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The

Architectural Record.

VOL. I.

JULY-SEPTEMBER, 1891.

No. 1.

BY WAY OF INTRODUCTION.



NEN play the hypocrite oftener with their purposes than with their actions. It is in the obscurer field that we keep most jealously not only what friend Nym styled "the behavior of reputation," but most frequently affect reputation itself. There is, perhaps, no occasion—unless we find a parallel in politics—where the temptation to parade purposes, to spread before the world a rich Barmecide feast of virtue and good intention is stronger than in introducing to the public (with interested motives) a new publication. Few publishers can be brought to feel particularly grateful to an editor for even a restrained frankness on such an occasion. No wider candor is permitted than Sganarelle's: "I am not so scrupulous as to tell you the whole truth." We know of no publication started avowedly for the sordid but yet not disreputable purpose of making money. True, in making the venture a measure of financial success may have been hoped for tacitly, as not unwelcome or inconsequential; but, of course, if it came, it was merely because from of old it is not permitted that the righteous shall be forsaken or their seed beg their bread. The printing press always is set in motion to publish some new gospel, to restate some old one unheeded, to vindicate some human right tyrannized over or despised; but for gain—never. The printing press should not have left

the precincts of the church; unless, indeed, there came to be too little room for it there; which, if everything stated be exactly true, is plausible.

We hope this frankness has not cut the ground from under our own feet; for we want to say that **THE ARCHITECTURAL RECORD** is a publication with somewhat of a purpose over and above a purely commercial one. This is due to the very character of the field which the magazine must occupy, as well as to intention. The field is one which must be entered with serious purpose or not at all. To amuse the public with Architecture, obviously is out of the question. Not that the art, as practised at present, is without a ludicrous side, or is free from rare little bits of humor, grotesqueness and caricature; but unfortunately there are so few who would perceive or appreciate the fun that the publisher will be the only one who will pay for the joke. As to merely recording—so often in a blunt, free, indiscriminate way—contemporary work popularly classed as architecture, that task already is even too abundantly performed by numerous weekly publications. Only the higher field is unoccupied; but in this country, perhaps more than in any other, entrance into this higher field imposes serious responsibilities; for therein one is brought face to face with the gravest and least assuring facts of our national life. If, as Amiel says, the measure of a civilization is the number of perfected men that it produces, if the test of every religious, political or edu-

cational system is the men which it creates, what judgment must we pronounce upon American civilization and the institutions and systems under which we live? It is true that we have judged—but from a point of view quite different from Amiel's—the civilization of our day and country according to principles which we regard as fundamental and durable enough; and we find alike complete justification of it, and ample promise for the future in the great gospel which the Census Bureau gives us from time to time; in tables of exports, statistics of manufactures and other arithmetical statements. The danger really is that our judgment may not be as securely founded as we think it is. Perhaps Amiel, dreamer so indifferent to tabulated civilization, idealist so keenly sensitive to the spiritual side of life, may be closer to the truth than we are; and by insisting upon the character of the man produced by a civilization as the test of that civilization's worth and true position in the moral world, which is God's, set up the real abiding standard by which, in the course of things, nations are judged.

But, it may be said, this is merely emotion set to a dithyrambic key; the material facts of life are, after all, the most important, and Brillat-Savarin had hold of a wider truth than Amiel's when he said "the destiny of nations depends upon the manner in which they feed themselves." Besides, is not George William Curtis an apostle of light, and has he not told us that "the railroad is the culmination of civilization?" No doubt there is something of a truth in the Chinese belief that the stomach is the seat of the understanding. We would probably have little philosophy if it accompanied a really empty belly, and without an ample command of material possessions the greatness of no nation would have arisen into the "sunlit heights." But assuredly no nation ever became great solely by reason of its material prosperity, and such mental activity as finds a congenial environment in goods and chattels, and what Sir Thomas Browne called the "vulgar parts of felicity."

No, there are serious reasons for doubting that the railroad is the culmination of civilization. The steam engine has given us a wider touch with life, no doubt; but has it given us a finer? In no country, and at no other time, has mere existence been so full, so abundantly provided for as in this country at the present moment. Ours is no anæmic existence trembling with the fear of pauperism; but one to which the seasons are husbandmen whose harvest field is a continent. On the other hand, is there a civilization on the face of the earth as uninteresting as ours, as completely material, as lacking in dignity and distinction, as vulgar, commonplace and shabby? President Eliot calls vulgarity our national disgrace, and the saying is sufficient.

All this has been said before repeatedly; it is old enough. The pity is it is so old. We have been unperceptive: we have become indifferent. We can hardly believe that what President Eliot says is true: our self-complaisance is so fat and well fed. With that Prince of the Bourgeoisie, M. Jourdain, we exclaim, "Il n'y a que des sots et des sottises ma femme que se railleront de moi." Of course. Those who laugh at us are fools, and we need not come into contact with other people if they be disagreeable. We have a continent to expand in, and great blaring newspapers that have no doubt about our peculiar admirableness. How fortunate we would be if self-laudation could ever be in the right key. But it is always too high or too low; it never harmonizes exactly with our feelings, and though our newspapers and all who love the popular tone may praise us, though Mr. Curtis may assure us, in the very language of "one of the prophets," "that the railroad is the culmination of civilization;" something akin to that saying of Amiel's will sing through it all: "the test of every religious, political or educational system is the man which it forms," and rob us of the fullness of our satisfaction. Yes, it is better for us to leave the newspapers; go over at once to President Eliot and accept his judgment about ourselves.

The vulgarity of which he speaks—not the vulgarity of table manners, but a spiritual coarseness which in the “familiarity between the mind and things” reveals itself in our social life, in our politics—that malodorous subject—in all our activities, wherein we pass aside from the “dignity of humanity”—this vulgarity we believe is the chiefest obstacle in the way of the greater number of the reforms for which pulpit, press and platform are working. For there is no deficiency of intelligence among our people. It is feeling that is lacking—right feeling. Upon a certain side of life their sensitiveness is dull. That unfortunate man who spoke the truth probably recognized this fact from his position when he declared the purification of politics to be an iridescent dream. So it is; so it will be until people become keenly sensitive to how dirty, contemptible, vulgar our political life is. Are not the facts of that life known by heart to-day by everybody? They are not rightly appreciated, that is all. So it is in social matters, commercial life, and even within the field of religion.

Whence, then, shall we look for assistance? That becomes the important question. We have no hesitation in answering that it is to Art we must turn—only in that direction does hope for us lie. If the pressure of life did not make as strongly as it does towards the cities, it might be necessary to give the greater importance in the work of reformation to Religion; for, in the history of the race, Religion, apparently, has found its most favorable environment in rural habitations; as though Nature held a fuller and clearer revelation of Divinity than the works of man. The city, however, has been the favorable environment of Art. There only has it thrived and reached its completest expression. Another consideration there is—which makes us regard Art as the ark of salvation—conditions in this country are making more and more strongly than hitherto for Art. Our people are becoming the rich men of the earth, their manner of living more sumptuous and leisurely than ever.

At present Art with us means little more than decoration, an appendage and circumstance to tradesmen's prosperity. Nevertheless, it has a vital position, though a degraded one, in the lives of our people. What has to be done is to give it its proper position, to reveal its divinity, to make people feel that Art is not merely decoration, the legitimate function of which is to make a fortune conspicuous; but is the light breaking in upon us from the perfect world beyond our day's circumference; “the fruitful voice of God” revealing to us “what we are but in hopes and probability.”

Art has only one revelation, but many forms. Whether it be Poetry, Music, Sculpture, Architecture, the spirit that speaks is the same, the message to us is the same. They make alike a similar demand upon us for truth, integrity of purpose, seriousness, nobility. They are eminently aristocratic, not with the aristocratic spirit of a regime, with its rise-Sir-Knight formula, but in the loftiness of the higher nobility whose allegiance is given to Truth.

But though the message of Art in all its forms is the same, in some it is more interesting to us than in others; and there are many good reasons why at this moment the people of this country could be more seriously interested to a greater degree in Architecture than in any other of the arts. In the first place it is the most practical, which fact should have much weight with a people so practical as we are. It waits upon, or more properly speaking it accompanies, utility. Compared with Painting, Music, Sculpture, or even Literature, its field is wider than theirs; it touches Life, our common daily Life, at so many more points than they do. It needs no stage, special setting or circumstance. It is content to occupy our streets; bend itself to our commonest circumstances and conditions, dignify the meanest materials, illuminate so many of our ordinary necessities. It is the only art which commerce and trade in a degree foster, necessitate, and even welcome as a graceful auxiliary. Civic pride, commercial prosperity, the ostentation

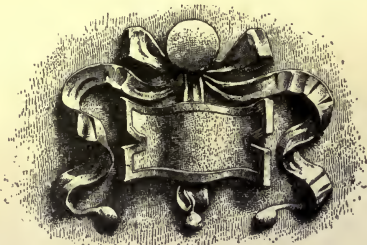
of individuals create an occasion for it. True, Painting, perhaps, has a more popular language than Architecture, and Music one that is more intimate and enticing; but Architecture appeals to the public in a manner so much more frequent, conspicuous and insistent than either that, if it be not, it might easily become the more readily understood.

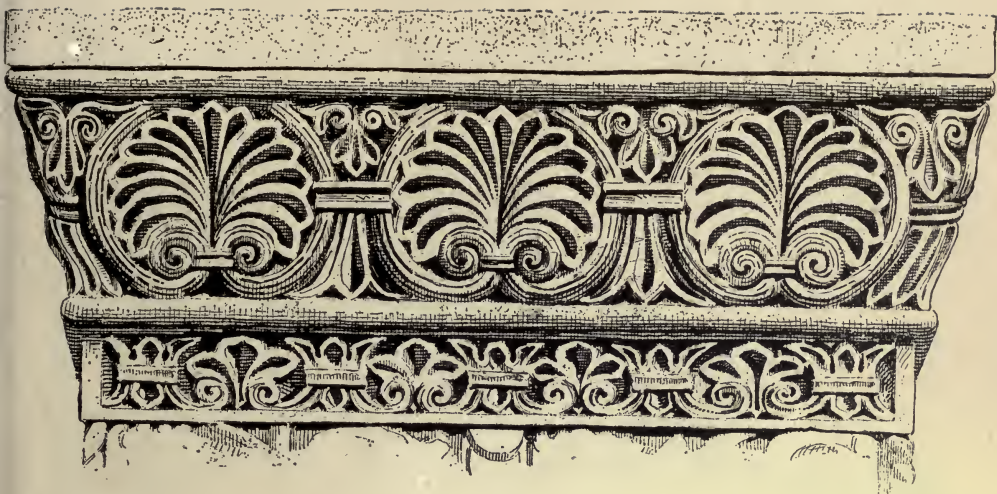
The difficulty is that people generally are so ignorant of even the A, B, C of Architecture. The meretricious accidents of the art—mere size, ornateness—the barbaric qualities which dazzle and impose upon the popular mind, are so exclusively appreciated that the essential, lasting and really veracious manifestations of the art are overlooked. With Music and with Painting the daily press does something after its peculiar manner to lead the public and prompt a habit of selection which, while not over nice or too judiciously exclusive, is to some extent educative. But with Architecture no work of the kind is done. Of late the magazines have given some attention to it, but even if continued the effort is too intermittent and cursory to produce results of much importance. A more persistent attempt is needed to build up “a pile of better thoughts” sufficient to be fruitful in great effects, and that is the work which, in really a humble frame of mind, the

projectors of THE ARCHITECTURAL RECORD now undertake—not pedantically or after the manner of the pedagogue, but popularly, illustratively, even tentatively, as a traveler sets out for a destination not immediate nor lying at the end of a well-defined, direct and visible route. The road in part has to be discovered, and in the search, which is to be progressive, our readers are asked to accompany us. While keeping close to the invisible presence of the Ideal we must not lose touch with what exists, what each day brings forth, with the unavoidable and limiting conditions of our time. No effective work can be done by cutting adrift from what is. Reformation must be *from* what is and not *against* what is. Artificial progress, there is enough of it. We must not forget that the “genius of each race brings forth its best products only when it works in harmony with the laws of its own nature, expressing without affectation the ideas and sympathies excited by immediate contact with the facts of life.” The facts of life! How inexorably, how tyrannously even the commonest of them demand recognition, and how many the aspirations and noble efforts which they have broken as glass, leaving only a sound like music to linger in the silences of life.

“Cross a step or two of dubious twilight,
Come out on the other side, the novel,
Silent, silver lights and darks undreamt of,
Where I hush and bless myself with silence.”

Harry W. Desmond.

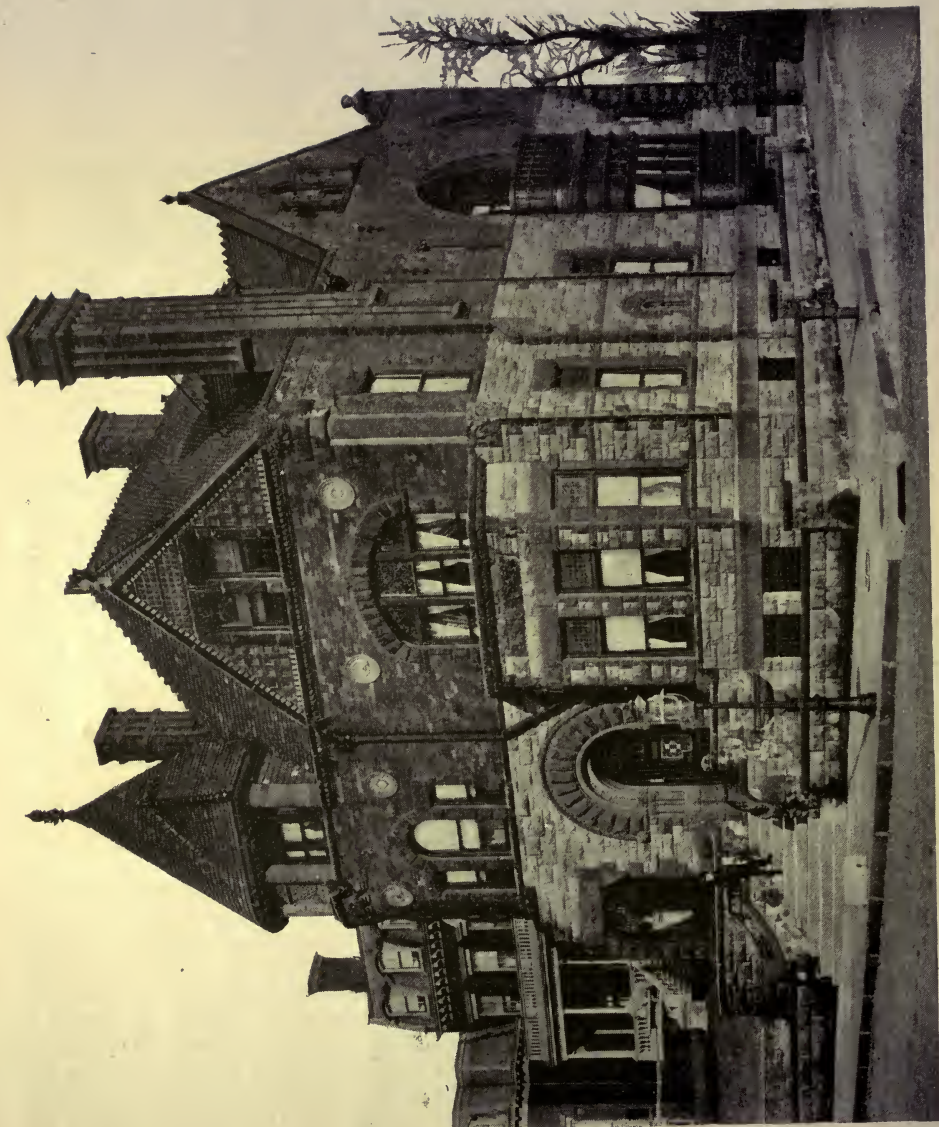




THE ROMANESQUE REVIVAL IN NEW YORK.

IT is an unusual comfort in architectural history or in architectural criticism to find a word denoting a style, about the meaning and the applicability of which there can be no question; and such a word is Romanesque. Almost every writer on Gothic architecture has to begin by defining his terms, even if he does not begin by quarrelling with the accepted terms. The latest of these writers, and one of the ablest and most instructive of them, Mr. Charles Herbert Moore, finds himself compelled, while accepting the word Gothic, in spite of the objections of the English critics who for a generation or two have been vainly trying to substitute "Pointed," to use the word in a somewhat esoteric sense, and so as to exclude a majority of the buildings that have been commonly and loosely classified with those to which he proposes to restrict the term. But with regard to Romanesque there is no difficulty and no ambiguity. Historically, it is that manner of building which came to prevail over Western Europe after the fall of the Roman Empire, which was directly or indirectly inspired by Roman examples, and which is yet not Roman but Romanesque. The

building of Europe came to be Romanized as its law came to be Romanized and as its languages came to be Latinized, and fallen Rome had the same revenge upon its conquerers that vanquished Greece had had upon victorious Rome. The local modifications were wide and many, but the influence of Roman architecture is everywhere traceable. There is one Romanesque of Lombardy and another Romanesque of Normandy and another Romanesque of the Rhine and another Romanesque of Provence, the special seat of "Romance," but the building of Western Europe from the fourth century to the thirteenth, Teutonized or Gallicized as it may be, testifies unmistakably to its origin. Another concurrent and yet divergent movement there was from the same source, and it was that which determined the architecture of Eastern Europe and of Asia. The great gift that Roman engineering made to the world was the introduction and the technical development of the arch, including its derivatives, the vault, which is merely a prolonged arch, the intersecting vault, and the dome. These features were technically but not artistically developed; that is to say, the Roman treatment of them was engineering and not architecture. It was reserved for later gen-



HOUSE IN NEW YORK CITY.

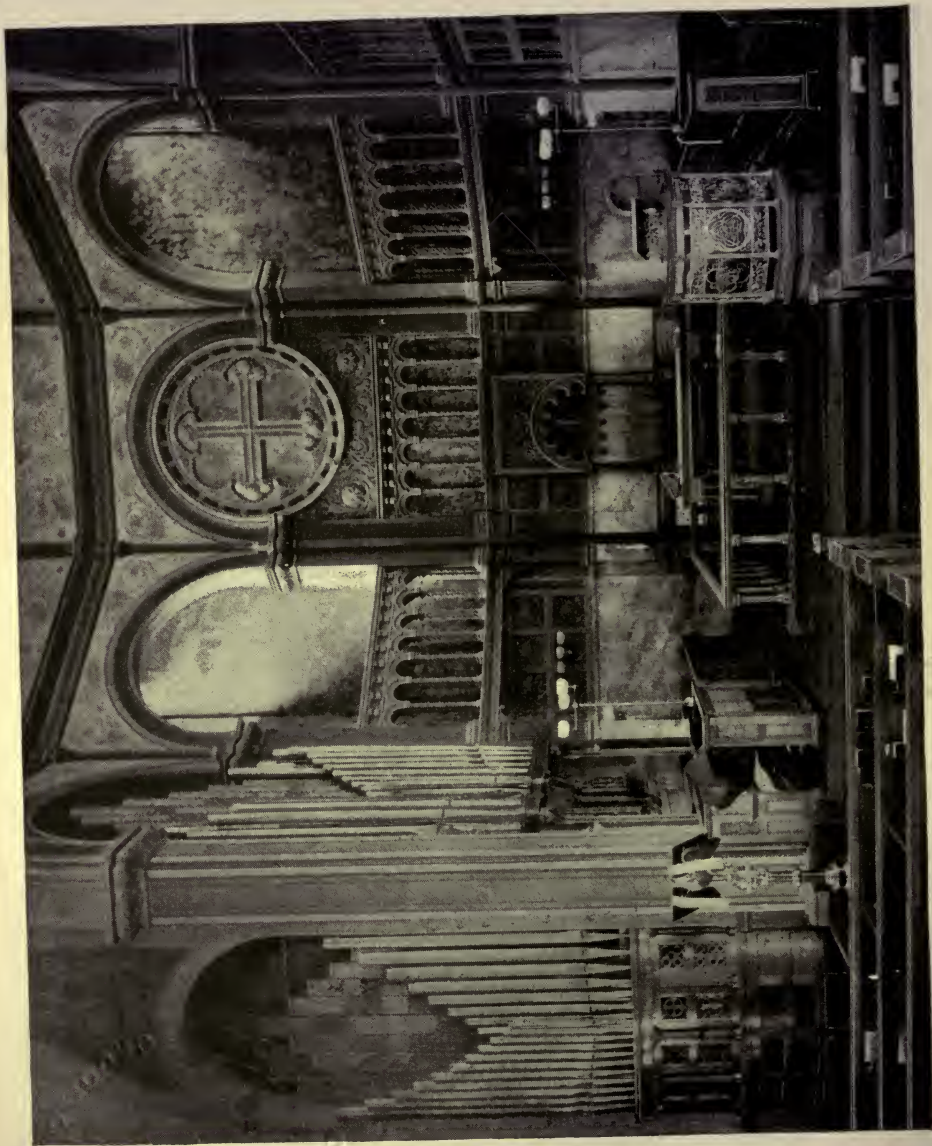
Frank Freeman, Architect.

erations to convert them into works of art, and the first step towards doing this was to omit the irrelevant ornament under which the Romans had concealed what they were really doing, and to develop the architecture of the structure out of the structure itself. The Romanesque builders of the West undertook this with the arch and the vault, and created Romanesque architecture. The Greek revivalists, as Viollet-le-Duc calls them, of the Lower Empire undertook it with the dome and created Byzantine architecture. From the former came the Romanesque monuments, which a later inspiration was required so to re-create into Gothic that but for the monuments that bear witness to the intermediate stages of the process we should never suspect that Amiens and Cologne were derived from the Roman basilica. From the latter, the true Greek Renaissance, came not merely by degeneracy the barbarism of Russo-Greek architecture, but by development the whole of Saracenic domical architecture, so that it is to the decline of the Roman Empire that we ultimately owe the architecture of the mosques as well as of the cathedrals, and but for the builders of Byzantium there would have been no Alhambra and no Taje Mehal.

We are fortunate enough to be able to establish with precision the very building in which each of these two great architectural currents had its source. The Palace of Diocletian at Spalatro, built at the end of the third century, was the origin of Romanesque, as the great church of Saint Sophia, built three centuries later, was to be the origin of Byzantine building. To the dilettanti of the eighteenth century the former edifice embodied the last debasement of Roman architecture. "We are informed," says the historian of the "Decline and Fall," "by a recent and very judicious traveler, that the awful ruins of Spalatro are not less expressive of the decline of the arts than of the greatness of the Roman empire in the time of Diocletian." It was reserved for a later and more discerning criticism to perceive that the change which, to the architects and the amateurs of a hundred years ago, was a

mere corruption, was in fact the mark of life and progress, was a change which, as Mr. Street says, "at once revolutionized all existing architectural laws;" which, as Mr. Freeman says, "was the greatest advance that a single mind ever made in the progress of the building art." Mr. Freeman again is entitled to the credit of being the first historian of architecture to appreciate it in full, as he is the only one who has had the insight and the courage to describe the classical Roman architecture as being, what in truth it is, a transitional style, "a transition from Grecian to Romanesque, from the consistent system of the entablature to the consistent system of the round arch."

