rails? turned or square

balusters?

Bands: moulded? plain? left for carver?

Columns: full diameter? half diameter? fluted? left for carver?

Caps: left for carver? moulded?

Pilasters: plain? panelled? left for carver?

Cornices: size; projection; bed.

Curbing: what kind? all sizes.

All sizes, kind of stone, style of dressing.

Marble or slate treads and risers to iron stairs?

Stone-pavement: — what kind? all sizes; dressed? rough?

Any cutting for doors, man holes, plumbers' fittings?

Remember to set sills free in middle.

Remember that fine limestones must be laid in lime-mortar and

that cement must not touch limestones in joints or backing.

Remember to require covering of all cut-stone to protect from injury while building.
Remember that some stones rust and run — look out for that.
Specify who furnishes water: contractor? owner?
Carving: — Who does it? contractor? owner?
How, by fixed sum?
Name carver, sum.
Underpinning: — How done, by the day? on contract? any particulars?
What kind of stone? Conshohocken? cement? neat? with sand, how much?
Is underpinning to be done with stone or brick?

(To be continued.)

CONSTRUCTION. I — XXIV.

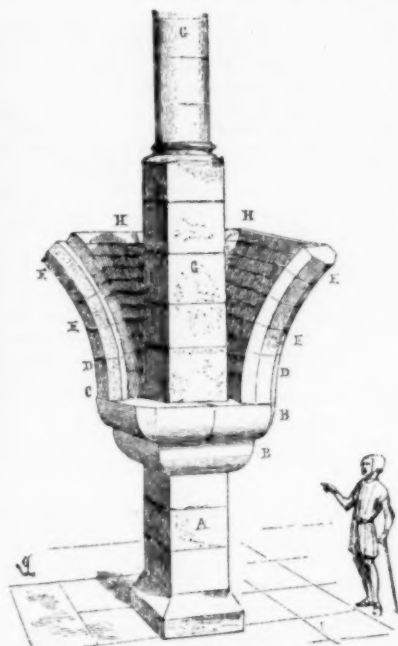


Fig. 127.

THE mediæval builders give proof of a great deal of independence in the combinations of vaults belonging to civil edifices; everything suits their purpose, according to the occasion or necessity: the cradle vault, the Roman groined vault, the pointed, semicircular or stilted Gothic vault, the vaults composed of ranges of arches supporting ceilings or pendentives. When they no longer followed any but one sort of vaulting in ecclesiastical architecture, that is to say during the thirteenth and fourteenth centuries, they had, nevertheless, the good sense not to apply this system, only in so far as it offered advantages in civil constructions. Frequently the very large buildings neces-

sitated the erection on the interior of one or two rows of supports to carry the floors of the upper stories, as we have before observed; in this case the ground-floor was generally vaulted; but as these slender supports placed one above the other and only braced by the floors had no stability, they did what they could to give them sufficient base, at least on the lower piers carrying the vaults, and fearing to crush the skew-backs of these vaults under the load, they made them independent of the piers.

Thus, for example (127): given a pier *A* of the ground-floor intended to carry vaults; they laid on this pier two or three courses, *B*, making corbels on the four faces; thus a shoulder *C* was obtained. At the angles were placed skew-backs *D* following the diagonals of the squares, to receive the voussoirs *E* of the vault; in the centre, the pier *G* was carried up free to receive the upper timbers, then the vault spandrel *H* was filled with rubble. Neither the skew-backs of these vaults nor their spandrels carried any load and the masonry of the haunches only braced the piers. Fearing the action of the thrust of the ground floor on the walls, which were not always buttressed, the builders frequently made very heavy corbels along these walls to diminish as much as possible the thrusts and disperse their resultant over the entire wall, or even over the interior facing only. Upon these corbels they were then able to place segmental arches which required less rise. Abandoning groined or pointed vaults, they carried vertical tympani *B*, on the large arches *A*, perpendicular to the walls (128), up to the level of the extrados of the key of these arches, *A*; then they sprung over these tympani segmental cradle vaults, *C*. In this way they succeeded in vaulting over large spaces without requiring much rise and without lowering the springings so much as to interfere with the passageway. By multiplying and bringing these arches nearer together they were able to replace the vaultings *C*, with flags making a floor placed on stone purlins (if materials were suitable), as shown in Figure 129. These purlins had rebates, thus bringing their upper surfaces level with the flags shown by dotted line *E-F*. These methods of building obtained for a long time without sensible modifications, for we still see constructions of the fifteenth century which reproduce these simple, imposing and severe dispositions. The finest example which we know of these civil constructions, in which corbels play a very important part, is the castle of Hoh-Königsbourg, near Schelestadt.²

One could almost take the principal rooms of this Château for thirteenth-century constructions, whereas, they were not built until the fifteenth century.

But Alsace had kept the good old traditions of the Gothic epoch, especially in civil architecture. The principal building of the

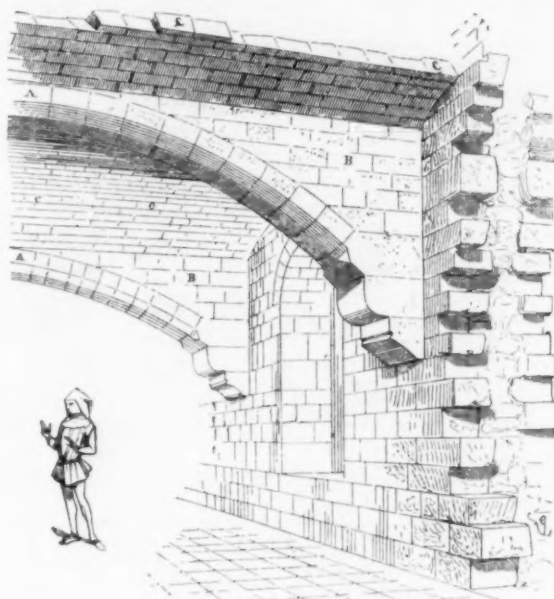


Fig. 128.

Château Hoh-Königsbourg abutting against the rock (130), is built only of interior buttresses with a very thin exterior wall on the court side. It has four stories; the ground-floor, which was used for a kitchen, has a segmental-cradle vault resting on very flat arches of ashlar, sprung from one pier to the other. The first story is ceiled by means of large dressed lintels, carried by strong corbels; the parallelograms left void between the lintels are filled with rubble. The second story is covered by a wooden flooring whose principal girders are carried on corbels built into the piers. A third story has a semicircular cradle vault, resting upon lintels — and on large corbels similarly arranged to the first story. This upper vault carries a platform or terrace covered by flags. The perspective section (Fig. 130) gives the general appearance of this peculiar construction. It should be stated that the local materials (a reddish sandstone) are adapted to these bold methods; the employment of such thin lintels, of such wide span, would be inadmissible for us with our calcareous materials from the Seine, Oise or Aisne valleys.³

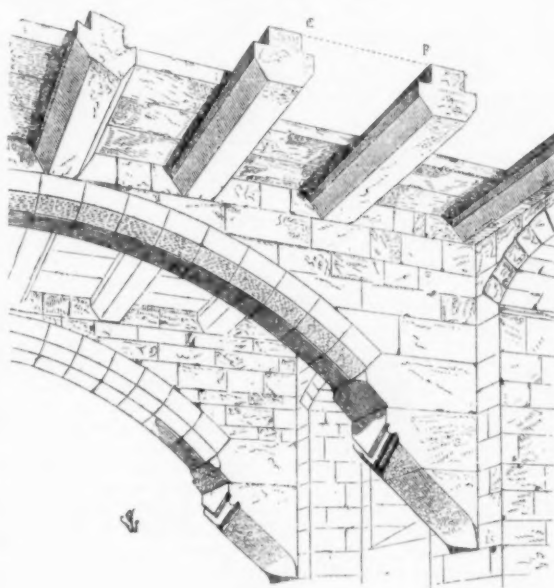


Fig. 129.

But in civil and military architecture, even more than in ecclesiastical architecture, the nature of the materials had a very marked

¹ From the "Dictionnaire raisonné de l'Architecture Française," by M. Viollet-le-Duc, Government Architect, Inspector-General of Diocesan Edifices, translated by George Martin Huss, Architect. Continued from No. 961, page 91.

² See the ground plan of this Château under the word *Château*, Figures 30, 31, room M.

³ In the sixteenth century an accident compelled the owners of Hoh-Königsbourg to spring arches under the ceilings of the first story.

influence in the selection of methods of construction; this example is a proof of it. The longitudinal lintels between the buttresses and the transversal ones from one buttress to another have voussoir joints. If we make a longitudinal section of this building, each bay gives us (Fig. 131).¹

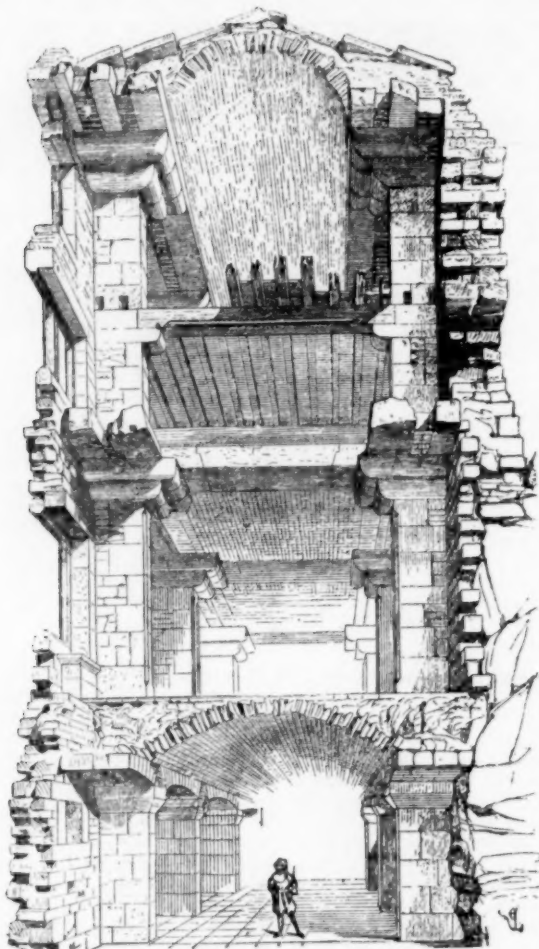


Fig. 130. Castle at Hoh-Koenigsbourg.