Great as the change was, it was very simple, and was the result of analysis applied to the elements of the Roman monuments as it had never been applied by their builders during the high and palmy days of the Empire. On the exterior of their arched walls the Romans had applied the Greek orders, and superposed them as many times as the building had stories—for the "colossal order" that included several stories was a device reserved for the Renaissance of a thousand years later. In their vaulted interiors, they had retained a piece of the entablature over the column that supported the vault. What the builder of Diocletian's palace did was to perceive that the entablature into which the lintel was developed in Grecian architecture was superfluous and meaningless in an arched building and to act upon his perception. Obvious as this discovery is, it was not made by the Roman builders of the "classical or transitional" period, and it is not applied even yet in the schools of Europe which still go on inculcating and repeating in official architecture the hybrid of which the final cause was the æsthetic insensibility of the Roman builders. The builder of Diocletian's palace omitted the entablature, retaining the column and restoring to it the significance it had lost in the applied orders of the Romans by springing the arch directly from its capital. That this should be done with some awkwardness was inevitable in a first essay.



INTERIOR, HOLY TRINITY CHURCH,
Lenox Avenue and 122d Street, New York City.

William A. Potter, Architect.

In some places the arch itself is but a bent entablature; in others the entablature is retained under the arch, an arrangement which is at least more eligible than that of the classical Romans, whereby it was put over the arch, and the strong thing protected by the weak thing. Nevertheless, the building bears the first evidence in Roman architecture that its designer reasoned upon what he was doing; and it is as purposeful as it is rude. It is doubtful whether it is not its purposefulness as much as its rudeness that has led the modern classicists to look upon it as the work of a decadence rather than of an advance; for it was the living and fruitful germ of all the architecture of Western Europe for the next millennium.

Romanesque architecture, then, as distinguished from the classic that preceded it and from the Gothic it preceded, is that architecture in which the Roman elements of the column and the round arch are disentangled from the Grecian elements which were rendered obsolete by the introduction of an arched construction, but which, in spite of having lost their meaning, had lingered on as survivals during the whole of the Roman classical period. In Romanesque these elements are employed with purpose and meaning, and the architecture of a building becomes again, as in Grecian days, the development and decoration of its structure, with this difference, that the functional modeling which in Grecian architecture is confined to the portico is in Romanesque extended to all the parts. It is this rationalizing of its elements that distinguishes Romanesque from Roman. But throughout the Romanesque period the elements derived from Roman architecture maintain a separate existence. The column, even when employed as a decorative nookshaft, even when multiplied, and grouped with reference to the differentiation of the structure it supports, or when attached to a pier for the same purpose, continues to assert itself as an independent member. It was only when the development of vaulting, incidentally involving what is commonly called the "invention," but should rather be called

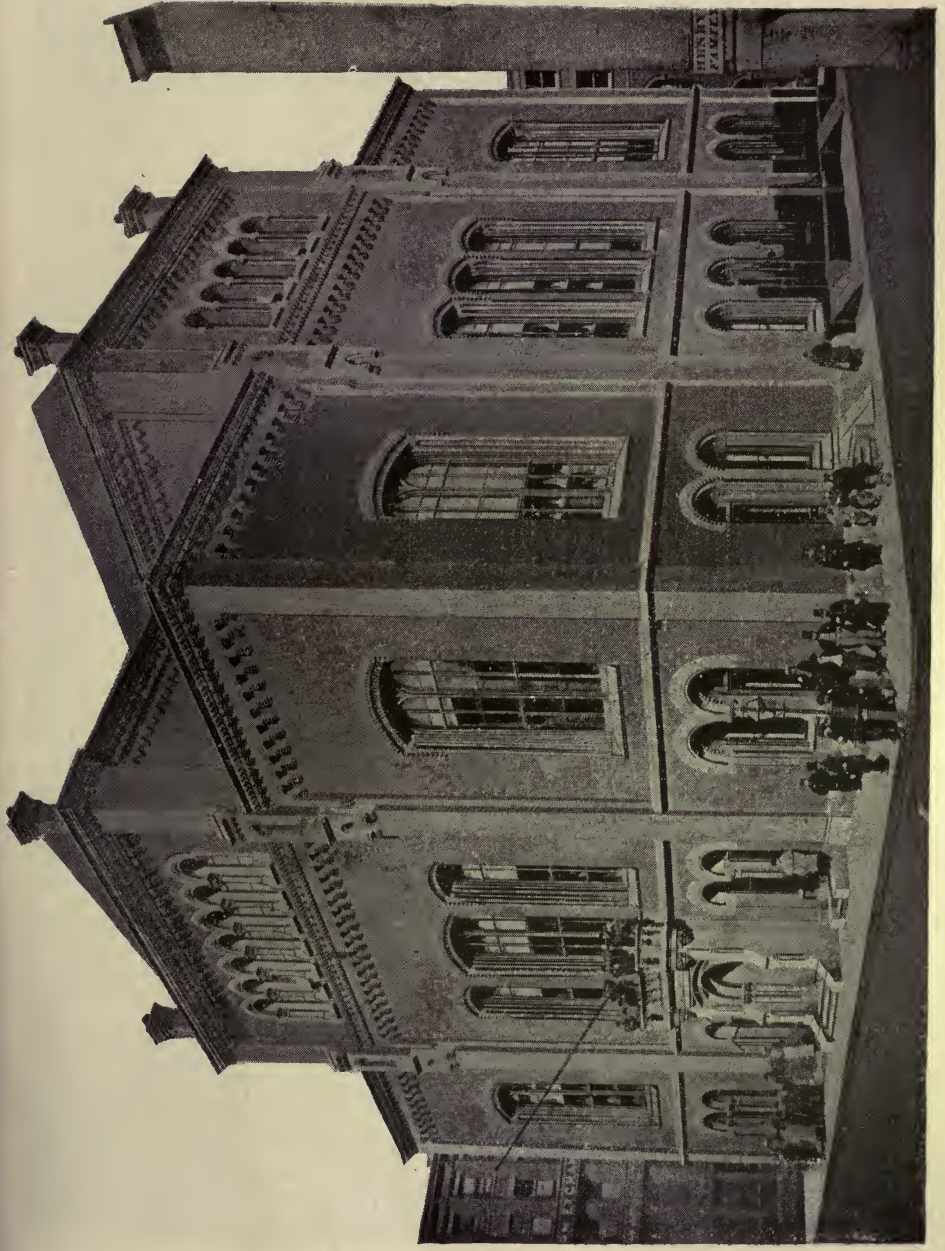
the evolution, of the pointed arch, had been carried so far that equilibrium was maintained by the opposition of active forces and not by the mere inertia of brute masses, that the column and the clustered column gave way to the modelled pier, in the modelling of which every member of the vaulted superstructure was represented and foretold, that Romanesque became Gothic, was "re-created" into Gothic, to use the expression of Mr. Charles Herbert Moore, who has given the most comprehensive and interesting account extant of this process of transition.

These changes, the development of Romanesque as well as its re-creation into Gothic, were all the result of the effort to give an artistic expression to an arched construction by the functional modelling of its parts, and it is to this effort that is due the development of the forms that are now recognized as the badges of the style. Romanesque architecture succeeded in attaining such an expression in the simpler construction of arched openings in walls. Gothic attained it in the more complicated construction of arching over spaces, that is to say, of vaulting.

As this is not an historical essay, it suffices to point out this difference in order to indicate that, as we no longer build vaults, or perhaps we should say as we do not yet build vaults, that stage in the progress of mediæval architecture before the vault was artistically developed is perhaps the more fruitful of precedents applicable to the usual problems of the modern architect. Ever since the "plenary inspiration of Vitruvius" began to be called in question by English architects, and consequently by American architects, the earlier as well as the later stage of mediæval architecture has been studied and brought under contribution. In England the insular variety of Romanesque was naturally thought to comprise all Romanesque, insomuch that a generation ago any round-arched building that was evidently not classic was dismissed compendiously as "Norman." As a matter of fact, however, such of the earlier essays here in Romanesque as were of most interest were suggested

by examples of other phases of Romanesque, and resulted from the Romanesque revival introduced into Munich nearly sixty years ago. The Astor library was evidently enough inspired by Gärtner's design for the Royal Library in Munich. The criticism commonly passed upon the prototype is equally applicable to the later work. Though it is respectable and inoffensive, it is tame and ineffectual. St. George's Church, by Blish and Eidlitz, now nearly half a century old, is also evidently a result of the Bavarian revival, and owes its being to the Romanesque of the Rhine. It remains one of the interesting churches of New York, though the relative shortness is a defect in the general composition that the designers did not succeed in dissembling or mitigating, and the parts are of more value than the whole. The open spires, to be sure, are a development of later Gothic, though the towers that carry them are treated with a Romanesque massiveness; but the fine semi-circular apse is plainly suggested by the similar feature in the twelfth-century churches of the Rhine, of which its treatment shows an intelligent analysis. Mr. Eidlitz's Produce Exchange, for which neither its pretentious successor, nor still less the Army Building that now occupies its site, offers any artistic compensation, is as plainly as the church a proof of its author's studies in German Romanesque, and the very effective transeptual arrangement, with the arcaded attic in each of the faces, was as evidently a reminiscence of the works of that style as it was evidently an improvement upon them. The Brooklyn Academy of Music also testifies to its author's admiration for the Wartburg and for Barbarossa's palace at Gelnhausen. In commercial architecture, the American Exchange Bank and the Continental Bank, though many of their details are derived from German Gothic, belong in their general treatment and character to German Romanesque. The Continental Bank is much the more artistic and successful of the two. As an example of harmonious design, in which the lines are developed from basement to cornice, it

was not equaled in commercial architecture before the introduction of the elevator revolutionized that architecture, and it would be hard to show that it has been surpassed since. It would be hard, also, to speak too severely of the absolute insensibility to the fact that they were dealing with a work of art shown by all concerned in putting on the puerile and incongruous addition of two stories, by which the design is now obscured, and the building spoiled. In church-building various phases of Romanesque other than Norman have inspired other examples. So far as it need be classified, Mr. Wrey Mould's All Soul's Church, at Fourth avenue and Twentieth street, is a specimen of Italian Romanesque, of which also a church in South Fifth avenue, and another in Second avenue, near Twenty-third street, are faithful but tame examples. A more interesting example was furnished by Mr. Renwick in the design of St. Bartholomew's, which is noteworthy for the ingenious and generally judicious employment of color. In commercial architecture Mr. Harney's building at Bond street and Broadway, which dates back to the early seventies, though it cannot be called an example of Romanesque, constitutes a tolerably distinct reminiscence of the Norman variety of the style, and a very respectable building it is, in spite of its drawbacks of detail, and an oasis in what has lately become more than ever the dreary architectural desert of middle Broadway. The effect of that thoroughfare from City Hall Park to Grace Church is now more excruciating to a sensitive person than that of almost any other street in New York. It is only fair to remember that it was a very different and a much more respectable street some twelve years ago when Mr. Freeman visited our shores and took Broadway for an illustration of the application of Romanesque to modern exigencies, declaring that in it the main lines of the style were very happily reproduced. Though he added that he spoke only of the main lines, without committing himself either to detail or to material, and though Broadway then and Broadway now are two things, the saying remains rather dark. Mr. Free-



Whitehall Street, New York City.

THE OLD PRODUCE EXCHANGE.

Leopold Eidlitz, Architect.



Nassau Street, New York City.

THE CONTINENTAL BANK BUILDING,

Leopold Eidlitz, Architect.

man is historically, at least, if not æsthetically, our great authority on Romanesque, and he would not have made such a remark without a meaning. The meaning must be that Mr. Freeman has the happy and enviable faculty of not seeing what is not worth looking at, and if one could have confined his observation of Broadway twelve years ago to buildings that had an architectural interest he would undoubtedly have found the "main lines" of Romanesque very prevalent.

The remark, at any rate, indicates that there were strong men before Agamemnon, and that Romanesque was not unstudied or unknown before the introduction of what everybody who is at all interested in the subject recognizes as the Richardsonian Romanesque. We may paraphrase Mr. Freeman's saying about the architect of Diocletian's palace by saying that our own time and country have been witness to the most extraordinary and widespread influence ever exerted by one man in the progress of the building art, unless we except the work of Sir Christopher Wren. Certainly no architectural career so brief as Mr. Richardson's has been so nearly epoch-making. It lasted but little more than ten years; for the buildings he did on his return from Paris, before his association with Mr. Gambrell, had little that was distinctive, the earliest of them being reminiscences of his academic studies, and done after the strictest sect of French official architecture. The court house at Springfield, finished in 1876, and the North Church, done at the same place and time, were in many ways admirable and they were admired, but they did not exert any marked influence on the practice of American architecture. It was Trinity Church, Boston, that first established his position and gave him his vogue. That was finished in 1877, and its author died in 1886. His professional success was assured by that building, which is an unmistakable example of Provençal Romanesque, though the most striking and successful of its features, the central tower, was obviously enough suggested by the tower of Salamanca. The Provençal

Romanesque, as the historian of it has explained, the whole Romanesque of Southern France, is precisely that variety of Romanesque, excepting only the Italian, in which the survival of the classic Roman elements unmodified is the most obstinate. In the monuments of Rhenish or of Norman Romanesque the process of de-classicising has been carried so far that it needs historical knowledge to affiliate Worms or Speyer or Bayeux or Caen to the architecture of Imperial Rome. On the other hand, there can be no question in the mind of anybody who has ever seen the monuments of Rome, from which source the fronts of Provence and Anjou and Auvergne are derived, with their rows of classic columns, retaining often the classic entablature, sometimes authentic relics of antiquity, but by their treatment enriched and barbarized into a picturesqueness that was well calculated to captivate a romantic modern mind. It is well worth noticing, too, that in Southern France alone, outside of Italy, has the Byzantine influence been introduced, which in our revival has had so controlling an influence upon carved ornament. St. Mark's does not testify more strongly than the general form of St. Front at Perigueux to the ascendancy of the Lower Empire in those Southern lands, an ascendancy of which the monuments of Normandy and of Norman England and of Germany bear no trace. These were the sources of Richardson's inspiration in the brilliant series of works, the attraction of which has drawn the younger architects of the whole Union into the style in which they were wrought. There is no part of the country in the present building of which his influence is not traceable. It may be said, indeed, that the Provençal Romanesque has come to be more nearly the American style than any that preceded it, with the exception of the American Renaissance, and with this great difference from that, that what we have called the American Renaissance took hold upon the least competent and least sensitive designers of the country, while the Richardsonian Romanesque has influenced the most sensitive and the most competent.



HOLY TRINITY CHURCH.

Lenox Avenue and 122d Street, New York City.

William A. Potter, Architect.

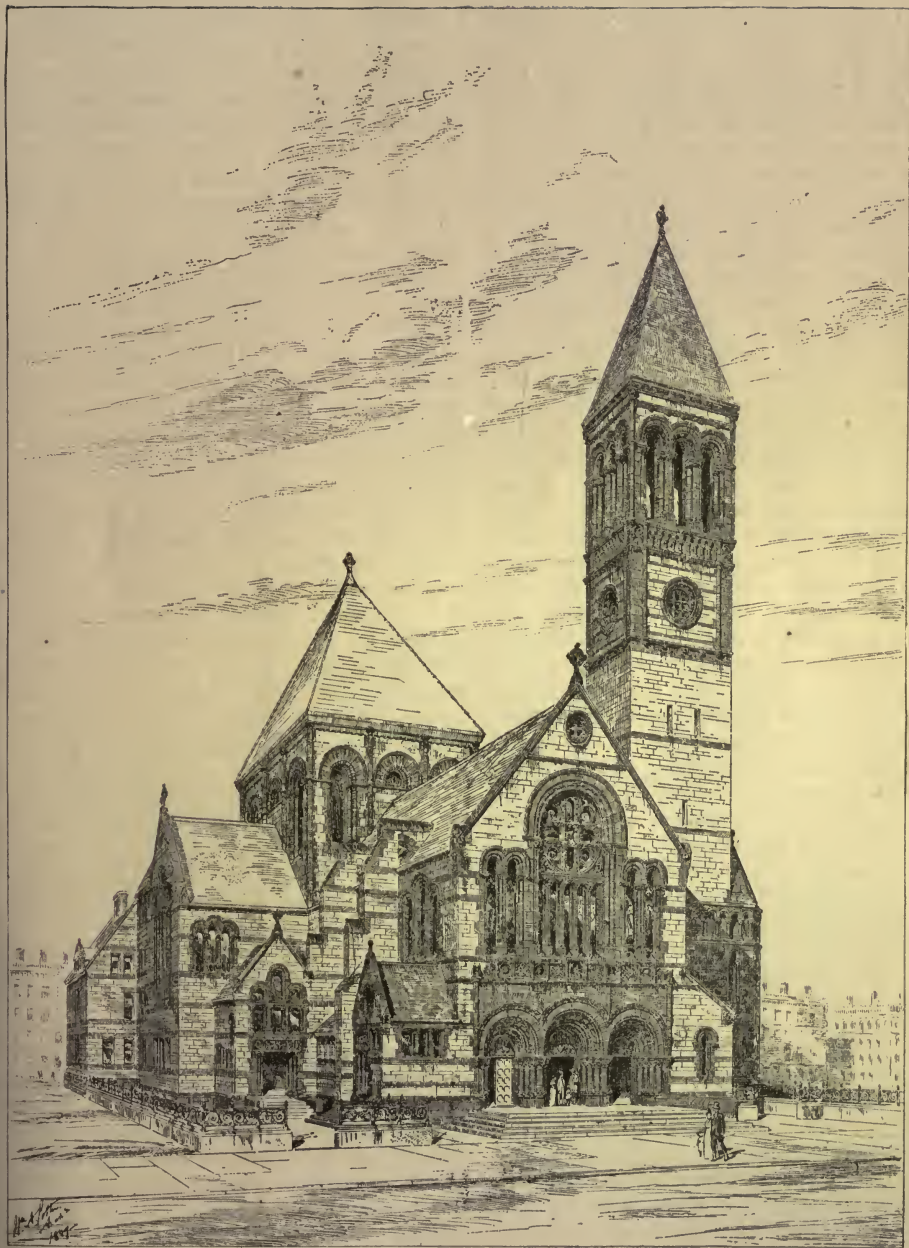
In New York, with which alone we are now dealing, this influence is naturally most conspicuous in the new quarter, amounting to a new and strange city, that has been built up within the past few years upon the "West Side." So strange and exotic of aspect is this new quarter that a New Yorker of 1880 even, who might be suddenly dropped into it, would never recognize it as a part of the downtown brown stone city that he knew. The West Side is not in any strictness a Romanesque town, to be sure, but the prevailing and pervading architectural element which gives it its character is undeniably the Romanesque. With the specific manifestations of this we shall deal presently. They are nearly all essays in domestic architecture with the important exceptions of three or four churches, and they are all evidently suggested immediately or remotely by the work of Mr. Richardson. One of the churches, and the most costly and "important," is that of St. Agnes, in Ninety-second street, and it is one of three recent churches designed by the same architect, Mr. W. A. Potter, in which not only is the treatment distinctly Romanesque, but the combination of material is adopted which Mr. Richardson introduced in Trinity Church, Boston, and which he afterwards often employed: the combination of a light granite for the field of the wall with a dark brown stone for the wrought work. It is not only an effective and strong contrast of color, in Mr. Richardson's hands, but it had the further advantage that the material which is the stronger in color and is thus properly used to lend emphasis to the parts that are structurally of most importance is also the weaker mechanically, and thus not only justifies but demands an increase of the magnitude of the features in which it is employed, that would be manifestly irrational if the more strongly colored material were also the stronger, or even if the same material were used throughout. Mr. Richardson was very prone violently to exaggerate the size of parts, and in his work the employment of sandstone in combination with granite dissembled this fault.

The earliest of the churches in which this combination was used by Mr. Potter, is that of the Holy Trinity, Harlem, which is not only a church but a complete parochial "plant" so to speak, including a rectory and an extensive parish building. The requirements that these should be accommodated upon a plot 150 feet in its longer dimension by something less than 100 in the shorter, has given rise to an unusual disposition by which the church is flanked on one side by the rectory and on the other by the parish building, the axis of the nave being parallel with the front and the street gable that of a transept. This arrangement results, however, in a picturesque and effective grouping. The parish building, of which the flank on the avenue is a long wall of two moderate stories, flanked by gables rising a story higher, is kept so low that the ridge of its roof, crowned midway with a lantern, is relieved against the principal gable of the nave which rises behind it, and the three gables "compose" very well together, being in turn dominated by the massive square tower that consists, above the deeply and heavily moulded entrance and its attached pediment, of a single very tall belfry stage of two lights in each face, raised on the side so as to clear the roof, but dropped on the front so as to occupy the whole space above the pediment. The treatment, of clustered shafts and heavily-moulded arches and deep reveals, is simple and massive, and gives an effect of great power that is enhanced by leaving the lights entirely open. It would probably have been still further enhanced if the angle piers had been carried up in the brown stone, in which the openings are framed, instead of in granite crossed with occasional narrow courses of brown stone, and certainly it would have been better if the granite had not cropped out again in the pinnacles capped with brown stone that rise above the heavy cornice in brown stone which completes the tower proper. It seems that the architect also has been brought to this opinion by the contemplation of the executed work; since in his later church of St. Agnes, where the same combination of mate-

rials is used, the belfry stage, here much shorter and richer, is entirely of brown stone, excepting the spandrils of its arches. The Church of the Holy Trinity, nevertheless, is a real architectural composition and a very successful one, as it is also unmistakably and emphatically a structure of masonry. There are few churches in New York so dignified and solemn and "churchly" in expression, or that so strongly recommend Romanesque as suitable for church building.

The combination of the same materials is better managed, as has been intimated, at St. Agnes' chapel in West Ninety-second street, another and still more extensive parochial "plant" comprising parochial schools in addition to the church building, extending from street to street, and completely detached all around, though not on a corner. The peculiarity of the general design is the introduction of a central tower, or cimborio, which is yet not a tower but more properly a square dome, so to say, occupying the whole of the crossing, and pierced with windows that open directly into the interior. The treatment of it is massive and simpler than that of the principal front or of the tower, and it invites the criticism that it is either too important or not important enough. Apparently it ought to be either a mere lantern, in which case it might have been kept lower and even simpler than it is, or else developed into the dominant feature of the building, as is so successfully done at Trinity Church, Boston, in which case its general form might have been more intricate and its detail much further elaborated. As it is, it competes rather than co-operates with the tower, with which it does not group very happily, either in a distant or in a near view; while the richer treatment of the tower converts the simplicity of the central feature into a heaviness that comes near rudeness. The tower and the cimborio, indeed, do not go together. This is the main drawback to the complete success and unity of the building. The tower by itself is an excellent piece of design. It is a campanile; that is to say, a straight unbuttressed shaft in which the orna-

ment is confined to the belfry stage, and the two materials of which it is composed are here admirably worked together. The shaft is of granite, with only a belt of brown stone to mark each of its stages until the stage next below the belfry is reached. This is treated as a transition from the solid shaft to the open belfry, and is as original as it is successful. The granite wall is framed in brown stone at the angles, and above and below, the edges of this frame being defined by mouldings, it is belted with the same material and at the centre of each face is a round traceried window also in brown stone, but not a rose window, since the motive of the tracery is two links crossed at right angles. Here this quaint disposition is as successful as it is quaint; more successful than in the enlargement of it in the head of the central window of the front, where the larger scale gives it a somewhat baroque and clumsy air. The belfry stage itself is in each case a triplet of shafted arches in brown stone, while the reappearance of the granite in the spandrils of the arches allies the flower to the stalk, as it were, and unites the whole tower into one feature, constituting it in this respect a marked advance upon Mr. Richardson's tower of the City Hall in Albany, to which this has a general resemblance, but in which a belfry all brown stone surmounts a tower all granite, to which it bears no organic relation. The starkness of the square shaft here is relieved, not only by these devices but by the projection from its base of a staircase that becomes a picturesque external feature, while between the tower and the transept is an apsidal chapel that groups very effectively with the other features of this side. The opposite side is distinguished by the extraordinary massiveness of the treatment, not only in the cimborio, but even more in the solid granite buttresses, belted and capped with brown stone, that are carried above the eaves and merged into the roof to take the thrust of the cross-arches of the nave. The power of these features is undeniable, but their massiveness also verges upon rudeness, and there seems to have been no structural objection to opening a



ST. AGNES' CHAPEL.

Ninety-second Street, New York City.

William A. Potter, Architect.

half-arch that would have relieved this look, without being developed into the complete flying buttress that belongs to a more elaborated construction. The mass of the church is effectively relieved against the expanse of the lower and wider parochial buildings in the rear, where the combination and treatment of material are as admirable as they are throughout. The finest piece of design in the church, however, possibly excepting the tower, is the main front, in which the centre is occupied by a rich and striking piece of architecture in brown stone, flanked and crowned by a plain granite wall. The lower stage of this is a portal of three deep arches very heavily and boldly moulded, and the upper is a large round-arched window flanked on each side by a pair of round-headed "lancets," so incorrectly to speak, while the frieze between the two stages is decorated with the emblems in relief of the four evangelists. Nothing could well be more truly and nobly Romanesque than the treatment of this front. The traceried head of the large window comes down well below the springing of the large arch to a transom at the impost of the smaller flanking arches, and the line of this impost is continued in brown stone as a belting course above another that is produced from the springing of the lower arches of the clere-story; and the sill course of the great window is also continued across the front, thus thoroughly binding it, and giving the same co-operation of both materials that is secured throughout the building. In this respect the treatment of the building is a distinct advance, not only upon the churches in which Mr. Potter has before used this combination, but upon any of the works in which it was employed by Mr. Richardson. One drawback of detail has been noted in the design of the tracery. Another is the treatment of the porches, in which a column corresponds not only to each moulding of the arch, but to the face of the arch; insomuch that the outermost single column seems to be "in the air" and with nothing to carry. This is a drawback inseparable from the scheme of modeling the faces as well as the jambs into columns. The

emergence of the wall itself in a strip of pier at the apex of a cluster of columns is a more logical and satisfactory arrangement, and gives the retreating columns their proper expression of a modeling of the wall of which the face is thus shown. These things do not prevent this front from being one of the finest works of the revival, nor the church itself from being an example of "Richardsonian Romanesque" of which Mr. Richardson himself might have been proud.

Another Romanesque church on the West Side is Christ Church, at the corner of Seventy-first street and the Boulevard, by Mr. C. C. Haight, whose chief successes heretofore have been won in the application of English collegiate Gothic to American collegiate uses, in the admirable buildings he has designed for Columbia College and for the General Theological Seminary. The design for this church is published herewith and it shows a building so different from that actually erected that it is quite possible the architect would object to being judged by the existing building, since the changes are all reductions and seem to have been made in the interest of economy. The drawing shows a massive tower at the angle, which is an integral part of the design, and which has not been built, although it is architecturally necessary and although the construction of it would manifestly relieve the building of the look of hardness and squareness which is its principal defect. The choice of material is not fortunate, a salmon-colored brick being employed in conjunction with a dark-red terra cotta. An error of detail is the introduction of a column attached to the wall of the transept, which is in fact a large roll-moulding and which carries nothing and serves no structural purpose. The church has interesting points of detail, but in any case it scarcely comes within the scope of this article, for, although a recent work in Romanesque, it is not an example of Richardsonian Romanesque, but of Norman, and it might have been built in the same way if neither Mr. Richardson nor the Provençal architects on whose work his was founded had ever lived and labored.

Another church two squares north of this, by Mr. Robertson, is also in a Romanesque, which, though not this time Norman, owes little if anything to the work of Richardson beyond the suggestion of its general style. It is really Romanesque in character as well as in the form of its features and its detail,

feature, the four pilasters that divide and flank the three round-arched windows of the gable of the principal front. These pilasters serve no structural purpose whatever, the only purpose they do serve being to sustain the symbols of the four evangelists, carved in relief above them, and apparently introduced



Christ Church N Y

being rugged and massive in treatment, with ample wall spaces. The combination of material is also good, a very red Potsdam sandstone being used, rough-faced, for the body of the wall, and the Belleville brown stone for the wrought work and the features, while the still darker Longmeadow stone is alternated with the Belleville in the arches. The color is everywhere employed with structural propriety, even in those features which are themselves structural improprieties. These are really but one

mainly for the sake of giving the pilasters something to do. The whole feature thus formed is obviously amenable to the charge of "constructing decoration" on a large scale and it so far interferes with the effect of naturalness and straightforwardness and reality which is one of the most valuable of architectural qualities and which the general treatment here is very well adapted to secure. It is indeed a survival of the classical Roman mixture of styles from which the Romanesque



architects gradually worked themselves free, and there is less than no reason why a modern architect should revert to the solecisms which his predecessors removed, or even to those which some of his predecessors retained. Another irrational detail this building contains for which it would be difficult to find a precedent in any period of serious and living architecture, and that is the exaggeration given throughout to the entasis of the columns. The Greek entasis was a very delicate curve of which the purpose and the effect was to correct an optical illusion. To carry it further than this purpose requires, so far, indeed, as to call attention to it is to defeat its purpose, and to exaggerate it as is done here is to give the columns to which it is applied an aspect at once clumsy and meaningless. In the Academy of Medicine, a later work of Mr. Robert-

son's and one which has many interesting points of design, this error is repeated with columns more important and independent than those of this church, and is carried so far as very seriously to impair the effectiveness of the result. Where, as in the present instance, the columns are merely decorative shafts the effect is less injurious, but it is still injurious. It mars the success of the pillared porch which is the main feature of the front and which is otherwise a very rich, spirited and successful feature. Upon the whole, however, the front wall as it is designed is less successful than the flank of the church, in which five bays divide the expanse of rough red wall, pierced in each bay with a three-light opening in aisle wall and another in the wall of the clere-story, the latter, which should obviously enough be the richer, being unfortunately in fact the



• Corner Seventy-second St.
West End Avenue •

• Lambson & Rich Architects •

plainer. The lower is a triplet of linctelled openings with a blind arch above the central one, the jambs and mullions being dressed smooth, and the upper three arched openings, of which the central is considerably the tallest, and of which the mullions are rock-faced. A transposition of the treatment would be more effective, or if the treatment of the aisle wall were retained, in the clere-story there might very properly be substituted columns for the rough mullions. Nevertheless, the flank of wall is extremely impressive, the more so for the design of the chapel or lecture-room at the rear against which it is stopped. This is a gabled front, of which the upper stage is pierced with a large triple opening, of which the centre is a round arch, while the lower is projected into an ingenious and novel porch with an arcade of four openings flanked by a gablet at each end.

A more noteworthy example of Mr. Robertson's skill, and, indeed, one of the most admirable works that the Romanesque revival has produced in New York is the Mott Haven Station of the N. Y. C. & H. R. Railroad. A station is a difficult problem to treat without doing violence to its conditions; since the natural outcome of these is but a long low shed of uniform aspect, or with no more variety than can be obtained by distinguishing waiting-rooms and ticket offices and baggage-room. Almost every architect who has tried to do anything with it in a city has been compelled to introduce at least a clock tower to give some dominating feature to the design around which its subordinate and similar features may be grouped so as to constitute an architectural whole. The clock tower appears here, but variety is gained by other devices also. The building is widened at the south end, and this widening enforces a variety in the disposition of the roofs, while an open archway that gives access to the station yard suggests a new motive for the treatment of the front to which it belongs, in a beautiful loggia that surrounds this end of the building and is projected at the centre into a porch. Dwarf round piers sustain massive

round arches, themselves rounded so as to continue very nearly the section of the piers, and the impost is marked merely by a moulded string course in terra cotta, while the intrados of the rounded arch is signalized by a row of bullets in carved brick. This treatment would be inapplicable of course to openings that are meant to be glazed, but in free standing and open arches like these it is effective, as the leaving a square arris could not be, and legitimate, as the imitation of stone mouldings in baked clay can not be. The piers that sustain the loggia are of not much more than one diameter in height, and their massiveness adds to the expression of power which is the characteristic of the feature, without degenerating into the rudeness and clumsiness which is the besetting tendency of Romanesque. On the contrary, the front has grace as well as strength, and the carefully and successfully studied composition of this loggia with the large archway that adjoins it, the roof that surmounts it, and the tower that unites and dominates the whole is one of the most harmonious and picturesque groupings that have been effected in our recent architecture. The long side of the station fronting the tracks has been as successfully studied in its way, though it did not present the same opportunity, since it cannot be so well seen and since it is scarcely possible to give a variety that does not look forced to the design of a station platform. What is commonly a very awkward point in such a structure is the junction of the roof of the station with the necessarily flatter roof of the platform, and this awkwardness the architect of the Mott Haven Station has avoided by dropping the lower roof a foot or so from the top of the wall and occupying the interval with a convex frieze of terra cotta, effectively decorated. The clock tower not only unites the fronts of the design by supplying a feature to which they converge, but it is in itself an admirable piece of design—four round piers, produced into round pinnacles and crowned with a simple peaked roof, inclosing the walls, which in the belfry stage are recessed into



MOTT HAVEN RAILROAD STATION, NEW YORK CITY.

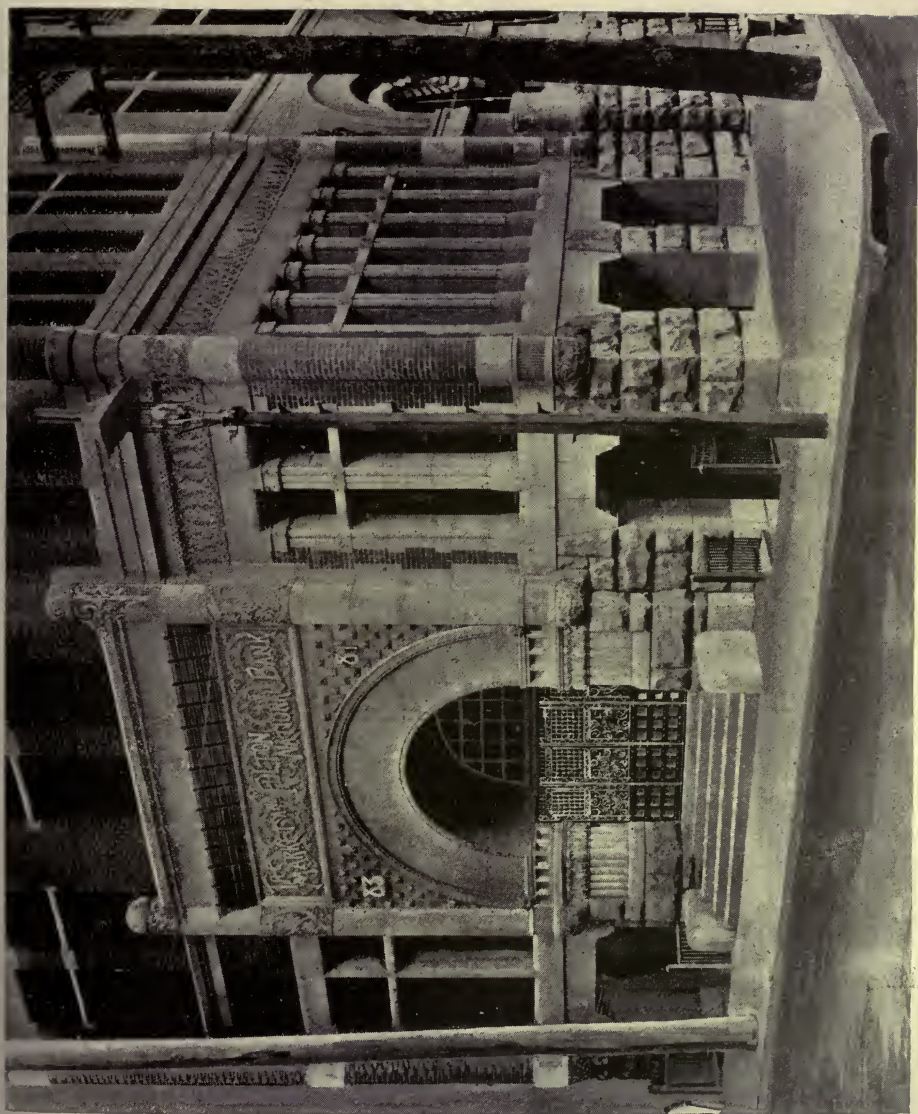
R. H. Robertson, Architect.

deeply-moulded round arches that contain clock faces, the clock face coming below the springing of the arch, while the interval beneath is filled with a tall colonnade; a disposition that Mr. Potter has repeated in the fine gable window of St. Agnes' Chapel. The charm of these dispositions is enhanced by the characteristic treatment of the detail in baked clay, and by the rich monochrome of the building with only such slight variations in tint as proceed from the difference between the common red brick of the walls, the pressed red brick of the jambs and arches, the red terra cotta of the ornament and the red tile of the roofs.

Among other public or quasi-public buildings that we owe to the Romanesque revival is the Down-Town Club in Pine street, erected from the designs of Mr. Haight, and the only essay of that designer's known to us in Provençal Romanesque, for, as we have seen, his church in the Boulevard is Norman, while the present building is consistently Provençal, with the exception of the entrance, a low three-centred arch of which the form and the detail classify it with the late English Gothic, in which most of its author's successes have been won. This is an incongruity only from a scholastic point of view, however, for the archway goes perfectly with a front of which the detail is Provençal, and the carved and moulded ornament Byzantine. The building constitutes a refreshing oasis in a neighborhood that is nearly blank of architectural interest, being both rational and rhythmical in general composition, especially well studied in detail and fortunate in color, a superstructure of buff brick and buff terra cotta upon a basement of brown stone. Of another very admirable clubhouse, that of the Harlem Club, by Messrs. Lamb & Rich, it can also be said that we owe it to the Romanesque revival, but it can scarcely be said to be in the academic sense an example of Romanesque architecture or to come within the scope of this paper, in spite of the round-headed arcade, of the pairs of round arches under relieving arches in the second story, of the stout colonnade in the gable and of the carved ornament, which is consistently Byzan-

tine and particularly good. Neither can the very interesting and impressive building designed by Mr. C. L. W. Eidlitz for the Racquet Club be described as an "example" of Romanesque. It is, on the contrary, a piece of quite free and modern architecture, for which the architect has taken whatever suggestions seemed to be suitable for his purpose from whatever source he could find them without troubling himself about incongruities that were only scholastic and not æsthetic incongruities, and it exhibits also an individual inventiveness. But nothing could well be more Romanesque in spirit and character, that is to say, in the expression of mass and weight and vigor, than the aspect which is given to this front by the large and powerful arcade of the centre, with its great depth of reveals, inclosed and abutted by the simple and solid frame of the wings.

Romanesque is both a tempting and a difficult style for the design of commercial buildings and it is tempting and difficult for the same reason, that its character is massiveness. "The architecture of rest," Mr. Freeman happily calls it, of immobility, in opposition both to the Grecian which is the architecture of horizontal extension, and to Gothic which is the architecture of vertical extension, of aspiration. Now the practical requirements of our commercial architecture are all opposed to massiveness and disposed to an architecture of extenuation, and much more the current notions that are founded on the popular conception of those requirements, insomuch that an architect who contrives both to light a building abundantly and yet to give it an aspect of massiveness, after achieving this very difficult feat in design is apt to find that he has wasted his labor so far as popular appreciation is concerned, and that the very fact that his building looks strong and solid is taken as a proof that it is not commercial, not "practical." Before the fires of Chicago and Boston it was "practical" to set the front of a warehouse or of an office building on a wall of plate glass, supporting it really on inconspicuous iron columns. Those disasters showed that this was not in fact a practical pro-



Fulton Street, New York City. MAIN ENTRANCE, MARKET AND FULTON BANK BUILDING, William B. Tubby, Architect.

cedure, while it was the negation of architecture. Nobody could make a work of architectural art out of a front that was lightest at the bottom and heaviest at the top. Since the proof was furnished that a basement of plate glass and iron was not a trustworthy foundation, architects have been permitted to introduce piers of masonry into the lower stories of warehouses and office buildings. Architecturally it is desirable that they should appear as massive as possible, and Romanesque is pre-eminently the architecture of massiveness. Practically it is required that the mass should be reduced to a minimum and an attenuated Romanesque is a contradiction in terms. This is why we say that Romanesque examples suggest to the architects of commercial buildings a problem that is at once very tempting and very difficult, and this is perhaps why the Romanesque revival has been less prevalent in commercial architecture than in buildings of any other type.

Nevertheless, there are examples of it in the recent commercial buildings of New York that are by no means unsuccessful, and that are very full of suggestion. That among them which most distinctly recalls the work of Mr. Richardson is undoubtedly the building in Wall street designed for the United States Trust Company by Mr. R. W. Gibson. Here again the combination of material which Mr. Richardson introduced is employed, but it is scarcely employed with the success which it attained in Mr. Richardson's happiest efforts, a success that has been carried still further, as we have seen, in Mr. Potter's St. Agnes' Church, where the materials are really combined in every part of the work, and where their implication leaves nothing to be desired. It is questionable whether so complete a union could be obtained in the street front of a commercial building of limited dimensions in which the need of the light exacts a very large proportion of voids to solids, especially where the designer has so evidently been taken with the striking effect produced by Mr. Richardson's exaggerations, and has attempted to reproduce that effect in so narrow and so largely lighted a front.

Obviously an arcade of dark stone with voussoirs of great depth is one thing when it is set in the midst of an ample field of gray wall, and quite another when it is required to be extended across the whole front and not to exhibit any adequate abutment. This is the case here in the central feature of the building, an arcade running through three stories, of which the magnified arches are in brown stone occupying the whole breadth of the front and thus becoming a distinct stratum of the building. As the central feature of a wide front this arcade might be very successful, but as the whole of a front it is not adequate, and it is scarcely possible, with such a disposition to prevent it from looking like a fragment. The excellence of the building, of which this is the chief motive, must be looked for in the parts rather than in the whole. Such excellences this front displays, and very notably in the basement. This consists, in the lower story, of three bays, of which one is given to the entrance, and this triple disposition is followed in the superstructure, but is interrupted by the upper story of the basement, a colonnade that constitutes a strong horizontal band, of which the effect is to keep down the front and to mitigate the preponderance of the vertical lines and that has its counterpart in the treatment of the stories above the large arcade. The entrance itself is a very vigorous and effective piece of a Romanesque which is here distinctly Norman, a round arch of three orders, heavily moulded and with a corresponding modelling of the jambs into nook shafts which are all the more effective for the emergence between them of the square arris that carries down the line of the arch, and gives a far more emphatic expression of rigidity than can be obtained by the mere succession of columns. In the other arches this vigorous and expressive treatment is abandoned for a reeding of the reveals which is not infrequent in Mr. Richardson's work, but which is enfeebling instead of invigorating, and results in a series of rudimentary capitals that cannot be developed by reason of the huddling of the shafts. This error does

not prevent the lower story from being in itself very successful, while the colonnade above it is a thoroughly admirable and a thoroughly Romanesque piece of design. The columns are clustered over the main piers, not reeded, but sufficiently separated by intervals of wall to admit of the development of their capitals and bases, while between them are pairs of like columns doubled in the depth of the wall, an arrangement more effective than that of a single "mid-wall shaft" and equally Romanesque. The horizontal band thus formed has not the effect of a layer like the large arches above by reason of the discretion with which the materials have here been combined. The story below is entirely of granite and that material reappears here in the shafts of the columns, of which the bases and the capitals are of brown stone, as well as the heavy architrave the columns support. The capitals are distinctly Byzantine and so is the rich carved ornament of the architrave. Both the carving and the modelling are admirably done, and the result is one of the most picturesque "bits" in our street architecture. *O si sic omnia.*

A like partial and modified praise must be bestowed upon another example of what cannot be so strictly described as Romanesque, though it almost equally recalls Mr. Richardson's work, in the building designed by Mr. W. B. Tubby for the Market and Fulton National Bank. Indeed, the best things in the United States Trust Company's building owe least to Mr. Richardson's work, while this has furnished precedents for its shortcomings. The building we are now considering has the Richardsonian stamp given to it mainly by the principal entrance, a deep round arch extending through two stories, of which the spandrels are vigorously framed in a cornice at the top and round mouldings at the sides, stopped upon corbels at the impost, while the jambs below are treated with shafts that are not shafts but merely reedings of the wall. On so small a scale as it is done here this reeding is much less objectionable than on a larger, and the modelling of its cornice into capitals that the space does not permit to be fully devel-

oped is notably clever and ingenious. But in this building also the excellences must be looked for in the parts rather than in the whole, mainly by reasons of the designer's insistence upon a corner-tower as the chief motive of his general composition, which does not belong to his building, and is distinctly injurious to its narrow front which is needlessly cramped by the introduction of this feature. The fenestration of the tower above the basement corresponds to that of its flanking walls, and it is thus seen to be merely a capricious variation, and so far does away with the effect of straightforwardness and reality that counts for so much in all architecture and in commercial architecture perhaps more than in any other. If it had been practicable to diminish the number and size of the openings in the tower, and to keep its shaft virtually solid while opening and elaborating its upper stage, it might have lost the look it now has of an attempt to gain a forced and irrelevant variety, though even so it would scarcely have gone with the present treatment of the sides. As it is the look of irrelevancy and caprice is only heightened by the large toruses in brick-work that bound it, and that are themselves proclaimed to be structurally superfluous by being corbelled out above the first story. The parts, however, show very marked ingenuity and an unusual copiousness of architectural resource. The treatment of the basement—the architectural basement, that is to say, comprising the first two stories—is extremely good, in spite of the irrational and unsuccessful substitution, in the springing course of the first story of the convex profile, expanding downwards, that is suitable for a base and expressive of its function, for the concave profile, or at least the profile expanding upwards, that belongs to every member that performs the function of a capital. Apart from this the basement, upon the long side, is admirable, alike in the force of functional expression given to the flat arches of the first story by the disposition of the springers and by the receding moulding of the soffits, and by the design of the range of five spreading arches above with their sturdy piers, their broad



THE MARKET AND FULTON NATIONAL BANK BUILDING,
Fulton Street, New York City. William B. Tubby, Architect.

abutments, their deep reveals, and the grace of the ornament even of their springing-course, of which we have censured the form. Ingenuity, indeed, is nowhere lacking, and the treatment of such of the detail is as successful as it is ingenious, notably in the design of the capitals of the upper arcade, and in the lower story of the tower where each front is occupied with a row of slender shafted mullions in brown stone, exceedingly well detailed, and framed between the heavy toruses. Elsewhere the ingenuity alone is obvious as in the device by which a cornice corbelled out in brick-work of slight projection in proportion to its height, is made to comprise a whole story of which the openings occur between the corbels, and by their size neutralize the massiveness the arrangement is meant to secure and which is in fact secured in the tower, where the openings are mere slits. In spite of what we must hold to be a grave error in the composition, the building bears so much evidence of thought and feeling that it is much more interesting than many a building that is more successful.