It is impossible for one to form an idea of the majestic grandeur of these buildings unless he has seen them. Luxury is not considered here; it is pure construction and the architecture takes no other form than that imposed by the judicious employment of the materials; the principal points of support and the lintels are alone in cut stone, the rest of the structure in stuccoed rubble. We are free to admit that this way of understanding civil architecture has a peculiar attraction for us. It should be said that the Château of Hoh-Koenigsbourg is built on the summit of a high mountain, eight months of the year surrounded by snow and fog, and that in such a situation it would have been very ridiculous to choose architectonic forms which could only have been appreciated by the eagles and the vultures; that the savage aspect of these structures is in perfect harmony with the ruggedness of the place.

In this connection we shall be permitted to make an important observation. We think ourselves the first to appreciate that which is called the *picturesque*, because since the seventeenth century no one has found any beauty, except in parks planted à la Française, in right-angled and symmetrical buildings, in terraces veneered with stones and cascades with lead-lined channels. Without denying the value of nature thus arranged by art, we must, nevertheless, recognize the fact that nature left to herself is more varied, more free, more grandiose and more essentially beautiful. A Seigneur of the Court of Louis Fourteenth or of Louis Fifteenth would very much prefer the parks of Versailles or Sceaux, to the wild vistas of the gorges of the Alps or the Pyrenees; the Duke of St. Simon, who had no office at Court, preferred to dwell in a narrow and gloomy apartment at Versailles than to live in his charming residence, *la Ferté*. But our mediæval lords were, on the contrary, sensible to these natural beauties, they loved them because they dwelt among them. Without speaking of the very lively appreciation of nature to be found in the numerous romances of the Middle Ages, we see the castles, the manors, the abbeys, are always so situated as to give their inhabitants views of the surrounding localities.

¹ M. Besenwald, who has made plans of the Château of Hoh-Koenigsbourg with the greatest care, has been kind enough to put his drawings at our disposal.

Their construction harmonizes with these localities; wild and imposing in abrupt places; fine and elegant at the foot of laughing slopes, on the banks of tranquil rivers, in the midst of verdant plains. In these houses, the views of the most picturesque points are always arranged with skill and in such fashion as to present unexpected and varied aspects. In studying the civil constructions of mediæval times, it is, therefore, necessary to take into consideration the locality, the nature of the climate, the site, for all these things exercise an influence on the builder.

A building which is suitably arranged and constructed on a level site, in a country of gentle and tranquil aspect, would be ridiculous on the top of a savage cliff surrounded by precipices. Another one by its severe and even harsh character seems to grow out of the desolate soil where it rises, but would appear deformed and coarse surrounded by fields and meadows.

Those barbarous men, as they are considered by most people, were then sensible to natural beauties and their dwellings reflected, so to speak, these different sorts of beauty — harmonized with them. We, who are civilized and who pretend to have invented the *picturesque*, build elegant pavilions on some rustic site, which seems to have been intended to carry a fortress; and we build massive structures on the bank of a streamlet running through a meadow. This would lead us to believe that these mediæval barbarians loved and understood nature, without making much ado over it and that we, who boast of it on every occasion in prose and in verse, look at it with a careless eye, without being sensible to its beauties. Centuries are like individuals, they wish always to be considered gifted with the qualities which are wanting in them and care very little for those which they do possess. Everybody fought for religion in the sixteenth century and nine-tenths of the combatants on both sides did not even believe in God. They prided themselves on chivalry and on refined manners in the seventeenth century and their minds turned very strongly, even at that epoch, toward positive ideas and the satisfaction of material wants. In the eighteenth century they conversed only about *virtue, nature, gentle philosophy*, when virtue was scarcely in vogue, when nature was looked at through the glazed window of one's chamber and in lieu of gentle philosophy,

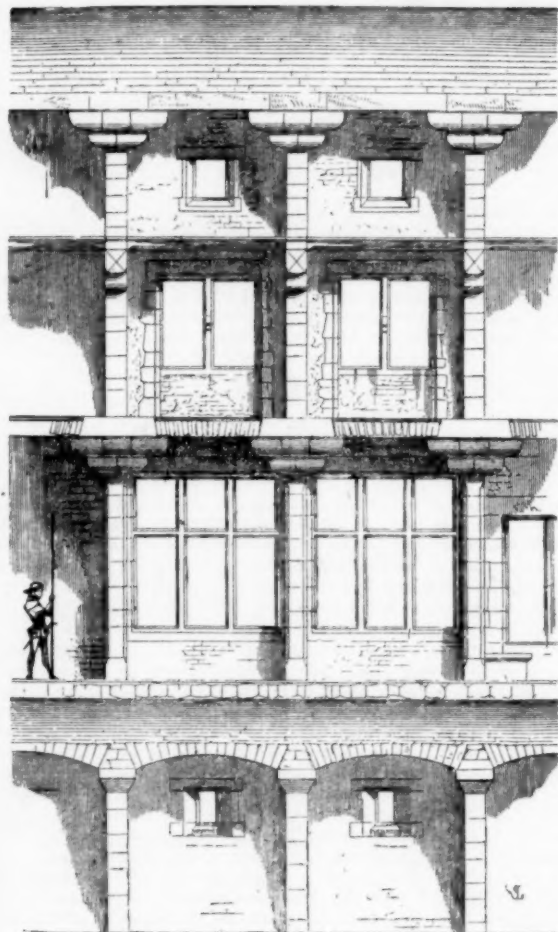


Fig. 131.

the only sort which was practised was founded on the assured well-being of one's self and one's friends.

But to return to our buildings: the system of corbelled constructions was very much in vogue from the twelfth century in civil structures; it is, in fact, economical and full of resources, whether

for carrying floors, for avoiding very great thickness of walls and considerable foundations, receiving the framing, carrying the overhangs, obtaining more extensive surfaces in the upper stories of buildings than on the ground-floor, providing for subdivisions for communicating staircases from one story to another, offering shelter, etc. It was another application of that principle of the mediæval

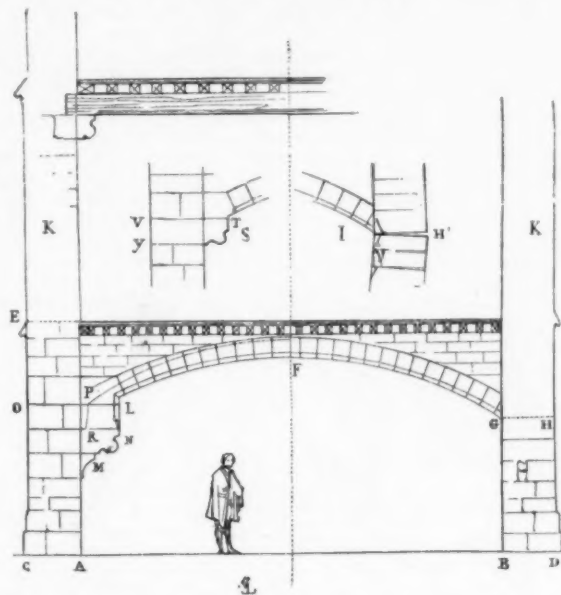


Fig. 132.

architects, which consisted in employing active forces instead of passive forces; for a corbel is a lever which needs a counterpoise in order to fulfil its function. Corbels have the advantage of not producing any thrusts, always difficult to counterbalance in constructions where the apartments are planned for special purposes, with thin walls cutting one another irregularly. They require less rise than arches, or can neutralize their thrust by placing the skew-backs outside the face of the walls, which is easily demonstrated. Let *AB* (132) be the opening of a room whose flooring is supported by arches, as was shown in Figures 128, 129; *AC*, *BD*, the thickness of the walls; *CE* the height between joists. If we carry the arch *GF* on the wall, even admitting that we have a heavy weight at *K*, there is reason to fear that we shall exercise such a thrust from *G* to *H* that the wall will buckle outwards, for the resistance of the friction of the bed *GH* will not be sufficient to prevent a slip; or if there is no slip, the length *GH* is not such that the bed may not open outside and fall off inside, as is shown at *I*, an effect which will produce a buckling of the wall and consequently the fall of the arches. But if we have a strongly projecting skew-back *L*, and two corbel courses *MN*, and supposing that *K'* is a reasonable weight, we can counteract the slip by a much more extended bed *LO* and by a greater friction; the curve of resistance exercised by the arch, which curve touches the bed *LO*, at *P*, will meet there a resistance which will resolve itself into a line *PR*, more or less inclined according as the weight of the upper load *K'* is less or greater.

If this load is a heavy one from the point *R*, the resultant of the thrusts might become vertical, and fall within the interior face of the wall, which would matter little; that is all that we could expect.