The building of the Times newspaper is another and a very noteworthy illustration of the adaptation of Romanesque to commercial uses. Among other things it is noteworthy as a new departure on the part of its architect, whose work before it had virtually been confined to one or another phase of the Renaissance. The opportunity presented by the Times building was unusual, and unusual advantage has been taken of it. The building is a trapezoid, free on three sides, of nearly 100 feet on the longer sides converging to a front of 65 that has an unbroken foreground of some seven or eight hundred feet. It is virtually a monochrome of light limestone, for although granite is used in the basement, it is evidently used only because its superior strength is needed. Its tint is as near as may be identical with that of the limestone, and no account is taken in the design of the difference of material, except that the less tractable material is treated with the greater severity. The design throughout is of as great simplicity as is consistent with an architectural composition. The first

five stories are the architectural basement, though on the shorter front and in one bay of the longer the fifth is an intermediate story, while throughout the rest of the longer the great round-arched openings are extended through five stories. Doubtless the former treatment is the more eligible. The single story, of coupled round arches between the piers, not only gives a harmonious relation to the larger openings above and below in which several stories are grouped, but it supplies an emphatic horizontal band, which so lofty and many-storied a building urgently needs, and it also furnishes a footing for the central mullions of the upper range of arches, which, where this base is wanting, seem to rest directly upon the crowns of the arches beneath, with an unfortunate and even distressing effect. This is the most unfortunate point of design, indeed, in the longer front of the Times building. For the next most unfortunate, the opening on this front of the main entrance through a pier, the architect cannot be held responsible, and he has dissembled his misfortune with much skill in the design of this entrance and its gable; though it remains a serious misfortune and it is much to be wished that the lower story of one bay should have been reserved for the entrance. Here again the north front has a decided advantage in the adequacy of the entrance, which is the main and almost the only relieving feature of the basement of a commercial building.

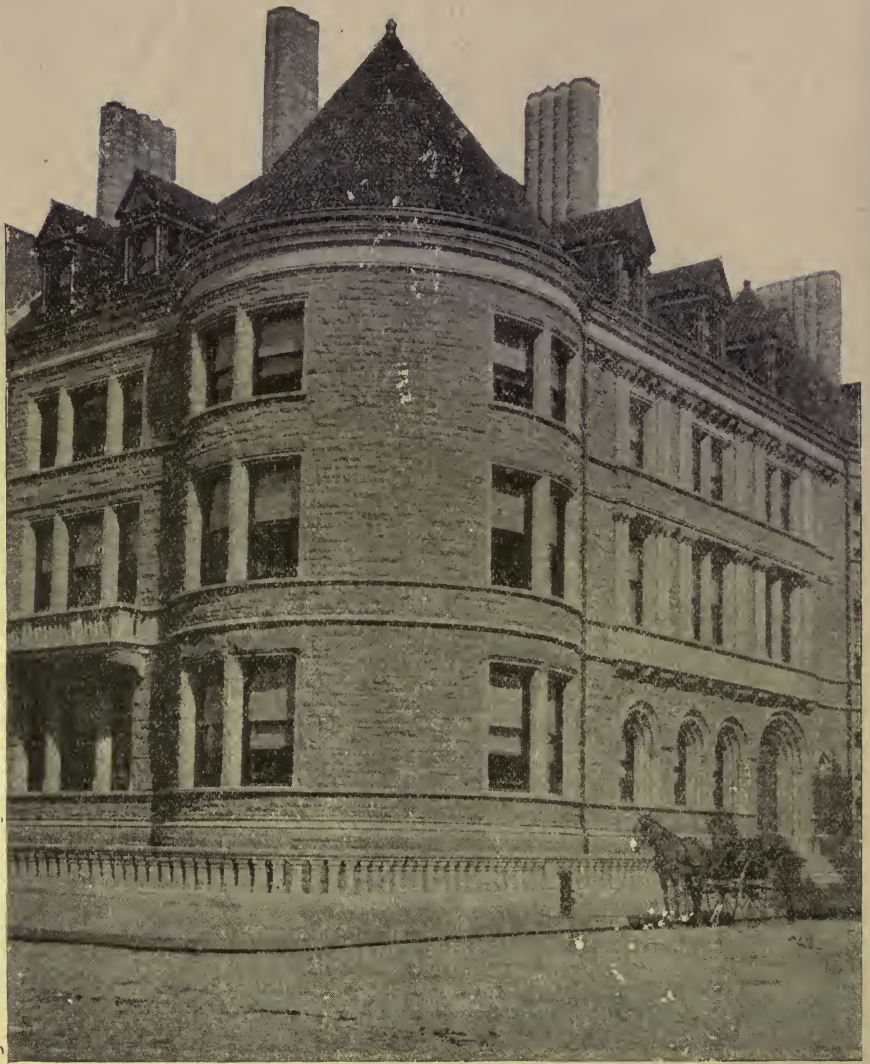
The absence of a stronger horizontal banding, and the consequent predominance of the vertical lines, almost to the effacement of the horizontal lines, is the general defect of composition of the Times building. Above the granite basement there are but two continuous horizontal lines, one above the fifth story and one above the eleventh; that is to say, one marking off the lower and one the central division of the fronts, and these lines are quite ineffectual to counteract the emphasis of altitude given by the terminal and the intermediate piers which are continued through eleven stories, and which are, moreover, projected from the plane of the wall so as to have the aspect and to

give the emphasis of applied strips. If the piers had been kept in the plane of the wall, if the intermediate story had been prolonged through the longer front, and if a like feature had been introduced above the upper range of arches, the balance of the horizontal and vertical lines would have been much better preserved. Nevertheless the large 20-foot arches of the basement and the divided arches above them are very impressive features, and their impressiveness is greatly heightened by the character of the detail, which is nowhere exaggerated in the Richardsonian manner, but takes its place properly and is almost everywhere carefully and successfully adjusted to its place in scale as well as in treatment. One exception to this occurs in the treatment of the gabled dormers, where the designer has omitted to allow for the violent foreshortening they would undergo when seen from below and where the gargoyles and the finials of the lateral piers of the dormers are confused into shapeless masses. In spite of this the roof, with its two-story dormers relieved against the plain and comparatively solid parapet, is the most successful part of the design, and our architecture has few things more spirited and picturesque than the disposition and the design of this upper division, or more piquant than the skyline thus animated without being disturbed.

The Union Trust Company, a later work by the author of the Times building, is not only a more successful work, but it is very particularly instructive in the advance it shows upon the earlier design. It is unfortunately rather the rule in our very irresponsible and licentious way of practising architecture, that an architect who is dissatisfied with the effect of his work in execution, as every artistic architect who is not blinded by self-conceit must more or less be, instead of really considering the cause of his shortcomings, abandons the motive from which the unsatisfactory work was developed, and he is very apt even to abandon the style. Already in this paper there has been afforded an illustration of the more rational process in the decided advance

made by Mr. Potter, in the design of St. Agnes' chapel, upon the treatment of his combination of material in the church of the Holy Trinity. Mr. Post's work in the Union Trust Company's building shows the same kind of advance upon his work in the Times building. The motive of the later work is essentially the motive of the north front of the Times building, but every one of the criticisms we have been passing upon the latter has been made by the architect upon his own work, and every one of them has been obviated. This building has the architectural advantage, as compared with the other, that it is two stories lower; it has the disadvantage that it is merely a front. The basement here is of four stories, but one of them is partly sunken, so that it scarcely counts, and the central division of five stories becomes without question the predominant mass, whereas in the earlier work there is an annoying confusion as to which of the three main members of the composition is the principal. The piers are produced to the springing of the arches of their upper division so that here also the vertical lines predominate; but here their preponderance does not prevent a harmonious relation of vertical and horizontal lines, since not only is the intermediate story of the Times building—the coupled arches between the piers—reproduced above the basement, but another intermediate story is introduced between the central and the upper division, and this story disregards the division into bays between the piers, being a continuous arcade of openings equally spaced, and thus forms a still more emphatic horizontal belt, accentuated by decorated courses above and below and performing perfectly the function of an intermediary between the central and the upper division, the third term of the proportion, which is the steep and lofty roof against which three gabled dormers are relieved, the central, the largest, recalling again the division of the main front into three bays. The faces of the piers are here in the plane of the wall, indeed they constitute the wall, and the whole composition distinctly improves upon its





848 Fifth Avenue, New York City.

RESIDENCE,

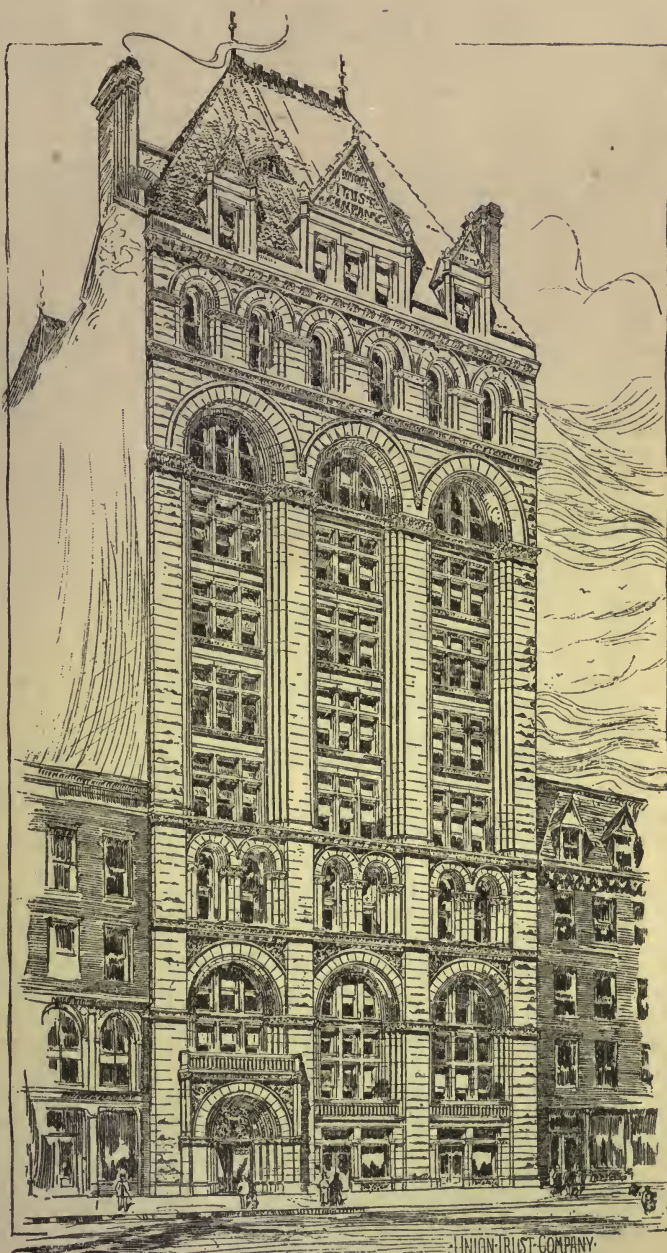
Charles C. Haight, Architect.

prototype in simplicity, intelligibility and power, and the improvement is continued in the detail, which, good as it is in the Times building, is here distinctly better. The rear of the building is architecturally not less important than the front, while it is very much more picturesque, not merely because the motive of the granite front is here carried out, with the necessary modifications, in buff brick and buff terra cotta, but also because the narrowness of New street and its sharp decline give the

towering structure a much greater impressiveness, and one comes upon it with a glad surprise. It is questionable whether the Union Trust Company be not the very best commercial building to which the elevator has given use in New York; and it is not questionable that it is an admirable piece of design which fully indicates the applicability of Romanesque to commercial uses.

To select typical dwellings from the work of the Romanesque revival is

difficult, mainly by reason of the embarrassment of choice, but also in part because even less in dwellings than in other works are our architects accustomed to consult purity of style. One may find Romanesque features in countless houses that cannot be described as examples of Romanesque. Perhaps the houses are none the worse for this, but it is nevertheless true that while the influence of Richardson may be seen in a great part of the recent domestic architecture of New York, especially upon the West Side, there are comparatively few houses which an archæologist would allow to have been designed in Provençal Romanesque. Byzantine carving, it is quite true, pervades many fronts that are otherwise without any tokens of having been inspired by any historical style. A house of Mr. Robertson's in East Seventy-first street, in pinkish stone and pinkish terra cotta, is Romanesque rather in general character and in massiveness than in form and detail. Perhaps the same



THE UNION TRUST COMPANY'S BUILDING,

Broadway, New York City.

Geo. B. Post, Architect.

may be said of a large house at Fifth avenue and Sixty-sixth street, designed by Mr. Haight, which is of a rudimentary and still highly classic

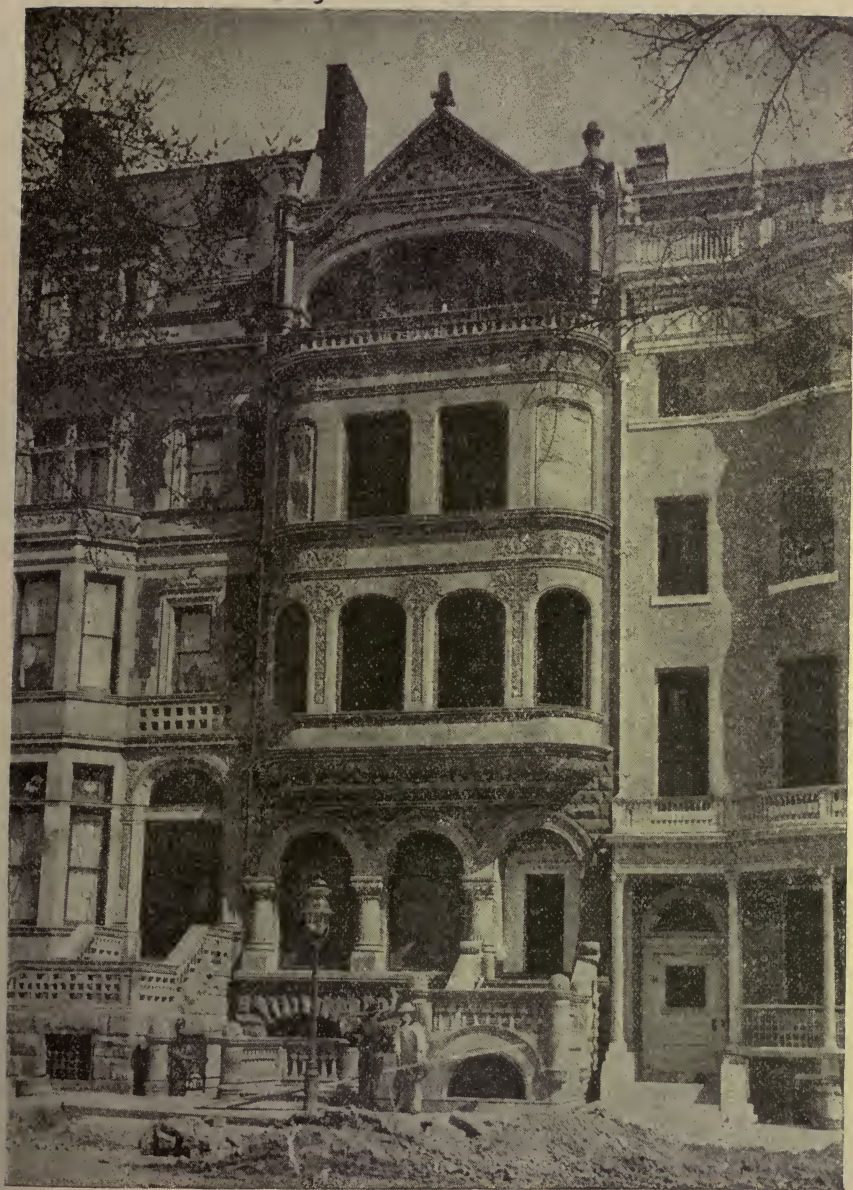
Romanesque in the upper two of its three stories where the triple openings of the recessed centre of the main front are flanked and separated by com-

pletely developed and projected classic columns, which are rather less like Romanesque than like the free classic of the French Renaissance, of which the house is surely not an example. The only specific reminiscence of Romanesque is in the round-arched openings of the ground floor, and yet the massiveness and severity of the whole treatment undoubtedly recall the style. The design testifies to the architect's conviction, which is also that of a good many other people, that at present distinction in our domestic architecture can be attained in no other wise so surely as by extreme plainness, and the result of his labors tends to justify him, for the simple massing, the large unbroken wall spaces of rough granite, the severity of the treatment of the openings and the very sparing use of ornament give the house individuality and character, though it may be questioned whether this character is domestic. The narrow front of No. 844 Fifth avenue, on the other hand, is plainly intended as an example of Romanesque. The design here is simplified to the utmost, the front consisting merely of a bowed and corbelled oriel of two stories, with emphatic moulded string courses that mark the sills and floor lines, set upon a triplet of sturdy round arches, and surmounted with a balcony in turn crowned and screened with a low gable. With the ordinary street front, nothing is so fatal as a multiplicity of features, and the designer of this front has done wisely to make one feature of the whole. But it shows the defect of its quality of simplicity and massiveness in a certain rudeness and clumsiness that is not relieved by the surface ornament.

Perhaps this drawback may be alleged also against the complete success of a group of undeniably and consciously Romanesque dwellings at Seventy-second street and West End avenue, by Messrs. Lamb and Rich. These are distinctly Provençal and even distinctly Richardsonian in some details, such as the introduction of mosaic in the spandrils of the arches at the corner, and in the color treatment of the fronts generally. This color-treatment,

indeed, is the most striking and the most successful element of the design, an olive sandstone being employed in effective combination with a reddish sandstone that much enhances its value. The design is not however without other elements of interest. The general composition is highly effective, individualizing the houses without destroying the unity of the group, and the massiveness proper to the style does not often degenerate into the clumsiness which is its besetting tendency. It may be said to do so in the large and structurally unmeaning rolls that are corbelled out of the angles of a triangular bay, and that have scarcely any other function than to designate the style. On the other hand, the design of the shallow corbelled bays of two stories, crowned by hip roofs, is extremely happy, and these features are very much more effective in fact than they appear in the illustration, as indeed may be said of the whole design, in the success of which the successful employment of color bears so large a part.

It is fortunate that the building thus far done along the Riverside Drive has sufficed to commit that boulevard to a suburban rather than a strictly urban character. It is especially fortunate since among the villas already erected, which are for the most part decorous and dull, with one or two exceptions which are highly indecorous and even duller, it has given opportunity to Mr. Freeman to put up two villas, on the opposite corners of One Hundred and Eighth street, which are not only by far the most artistic examples of the Richardsonian Romanesque in our domestic architecture, but are among the most artistic of our dwellings in any style. Without being grouped, each enhances the effect of the other. In the older and the northernmore, a basement and first story of light gray sandstone, bordered and enriched with brown stone of two tints, carries a second story of brown brick nearly matching the darker of the brown stones and rising into a tower and gables that form a third half-story and that are relieved against a pyramidal roof of red tiles. The rich, deep archway that forms, after the tower, the main feature of the main



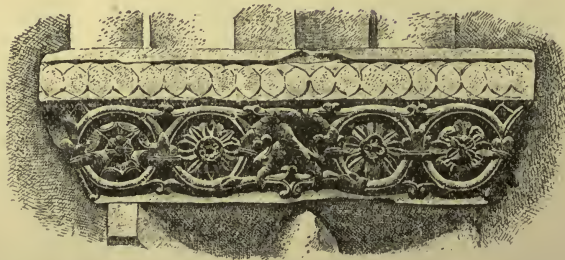
RESIDENCE, NO. 844 FIFTH AVENUE, NEW YORK CITY.

front is unmistakably Romanesque as, indeed, is all the detail, into which the spirit and the careful adjustment of the general design are everywhere carried. In the other and newer house walls of yellow brick are inclosed and relieved in rich red sandstone, while the building is roofed with varnished black tile. The charm of color is equal to that of the older house and the attractiveness of the design as well. The clever and characteristic use of sheet metal in the balconies is a detail worthy of remark, as, indeed, is all the detail, in whatever material. The general composition, of which the motive is the pyramidization of the whole mass to the apex of the crowning roof with the tall arcade of the large tower, and the grouping formed with this by the turret at the angle and the chimney that adjoins it are admirably conceived and admirably executed.

This review does not pretend to exhaust the interesting works of the Romanesque revival, but I think it in-

cludes the most typical of them. It will be seen from it that Romanesque architecture, in the Norman, the German and the Provençal phases of it, constitutes an architectural language that is applicable to all our needs, for there is no mode of building, from the ecclesiastical to the domestic, in which we have not already successful examples of it to show, and in which we may not hope for still more signal successes in the future. It has not been conventionalized or formalized so as no longer to be expressive, but is still free and flexible, and it affords ample opportunity for a designer to manifest his scholarship and his individuality, if he have any. So much cannot be said of any previous style that has come so near to establishing itself. It is to be hoped that our designers may be content to develop its resources and not be tempted to abandon it, as so many promising beginnings have been abandoned in the history of modern architecture, through an unlucky and disastrous caprice.

Montgomery Schuyler.





AN "AMERICAN STYLE" OF ARCHITECTURE.



WITH us, one of the most popular of modern architectural ideas is that there will some day be devised a truly original American style. Seldom has the popular mind made a greater error, or so openly expressed its ignorance of what Architecture really is, and of the conditions under which it is evolved. Architecture is not an article of manufacture that can be produced on demand. It is one of the things not affected by "supply and demand." We produce buildings, it is true, but few of our most pretentious attempts can be viewed with favor by the advocate of the "American style."