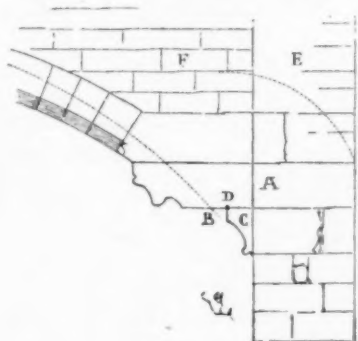


Fig. 133.

ling of the wall might result at *Y* as it did at *H*. When builders could not for any cause give to their corbelling the height of three or four courses, they obtained very resistant stones and (133) they placed them with sufficient projection as shown in section *A*, to make the curve of pressure of the arch fall at *B* within the interior face of the wall; this gives the stone *A* a lever action — they, therefore, support it by

a slight projection *C*; its lever movement would then describe the arc of a circle of which *D* is the centre. To overcome this lever movement there is the weight *E* beside that of the masonry spandrel *F*. The leverage being overcome, the corbel *A* has no other tendency than to slip from *B* toward *G*. Then the problem is to make the friction sufficiently great on this bed *DG* by means of the vertical weight *E* to prevent this slipping. Corbels then possess two properties: that of carrying weights on the principle of levers heavily weighted by the load at one end, and the action of resistance to oblique thrusts by the augmentation of the surfaces of friction. Thus we see that in all cases the mediæval builders employed active resistances, that is to say a system of equilibrium, instead of the principle of passive resistance of the Roman construction.

[To be continued.]

ITALY'S NEEDS VS. HER ART TREASURES.

APROPOS of Italy's financial distress and one method by which its impoverished exchequer can be temporarily replenished, Mr. C. A. Dougherty, late United States Secretary of Legation, at Rome, writes as follows to the New York Tribune:

Every one in the Eternal City will remember that, only a few years since, the noble house of the Borghese, owning enormous tracts of real estate and superb villa properties in different parts of the Province of Rome, fell from their high estate with a dismal crash, because all their lands were unremunerative. In the galleries of their city palace and of the Porta del Popolo villa were art works of a total value to ransom an empire. Prince Borghese saw the storm coming some years ahead, but not one treasure was taken from the galleries and put under the auctioneer's hammer, because the proud and sensitive nobleman could not bring himself to stain the family honor by trading for bread the art collection that his ancestors had spent centuries in perfecting. And so, in the year of grace 1891, the noble family fell. They went out from their palatial home, out from the Rome where they have been honored for ages, and are now living perhaps in obscurity. Dignity stands in their lives to-day as the only compensation for all else they have lost; and the sentiment that exiled them does not keep decay from crumbling the furniture, the dust from gathering thick on the marble statues, or the sun from shrivelling the precious canvases on the walls.

In his palace in the Corso, in Rome, lives another nobleman, of lineage as illustrious as the Borghese, but of temperament dissimilar, and of practical mind. When the building fever was at its height a few years ago, and enormous dwelling-houses, within the city and outside the gates, were run up like magic, this Prince thought to increase his riches as a landlord, and became one of the largest builders. In 1889 there were residences in the city for 150,000 more people than Rome contained, or was likely to have for many years to come. The houses that cost so much to build brought in little or no revenue, and many of them were occupied gratuitously by people of the poorest classes. The ambitious nobleman was nearly bankrupted. In his Corso palace, however, were two rich galleries of paintings. He tried to sell them to the Government, but the Government was in no condition to diminish its exchequer to enlarge its art collections. He then put himself in communication with a certain foreign government and with several enormously rich connoisseurs. Clever artists, who made a specialty of copying famous paintings, were engaged in the Prince's gallery. Several original "old masters" went out from Italy to other lands, while marvellously exact fac-similes, with all the complexion of age, took the vacated places in the old frames, and went back to their respective positions on the walls, to look down, half-pityingly and half-hypocritically, upon the visitors, who, with guide-books in hand, stood admiringly before them and wondered at the beauty that outlasted so many centuries. The galleries had remained closed during six months, and when they were reopened there was nothing to indicate that everything of interest was not exactly as before. And the practical Prince exchanged sympathetic winks with the counterfeit presentments, and his coffers were gratefully replenished since the day when the workmen were first put in the palace "to repair some rotten rafters."

This business-minded nobleman is not unique in the current annals of Rome. The Boncompagni and the Ludovisi demolished their historic villas, and on their sites erected blocks of painfully-modern apartment-houses. The late Prince Barberini cut off huge strips of land from the gardens surrounding the family palace on the Via Quattro Fontane, and sold them for building-lots. And there were many others among the noblemen of Rome who did the same. These princes hewed boldly upon the preserves of family pride, ignoring the menacing spectre, clothed in the mighty majesty of all their ancestors, that foretold a tale of direst woe. Woe quite as dire, probably more inevitable, and certainly more imminent, would have fallen like a plague upon all their houses if they had not sacrificed sentiment to necessity; so what man will blame them for purchasing exemption from present hardships at the expense of the shadows of splendor?

It was only the existence of the Pacca law that made the act of the prince who sold his own property illegal, for the statute defining *monumenti pubblici* comprises certain private property as well as the possessions of the State. When it was framed, not only all Italians, but men of other nations as well, approved the provisions that

prohibited the removal of the historic relics and the artistic treasures out of the country in which they had had their home for centuries, and where their poetic surroundings blended in a harmony that captivated the imagination. There was no thought then that the day might come when these precious objects could buy the welfare of the nation. But an unforeseen era has arrived. The alternatives are the fall of Italy or the sacrifice of her treasures. The hour is not one in which to weigh a queen's jewels against her life. Beset by difficulties that seem impossible of adjustment, confronted by an enormous and increasing debt, overburdened by taxation and menaced in her honor, the Nation stands a modern Niobe, majestic in her sorrow, eloquent in the resignation with which she views the afflictions of her children, and pathetic in the patience with which she waits her doom. While desolation spreads her preying brood over all the land; while the King and his Ministers are in despair, and over the poor peasant's emaciated body the night wind blows fever through the cracks in his crumbling hovel, the wail of "sentiment" becomes as the thin screech of the owl in the thunderous pleading of humanity.

The Prime Minister recognized that the plaint of the hungry citizen appeals more keenly to the Government than the vauntings of sentimentality when, in his speech to the Italian Congress on May 4, he said: "Humanitarian questions are crowding national ones further and further into the background."

The Government need only answer with the one word "necessity" the protests of those who call it a sacrilege to let the ancient treasures go out of Italy. But against such protests may also be cited many strong arguments. In the first place, no thought of sacrilege comes into the consideration, or no apprehension of abuse of the venerated treasures, for the country or individual purchasing one of them would be none the less proud of the precious possession, or cherish it less tenderly than Italy. Then, moreover, the proverbial contention of the dilettante that art has no nationality, and that its treasures belong to the world, may be hurled back upon the protesters. Hand in hand with this might go the reminder, that many of the greatest statues in the Capitoline and Vatican museums, in the Uffizi Gallery and elsewhere throughout the country, were wrested by the invading Romans of ancient times, despite the pleas of sentiment, from the Greeks; that the obelisks that mark so many squares in the Eternal City were brought as tributes from Egypt, and that the sacred seven-branch candelabra that has been lying for centuries upon centuries under the mud of the Tiber was carried to Rome by the imperial legions who broke the heart of Judea by the destruction of the Temple of Jerusalem. If sentiment was not respected in their acquisition, why should it be invoked now, to the detriment of that nation that is the heir and successor of Imperial Rome? *Si monumentum queris, circumspice.* The Roman of today need only look about him, in his strolls through the city, to see on all sides the evidences of the subordination of sentiment to utility, and in some cases, indeed, an absolute absence of all sentiment whatever. The practical, logical lesson will be ever under his eyes. He will see that the great basilicas were helped, in their construction, with stones and metal from the Colosseum. He will learn that the huge baldacchino in St. Peter's was built of bronze torn from the roof of the antique Pantheon. He will know that the majestic tomb of Hadrian is now occupied as a military barracks, and that the tomb of another Caesar has been converted into a public circus. In one of the naves of the baths of Diocletian he will find a stable. In many of the small osteria, or wineshops, within and outside the city, he will discover ancient pedestals serving as tables or seats for the humble family of the dealer; and ancient or mediæval inscriptions carved in stone, and taken from some demolished house or wall, will stare at him through a beard of rough grasses and weeds upon some dumping-ground outside the city gates.

If some one offers the more practical contention that when her museums and galleries are stripped of their treasures, Italy will be robbed of those attractions that draw foreigners thither every year to contribute to her commercial prosperity, it may be none the less practically answered that those possessions that more particularly make the entire country unique in the world will still remain. The Government cannot sell the Colosseum, which will stand for centuries to come, as it has since the time of Flavius, teaching to all ages the power and glory of the antique days. One may, indeed, paraphrase Byron and predict that even when Rome shall fall the Colosseum will stand. Others of the great ancient edifices throughout the whole country, and those stupendous architectural marvels of more modern times, cannot by any physical possibility be comprised among the monuments that the Government can sell to other nations. They form parts and parcels of Italy, as ineradicable as its sacred soil and its illustrious history, which alone will always invest the country with fascination for all men as long as civilization survives.