The study of the history of Architecture shows in the most positive manner that the great historical styles—which it is fondly hoped the American will surpass—are the products of natural evolution spread over centuries of time; and are the resultants of the action of very many causes. In one sense their existence is as natural as that of a plant or of an animal. Many attempts have been made to deliberately design an American style of architecture by devising certain ornamental details without undertaking to introduce a principle distinctively American. All, however, rest on the error of supposing that a

style of Architecture is something that can be designed or drawn to order on a sheet of paper, much as a client would order his architect to prepare a drawing for a house in some special style. No architectural style originated in such a hypothetical fashion in the past, and amazing as is the fertility of American invention, there is no reason to suppose it can overcome the operation of a law of nature by such a method.

Architectural styles follow national boundaries very closely. National or ethnographic qualities are among the most important phenomena that have influenced their development. As a nation we are totally without the ethnographic unity which is essential to the production of an original art. A people composed of English, French, Germans, Italians, Spaniards, Russians, Austrians, Hungarians, Danes, Swedes, Norwegians, Poles, Turks, Armenians, Portuguese, Greeks, black, white and Mongol, Christians, heathen, infidel, cannot assimilate such diverse elements without many years of intermixture and solidification. We have ideas that are representatively American; we have American customs and methods, none of which can be mistaken for anything else, but we have not that quality which will give us an architecture of our own.

Then again, were there no ethnographic conditions; if the history of art



THE WEST FRONT OF PETERBOROUGH CATHEDRAL.

did not expressly declare it to be something that cannot be made to order as a coat or a pair of trousers, our geographical and climatic conditions would render it impossible. Our country embraces a larger area than that occupied by any other civilized people under a single government. The British Empire is a confederacy in which each colony is permitted a large measure of political freedom without reference to the mother country; a great part of the Russian Empire is inhabited by semi-barbaric tribes, leaving us quite alone with the largest territory, for which it is proposed to devise a typical form of building. No proposition could be more absurd.

Our land is of such extent, it covers so many degrees of latitude and longitude that it would be impossible to impress any one style of architecture upon it, except by law or the arbitrary caprice of fashion. An architecture which would be suited to the semi-tropical climate of Florida would be totally out of place in the cold, bleak, temperature of Maine. The salubrious climate of California requires a very different kind of dwelling from that adapted to the hot summers and cold winters of Pennsylvania and New York. But difference in temperature alone is not the only natural argument against the much-longed-for American style. Rainfall, the diversity of our products, the wealth of our resources, the very elements of our greatness themselves are sufficient reasons why we cannot have a national style of Architecture.

For, if we could, what section, what temperature, what climate, what products shall be taken as thoroughly and representatively national? Shall the East or the West, the North or the South claim the priority, and impose customs and methods on regions to which they are unsuited? Shall we take an average section without especially marked natural features, such as surrounds New York, or shall we select some remarkable and noteworthy district as California and the Yellowstone National Park as the typical American region? Carried to its logical conclusion, the selection of any one of these would end in a catastrophe

scarcely less momentous than that which convulsed the nation on the slavery question. People in the South would find it impossible to live comfortably in a dwelling built for the North, and the man of Maine and the man of Texas would forget their difference on the tariff in endeavoring to make themselves comfortable in houses that bore no relation to the climatic conditions of their respective homes. The question is not one of the local pride, of the prevalency of wealth or of culture, but purely a matter of climate. It would be quite as sensible to insist that every man, woman or child in the United States should wear the same kind and amount of clothing, of the same material and make, as to argue for a national architecture.

The geographical limitations of Architecture form a very interesting study. All the great styles originated in comparatively small states, and among people who inhabited a country of fairly uniform nature. The concentration of energy caused by the confining of intellectual growth to the relatively small areas of the old world was a powerful factor in the evolution of architectural styles. It may not be altogether true that the smaller the area the more developed the architecture, but it is somewhat significant that the most perfect of all styles was produced in Greece, one of the smallest of countries, and in Athens, one of the smallest of Greek states. People have fewer things to think about in a small country than in a large one, and objects directly under their observation acquire a relatively greater importance through the want of variety of ideas and occupations.

With us it is very different. Our vast territory, our multifarious products, our mixture of races and nationalities, our diverse interests, our varied climate and our inexhaustible resources render it altogether impossible for us to hope to evolve a genuine and national style of Architecture, even if the question were one that admitted of deliberate evolution or could be seriously and carefully considered. The blending power of time and the absorption into one family of the many people who now form



PAIR OF GATES.

G. Aitchison, A.R.A. Architect.



Mrs. J. J. J. J.
Sept. 1887

our nation may possibly do something towards bringing about the realization of the popular dream, but at so remote a period as not to be worth taking into account. In this age of active inventive resource and discovery no prophet is more discredited than he who announces that such and such a thing cannot possibly be done, but the conditions under which architectural styles have been developed in the past are so obvious and definite that were it not for some unfortunate attempts to accomplish the impossible, it would seem incredible that sensible people should sit down before a drawing-board to produce a new, original, genuine, and withal American style of architecture by means of a compass and a T-square.

Though the American architect may not devise a style that shall be exclusively his own and bring him enduring and world-wide fame, he is not reduced to blindly copying buildings of past time, nor has he cause to be dissatisfied with the methods under which they were evolved. A system of architectural growth which produced the great temples of Egypt, the palaces of Assyria, the sanctuaries of Greece, the vast baths of the Romans, the dome of St. Sophia, the rich rugged beauty of the western basilicas, the sturdiness of the Romanesque, the unparalleled grandeur of the Gothic cathedrals and the innumerable ramifications of Gothic art, and the sometimes debased forms of the Renaissance, cannot be looked upon as a method that is old-fashioned and out of date, useless or forgotten, antique or incompatible with modern ideas. Not all previous architecture is worthy of being copied, but that of it which possesses such surpassing qualities of greatness and truth that no modern architect need be ashamed to use them as models. If he produces anything half so honest and good he will be doing well.

But it is quite unnecessary that the modern architect should resolve himself into a copying machine with no more individuality than a hektograph. It is

as great an error to suppose that because we cannot have an American style we must unquestionably follow other people, as it is to search for this style. The great problem before the American architect is to mould architectural ideas and forms to the varied conditions of our national life and situation, and thus while not obtaining an architecture that may be American in outward aspect, will be American in purport and through adoption. He will not insist on the selection of one style and one plan for the whole of our vast area and our wonderfully diversified climate, but he will permit each section to solve its own problem in its own way. These conditions are of course indefinite, but not more so than the problem itself.

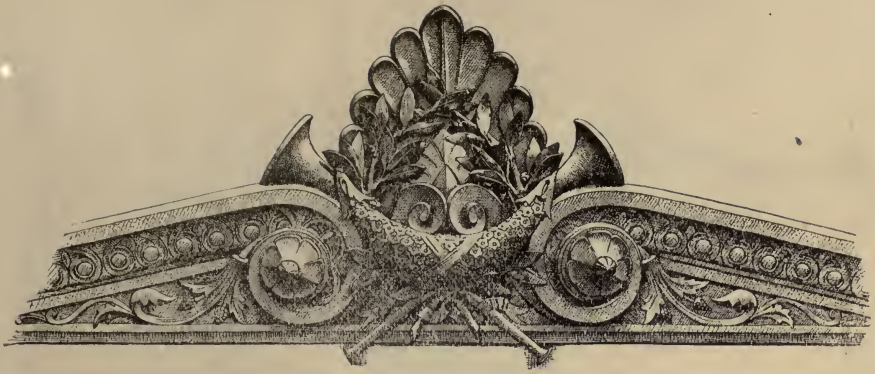
Throughout history the human mind exhibits points of similarity of startling distinctness; the longing for the unobtainable is one of the most persistent characteristics of the race. This feeling has undoubtedly at times brought about the invention of many desirable things, but it is not always the sensible and the useful that humanity craves. In the Middle Ages the philosopher's stone, which should turn all things into gold, was at once the most popular and absurd of superstitions. When the history of ideas in this country in the nineteenth century shall be written, the invention of an "American style" of Architecture will be pointed out as an illustration of the same delusion which animated people in the Middle Ages concerning the philosopher's stone. And just as we moralize on the nonsense of the gold-converting substance, so will future artists wonder that sensible, educated, wide-awake people should have imagined they could produce a style of Architecture by deliberately drawing it. It is not flattering to our good sense that we should be so thought of, but it is not more comfortable to see the making of styles attempted under our eyes and encouraged and applauded by those who should know better.

Barr Ferre.



ROBERT EDLSON - Architect - N.Y.

COLLEGIATE CHURCH - BUILDINGS - WEST END AVENUE - NEW YORK.



THE PIPES OF PAN.

UPON his melancholy pipes
Pan played until the wood was filled,
Until the evening breezes died,
Until all evening sounds were stilled.

When he ceased the woodman prayed,
"Let me behold thy pipes, O Pan,
Let me behold, that I may make
Such pipes to play on if I can."

For days he sought the finest reeds
Of all within the watery glade,
And fashioned them like those of Pan
Until the instrument was made.

He overwrought the pipes with praise
And pictures of the quiet wood,
Where nothing but the golden light
Broke in upon the solitude.

One evening when the quiet thrilled
With whisperings from the dying day,
And clouds of glory filled the West,
He took his pipes and tried to play;

But, from the pipes of perfect form,
No music rose to fill the wood,
No voice gave answer to his song
Or broke the evening solitude.

"Are not these pipes like those of Pan
Whose melody is passing sweet,
More liquid than the moonlight song
That riseth where the waters meet?

"Are not these pipes, in size and form,
Like unto those from which I wrought?
I have not failed in one poor thing ;
Oh what has brought my work to naught!"

From out the wood, as thus he spoke,
Came music far too sweet for man:
The woodman bowed his head; he knew
His song was in the pipes of Pan.

Harry W. Desmond.



DESIGN FOR RESIDENCE.

Oskar Dedreux, Architect, Aushurg.



FADS IN ARCHITECTURE.



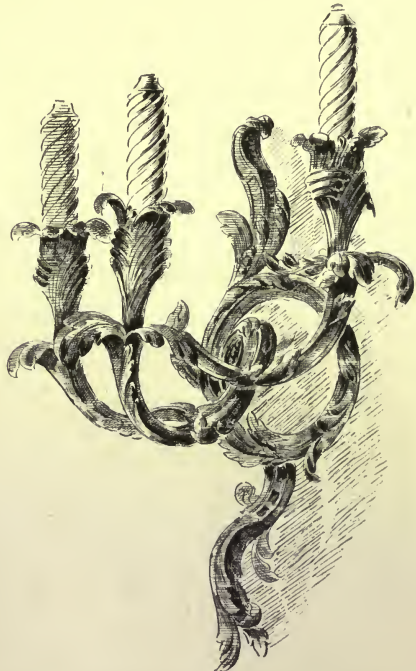
THE meaning conveyed by the words Architect and Architecture is fast becoming more distinctly understood. Webster defines "Architect:" (1)

One who plans and superintends the construction of a building; (2) A contriver. The most commonly accepted meaning would be expressed by a part of the first: one who plans buildings; while too much of the practice has followed the second. To-day the intelligent public would add to Webster's first definition, and say: an architect is one who designs, plans and superintends the construction of buildings, monuments and the like in an architectural way; that is in a scientific and artistic way—so that to us, an Architect not only plans or, as in the second case, "contrives," but plans, designs and constructs buildings in an economic, scientific and artistic manner.

There is a prevalent notion that to be architectural means that the subject must be treated in one of the many so-called styles of architecture, but this is an error; the different styles are not so distinctly separated that a composition may not have the characteristics of two or more styles; nor are they so essential that a composition must have the elements of one or more to be scientific, artistic, and hence architectural. On the other hand, a composition could have the elements of the most clearly defined

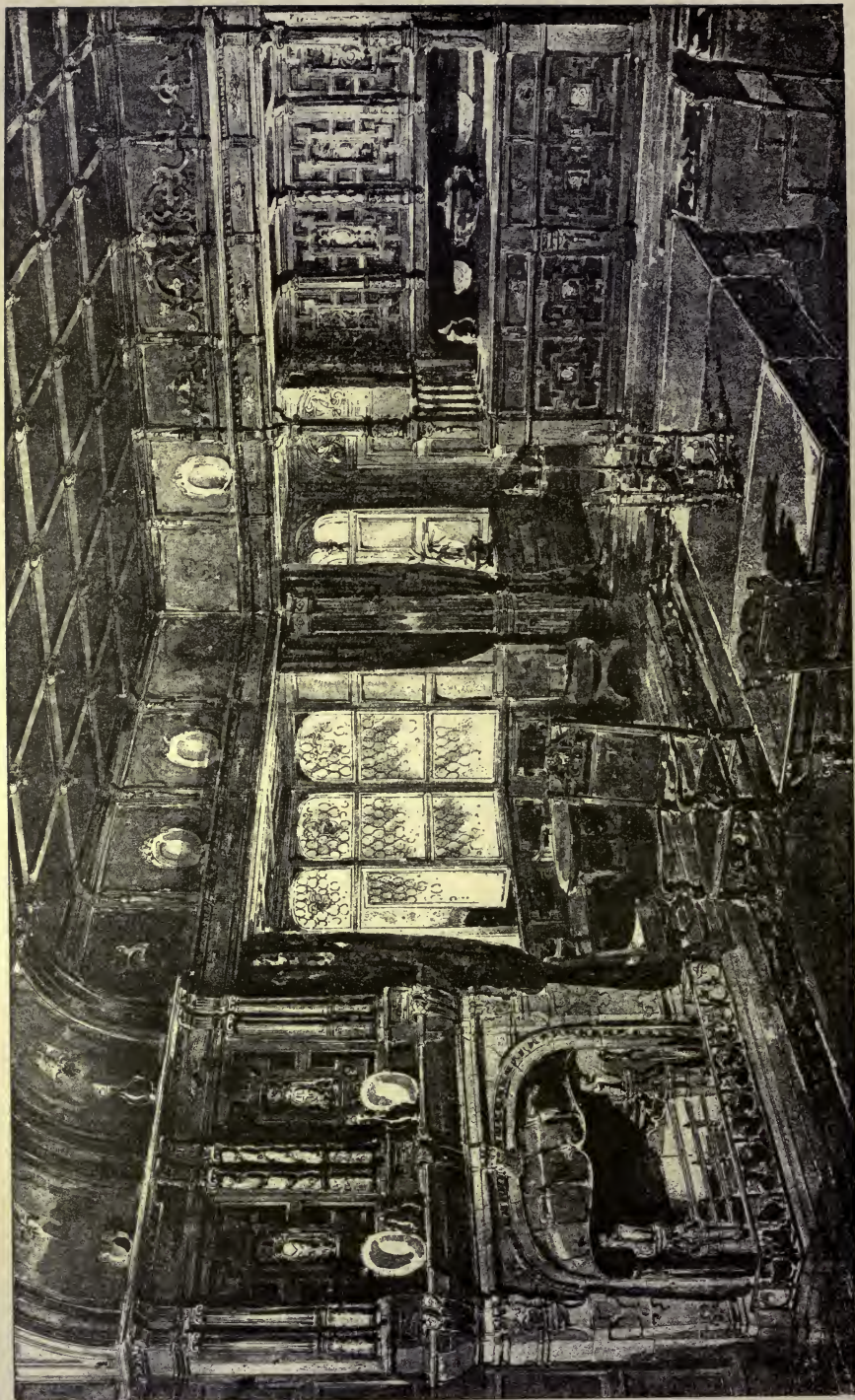
style, and even the details of the best example of the style, and be far from architectural.

It is upon this stumbling block that so many of our practitioners wreck their golden opportunities, and, assisted by the casual observations and needs of their clients, create the architectural fads and fancies of the day.



GAS CHANDELIER,

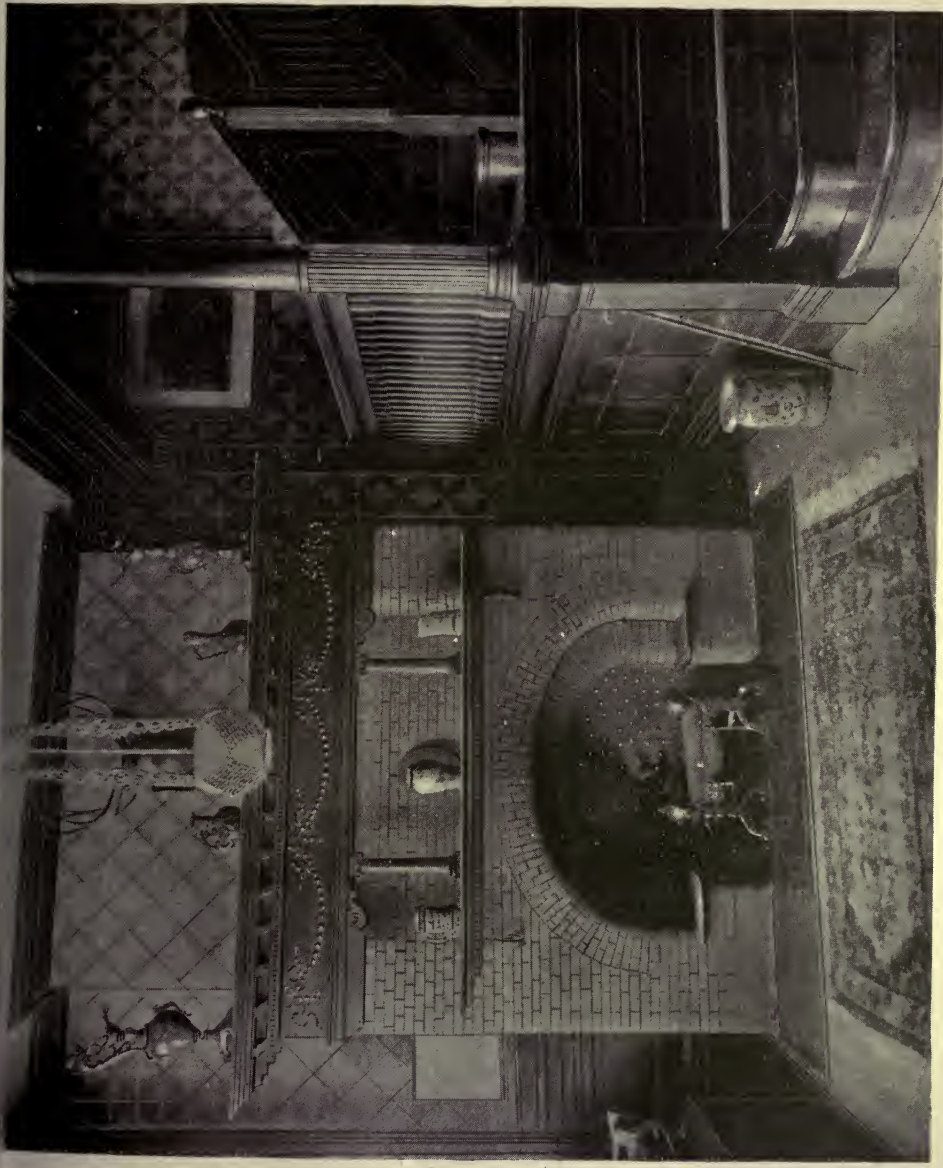
Designed by the Edison Electric Light Co.



From the Royal Academy Exhibition, London.

DESIGN FOR A DINING ROOM.

J. Armstrong Stenhouse.



Garfield Place, Brooklyn, N. Y.

HALLWAY, RESIDENCE OF R. A. WARD, ESQ.

Charles P. H. Gilbert, Architect.

The profession in general have attempted, and still attempt, to follow out some of the recognized styles in each design where, hampered by inconsistencies and influenced by the promptings of clients, the results are the incongruities which surrounded us. The public who are their clients are influenced by the more conspicuous and ornate attempts, and besiege the Architect to have a similar design and arrangement carried out in their work, and unfortunately too many architects follow such a course as the easiest way to dispose of the case. Thus there is too little serious work.

his purpose to do the so-called "original" act, but to best serve his clients, himself and his art by using that which is well adapted, and strive to do better that which is not, whether that which he invents follows the precedence of style or not.

The serious men of the profession, who have by natural capacity, training and sturdy application met every problem face to face have left illuminated pages in the history of the profession, but behind them have followed a long line that ape them in the style which they have created or improved by their inventions. Thus it is, for each good

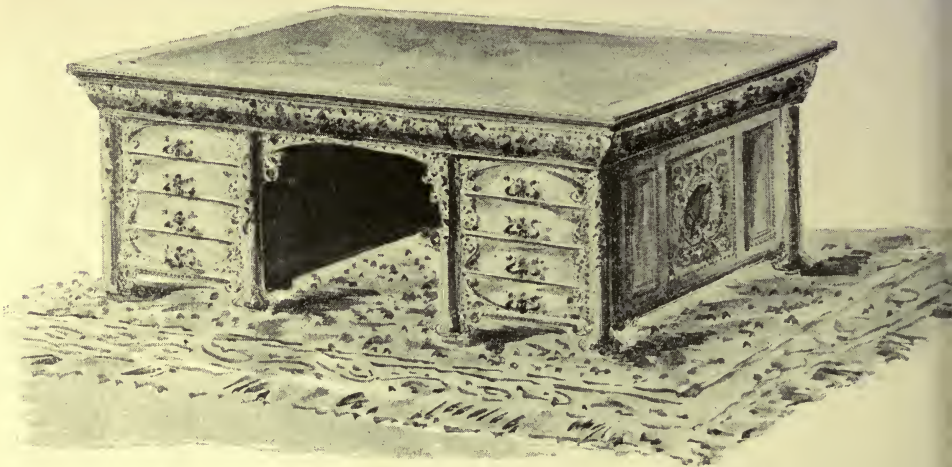


TABLE DESIGNED FOR THE NEW YORK CITY MUNICIPALITY.

Herts Brothers.