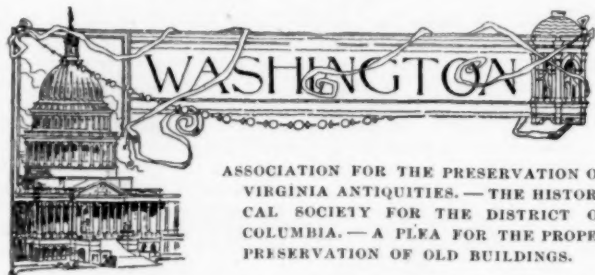
The Government itself can have no justifiable excuse for refusing to seek relief by the sale of its monuments, on the plea that it respects the sentiments of those who protest, or shares those sentiments itself. Every province in the Kingdom contradicts the sincerity of such a plea. The Pacca law itself is a denial of it, in that it virtually removes the privileges of ownership from a private individual or a corporation to be vested in the State. All the splendid palaces or historic ruins that have been confiscated by united Italy from the crushed dynasties that flourished formerly in different parts of the peninsula are reminders that sentiment was

recognized as no deterring element when the policy of the new Kingdom was shaped. Pompeii, Herculaneum and Paestum would else have the right to plead to-day for some pity, in place of execration, for the defunct Kingdom of the Two Sicilies. "Sentiment" was regarded as the plaint of feebleness when the voice of the Vatican was raised in protest against the invasion of Rome; and it did not avail to preserve the temporal power of the Pope in his capital, nor to keep the great properties of the church throughout the country from passing into the hands of the Royal Government. The supremacy of necessity over sentiment has established as the chief residence of Italy's King the Quirinal Palace that was formerly the home of the pontiffs.

If then, as it would certainly seem, there is no obstacle beyond a small popular sentiment to impede the sale of some of her vast treasures for the help of the country, why does the Government hesitate? It cannot hope to find a permanent cure in increased taxation. The people are poor to the edge of destitution, and their strength is too exhausted for further burdens. Rebellion and dissension are only repressed by force. Italians like Polti and Ferrara are swelling the ranks of anarchists and law-breakers in other lands. Starvation will soon be scattering skeletons from the Alps to Messina. It cost years, gold and blood to build up the present Kingdom; and the whole world's tears would bewail its fall. Its welfare is precious to mankind. All men watch its progress with solicitude. It is too young as a nation to die when any sacrifice can save it. It has everything to live for. Its royalty is beloved by all the people. Its soil is as fertile as ever. From a fleckless sky the sun shines as always on a beautiful land. The only clouds are in the hearts of the people, who are poor and hungry. The Government can control the impending storm, and avert it from Italy, if it will. Let it take sentiment, too, for its prayer; the sentiment that will plead for the salvation of the country at every cost; and which, compared with any small stream of protest, would rush and roar with the impetuous force of an ocean. Every patriot would unite in the profound and universal chorus. The very soil would give vigor to the surging prayer, and the statues themselves, if they had voice, would petition to be sacrificed for the country's good. Pasquino and Marforio would forget their cynicism, and would beseech the citizens, like the oracles of old, and as Cicero did in the Forum, to hold the country's welfare as the dearest thing of all. Michael Angelo and Raphael, in their place among the immortals, would rejoice that their handiwork had helped to save the Italy they loved so well. And all the world would be grateful that no more

Domestic fury and fierce civil strife
Shall cumber all the parts of Italy;

and that the ages and the arts that had made her the mother of the universe had also saved her as a Nation.



NOTHING makes a country more interesting than buildings with historical associations. In this country the preservation of such buildings has usually been a matter of indifference. Where they have been preserved they rarely, if ever, escape the mania for remodelling. Their old features, which should have been retained, have been changed out of all semblance to their original selves to suit the whim of some architect, builder or committee. Victor Hugo in "*Nôtre Dame*" describes this craze for change so admirably that I quote his words, which apply with equal force to the older and better buildings in this country.

"One can distinguish on its ruins three kinds of lesions, all three of which cut into it at different depths: first, Time, which has insensibly notched its surface here and there and gnawed it everywhere; next, political and religious revolution, which, blind and wrathful by nature, have flung themselves tumultuously upon it, torn its rich garment of carving and sculpture, burst its rose windows, broken its necklace of arabesques and tiny figures, torn out its statues, sometimes because of their crown, sometimes because of their mitre; lastly, fashions even more grotesque and foolish, which, since the anarchical and splendid deviations of the Renaissance, have followed each other in the necessary decadence of architecture. *Fashions have wrought more harm than revolutions.* They have cut to the quick, they have attacked the very bone and framework of art; they have cut, slashed, disorganized, killed the edifice in form as in symbol, in its consistency as well as in its beauty. And when they have made it over — a presumption of which neither Time nor revolution at least have been guilty — they have audaciously adjusted it in the name of good taste. . . . Wrinkles and warts on the epidermis! this is the work of

Time. Deeds of violence, brutalities, contusions, fractures! this is the work of revolutions. . . . Mutilations, amputations, dislocations of the joints, restorations! this is the Greek and Roman barbarian work of professors. *Tempus edax, homo edacior*, which I would be glad to translate, 'Time is blind, man is stupid.'

There are few of the old buildings in this country to which this outpouring of Victor Hugo could not be applied with profit to the history of the country. As it is a better piece of pleading than I have ever seen, I quote it. What more effective monuments could be raised than the maintenance of the buildings in which a great deed was done, in which a noble life was lived?

When restored by fashion in another dress, the observer unconsciously connects it with the age of the fashion and its halo is gone.

The Society for the Preservation of Virginia Antiquities was organized in Williamsburg, Va.,—the seat of art, learning and fashion in Colonial days.

Its object is to restore and preserve the ancient historic buildings and tombs in the State of Virginia, and to acquire by purchase or gift the sites of such buildings and tombs with the view to their preservation or perpetuation.

This Association has been duly chartered by the State of Virginia and is empowered to buy and hold real estate, with a principal office in Richmond, Va., and branch offices in other parts of the State.

It is under the management of prominent ladies of the State, assisted by an advisory board of prominent men. The families of the directors have been connected with the history of the State from its beginning. Such names as Lee, Ball, Cabell, Page, Carter are familiar to all. Mrs. Fitzhugh Lee was the first President, and Miss M. V. Smith is in charge of the Alexandria branch.

The first piece of work undertaken by this Association was the purchase and restoration of the old powder-house in Williamsburg. The home of Mary Washington, Fredericksburg, was then purchased and repaired. The Association at the present time has undertaken the preservation of what remains at Jamestown. Twenty-two and a half acres have been given to them, which includes, I believe, the original site of the town. The James River is at present gradually undermining the bank, so the Association is making an effort to obtain money first to put up a sea-wall.

As Virginia is probably richer in history than any other State in the country, this Association will probably be one of the most active ones. But in their cure of old buildings great care should be used. The archaeologist and architect should be one—they should be careful to preserve, not remodel. Fashions of to-day, which it is so hard to keep out of a piece of remodeling, should give place to the fashion of the day when the building was erected. . . .

Within the last few months an historical association has been established in the City of Washington, one of whose aims is at least the preservation of the records of old buildings, and possibly its constitution would include the restoration and preservation of old buildings. This is a move in the right direction in our city, where old work is connected almost invariably with the history of the country.

"FAIR WOMEN" IN LONDON.

WALKING round the Grafton Galleries one wonders how most of the beauties gained their reputations. Fashion, no doubt, had something to do with it; but, again, how did the fashions arise? How came it that most of the women Reynolds painted had small noses, Cupid's-bow lips, dark eyebrows, and expressive, brown eyes; whereas Gainsborough's ladies have pale or no eyebrows, beady eyes, long noses and thin lips? On the other hand, Romney's women have sleepy eyes with large drooping lids, with little, pointed chins. Who can mistake a Lely or a Van Dyck? But where is the beauty? There is no doubt about the beauty of Romney's Lady Hamilton, the Emma Lyon who beguiled Charles Greville, married his uncle, Sir William Hamilton, and brought the greatest commander of the day, Lord Nelson, to her feet. One can understand the fascination of the woman; and, moreover, all her portraits are more or less beautiful, and resemble each other. But where is the charm in the celebrated Mrs. Sheridan, by Gainsborough? the Elizabeth Linley who married the witty playwright, and who, painted by Reynolds, becomes a different person. Then turn to the wonderful Comtesse de Grammont, "La belle Hamilton," who was all but tossed over by the Count when he left England. The lady's brothers, with drawn swords, asked him if he had not forgotten something. "True," he replied, and offered the lady his hand. No more beautiful are the other ancestors of our noble families, the notorious Barbara Villiers, duchess of Cleveland, who, being the daughter of a viscount and the wife of an earl, might have been content without soiling herself by her connection with a dissolute sovereign. Charles II's ideal beauty was curious, consisting mainly in sensual lips, and a shameless desire to uncover those parts of their persons which decent women always clothe. All Sir Peter's "Beauties," including Nell Gwynn, and Evelyn's "famous and, indeed, incomparable beauty," Mrs. Jane Middleton, are all but plain women, according to our views.

Again, what can Rossetti have felt when he painted his "Veronica Veronese," with her square chin, scarlet lips, goat's throat, and high cheek-bones? Is this his ideal of beauty? Verily, beauty, like other things, is passing strange!

The gallery contains excellent examples of the four R's—Rubens, Rembrandt, Reynolds and Romney,—the kings of portraiture. By Rubens, the exquisite "Anne d'Autriche," wife of Louis XIII, showing all his fine drawing and subtlety of painting. It is worth contrasting this with Rembrandt's "La femme à l'Éventail," belonging to the Queen. Both women are clad in lace collars, and one sees the difference of the handling of the two artists—Rubens's treatment being the finer in the rendering of the transparency of the lace. The Dutchman's flesh has all that golden glow which his best pictures possess, as, for instance, the "Saskia" at the Cassel Museum; but the Fleming gives us a face in broad daylight with no conventionalities of shadow—it is all brilliant light, and touched with such deftness that little paint seems to have been used. Is not Rubens, after Velasquez, the finest of portrait painters? He is stronger than Van Dyck, more subtle than Rembrandt, and a finer colorist than Reynolds.

Many are the Sir Joshuas hereabout—good, bad, and indifferent: the lovely "Perdita"—Mrs. Mary Robinson, author of several novels and poems, an actress and the admiration of George, Prince of Wales; and the delightful "Georgiana, Duchess of Devonshire," tossing up her child. Still more delightful, because in repose instead of action, is Romney's "Mrs. Carwardine and Child," the very perfection of a baby-picture. How exquisite is the turn of the mother's head, as she looks down upon the child nestling beside her. And the hands! In all the gallery there is not such another pair, plump, white, "maternal hands," as George Eliot has said. Opposite is a portrait by Mr. W. B. Richmond, and near it is Rossetti's "Veronica Veronese" giving the student an opportunity of comparing the hands of the modern painters, and of appreciating Romney's at their just value. Here, again, is the subtlety of painting in all its beauty. Mrs. Siddons as "The Tragic Muse" is here; not the grand sitting portrait from Grosvenor House, but the striding lady with head bound up in a napkin, holding a dagger in one hand, and a mask in the other. Did the little maid "Collina," daughter of the Earl of Upper Ossory, have an unfortunate love affair, that she never married? Standing with her gown tucked up, her rosetted shoes and crossed hands, she is an ideal child by the child painter *per se*. Here again, one sees a type. How many of Reynolds's children have those slanting eyes and pointed chins which have become so exaggerated in the "Robinetta" of the National Gallery.

Gainsborough is fairly well represented. "Mary Bruce, Duchess of Richmond," has all his characteristics—the elegance and refinement, but the weakness and uncertainty of handling. Of Greuze's superciliosities nothing need be said, but that, being pretty, they are in their place in a gallery of fair women.

Antonio More's heroine of Schiller's "Don Carlos" is a splendid example of damask and jewel painting, not necessarily to the detriment of a powerfully-painted face.

Although one is not surprised at finding the gallery full of women's portraits, it is somewhat monotonous. "How very droll that these painters only painted women," is not a very wise remark under the circumstances. But is not an exhibition exclusively of portraits somewhat dreary? And is it not a relief to turn to Mr. Sargent's grand study of blue and green—Ellen Terry as "Lady Macbeth"—to Mr. Herkomer's study in white, the celebrated "Miss Grant," or to Mr. Watts's truly beautiful head of "Mrs. Langtry," certainly one of the most charming faces in the gallery, if not the most beautiful? Sir Frederick Leighton's grand "Corinna of Tanagra" is a splendid type of woman; and Mr. J. J. Shannon's "Iris" is delightful in spite of it being but an echo of Romney.

Comedy adds little to the show, proving that women have no sense of humor, as some one says, or, what is more likely, that the "fair women" scarce dare affect a smile, lest it diverge into a ghastly grimace. But Etty, nevertheless, contributes a "Hebe" which is somewhat, if unintentionally, comic. Imagine a lady with her hair dressed in "bands" (one of his friends, perhaps) watering her roses while only semi-attired!

It seems a pity that the exquisite art of miniature painting should have died out. What can be more beautiful as portraiture than the work of Cosway? On the other hand, nothing can well be more detestable than Sir William Ross's smirking ladies. In Paris the art is reviving; and it is quite possible it might in London, eventually, displace the peculiarly unsatisfactory photograph; for whether touched up, or left with its exaggerated lines, the latter is no more truthful than the miniature, and far less beautiful and durable.

S. BEALE.

THE ITALIAN RENAISSANCE.¹—VII.

NOTES FOR ARCHITECTURAL STUDENTS.

THE route laid down for the travelling-class, from Rome to Florence, was to have passed, as already outlined in a preceding number, through Orte, Spoleto, Perugia and Arezzo, with a side trip to Orvieto and return. It seemed better, however, on maturer investigation, to include Caprarola and Viterbo in the trip, at a cost of a visit to Spoleto. The route was accordingly modified so as to pass in the following order through Caprarola, Viterbo, Orvieto, Perugia (via Terontola) and Arezzo to Florence. This change was made practicable by the recent completion of the railway line to Viterbo with a short branch to Ronciglione near

¹ Continued from No. 970, page 38.

Caprarola. The following list of monuments may, therefore, be added by way of appendix to those already catalogued for the region between Rome and Florence.

CAPRAROLA.

The PALAZZO FARNESE: 1547-1559, by G. B. Vignola for the Cardinal Farnese; a pentagonal fortress-like plan, with fine staircase, circular courts, chapel and frescoes by the *Zucccheri* and *Ant. Tempesta*.

VITERBO.

Mainly a Gothic city, celebrated for its picturesqueness, its fountains and exterior staircases. The two or three Renaissance monuments of the city are worth a visit.

1. SANTA MARIA DELLA QUERCIA: by an unknown architect, 1470-1525; with fine simple façade, possibly in part by *Bramante*; reliefs in lunettes over doors by *Andrea (?) della Robbia*; fine unfinished columnar portico in front, exact date and author unknown; upper story of cloister attributed to *Bramante*, perhaps by *Ant. da San Gallo the elder*. Fine early Renaissance altar of marble.
2. VILLA LANTE (at Bagnaia, a suburb of Viterbo): about 1550, by unknown architect; remarkably beautiful gardens with several fountains of unusual beauty and purity of style.
3. PALAZZO LANTE (at Bagnaia, a suburb of Viterbo): about 1550, with fine but much damaged loggia with rich ceiling and frescoes.
4. PALAZZO COMUNALE or PUBBLICO: of uncertain date, with arcade on ground-floor either of Romanesque construction or rebuilt in fifteenth century with fragments of a Romanesque edifice.
5. FOUNTAINS: that in the Market Square is medieval; that in the court of the PALAZZO PUBBLICO belongs to the Renaissance; and the great fountain in the PIAZZA DELLA ROCCA is attributed to *Vignola* (1566).
6. IN SAN FRANCESCO several Renaissance TOMBS, ALTARS and DOORWAYS: a cardinal's tomb dated 1445; two sixteenth-century altar-pieces in carved stone (one in each transept); in left transept a fine Renaissance doorway and two mural tombs.

The lists for Orvieto, Perugia and Arezzo have already been given. From Florence the route takes the class first to Sienna, which might have been visited from Orvieto, but for the importance of visiting Perugia and Arezzo, on the way to Florence, thus leaving Sienna far aside. From Sienna it is intended to visit in succession, Pisa, Pistoja, Lucca and Prato, except for those who may have already taken in Prato as an excursion from Florence. Subjoined are the lists for these places.

SIENNA (or according to Italian orthography, SIENA).

This city occupies an important place in the history of Renaissance art, both on account of its monuments and its artists. *Simone Martini*, *Lippo Memmi* and *Taddeo di Bartolo* are among the best known names of the period in Italian painting during the fourteenth century, when the *Siennese School* held closely to its own local traditions. During the Renaissance three Siennese masters are especially famous, one each in sculpture, architecture and painting: *Giaco della Quercia*, 1374-1438, contemporary with *Brunellesco*; *Giovanni Antonio Bazzi*, known better as "il Sodoma," 1480-1519; and *Baldassare Peruzzi*, 1481-1537. The fame of *Domenico Beccafumi* (1486-1531) is of more local limitation than that of the above-named three.

CHURCHES AND RELIGIOUS MONUMENTS. — FIFTEENTH CENTURY.

1. IN SAN GIOVANNI IN FONTE (the Baptistry under the Duomo): FONT by *Giaco della Quercia*, 1416-1430; with reliefs by *Giaco della Quercia* and by *Donatello*, *Ghiberti*, *Neroccio* and *Torini*.
2. OSSERVANZA, monastery: 1432, enlarged 1485, by *Cozzarelli* (and *Peruzzi*?).
3. CHURCH OF THE CONCESSIONE OF SERVI DI MARIA: begun previous to 1458; façade erroneously attributed to *Peruzzi*, antedating his birth by over twenty years; interior completed 1491; dedicated 1533.
4. BARTOLI TOMB IN DUOMO: 1461, by *Antonio Federighi*; (see 5, 6, 8, 11, 14, 20, 25).
5. HOLY WATER BASIN IN DUOMO: 1462, by *Antonio Federighi*.
6. HIGH ALTAR IN DUOMO: bronze canopy by *Lorenzo di Pietro* ("Vecchiotta") 1465-1472; (see references above).
7. CHURCH OF FONTEGIUSTA: 1479, by *Francesco Fedele*; vaulted 1482; north front portal 1489; (see 22).
8. PICCOLOMINI TOMB IN DUOMO: 1485, by *Antonio Bregno*. Figures added later by *Torreggiani*, completed by *Michael Angelo*.
9. SANTA CATERINA: façade 1490, by *Corso di Bastiano* and *Antonio Federighi*; (see 28).
10. IN SAN DOMENICO, CHAPEL OF ST. CATHERINE: altar decorations in marble, by *Giovanni di Stefano* (frescoes by *Sodoma* in sixteenth century); (see 15).
11. LIBRARY OF DUOMO: 1495; façade in side-aisle of Duomo, 1497, by *Lorenzo Marina*; frescoes by *Pinturicchio*.
12. ORATORY OF SAN BERNARDINO: upper story decorated 1496, by *Ventura di Turapitti*.
13. HOSPITAL OF SANTA MARIA DELLA SCALA: coffered ceiling, 1496, by *Gaudaccio d'Andrea*. In the church, choir-stalls by *Ventura di Giuliano*; (see 16 and 19).
14. CAPELLA SAN GIOVANNI IN DUOMO (not to be confounded with chapel underneath): façade about 1497, by *Lorenzo Marina*.
15. IN CHOR OF SAN DOMENICO: marble tabernacle by *Benedetto da Majano*; (see 10).
16. IN VESTIBULE OF LA SCALA, TONDI TOMB: end of fifteenth century, by *Cozzarelli*; (see 13 and 19).
17. MADONNA DELLA NEVE: end of fifteenth century.

SIXTEENTH CENTURY.