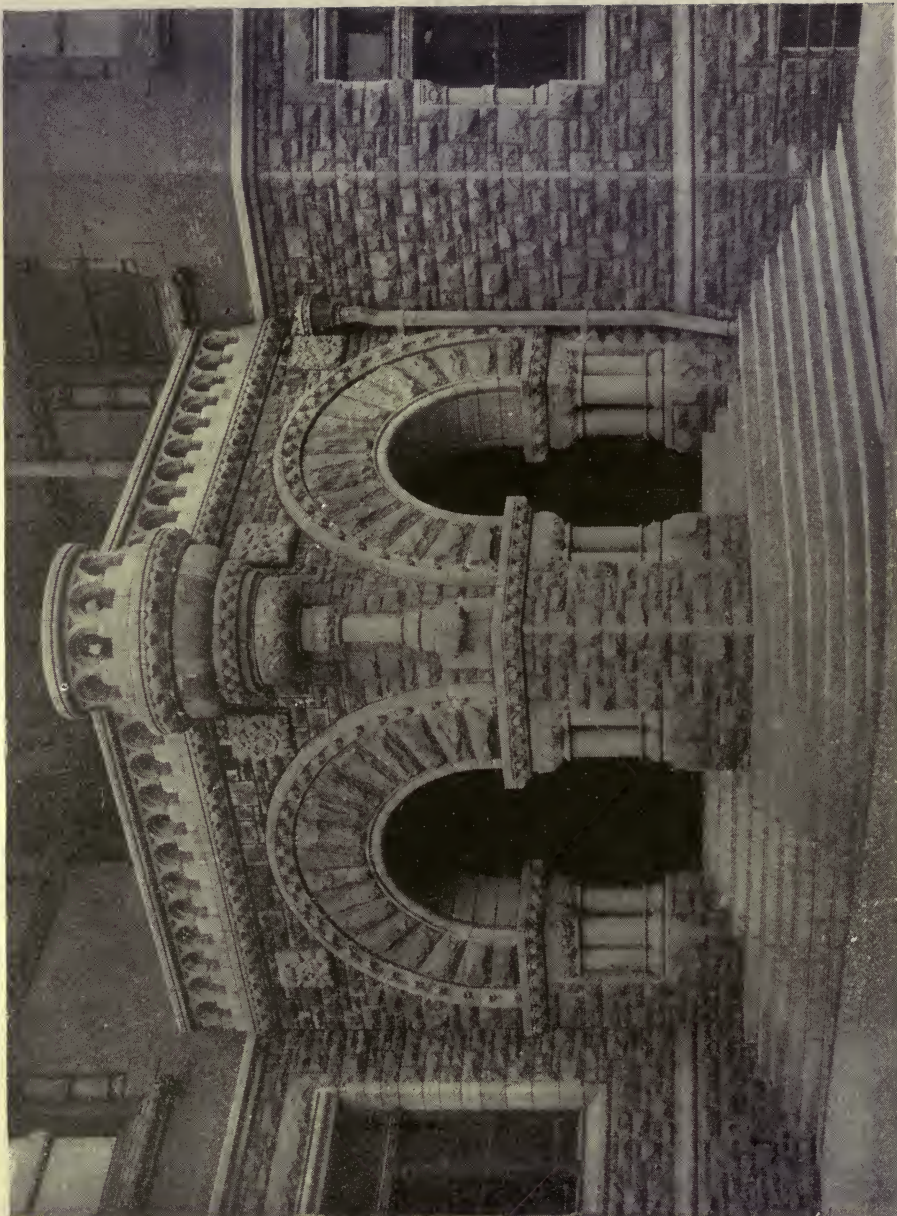
The true Architect is no copyist, no stiff-thumbed duplicator of other's details and ideas, but he who carefully studies the needs of the case before him, and plans, constructs and designs from a conviction that arises not so much from genius as from study and intelligent training, a kind of architectural conscience that abhors as a deformity, superfluous, misapplied or misplaced materials and inartistic lines and colors.

The Architect should not permit himself to be hampered with old or new examples, although he must be entirely familiar with both, and not hesitate to introduce as much of one or both as may best serve his needs. It is not to

design, we have countless imitations; seldom of the whole but of contorted details of it, so that every successful or partially successful man that does a good thing becomes the leader in or the instigator of a fad or a fashion to do everything in this or that way, after this or that style, consequently we find a constant changing of styles, a commencing over from a new starting point, a complete arresting of the progress made, instead of a steady development. It has been but a few years since it would have been considered a folly to have designed a prominent building in any but the Gothic style, and certainly to-day it is as foolish to think of having accepted a design in that style. The



New Brunswick, N. J. INTERIOR OF RESIDENCE OF PROF. C. E. HART. Henry Rutgers Marshall, Architect.



Buffalo, New York.

ENTRANCE TO LIBRARY AND ART BUILDING,

Cyrus L. W. Eidlitz, Architect.



ELECTRIC CHANDELIER, DESIGNED BY THE EDISON ELECTRIC LIGHT CO.

Romanesque of Mr. H. H. Richardson became the leading fad of the hour, until every office boy in the land, every stone-cutter and carver prided himself in his ability to copy him—not to avoid his faults, not to detect a weakness here or there, but to copy him. The fact was overlooked that Mr. Richardson did not reproduce what he found, but

developed it to meet the case, not trim to fit the place but invent what was necessary to make a complete whole. Has any one equalled or approached him? and now this fad is slowly but surely dying out. To-day we must either "do" the Renaissance or be out of fashion.

Yes, back to the Renaissance—



Los Angeles, Cal.

COURT HOUSE.

Curlett, Eisen and Cuthbertson, Architects.



ANCIENT CORINTHIAN VASE IN TERRA COTTA.

largely a something like everything else. It seems quite natural that after a cruise around among the styles and fashions we should come back again to the style that has received the highest development. But why come back we would like to ask? and the obvious answer is, because some ornate and prominent buildings have been built in this style, and the public are saying, how beautiful; how successful; why can you not do likewise for us? and these questions outweigh all others. Take for example the great cornice courses, those miserable shams that

stand between you and the light, that stretch out their great backs to catch the dirt only to pour it down upon the walls below when it rains, and divide up the façade like so many slices of cheese; are they not ill adapted to a twelve-story building on a 25-foot lot? Certainly no one will say these are essential to anything but this particular style; then why endure them? The same question may be asked of many other details of the style.

As with the general fashions that extend over the whole country, so with local fads that take possession of



Designed by Edison Electric Light Co.

lays it down, and push it on? Not until then will we have a National style; a style that will become a people advanced in science and schooled in art.

There have been a number of educated men in the profession whose work during the last twenty-five years has been characterized by a persistent effort to develop style by adopting, as a basis of their designs, some historic phase or style of architecture and remaining faithful to it throughout every temptation. The results have invariably been good. They have shown progress and, although feebly followed by other men, have made it clear that persistent effort in this direction will inevitably give a type or style, sooner or later, that would be as distinct and beautiful as any historic style and be in keeping and harmony with modern advancement. But our educated architects must not be content, as at present, with merely doing correct, careful copying of that which has served its purpose and which does not indicate a vigorous life and a capacity for progress.

There is another fad, or rather fashion, to which the younger men from which the ranks of the profession are constantly recruited, are much given. It is the conceit that the power they recognize in themselves to appreciate, enjoy and produce the picturesque and odd is the certain ability to compose. It is only the first indication that they possess an architectural mind. They may be without that serious conviction that is absolutely essential to fine work, as well as that higher and more technical education that gives to a sensitive mind when composing a certainty which prevents looseness of design and an unwarranted variation in composition which, manifested in the smallest part, disturbs the whole. It matters not how effective a part may be, how perfectly charming and unique this dodge or that; unless the whole shows that certainty of proportion, that apparently natural refinement and balance of parts that comes from the most careful study—so careful that the effort to produce it does not show—it is a failure. He who can only do clever work has but a narrow range. He is at the mercy of his own caprice. He follows the dictates of pleasure

cities or districts. Someone reproduces a "Colonial" design which is improved of and at once everything becomes Colonial, or perchance it is Louis XIV. or XV., or, as now in New York, Francis I. When will this apeing come to an end? When will we have men that lead to a purpose and men who follow to take up the work where the first



IN THE RESIDENCE OF C. A. MURPHY, ESQ.

Montgomery Place, Brooklyn, N. Y.

Charles P. H. Gilbert, Architect.



CHAPEL OF THE GENERAL THEOLOGICAL SEMINARY,

West Twenty-first street, New York City.

Charles C. Haight, Architect.

rather than the serious convictions of duty. He can copy, he can invent, but he can not advance.

To sum up, then, the architectural fads of the day are of two classes. One that comes from the indiscrimi-

nate copying of successful men's work and reproducing details culled from striking and ornate buildings; the other from the false idea that unique and fanciful combinations constitute design.

George Keister.



ATHENIAN PERFUME VASE IN TERRA COTTA.

THE SORROW-CHORD.

O! GOD, Apollo! To thy fane,
 With little of the sacred fire,
 Weary, I come to praise thy name,
 To praise it on a broken lyre.

A broken lyre; for o'er its chords
 The ruthless hand of Life has run;
 When the tempestuous music ceased,
 The strings were broken,—all but one.

Hark! O! my Father, dost thou hear
 The fathomless pathos of that tone,
 As though Humanity gave forth
 Its pent-up deep sorrow in a moan?

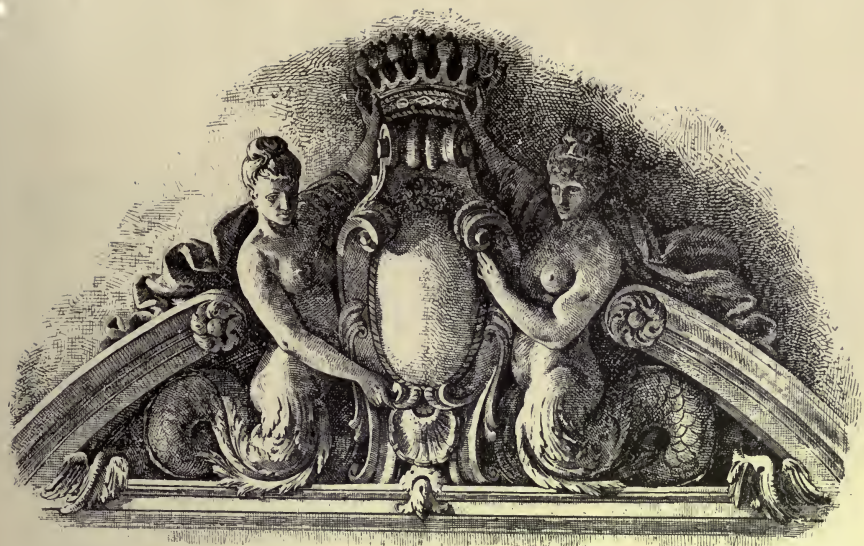
Surely it would be such if borne
 On winds unknown to earthly clime,
 Should come the sound Life's waters make
 Upon the barren shores of Time.



San Antonio, Texas.

SAN ANTONIO NATIONAL BANK BUILDING.

Cyrus L. W. Eidlitz, Architect.



TERRA COTTA.—SOME OF ITS CHARACTERISTICS.



THE evidences of the material prosperity of this country are probably more fully displayed in its street architecture than in any other manner.

With the marvelous increase in real estate values during the past twenty years there has been a coincident growth in the size and decoration of its buildings. The concentration of commercial and social interests has created a demand for vast structures; the accretion of wealth has given the means to erect them; the immense advance in the ability of iron workers has furnished the skeleton, while the clay-workers have provided a large part of the material necessary to complete the form. I say a large part, for the student of architectural design in this country will not only find that there are very few noticeable buildings anywhere which have been erected more than twenty years, but also that a very large proportion of the structures which attract his attention are dependent upon terra cotta work for their enrichment.

Now an examination of the designs

of these buildings will, I believe, divide them into two classes:

First, designs in which terra cotta has been used as a substitute for stone.

Second, designs in which terra cotta has by its facility of formation furnished the architect with a freedom of expression that enabled him to give scope to his fancy and produce results impossible in the school of line, square and plummet. The further fact will also become apparent, viz.: that much of the recent great advance in freedom of design in this country began with the advent of the architectural terra cotta worker.

When the use of burned clay in other forms than common brick was suggested to our architects, they at once gravitated towards two distinct ideas:

1. Terra cotta as a substitute.
2. Terra cotta as a distinct "building material."

Some architects were attracted by the hope of having found a cheap substitute for stone, which would enable them to get more show for less cost. Such architects would ask for large pieces, rock surfaces and stone colors. They would select a chip of natural



Shorthills, N. J.

MANTLE IN PARLOR OF J. R. PITCHER, Lamb & Rich, Architects.

stone, and demand that the clay worker do an impossibility, viz.: reproduce that exact shade of color, ignoring the fact that the color of the stone is in a great measure due to the texture of its surface.

Stone work always presents a section of the material and shows the grain, while terra cotta always presents an outer skin produced by the concentration of the finer particles of the clay at the surface of the mould in pressing the material into the desired shape. In stone the carved work differs in color from the plain surface. Yet the material is identical.

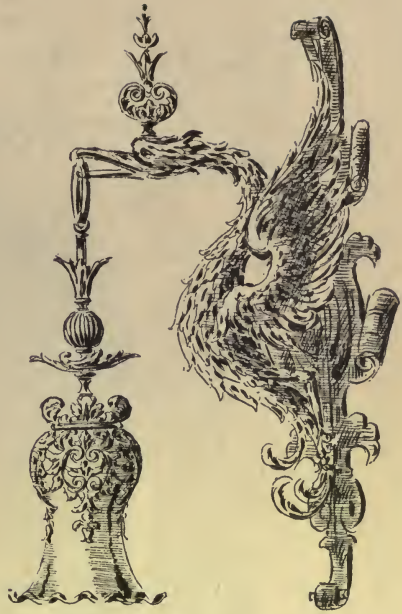
As to uniformity of color in terra cotta it can only be obtained in one way, and that is available—let the painter have a chance.

The pursuit of cheapness never yet had any artistic value; therefore it is useless to expend thought on the question of terra cotta as a substitute or sham building material. Terra cotta is a valuable material; it has a practical utility and is capable of artistic expression in architecture. It is the materialized crayon sketch.

The proper use of terra cotta demands:

1. Moderate size of pieces.
2. Manipulation of the surfaces.
3. Consideration in the construction.*
4. Protection of the exposed joints.
5. Freedom of shade in color.

It must always be remembered when making designs for execution in terra cotta that the material is plastic during all the processes of manufacture. It has to be pressed into plaster moulds, to give it the desired form; then it has to be dried before it can go into the kiln, during which processes it will contract and lose about one-twenty-fourth of its bulk and one-twentieth of its weight. This shrinkage



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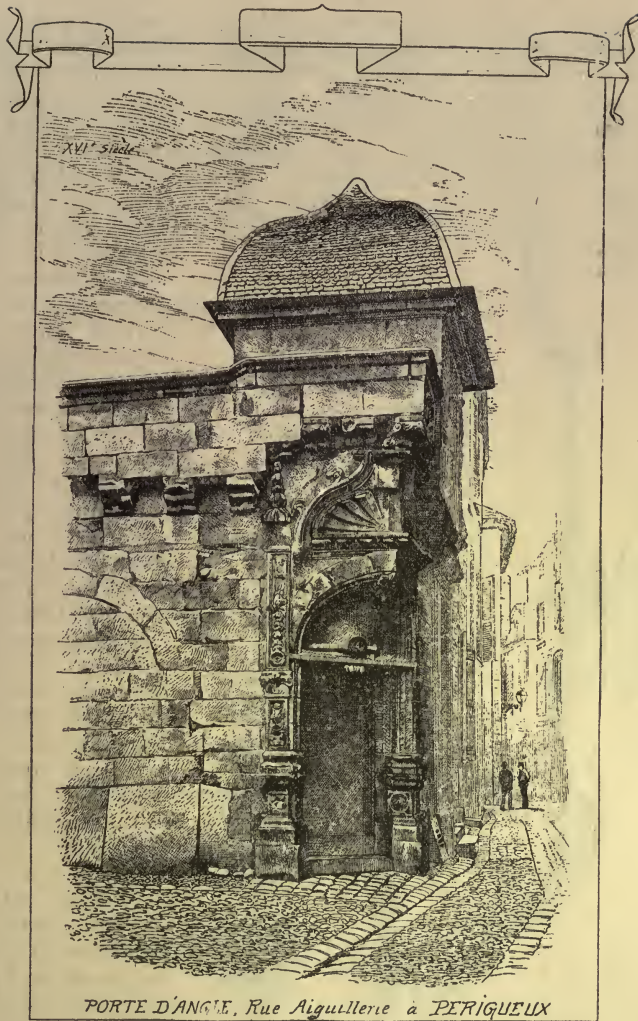
* What I wish to insist upon is the necessity of taking into consideration the material used in construction. Thus: Iron can be used as beam lintels, stone may sometimes be so used too, but terra cotta should never be so used.



continues during the process of burning and makes the total contraction about one-twelfth and the reduction of weight about one-fourth. If the size and form are moderate this shrinkage will be obtained without cracking or distortion and with but small risk of failure. The same conditions affect the surfaces of the material; unequal drying causes varied contraction, which the high light of sunshine apparently magnifies; therefore terra cotta should never have a smooth surface for exterior work. Many treatments of surface are in vogue, such as tooled, combed, stippled

and crinkled finish; all of these are used to convey the idea of a soft and plastic material.

The use of terra cotta sometimes leads to great errors in construction. It is customary to speak of terra cotta as being light in weight; but this is only true in regard to transportation of the surfaces, for when terra cotta is set in place and properly filled (so as to preclude the formation of pockets of water, which means ice in winter), it becomes the same actual weight as brickwork and very much of the same construction, therefore all excessive projections,



spans or openings ought to receive a good and sufficient backbone of iron construction.

There are instances in New York City where cornices with three feet of projection are simply covered with inverted boxes of terra cotta, each box capable of containing many gallons of water, and at about every two feet there is a convenient joint, which, when the pointing becomes a little loosened (as it will), will freely admit the rain water and let it soak into the walls, so that in the winter time ice will be formed in these boxes and breakage may result. Surely

this is not the fault of the terra cotta, though the material is often blamed in such cases. In a climate of such extremes as ours, it is evident that all upper surfaces which are traversed by joints ought to be covered by some sufficient protection.

Almost all of the finest buildings in our city are disfigured by grimy and black streaks leading down from the vertical joints in the stone cornices or projecting mouldings. This could and should be prevented by the use of metal or other flashings for large projections, and raised joints for the smaller ones.

In the use of terra cotta this is imperative; for careless workmen will sometimes neglect to fill in the work properly, when it is being placed in its permanent position. Water and ice will then in due course cause trouble.

It should be remembered that the tone of color is governed by the chemical constituents of the clay, and the shade of color is governed by the degree of heat involved in burning — a few degrees more causing the

darker shades, or a few degrees less producing the lighter shades. The regulation of the heat of a kiln of burned clay (during the process of firing) within certain limits is at present beyond the ability of the most experienced of our clay workers. Hence it is unfair to ask it of them. If the question of shade of color is important to a certain design, as we have said, why not utilize the painter? He has a recognized field in the decoration of wood and iron. Is there any sound reason why he should not also decorate the terra cotta work? Mechanically there is none, for a coat of lead paint will last much longer on terra cotta than upon any other building material ever used, not excepting wood or iron.

A study of the relations of terra cotta to architectural design, founded upon a practical knowledge of this material, will surely enable our architects to produce an ideal brick and terra cotta structure, which shall as truly make its mark in our day as did the



Designed by Edison Electric Light Co.

The color of terra cotta is a frequent cause of contention. It ought not to be. Absolute uniformity of color is beyond the possibilities of manufacture.

Certosa of Pavia, the Church of St. Rustico at Caravaggio, the Cathedral of Crema, and other buildings of Northern Italy, centuries ago.

James Taylor.



THE NEW YORK BUILDING LAW.



THE subject of laws relating to the construction of buildings most likely would be promptly rejected by the ordinary reader of magazine articles as

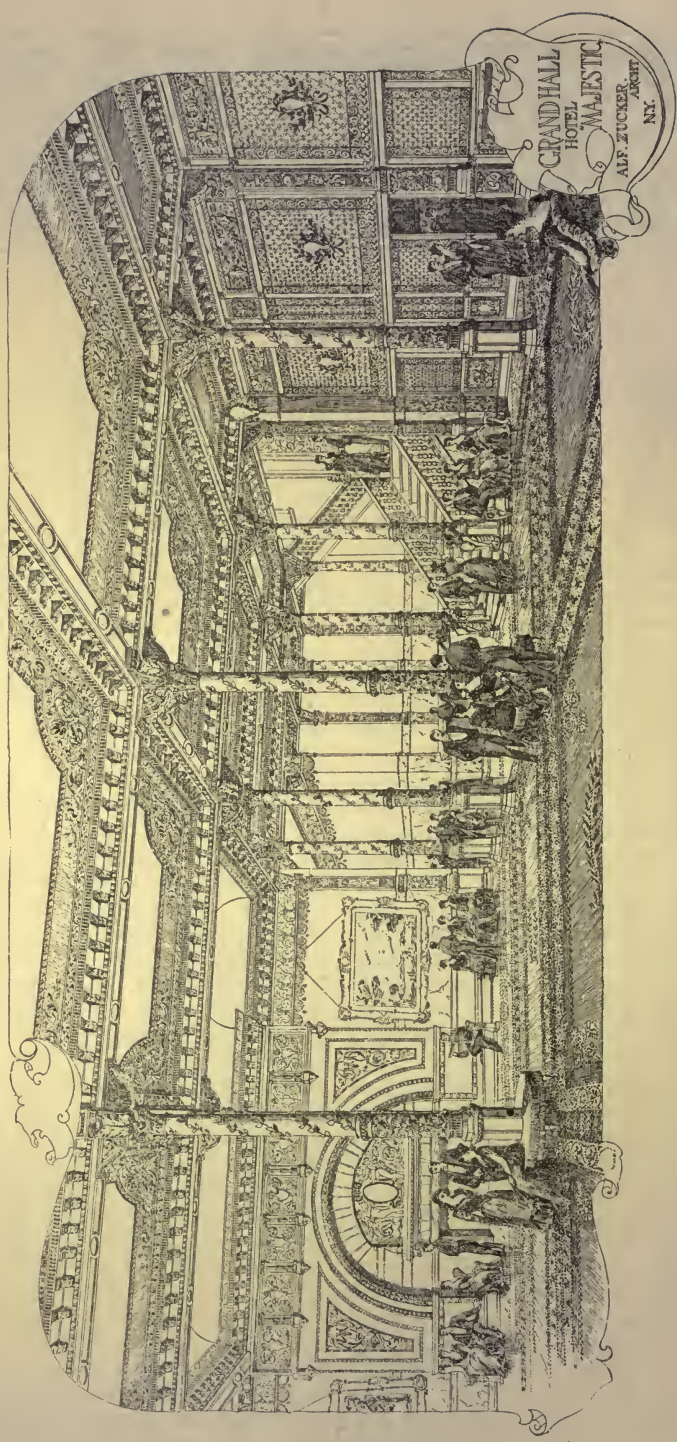
dry, uninteresting and unprofitable. In reality the subject is one of uncommon interest to whoever has the courage once to give it attention. The inhabitants of our American cities are but laying the foundations of the great cities of the future, and the wise and proper construction of buildings with prudent forethought for the procurement of the greatest amount of good for those who must live in and near them surely deserves the attention of every thoughtful person.

Building laws are progressive; they are framed, altered and amended from time to time to meet varying conditions and to keep pace with new methods of construction. Such has been the history of the New York Building Law.

In the United States, New York, of all the cities, was the first to enact laws governing the erection and alteration of buildings, and in the successive and progressive steps taken in keeping such regulations up to the most modern state of the art of building and the most approved sanitary methods. As may well be imagined, this progress has been made with great difficulty. The speculative builder, and those who desired the old order of things to remain unchanged for reasons of their own, joined hands and frequently succeeded in delaying good amendments asked for of the Legisla-

ture. Unremitting and persistent effort was required to secure the many good features that the existing building law contains, and the end is not yet; for in the last Legislature the most complete and comprehensive law thus far formulated was lost on account of the deadlock that came in the Senate over the Canal investigation. The bill passed the Assembly and probably would have passed the Senate had the latter continued to transact business. Next year the same tiresome and almost endless performance will be acted again, but it is to be hoped with better results.

The first separate building law was given to New York in 1860. It is this law which has served as the foundation for all the subsequent laws, the guide for framers of similar laws all over this country. Prior to that date there were duties and powers possessed and performed by Fire Wardens in New York regulating the construction of buildings. The Fire Wardens were elected by the engineers of the volunteer fire engine companies. The regulations concerning the construction of buildings were very crude, the chief aim being to prevent the erection of frame or wooden structures in the downtown streets. The discretionary powers vested in these Fire Wardens in their capacity as Inspectors of Buildings were not always used in the best interest of the public, and the stories yet current of doings in those days show that city employes were quite as ready to blind their eyes or refrain from action as in more recent times. In the early days wood was generally used as fuel; fires were very frequent and fines were imposed on the occupants of



GRAND HALL
HOTEL
MAJESTIC
ALF. ZUCKER, ARCHT.
N.Y.

houses in which the flames originated.

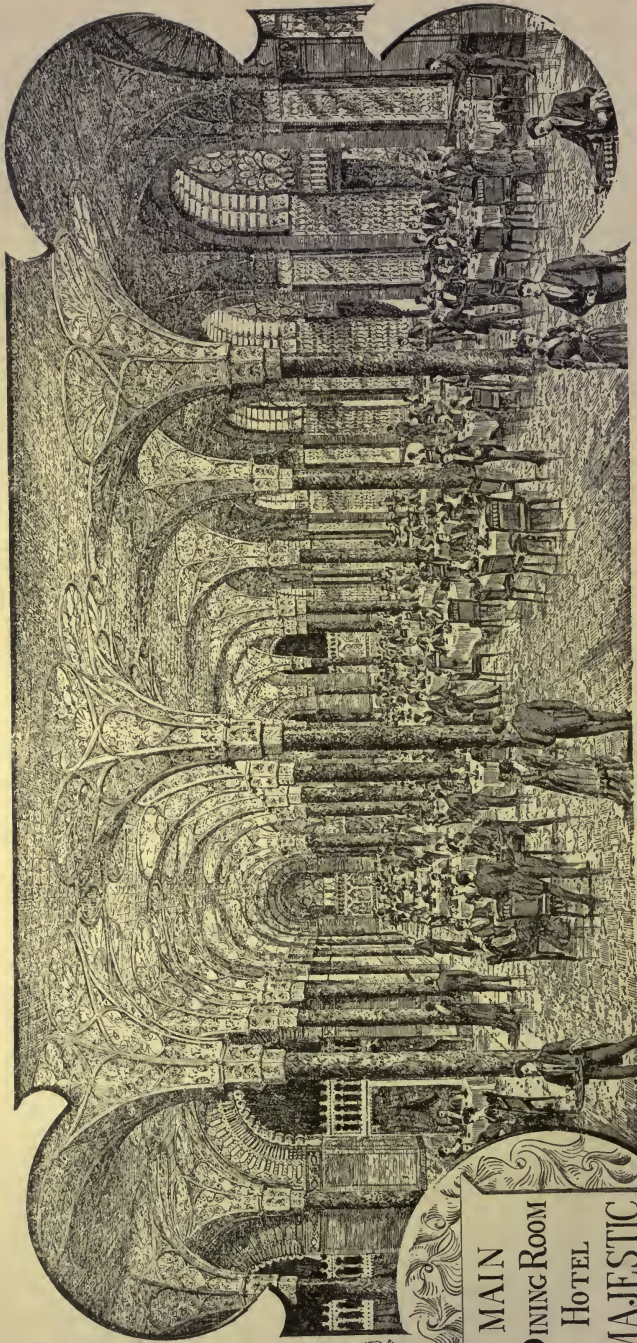
The law of 1860 created a Department of Buildings. It provided for the appointment of a Superintendent of Buildings, a Deputy-Superintendent and eight Inspectors, one-half of whom were taken from among exempt firemen. The selection of these officials was made in a curious way: Three members of the Fire Department, together with three members of the American Institute of Architects, and three members of the Mechanics' and Tradesmen's Society, met in convention and made the nominations. Immediately after the nominations a return was made to the Mayor, who was thereupon required to swear into office the persons so nominated. The building limit was placed at Fifty-second street, from the East River to the Hudson River. The technical portions of that law were remarkably good. It is true it contains, for example, no limitation as to the height or width of non-fire-proof buildings, but the necessity for such restrictions did not exist at that time. The great buildings, some covering a whole block without a division wall and some reaching high up toward the sky, came later and were recognized as a menace, not only to surrounding property but to the whole city, demanding regulation by law. It must be understood that laws are not retroactive; building laws apply to structures erected after the enactment of amendments or the passage of a new law. Nor is a building law designed to interfere with individual liberty and enterprise within certain limits that a community determine is in its interest to establish. A builder may do what he likes architecturally, but in case he uses a stone cornice the law says the greater weight thereof shall be on the inside of the face line of the wall upon which it rests. And so of the hundreds of other requirements, all proper for public safety, and which are in the nature of police regulations.

The first Superintendent of Buildings, under the law of 1860, was Jonas N. Phillips, who previously had been one of the Fire Wardens. The Deputy-Superintendent was James M. Macgregor.

In 1862 and the year subsequent thereto, the law was amended in many respects for the better. The Mayor was given the power of appointing the Superintendent, by and with the consent of the Board of Supervisors of the city. Before appointment, the Superintendent was required to pass an examination before a committee from the American Institute of Architects, and the candidate was required to be either a practical architect or builder. Macgregor became the Superintendent in 1862.

In 1866 the law was further amended. The line below which no frame or wooden building could be erected was placed at Eighty-sixth street, from river to river. Under the administration of this law serious public scandals arose. Discretionary power was vested in the Superintendent to modify or vary the law, but before permitting such deviation he was required first to obtain an order from the Supreme Court authorizing him to issue a permit. The newspapers of the period teemed with articles showing how modifications were signed in blank by a Justice of the Supreme Court, and when filled out the sanctions so issued were sold for money by men who thoroughly understood the rules of addition, division and silence. It was fashionable in those years for men intrusted with city affairs to wear diamonds and white neckties and conspicuously display the tiger badge of membership in the famous Americus Club.

In 1871 the building law was still further amended. A limitation was put to the width of non-fire-proof buildings, but none as to their height. This law created a Board of Examiners, consisting of one member from the American Institute of Architects, one member from the Board of Fire Underwriters and two members from the Mechanics' and Traders' Exchange. There has since been added two additional members to the Board—one from the Society of Architectural Iron Manufacturers and one from the Real Estate Owners' and Builders' Association. The latest proposition is to add still another one from the Real Estate Exchange, on the ground that the latter organization represents the



MAIN
DINING ROOM
HOTEL
MAJESTIC

*Alfred Swinburn
London*

consumers as opposed to the producers of and dealers in building material. This Board has first to give its consent to any proposed modification of the law before the Superintendent can issue his permit. There is an erroneous impres-

the provisions of the law does not directly apply, or where an equally good or more desirable form of construction than the law specifies is desired to be used. The need for this Board is growing less and less as the law is amplified



HOTEL MAJESTIC.

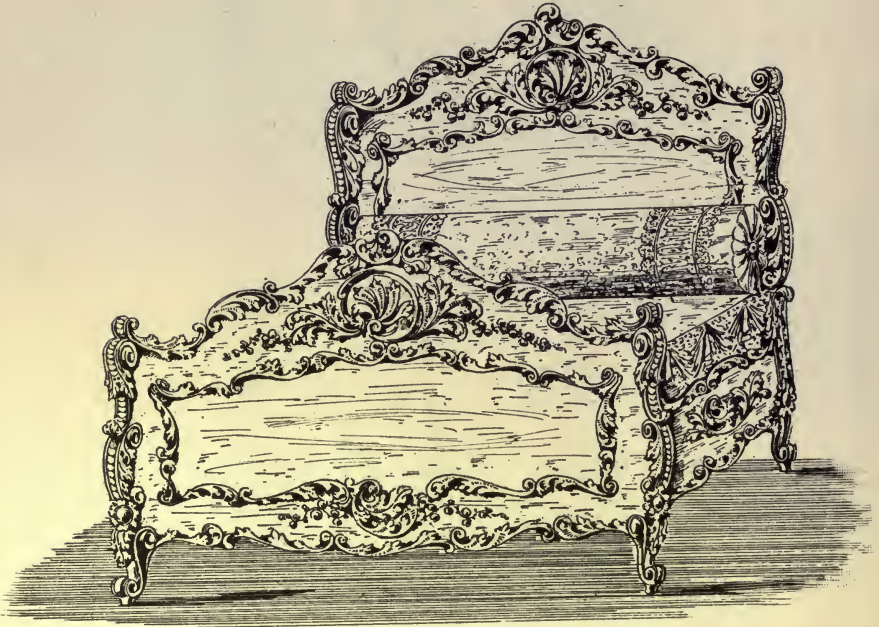
Central Park, West, at 72d street, New York City.

Alfred Zucker, Architect.

sion prevailing quite generally that this Board can set aside the law and issue its own mandates instead. The powers of the Board are prescribed; it can only act in cases where there are practical difficulties in the way of carrying out the strict letter of the law, or where

and enlarged, and the comparatively little discretionary powers left after the proposed amendments as submitted to the last Legislature are finally incorporated in the law can be safely invested in the Superintendent.

The law of 1871 required that all



DESIGN BY HERTS BROTHERS.

iron beams should be tested by actual weight or pressure placed thereon before being set up in place. This was and is an excellent provision in itself. It continues in force to this day, and will remain; but the method of its enforcement at the start proved very obnoxious to the iron founders, and was the first cause of the architectural iron manufacturers, as an organized body, taking up the work of securing for New York a proper building law, and the active interest thus invoked has continued without cessation from that time to this.

In 1874 certain amendments were made to the building law, principally to divide the work of the Department into bureaus, a Bureau of Inspection, a Bureau of Violations, and a Bureau of Fire Escapes and Iron Work. Again in 1881 amendments were obtained from the Legislature relating mainly to legal and administrative features of the law.

But the main requirements of the building law remained without alteration from 1871 to 1885. Macgregor had given way as Superintendent to

his deputy, Walter Adams, in 1873, and Adams in turn was succeeded by Henry J. Dudley in 1878. Dudley held the office until 1880, when he was legislated out of office, and the Department of Buildings merged into the Fire Department as a bureau therein. The County Democracy had come into power; the Building Department was deemed to be rotten to the core, and Mayor Cooper nominated an able architect, Thomas H. McAvoy, since deceased, to be Superintendent in place of Dudley. The Board of Aldermen refused to confirm the nomination, and Dudley held on. Mr. John Kelly gave his consent, as the head of Tammany Hall, that the Building Department should be merged into the Fire Department, which was under the control of his organization. A few years later, in 1883, Mr. Kelly authorized his name to be used in the effort that was then made to take away the Building Bureau from the Fire Department and rehabilitate it into a Department of Buildings. Fire Commissioner Gorman, afterwards Judge, and at present Sheriff, was at that time



DESIGN FOR PROPOSED SUN BUILDING,
City Hall Square, New York City.

Bruce Price, Architect.



AN OUT-OF-THE-WAY CORNER IN PARIS.

and always since has been in favor of making the Building Bureau a separate Department. The Fire Department has to do with the prevention and extinction of fires. The Building Department has to do with the erection and alterations of buildings, exercising inspection over an expenditure of some one hundred millions of dollars annually. Each department makes use of an entirely different grade of men, and each has quite enough to attend to in its own proper sphere.

Upon the Building Department being amalgamated with the Fire Department, as stated, in 1880, William P. Esterbrook was appointed by the Fire Commissioners to be the head of the Bureau of Buildings. The place of business was removed from No. 2 Fourth avenue, where it had been located almost from the time when the Department of Buildings was created, to the Fire Department headquarters at No. 155 Mercer street, and subsequently to the new headquarters on Sixty-seventh street, near Third avenue. Mr. Esterbrook held office for nearly five years, when he resigned, and A. F. D'Oench was thereupon appointed, who, after a service of four years, was succeeded by the present incumbent, Thomas J. Brady, in 1889.

Mr. Esterbrook was a builder of experience, and in a long business career had justly acquired a reputation for honesty and probity. He was a man of determination and blunt to an extreme degree. No violator of the law found any comfort at his hands. He would frequently quote the lines: "No rogue e're felt the halter draw with good opinion of the law." At the same time he freely admitted that the law was unfair in many respects, but it was the law, and he deemed it his duty to enforce it. The heights of walls as set forth in the law were all a little too low to give proper heights to a given number of stories, and had purposely been so made in order to compel owners and builders to sue for favors from the Department. It was understood from the first that the Superintendent, then styled the Inspector, could not be improperly approached; but this honesty on the part of the

Chief gave his subordinates, the district surveyors, their opportunity, which they were prompt to take advantage of.

Immediately after Mr. Esterbrook took office, in the month of July, a request was made to him that he take up the work of securing a better law, and an offer was made to furnish him much material already prepared for that purpose. He agreed to undertake the task, and amendments were furnished him in the month of December following. He altered the amendments to suit himself and sent his bill to Albany in the early part of 1881. His best friends scarcely recognized the document in the shape that it came from his hands. However, the Conkling Senatorial contest in that session of the Legislature prevented final action on that particular bill. Before the time for the next session rolled around, Mr. Esterbrook called together in conference with himself representatives from the Architectural Iron Association, the Mechanics' and Traders' Exchange and the American Institute of Architects. A new bill was prepared and introduced into the Legislature of 1882. Opposition from speculative builders and those who had personal grievances against Mr. Esterbrook arose and the bill failed. It again failed in 1883. In the fall of the latter year Mr. Esterbrook issued a call addressed to the several associations and persons who had taken an active interest for or against the previous bills, to meet at the Ashland House and formulate a bill that would be acceptable to all. Equal representation was given to each association and the bill, as prepared by the conference committee, sent to the Legislature in the session of 1884, the bill still being known as the Esterbrook bill. The representatives of two of the societies—the Mechanics' and Traders' Exchange and the Real Estate Owners' and Builders' Association—refused to endorse the bill as a whole, and eventually put themselves in opposition to the bill and drew up a bill of their own, known at the time as the "Kickers'" bill. The Esterbrook bill got through both branches of the Legislature this time, but one of the opposition amendments had been put in,



Baltimore, Md.

THE BRYN MAWR SCHOOL BUILDING.

Henry Rutgers Marshall, Architect.

namely, a Board of Appeal, to which Board appeal could be taken from any decision of the Superintendent, and this without any expense to an appellant. When the bill reached the Executive Chamber, Governor Cleveland vetoed the measure, basing his objections on one or two technical errors that were discovered in the text.

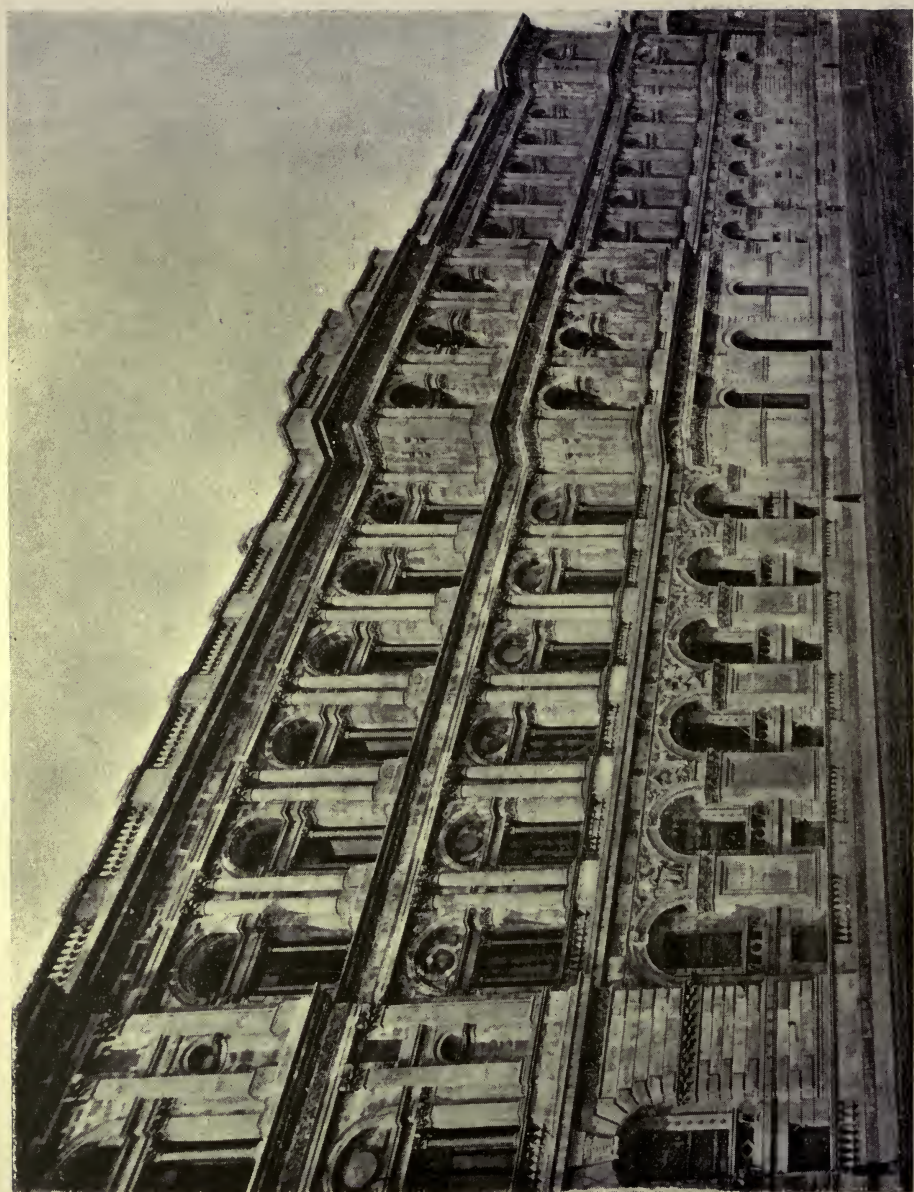
The next year, 1885, the true bill went successfully through both Houses, in spite of opposition, which was about as fierce as ever. Governor Hill had become the Executive head of the State. At the public hearing which he gave he was directly asked to veto the bill by the Attorney to the Fire Department and by the Superintendent who had succeeded Mr. Esterbrook as chief of the Building Bureau. During the term Governor Hill had presided over the Senate he had become quite familiar with the facts connected with the efforts to get for New York a modern building law, and he signed the bill. It was conceded that there were some defects in the new law, but far less than the then existing law contained, and the new law was a great step in advance over the old. It required that all buildings exceeding a stated height should be constructed entirely fire-proof. It provided for the safe construction of theatres and other places of public assembly. The Governor was promised that other advance steps would be duly taken. Governor Hill had prepared the way for the law by calling attention in his first annual message to the necessity for a new building law in New York, and Mayor Edson's annual message had also made reference to the same subject.

When the next amendments were undertaken the different societies bound themselves, by a compact in writing, to accept the will of a majority. The Fire Commissioners demanded that the power of summary arrest, as it formerly existed, be added to the amendments. It is hardly necessary to state that this demand was not acceded to, and anything but harmony was the result. The amendments went to Albany and became law in 1887, without the power of arrest being included.

The power to arrest for violations is a sore point with the building interest and real estate owners. That power was wrested away from the authorities on a direct issue, after it had been abused and made an instrument for oppression and extortion. Full and ample legal powers for the enforcement of the law through civil procedure is provided, and by injunction proceedings to stop willful violations. Reputable owners and builders should not be subject to the indignity of arrest, when perhaps they are in utter ignorance of a violation until the hands of an officer is laid upon their shoulders. The property doesn't run away, and the law reaches the property through *lis pendens* and other means to enforce the payment of fines, penalties and judgments.

It is the law of 1887 which is now in force. After a year or two's experience with that law it was seen where it could be improved in many respects; indeed it became absolutely necessary to make certain additions thereto. A new method of constructing tall buildings came into use subsequent to the date of the passage of the law. The skeleton of iron and steel simply surrounded by thin brick walls, used to-day in nearly all the great buildings now in course of erection, the law had made no provision for. Application has to be made to the Board of Examiners in each case. If the construction is good, an owner should have the privilege of using it as his right, and not as a favor. Not the least important new provision put in the new bill was one proposed by Superintendent Brady, requiring that all public buildings, schools, asylums, and hospitals hereafter erected should be of fire-proof construction. The arrangement of the law was also changed, grouping together as far as possible all that related to any one subject, and in the order that a building progresses. The bill reached the Legislature too late in the session for action, inasmuch as opposition arose from unexpected quarters, rather to what the bill did not contain than to what it did. It was a grievous disappointment to the building interest that the amendments did not become law.

Up to the Legislature in its last ses-



London, England.

GOVERNMENT BUILDINGS — THE HOME OFFICE.

Sir Gilbert Scott, Architect.

sion, 1891, went a bill having the entire good wishes of all concerned. There was also submitted one or two points upon which the Committee on Revision differed among themselves, but in a friendly way the decision was left to the Legislature. One of these differences was the proposition to allow an increased height for non-fire-proof buildings if constructed on what is termed the slow-burning principle of filling up or cutting off the air spaces between the wooden floor beams. The Assembly Committee on Cities refused to incorporate this method in the bill. The building law was hung up for good, however, when the political dead-lock came in the Senate. When the Legislature next convenes, in 1892, the building law will be there for disposition.

It has thus been shown that for more than ten consecutive years the work of improving the building law of New York has steadily gone on. The work has been arduous to an extent that but few even in building circles know. The general public know nothing at all about it and apparently care less than nothing. It is safe to assert that if the '92 bill gets through the Legislature the building law will remain without material alteration for many years to come.

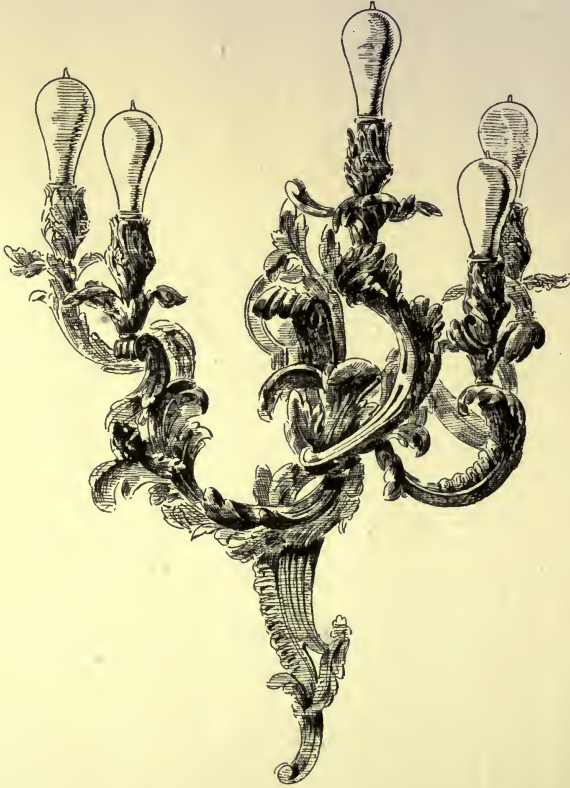
But there is another reform much desired by architects and builders, and that is the consolidation of powers now scattered through several departments of the city government into one department of buildings. Construction plans have now to be filed in the Building Bureau of the Fire Department. Plumbing plans have to go to the Health Department, as also plans for light and ventilation. Permits have to be obtained from the Department of Public Works for vaults and for the occupancy of streets for building operations. Preparing separate sets of plans is not only costly, but the time consumed in going to and waiting at the several departments is very burdensome to busy professional men.