18. IN DUOMO, CHOIR-STALLS and INTARSIA-WORK: 1503, by *Giovanni da Verona*; also by the same, perhaps of earlier date, the inlays of stalls in retro-choir.
19. IN LA SCALA, ORGAN GALLERY OF CASE: by *Giovanni di Pietra Castelluccio*; (see 13 and 16).
20. IN SACRISTY OF DUOMO, ORGAN-FRONT: by the brothers *Barili*, 1511. (See 4, 5, 6, 8, 11, 14, 25.)
21. SAN SPIRITO: dome 1508; portal 1519, by *Baldassare Peruzzi*.
22. IN FONTEGIUSTA: bronze ciborium, 1517, by *Lorenzo Marina*; (see 7).
23. IN SAN FRANCESCO, MARINI ALTAR and decoration of PICCOLOMINI CHAPEL: 1517, by *Lorenzo Marina*; cloisters, one of the fifteenth century, the other dated 1518.
24. SAN MARTINO: altar by *Lorenzo Marina*.
25. IN DUOMO: HIGH ALTAR and decoration of walls of choir; 1522, by *Baldassare Peruzzi*. Also by the same, wall-decorations in stucco of CHAPEL OF SAN GIOVANNI. (See 4, 5, 6, 8, 11, 14, 20.)
26. SANTA MARTA: FACADE between 1520 and 1536, by *Baldassare Peruzzi*.
27. SAN GIUSEPPE: FACADE between 1520 and 1536, by *Baldassare Peruzzi*.
28. SANTA CATERINA: CHURCH, ORATORY and COURT, by *Baldassare Peruzzi*; (see 9).
29. SAN SEBASTIANO: by *Baldassare Peruzzi*.
30. THE CARMINE: CHURCH and SACRISTY, by *Baldassare Peruzzi*.
31. IN DUOMO: MONUMENT to *Bardino Baidini*, *Michael Angelo*?
32. IN DUOMO: STAIRS to great pulpit of *Niccolo Pisano*, 1543, by *Bernardino di Giacomo*.
33. IN DUOMO: STAINED-GLASS in windows of façade, 1549, by *Perino del Fuga*.

34. IN DUOMO: LECTERN AND STALLS in retro-choir, 1567, by *Bartolo Riccio*. (See 4, 5, 6, 8, 11, 14, 20, 25 and above.)
The reference in 18 to intarsia-work in the retro-choir by *Giovanni da Verona* is to an early portion of the stalls, which was allowed to remain when the work of *Riccio* was ordered.
- SANTA MARIA DI PROVENZANO: 1534.

LATER CHURCHES AND CHAPELS.

- CAPELLA DEL VOTO IN DUOMO: 1661, by *Bernini*?
- SAN AGOSTINO: remodelled 1755, by *Vanzetti*.

SECULAR ARCHITECTURE. — FIFTEENTH CENTURY.

- FONTE GAJA: originally erected 1343; decorated in 1408 with reliefs by *Giaco della Quercia* now in the Opera del Duomo. The present fountain is a modern reproduction of the ancient structure.
- IN PALAZZO PUBBLICO (a Gothic edifice with Renaissance additions): Sala del Consistorio, MARBLE DOORWAY by *Giaco della Quercia*; in upper chapel, CHOIR STALLS by *Domenico di Niccola*, 1429; IRON GRILLE, 1435-1445; ORGAN-FRONT by *Pifferio*, 1519. In Loggia, FRIEZE by *Antonio Federighi*, 1450-1460. Many minor objects of furniture, besides frescoes by *Taddeo di Bartolo*, *Vecchiotta* and others.
- LOGGIA DEL PAPA: 1460-1463, by *Antonio Federighi*.
- PALAZZO NERUCCI: 1460-1472.
- PALAZZO DEL GOVERNO: 1469-1500, by *Bernardo Rossellino* and others.
- PALAZZO SPANNOCCI: 1470, by *Francesco di Giorgio* (?) or by unknown Florentine masters.
- PALAZZO DEL TURCO, also known as CAPELLA DEL DIAVOLO, by *Antonio Federighi*, about 1470.
- PALAZZO BANDINI PICCOLOMINI: } early Renaissance structures, whose
PALAZZO DELLA CIAJA: } precise date and architects are un-
PALAZZO FINETTI: } known.
HOUSE NEAR SAN AGOSTINO: }

SIXTEENTH CENTURY.

- VILLA MICLI (outside the walls): 1505, built for *Sigismund Chigi*.
- PALAZZO DEL MAGNifico: 1508, by *Giocomo Cozzarelli*, with remarkable braccia and other ornaments in bronze.
- PALAZZO BICHI: 1520.
- ARCO DELLE DUE PORTE: cir. 1525-1530, by *Baldassare Peruzzi*.
- VILLA SARACENI: a Gothic edifice with interior remodelled by *Baldassare Peruzzi*.
- PALAZZO POLLINI OR CELSI: by *Baldassare Peruzzi*.
- PALAZZO MOCENNI: by *Baldassare Peruzzi*.
- FONTE PISPINI: 1534.
- VILLA BELCARO: from plans by *Baldassare Peruzzi*.
- VILLA SANTA COLOMBA: } both outside the walls; by *Baldassare Peruzzi*.
VILLA CELSI: }

There appear to be no palaces of importance in Sienna of later date than the middle of the sixteenth century. The fact that at that time (1555, to be exact) Sienna capitulated to the Dukes of Tuscany, losing forever her preëminence and independence, is the probable explanation of this lack of Baroque and Rococo works. This has preserved to Sienna in a remarkable degree its aspect of antiquity and its strong civic individuality of appearance.

A. D. F. HAMLIN.

[To be continued.]

MODERNIZED ROME.

ROME is becoming more and more modern every day, as it must with a population of half a million moderns within its walls. But it is not being disfigured. In order to confirm this judgment the writer has made a detailed survey of the entire city, studying particularly those portions of it in the neighborhood of the Quirinal, Viminal and Esquiline hills, in Trastevere, and adjacent to the Corso and the Corso Vittorio Emanuele, where the building operations of recent years have been most extensive. Not public buildings alone have been observed, but the huge apartment-houses and tenements which have especially roused the ire of the sentimentalists. When one of the latter was interrupted the other day in full discourse on the defacing character of these buildings, and requested to analyze the basis of his critical wrath, he was soon driven to admit that he had logically no basis at all. The house at the moment in question was not beautiful, but neither was it ugly. On the contrary, it was designed in an inoffensive style, formed to a great extent upon the palaces of the Renaissance. Because its designer was evidently not a man of originality, he had produced no new combination of old motives; and because his talents, whatever they were, were small, he had not accomplished particularly interesting proportions. Yet he had revealed most precious qualities. He had good taste, reticence, sobriety and a sound conception of the merits of simplicity. His building was a solid and severely plain work of conscientious, conventional architecture, with windows and doors distributed intelligently; with ornamentation applied most discreetly, and with the whole finished off by a really attractive cornice. There was nothing in it to offend the eye. Compared with a building of *Peruzzi*'s, it was matter-of-fact and dry, but compared with the average buildings of its own class anywhere else in Europe or in America, it not only held its own, it was superior. It was superior, because it avoided altogether the heaviness which distinguishes much English work, the superficial, thin style so often encountered under the ugly mansard roof in France, the cumbrous, over-decorative manner of the Germans, and the vulgarity which has continued to make so many of our large apartment-houses hideous.

This superiority is claimed not alone for the single example selected for illustration, but for the great mass of modern work in Rome. Not one building can be recalled that falls below a certain excellent standard of simple, refined style; and when the private houses are dismissed and the public edifices approached, it is found that they are equally encouraging. The immense new building of the Banca Romana, on the Via Nazionale, and the large school-building recently erected on the Corso Vittorio Emanuele, have

both been projected on admirable lines of simplicity and repose, and they are quite typical of the kind of work that is done whenever problems of similar nature are presented to the Roman architects. The travertine, stucco and cement variously employed in the construction of both public and private façades present agreeable tones of color to the eye. The stone is of a creamy tint which, as ancient buildings show, grows more beautiful with age. The stucco and cement are treated with coats of brown, tawny-yellow and stone-gray paint, as the case may be. The result, so far as color goes, is often pleasing and always inoffensive. Remembering that the general outlines and details of the buildings are, as has been said, in the same orderly, neutral tone, the reader will perceive that Rome, more than most modern cities, is free from restless, discordant features of architecture. The sky-scraper is as yet unknown, and parti-colored schemes of brick, stone, terra-cotta and painted iron are also in the future.

Some people demur to the Italian custom of disguising the stucco and cement used in some of the buildings by imitation of the texture, cuttings and color of stone. The objection is well grounded. Good architecture is architecture that explains itself—that does not lie. But the main point at issue between the Roman builders and the foreign lover of Rome is that the former are spoiling the ensemble of the city, spoiling the background against which the ancient monuments are set, and there the criticism of the imitative custom falls to the ground. The massive rusticated basement, which is found to be soft and white if you scratch its gray and apparently impenetrable surfaces, may be a sad delusion, but it does nothing, it is certain, to diminish the beauty of the genuine stone wall across the way. There lies the situation in a nutshell. Designing and coloring their buildings in the manner that has been indicated, the contemporary architects of Rome manage somehow to keep well within the limits of the tradition which has made the city what it is to-day in its best preserved parts. It is true that their share in the maintenance of that tradition is largely of a negative character, but that is something. It is something to leave the observer free to make the transition from old to new buildings, and back again, as he walks the streets, without positive shocks to his aesthetic sensibility.

Rome is still, as it has ever been, the one city in the world whose pleasures for the open-eyed pedestrian are unlimited. Palaces dating from the best years of the Renaissance still remain scattered over the city; others that are less remarkable, but hardly less meritorious, on the whole, are simply unnumbered in the records of the city; and there is probably no city of its size and density anywhere which has so many ravishing little gardens, bits of green, with fountains and flowers, that nestle within the very heart of stone walls and ringing pavements. Beneath the writer's window, in a house that would hardly be suspected of it, there plays all day and all night a great splashing fountain, and around it are trees and heavily laden flower-bushes. This scarcely savors of the utilitarian vandalism with which Roman landlords have been loosely charged, as though they were unwilling to leave a foot of Roman soil free from some money-getting construction. The truth is that the Roman land-owner, with all his sins, shows uncommon moderation and sagacity where his American prototype would often spare nothing to bring in rents. The Roman builder has much to learn. The apartments in which seven-eighths of Rome live are never quite perfect. You pay as much as 130 or 150 francs, and even more, for an apartment, and then it is either too big or too small. But that is neither here nor there. The main contention is that the condemnation of the Roman house-builder as a malicious Philistine is unfair and should cease.

People visit Rome once in two years or ten, and when they come the second time they want to find that Rome has stood still. The Tiber provides a most interesting case in point. Loud has been the foreign outcry against the new embankment. It was denuding the banks of all their old lazy growths, of all their mossy greens, of all their strange dilapidated charm. Dilapidated fiddlesticks! Is Rome to preserve a source of danger to health and life in order that the occasional tourist may gratify his sense of the picturesque? It would be hard to imagine a sillier demand, and especially in view of the handsome walls which have risen on the sides of the Tiber. The new stone bridges deserve the same commendation. They are stately, dignified monuments open to no adverse criticism. When the Ponte St. Angelo is put in order (as is being done rapidly) the unsightly iron structure now in use will be removed. Flowing at last between banks worthy of its fame and under bridges that cast no fantastic shadows, the river will have in the long run the "entourage" which it deserves. Fancy the Seine and the Thames without their embankments! As great modern cities, Paris and London recognize their obligations toward themselves and keep their possessions in order. For Rome to lag behind would be anything but characteristic of her name. New York was probably more picturesque as it emerged upon the vision of the first incoming sailors than it is now; but should that have deterred the municipality from strengthening the Battery with stone? Some humorist of the sentimental sort might as well ask that all dock improvements should cease, in order that visitors from Europe may see what America can do in the way of artistic dilapidation along her principal water-front.

The failure of Prince Borghese and the subsequent administration of his estate by the Government have wrought some really unhappy changes. In the Villa Borghese bicycle races are run, there is a

café, and on Sundays the lower classes invade the place, leaving shabbiness in their path. The quiet, well-kept beauty of the place is gone. It is unkempt and unlovely. On the Pincio an elevator has been introduced. It conveys passengers up beside the Scala di Spagna and its supports look grotesque enough, thrust out within a stone's throw of the obelisk. It would be futile to deny that Rome has lost and is losing elements of her grandeur. She has been losing them ever since she began to have a history. But they are inexhaustible. The recuperative power of the great mother of nations is boundless; she shows at this moment no signs of approaching decay, and the hysterical solicitude of those of her admirers who forget these facts need awaken no material apprehensions. — N. Y. Tribune.



AMERICAN INSTITUTE OF ARCHITECTS.

A MEETING of the Executive Committee of the American Institute of Architects was held in the Institute rooms and those of the New York Chapter, on Monday, August 13, at 3.30 p. m. In the absence of the President, Mr. D. H. Burnham, Mr. Edward H. Kendall was elected Chairman and the reading of the records of the last meeting was dispensed with.

The Secretary reported that he had received applications for charters from the Southern California, Washington State and Brooklyn Chapters, each of which had submitted a copy of its Constitution and By-laws, all of which were approved and charters granted.

As a result of the last letter-ballot, the following were declared elected Fellows of the American Institute of Architects: William G. Malcomson and William E. Higginbotham, Detroit, Mich.; William Warren Sabin, Cleveland, Ohio.

The following persons having made application in due form, endorsed by the officers of their several Chapters, were provisionally accepted as Fellows: John Ludwig Wees, Joseph Paul Annan, Louis Mulgardt, Craig McClure, Alexander M. Stewart, William Henry Foster, Alfred M. Baker, Frederick Widmann, Caspar Dethard Boisselier, Robert William Walsh and Edmund A. Manny, St. Louis, Mo.; Edwin S. Radcliffe, Duluth, Minn.; Charles T. Mott, Brooklyn, N. Y.; D. C. Ernest Laub, New York, N. Y.; George L. Morse, Brooklyn, N. Y.

The Secretary was directed to issue a letter-ballot with a slight variation in its form to enable the use of the Australian system of voting.

The Secretary was directed to submit to the next meeting of the Board of Directors a form for Chapter reports.

The report of the committee to consider the relations of the Chapters to the Institute was received with suggestions as to amendments to the Constitution and By-laws, and the Secretary was directed to issue a letter-ballot on the former and print the latter and send it to the Fellows of the American Institute of Architects not less than thirty days before the next annual convention.

Circular of Information No. 1, with reference to the next annual convention to be held in New York, October 15, 16 and 17, was submitted and order of proceedings discussed.

The progress of the Bill to regulate the designing of Government buildings and the status of the claim of the heirs of the late Thomas U. Walter, L.L.D., were reported upon.

Adjourned. ALFRED STONE,
Secretary American Institute of Architects.



[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

DETAILS OF THE CITY-HALL, PATERSON, N. J. MESSRS. CARRÈRE & HASTINGS, ARCHITECTS, NEW YORK, N. Y.: FOUR PAGES.

[Issued with the International and Imperial Editions only.]

PERHAPS the most useful and interesting illustrations that an architectural journal can publish, are really good detail drawings and though these are but fragments of a deserving whole, we believe our readers will examine them with satisfaction.

THE HARRISON OFFICE-BUILDING, PHILADELPHIA, PA. MESSRS. COPE & STEWARDSON, ARCHITECTS, PHILADELPHIA, PA.

THE building is to be twelve stories high, the style of architecture being the French Renaissance of the period of Francis I. The basement, with concrete foundations, will be twenty-one feet deep, and will extend under the sidewalks. It will be divided into two stories, the lower one for machinery, dynamos, etc., and the rear one

for boilers, coal, etc. The twelve stories above ground are to be arranged to be divided into offices to suit tenants, and will be reached by three high-speed elevators. The offices will be abundantly lighted from all sides of the building, the number of windows exceeding four hundred, all of plate-glass.

The structure is to be fireproof, and will be what is termed a steel-frame building. The steel skeleton of columns and beams will start at the bottom of the cellar, and will be anchored down and thoroughly braced its entire height against wind-pressure. Every steel member of this skeleton will be encased in terra-cotta, and the outside walls on all sides will be entirely of large blocks of terra-cotta of the full thickness of the wall. In this last respect, it is said, the structure will be the first of its kind, terra-cotta for outside walls having hitherto been used only as a trimming or facing for brick. The terra-cotta will be of a light buff-gray color.

With the exception of the entrances and second story, which are richly ornamented, the façade is to be plain and massive up to the overhanging balcony at the tenth floor. The whole building is to be crowned by a steep roof of light green slate, and surmounted by two great chimneys and high, copper finials.

The building is forty feet front on Market Street and one hundred eighteen feet on Fifteenth Street, and is just one hundred fifty feet high from the pavement to the roof ridge.

Two things, the architects say, are unique in the design — first, the whole building, being high and narrow, has been given a very slight entasis. The other novelty in high building in Philadelphia will be the treatment of the wall adjoining the neighboring property to the westward. This façade will be of the same material, and is as carefully designed as the others, though simpler.

THE IMPERIAL APARTMENTS, MINNEAPOLIS, MINN. MR. H. W. JONES, ARCHITECT, MINNEAPOLIS, MINN.

HOUSE FOR SMITH COLLEGE, NORTHAMPTON, MASS. MR. W. C. BROCKLESBY, ARCHITECT, HARTFORD, CONN.

DINING-ROOM IN THE HOUSE OF J. H. GIBBS, ESQ., BROOKLINE, MASS. MR. EUGENE L. CLARK, ARCHITECT, BOSTON, MASS.

[Additional Illustrations in the International Edition.]

THE FLORIDA STATE BUILDING, WORLD'S COLUMBIAN EXHIBITION, CHICAGO, ILL.

[Gelatine Print.]

FLORIDA was one of the few States which carried out the suggestion that each State should provide a building typical of and peculiar to itself, by providing for her citizens a reproduction of the old fort at St. Augustine.

COMPETITIVE DESIGN FOR A WATER-TOWER AT HALLE, PRUSSIA. HERREN VON KNOCH & KALLMEYER, ARCHITECTS.

This plate is copied from *Architektonische Rundschau*.

"LA MUSE DE LA SOURCE." M. JEAN HAYNES, SCULPTOR.

This and the companion illustration, which were exhibited at the last *Salon*, are copied from the *Builder*.

"LES ADIEUX D'UNE HIRONDELLE." M. FÉLIX CHARPENTIER, SCULPTOR.

"WHEATFIELD LODGE": THE DINING-ROOM, HEADINGLEY, YORKS, ENG. MR. T. BUTLER WILSON, ARCHITECT.

"WHEATFIELD LODGE": THE STAIRCASE, HEADINGLEY, YORKS, ENG. MR. T. BUTLER WILSON, ARCHITECT.



BOSTON, MASS. — Annual Summer Loan Exhibition of Paintings; also, New Acquisitions to the Print Department: at the Museum of Fine Arts.

CINCINNATI, O. — Special Exhibition of Paintings: at the Art Museum, during September.

NEW YORK, N. Y. — Second Annual Summer Exhibition of American Paintings: at the Fifth Avenue Art Galleries.

Twenty-sixth Annual Spring Exhibition: at the Metropolitan Museum of Art, opened May 8.

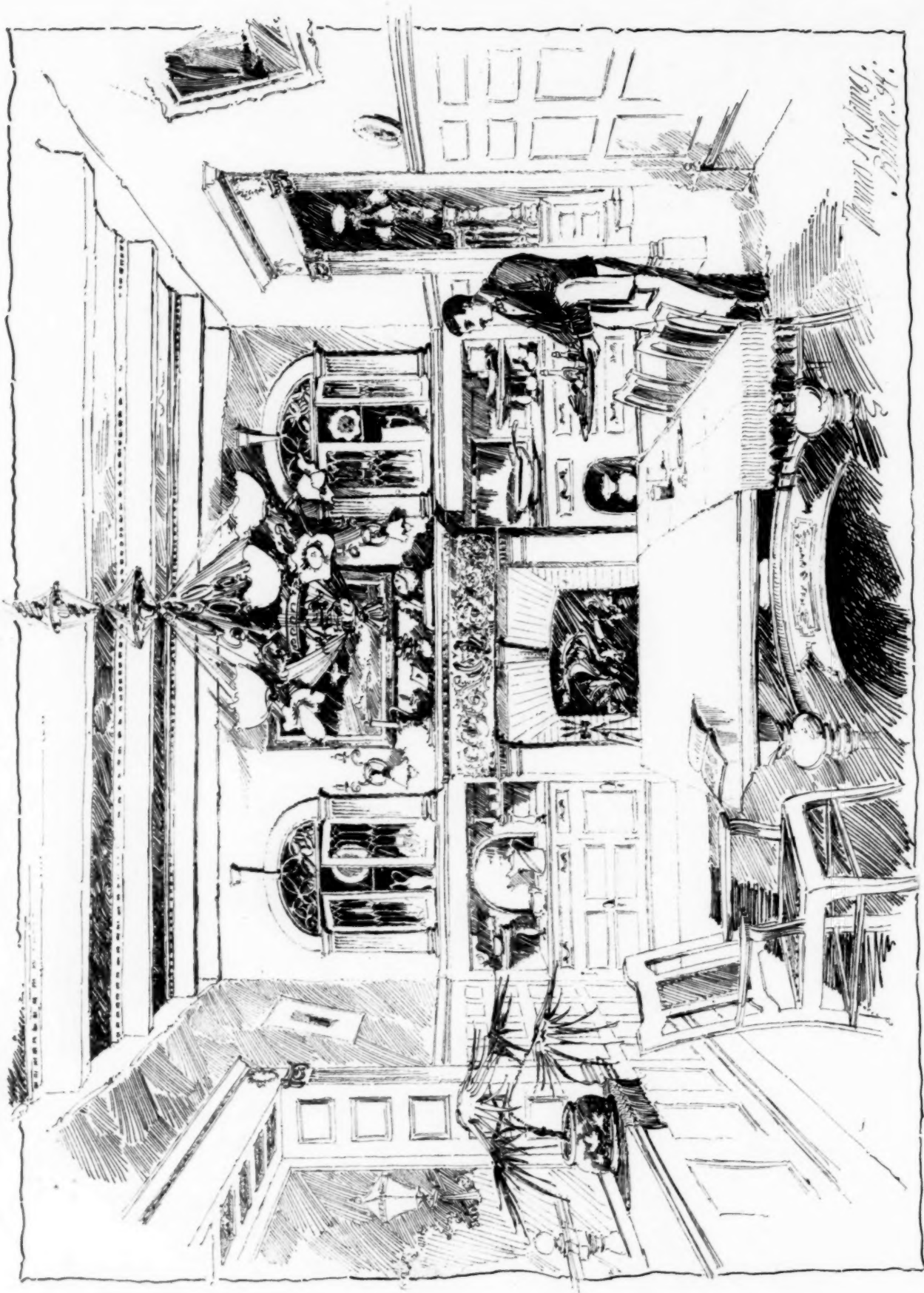
Group Exhibition by American Painters — William M. Chase, J. Alden Weir, Childe Hassam and others: at the Galleries of the American Fine Arts Society, 215 West 57th Street.



EXPERIMENTAL CREMATION OF GARBAGE IN CHICAGO — A crematory company on Webster Avenue, Chicago, called the Anderson Pressed Brick Co., asked the city department about three weeks ago to haul to their works all the refuse they could find for a week. This was done. It arrived by the wagon-load, over 3,000 tons per day. Cars containing twenty tons each of this cholera-mixture were drawn by cable into the Company's two tunnels, where, after two-and-a-half hours, the cars were drawn out. One car would have carried with ease the pure white ashes that were left upon the entire train. The shoes and nails of the dead horses and pieces of scrap iron were invisible. Everything had been reduced to fine white ashes, and this without the smallest offensive odor. The process is simple. Two firebrick tunnels, twenty fireproof flat cars and a heat such as his Satanic majesty would turn green with envy, could he witness it, are all that is required. Fast as one car is drawn from the tunnel and swept by an automatic process of what little hot ashes remain, it is shifted to the second tunnel, loaded by means of a chute with garbage, drawn into this tunnel and the cremation begins. These two trains go in opposite directions, so there are always two cars being loaded and unloaded at the same time, one at either end. A peculiar condition that the spectator witnesses is the uncoupling of the cars; they are never hot. A workman, in fact, can crawl through the tunnel under the cars easily, where the heat is never over seventy degrees, while on top of the cars where the garbage is, it is over 3,000 degrees. When the car newly-loaded is drawn into the tunnel it encounters a heat of 212 degrees. Here it undergoes a drying-process, and the gases generated are by suction drawn through the tunnel to its centre. There they encounter an intense heat, and are consumed and made to increase the fire that burns them. As the car is slowly drawn through the tunnel the heat increases, and by the time it reaches the middle of the tunnel, where the walls are at a white heat, the garbage is thoroughly dried and comes in contact with a fire fed by crude petroleum, which can be injected from both sides by compressed air. The petroleum, together with the gases generated from the garbage itself and the injection of compressed air, produces a temperature of 3,000 degrees Fahrenheit, through which nothing combustible can pass without burning to ashes. — *Plumbers' Trade Journal*.

THE BELLS OF SAINT MICHAEL'S, COVENTRY. — The history of church-bells presents many remarkable incidents, and the parish of St. Michael's, Coventry, has added another which appears to be unique. As has happened elsewhere, the bells caused strains which the tall steeple could not resist, and in consequence there was a costly restoration. During the operations the bells were removed, and there were apprehensions that if they were allowed to swing uproariously as of yore another restoration would be inevitable. As Cowper says, there is in souls a sympathy with sounds, and some of the parishioners appeared to be afraid they would cease to be devotional unless they were called to prayer regularly by the old chimes. Accordingly, it was resolved to erect a lofty campanile in order to provide for the bells. Some of the promoters of the restoration were dissatisfied because the scheme had assumed a new character, and withdrew their support. But, on the other hand, promises were made which denoted remarkable munificence. One gentleman, the late Mr. Woodcock, appeared prepared to pay a sum which is described as varying from 5,000*l.* to 35,000*l.* His death caused the collapse of the campanile project. The bells are still on the ground, affording amusement to young campanologists, who are able to kick occasional sounds out of them, and there is no money to raise them to their old position. Mr. J. O. Scott, who had charge of the restoration, considers that, while it would be very unwise to ring the bells in the steeple, there is no danger in chiming, and with that opinion Messrs. Taylor agree. The simplest course, under the circumstances, would be to subscribe the two hundred pounds which are required for the rehanging, and for an important parish like St. Michael's, that end ought to be soon attained. But, strange to say, some of the parishioners have a hankering after the campanile, while others profess to care little for bells that are not in full swing. — *The Architect*.

DEATH DUTIES AND ART PRICES. — The sale of the portrait of Lady Betty Delmé by Sir Joshua Reynolds, for which there were biddings up to 11,000 guineas at Christie's recently, raises some interesting questions in connection with the death duties. The portrait was bequeathed, with the other family portraits, to Mr. Emilius Charles Delmé Radclyffe by his uncle, Mr. Seymour Robert Delmé, lord of the manors of Cams Oysell and Titchfield, Hants, who died in March last, leaving personal estate which was valued for probate at £40,191. In this valuation it is hardly likely that more than £1,000 was put upon the picture for which such an extraordinary price was bid, and it is probable that the Somerset House authorities will now, in this instance, claim probate and estate and legacy duty on the balance. It is not often that any claim of this kind is made, although the difference between the valuation for probate and the selling-price, not only of works of art and household effects, but of leasehold properties and shares in adventures for which no stock-exchange quotations are obtainable, is sometimes great. The contents of a mansion were valued for probate at less than £2,000, and a small part of them were sold not long since for more than £20,000. For the leasehold interest in a suburban house and its grounds, valued at £5,000 for probate, an offer of £7,500 was refused. Shares in unprosperous speculative companies valued at a shilling or sixpence each, or at nil, occasionally find buyers after negotiation at 5*s.* or 7*s.* 6*d.* each. If the inland revenue authorities had the power to take over any properties they chose at the probate valuation, plus, say, 10 or 15 or even 20 per cent, they could often make a handsome profit on the resale. — *Westminster Gazette*.



DINING-ROOM IN THE HOUSE OF J. H. GIBBS, BROOKLINE, MASS.

EUGENE L. CLARK, Architect.

"HARRISON OFFICE BUILDING"

PHILADELPHIA, PENN.

COPE & STEWARDSON, ARCHTS.



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