The paid Fire Department was not created until 1866, six years subsequent to the date when the Department of Buildings was created. The head of the Building Bureau is nothing more

nor less than a clerk under the Fire Commissioners; he has no power of appointments or removal of his subordinates, nor is he free to act up to the importance of his station. It is no disparagement of the Fire Commissioners, as such, to say that they know nothing about the intricate details of building construction. Judge Gorman has stated that while a Fire Commissioner—and he was a capable Commissioner, with long previous experience as a fireman—the Building Bureau was a constant worry and fear to him, involving responsibility on him as President of the Fire Department, and with the feeling of responsibility the knowledge that he lacked the architect and builder's training to properly supervise the operations of the Building Bureau. One of the most capable Presidents that the Health Department has ever had, James C. Bayles, is outspoken in his opinion that the Plumbing and Light and Ventilation Bureaus in the Department over which he formerly presided should be removed therefrom and consolidated with other bureaus pertaining to buildings into a separate department. The various building trade associations have from time to time declared in favor of a separate Department of Buildings, and the real estate and architectural publications have advocated the same thing. It is of the first importance to the real estate and building interests to have the laws relating to the construction of buildings fair and complete. When this is finally accomplished, then there should be undertaken the supplemental work of Administration. Mayor Grant, or whomever may be his successor in office, will doubtless be willing to give his approval and aid to the re-creation of a Department of Buildings, when it is clearly shown that such is the united wish of the interests that annually add so much to the taxable value of the city. In the event of a Department being established, probably the most satisfactory arrangement would be to put the control into the hands of three commissioners selected for their known capabilities, and abolish the Board of Examiners as a useless appendage to a law covering almost every conceivable case.

Building laws will always be a necessity. When people are educated up to a better kind of construction than now generally prevails, more and more attention will be paid to principles that will insure reasonable security from fire and exemption from conditions which invite disease and foster contagion. It may not be so many years yet before every new building in New

will allow, so that at no time can a law be compiled that will correspond to the most desirable standards, nor should the laws in one city make the cost of buildings much in excess, class for class, of those in other cities, for this entails increased rents and has the tendency to drive away population to more favored localities: but the concentration of values and of inhabitants



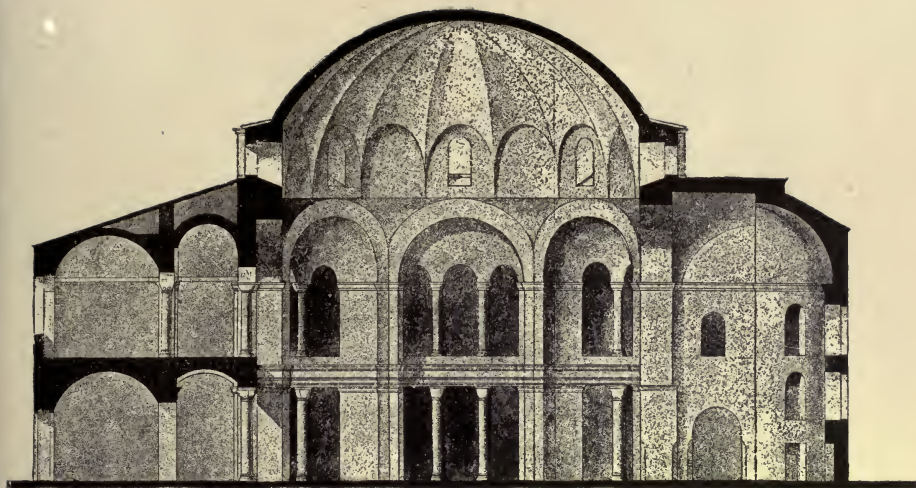
DESIGN FOR ELECTRIC LIGHT.

The Edison Electric Light Co.

York will require to be constructed of incombustible material throughout. A present need is for an inexpensive method of fire-proof floors for dwelling houses. This want, like other wants, will be met in the steady progress towards safer and healthier buildings. A building law can advance no faster than the prejudices of interested persons

in New York make it quite proper that her building laws should be a good many steps in advance of any other American city. If there be maintained in the future the same careful attention to the matter that has been given to it in the past, the building law of New York can stand as a model for building laws in all the large cities of the world.

William J. Fryer, Jr.



SECTION OF ST. SERGIUS, CONSTANTINOPLE.

BYZANTINE ARCHITECTURE.



ALTHOUGH iron has been used largely for various structures, it is not likely that in our time and in our country it will take the place of more time-honored materials—at least for monumental buildings. Its contraction and expansion under the influences of cold and heat require special arrangements not always easy to provide; from its rapidly conveying heat, and thus condensing the moisture of our atmosphere, it is objectionable for inhabited structures; from its liability to rust it has to be constantly oiled, varnished or painted, for as yet the “Barff” process has been little used; while in a conflagration the behavior of iron is simply disastrous.

We must, therefore, still look to the employment of marble, stone, burnt brick, terra-cotta, concrete, mud and timber for the main part of architectural structures. Every architectural structure of these materials is necessarily full of lessons for the architect, for there must have been the requisite conditions to fulfill in its plan and elevation—*i. e.*, the arrangements for the particular exigencies of the building and the space and lighting required by the climate, as very

different provisions must be made for a building in the north of Scotland, where damp, mist, rain and snow prevail, from those required in a building for the dry and burning air of Egypt or for the deadly heat and torrential rains of India.

The construction of every building must, too, have been adapted to the materials employed, while its æsthetic conditions must, at least, have been three-fold.

In the first place, the national or local ideas had to be embodied; in the second place, the prevailing taste had to be satisfied, as far as pure architecture was concerned; and in the third place, the ornament had to be such as appealed to the taste and knowledge of the people; by the word ornament, I mean not only floral ornament, but figure-sculpture, painting and mosaic. The execution must also have been adapted to the prevalent light and atmospheric conditions. We see, for example, that all the details of Greek buildings are designed for bright sunshine and a clear air; nothing is tamer and less effective than Greek architecture in England; and though Gothic details are admirably suited to a misty climate, they would doubtless look vulgar and obtrusive



WELLS CATHEDRAL.

in a sunny one. At certain times a near approach has been made to perfection in these particulars, and such architecture is called *Classic*. There have, however, been epochs in architecture which are peculiarly capable of affording us instruction, as we are constantly having fresh material wants to satisfy, fresh appliances to use, fresh adaptations to make, and we are eagerly expecting the rise of a national æsthetic want to satisfy too. In many ways the most instructive epochs for us are those in which buildings have been required for new purposes, when the old traditions of construction have been improved upon and when the canons of art have been changed. Any one of these new conditions may cause such modifications in buildings as to make them the forerunners of a new style, and when all of these conditions are present the new style has the highest claims on our attention. There are other considerations outside the former which invest a style with extrinsic interest, which may be roughly given as follows:—When it has prevailed for long periods of time over vast tracts of the earth, and when it has been the groundwork from which other styles have arisen. I have, therefore, chosen Byzantine architecture for my present course of lectures, as it fulfills all the conditions mentioned.

The heathen world had become Christian by Imperial edict, and the requirements of a new worship had to be provided for. The dome became an almost essential part of an important church, so that different canons of proportion were necessarily applied to these new domed structures and a new style of ornament was adopted. Next, as to the prevalence of the Byzantine style: after the founding of Constantinople it was used in all new buildings erected, during a certain period of its existence, from Britain to the Tigris, and from the Rhine and the Danube to the shores of Africa; it lasted at Constantinople and in the lower Empire for a thousand years. Not a century after the Byzantine style had arrived at its perfection, in the days of Justinian, the Saracen invasion called for its application to the building of mosques and minarets for the Mussulman faith; though, so admir-

ably did the Christian churches suit the new faith, that a large proportion of them were converted into mosques.

At a later time it had with the Roman and Romanesque of the West an important influence on the emergence of Gothic. In using the terms Roman and Romanesque it may be necessary to give some sort of rough definition and some sort of arbitrary distinction, for all living architecture is gradually progressive, but its progression is not always in a direct line. Though architecture mainly depends on the active use of the architect's mental powers and on his native capacity, it also depends on the requirements and cultivation of those for whom it is done, and on the existing type; architecture may progress on one or two or on all of its three main lines—*i. e.*, that of æsthetic excellence, that of planning, or that of construction. I think we may roughly call Roman all buildings executed in Rome, or for the Romans up to the early part of the fourth century A. D.—*i. e.*, up to Constantine's dedication of Byzantium as the new capital of the Empire in 330 A. D., though what we now call Byzantine methods had begun to be adopted long before that date. Though buildings were erected by the Romans in various parts of Europe after the sacking of Rome in the fifth century, we hardly call any building Romanesque that was not built by or for the Barbarians who had overrun the West of Europe. The word "Romanesque" was first used by De Caumont early in this century as defining the round-arched architecture of the Dark and Middle Ages, before Gothic had sprung up. The word Romance or Romanesque was originally applied to architecture much as it was to literature, and meant the current Roman method of building as the others did the Roman vernacular.

Byzantine architecture has, too, another claim on our attention, as it sprang up at a time when the art of Rome was at its lowest state of degradation, and not a century before the inroads of the Barbarians had begun to disorganize society, and the Dark Ages were about to set in in the West. Byzantine architecture may be said to be pre-eminently Christian, just as Gothic may be called

Roman Catholic architecture. Byzantine architecture did not technically begin until Christianity had become the State religion and the capital of the Roman Empire was transferred to Byzantium. But every art and science in this world slowly progresses from small beginnings; the sharp stone fixed in a cleft stick led the way to the chipped flint tied on to a handle, this to the polished stone weapon, this to the bronze weapon, and finally to the steel one. Nothing is made by man out of nothing; there is, of course, the primary invention or discovery; this discovery or invention is slowly improved upon up to a point, and then the concurrence of many favorable circumstances causes the progression to be rapid; circumstances change, and the progress is scarcely perceptible or is stopped altogether. The Romans, who valued nothing but fighting, oratory, law-making and husbandry, treated with contempt those who designed their buildings, modelled their statues or painted their pictures, who, for the most part, were slaves or freedmen, and scarcely deigned to mention their names, much less to give an account of their works, though we have, it is true, a letter of young Pliny to his supposed architect Mustius, and an epigram of Martial on Rabirius, the architect of Domitian's palace. It is only by knowledge and reflection that we are sure that buildings which seem to be brilliant inventions must have been copies of existing ones, enlargements of smaller ones, or developments from similar buildings with which the Roman architects were acquainted. If we did not know this, some epochs in Roman architecture would be marvellous—the Pantheon, for instance. We are not even sure of the name of Agrippa's architect, who designed the Pantheon; it has been attributed to Valerius of Ostia and to L. Cocceius Auctus, but we feel certain that whoever he was he was well acquainted with large-domed structures before he undertook the Pantheon, and that this experience was probably gained in Persia. Architecture is so obtrusive an art that its great creations stamp themselves on the mind, and any striking work is sure to

be reproduced time after time. The dome of the Pantheon was not only the prototype of many Roman and Byzantine structures, but has been copied and paraphrased even to our own time.

Byzantine architecture was but the logical conclusion of all those gradual changes and improvements in Roman construction which converted it from a post-and-lintel style into a perfect vaulted and domed one, only this transformation was quickened at Byzantium by the larger employment of Greek and Oriental architects, possessing different tastes and different experiences from their Roman compeers.

No sooner did Constantine the Great (272–337) transplant the capital of the Roman Empire to Byzantium than he was in headlong haste to make this small city surpass Rome in architectural magnificence, and to erect imposing monuments in honor of his new faith; for he believed that through his conversion he had obtained absolute power. Directly he began his improvements, he not only found that the excellent organization and method of Rome was unknown there, but that there was, too, a dearth of architects, builders and foremen, and of that vast army of artisans which is wanted to build, decorate and furnish a structure. In one brief he says: "We want the greatest possible number of architects, but they fail us,"* and he gives a list in another brief † of thirty-five master artificers who are to be freed from taxes if they come there and teach their sons. It may be interesting to hear the names of the professions and trades that were required. They were:

Architects,	Marble masons,
Ceiling makers,	Gilders,
Plasterers,	Founders,
Carpenters,	The next word is "blattarii;"
Doctors,	whether these were black-
Stonecutters,	beetle killers, dyers of silk
Silversmiths,	in purple, or goldbeaters, I
Builders,	must leave you to deter-
Mule doctors,	mine.
Mosaic cutters,	Tessilators,
Gold embroiderers,	Goldsmiths,
Staircase hands,	Mirror makers,
Painters,	Carriage builders,
Sculptors,	Levellers with the water-
Filigree workers, or pearl-	level,
piercers,	Glassblowers,
Inlayers,	Ivory-workers,
Statuaries,	Fullers
Mosaic workers,	Potters,
Braziers,	Plumbers,
Blacksmiths,	Furriers.

* "Codex Theodosianus," L. 13, Tit. iv. 1, A. D. 334.

† "Codex Theodosianus," L. 13, Tit. iv. 2, A. D. 337.

Gibbon says: "The impatience of Constantine soon discovered that in the decline of the arts the skill as well as the number of his architects bore a very unequal proportion to the greatness of his designs. The magistrates of the most distant provinces were therefore directed to institute schools, to appoint professors, and, by the hopes of rewards and privileges, to engage in the study and practice of architecture a sufficient number of ingenious youths who had received a liberal education." (Gibbon "Decline and Fall," c. 17.)

The infusion of Romans and Roman methods into Byzantium must have given a Roman stamp to the new part of the city of Constantine's days; but most of the buildings he had erected were done in such haste and so badly, and were of such perishable materials, that time, earthquakes and conflagrations soon destroyed them.

Zosimus (Lib. 2) says: "As he expended the public treasure in unnecessary and unprofitable buildings, he likewise built some which in a short time were taken down again, because, being erected hastily, they could not stand long."

The proximity of the capital to Greece and to Asia Minor almost necessarily caused a great influx of Greeks and Orientals, anxious to make their fortunes or to gain distinction in the new capital, and there can be no doubt that architects were included in this immigration.

We know that as early as the time of Trajan (98 to 117 A. D.) most of the architects employed in Rome were Greeks, for in his letter to Pliny the Younger, then Governor of Bithynia, he says: "As there is no province that is not furnished with men of skill and ingenuity, you cannot possibly want architects; unless you think it the shortest way to procure them from Rome, when it is generally from Greece that they come to us." (Lib. 10, let. 49.)

Constantine and his more immediate dependants, I presume, spoke Greek and Latin, though the language of Byzantium must, I think, have been Greek, as it had been a Greek republic before its conquest by the Romans. Greek was probably the *lingua franca*

of those parts, for after Alexander the Great's conquests the kings of Asia Minor, Syria and Egypt were Macedonians, and, though as the Macedonian language was incomprehensible to Greeks, it is probable that Greek was the court language. One never heard of any Macedonian literature, and the brilliant, versatile, polished and hungry Athenian, the *Græculus esuriens* of Horace, was almost sure to make his way to high posts. Athens in those days was like Florence in the Middle Ages; Pope Boniface VIII. said Florence was the fifth element. We know that as early as the beginning of the second century B. C., Cato the Censor learnt Greek, partly, no doubt, to teach his son a language that was necessary for a nobleman to speak. In the first century B. C., the great Lucullus was equally familiar with Latin and Greek, and wrote his history of the Marsian War in Greek. Some scholars think that the celebrated "Et tu, Brute!" of Julius Cæsar, when he was stabbed, was said in Greek and translated into Latin for patriotic reasons. Plutarch wrote his "Lives" for Trajan in his native Greek tongue; Martial, also, in the first century puts Greek into the mouths of Roman ladies; in the second century the Emperor Marcus Aurelius wrote his "Thoughts" in Greek; and one of the charges against Maximinus I. in the early part of the third century was that he was wholly ignorant of the Greek language. The Emperor Julian wrote his "Philosophical Essays" in Greek in the fourth century, and Ammianus Marcellinus in the same century was the last Roman writer who used Latin. After him all the Eastern authors wrote Greek, until we read in the "Arabian Nights" of a man speaking Greek like a Roman.* The fact of Greek being the language of the lower Empire has caused many writers to call it the Greek Empire, and the Romans Greeks. It is not in my province to determine whether the Romans of the Byzantine Empire became Greeks in their thoughts and actions, but it is undoubtedly the case in architecture that the versatility and

* The Romans of the Moslems were those of Constantinople.



London, England.

CEILING OF DRURY LANE THEATRE.

suppleness of the Greeks supplanted the rigid adherence to rule that so distinguished the Romans. Viollet-le-Duc and M. Choisy insist on Byzantine architecture showing strong characteristics of the Greek mind.

We see in the Palace of Diocletian, probably built about the beginning of the fourth century, that the architect had begun to use arches springing from architraves, platbands, or blocks over the columns, and in one case even from Corinthian capitals themselves, showing that an important step had been taken towards the Byzantine style. M. Choisy believes that Diocletian's architect was able to dome the Temple of Jupiter without centering, so the art of doming must have made great strides as well, and, as it is stated that upwards of eighty domes fell down during Constantine's reign (306-337 A. D.), the architects must have been getting knowledge in the most practical way, just as the experience so gained in the twelfth century was used by the thirteenth century architects.

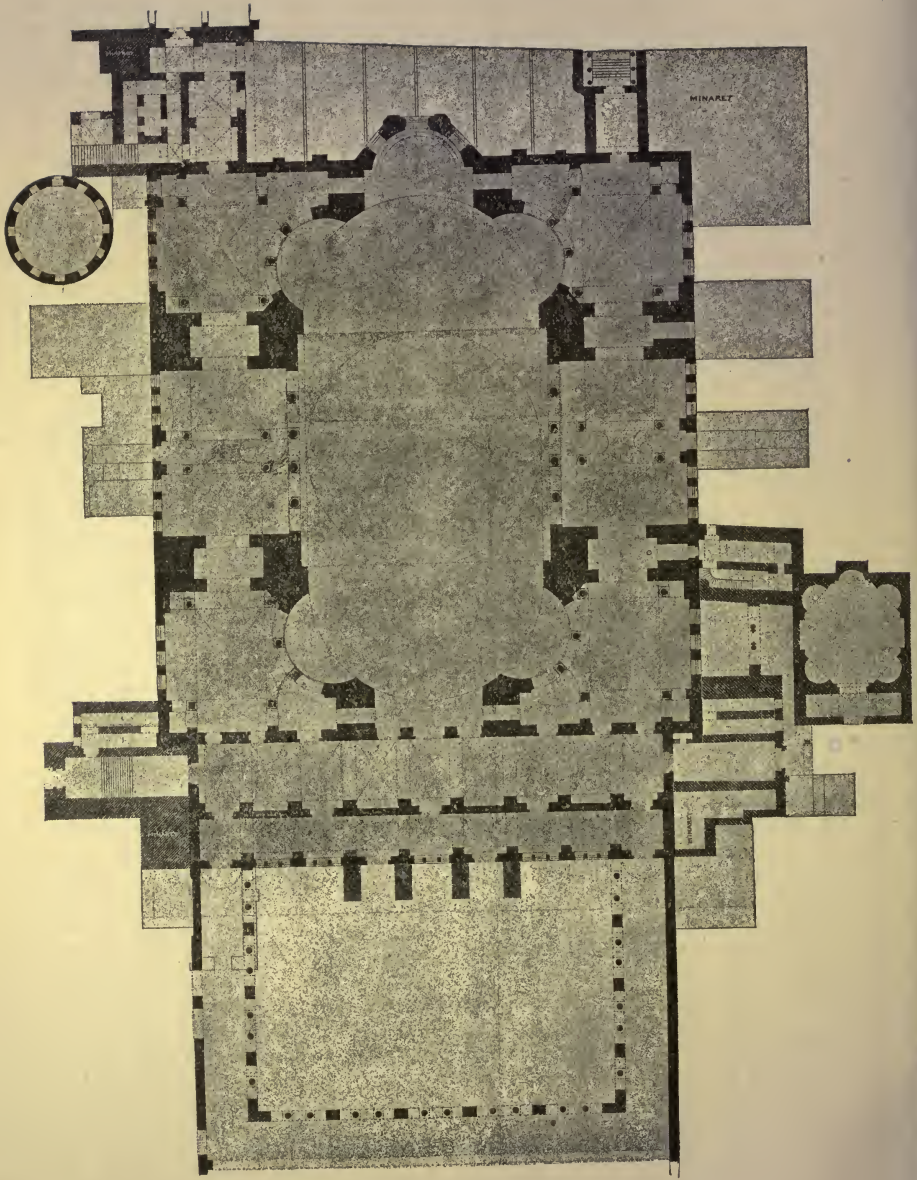
Little or nothing remains of the buildings at Constantinople of Constantine's time. His baths at Rome have been destroyed, though we have Palladio's drawings of them; but the magnificent basilica of Maxentius and Constantine's baptistery, and the tombs to his mother Helena and his sister Constantia, as well as his Triumphal Arch, remain; and there still exists a church he had built near Præneste, dedicated to St. Marcellinus and St. Peter, much after the fashion of the Temple to Portunus at Ostia. He is said to have had built in Palestine the nave of the basilica at Bethlehem and the dome of the rock at Jerusalem, over the supposed tomb of our Saviour, commonly called the Mosque of Omar. St. George, at Thessalonica, is believed by some to have been built in the time of Constantine; I believe it to be later. It is very much like the church of St. Marcellinus and St. Peter, only with a bema or sanctuary added. This I think is evidence of its being of a later date, though Constantine once proposed to make Thessalonica the capital of the empire.

The most striking peculiarity of what we now call Byzantine architecture is the Pendentive, by means of which a circular dome may be erected over a square plan; and so distinctive is this of the style—at least after the time of Justinian—that M. de Verneilh takes it as the true test of Byzantine architecture in the West.

All the architectural students know that pendentives are those portions of a dome that are left when the remainder is cut off by the vertical sides of a square, and form four spherical triangles between the four great arches that pierce the side of the square, that the diameter of the dome so cut is equal to the diagonal of the square, and that the joints of pendentives are more or less normal to the curve, for pure corbelling does not form a true pendentive.

The first mention that I recollect of early Western pendentives is in Texier & Pullan's "Byzantine Architecture," 1864 (introduction, page 9), where those in Caracalla's baths (211 A. D.) are mentioned. These were found in the one remaining octagonal hall at the north end of the northeast apse of the enclosure; and, from a sketch M. Choisy has been kind enough to give me, the pendentives seem to be groined. M. A. Choisy* also informs me he has no doubt that the pendentives found by M. Dieulafoy in Persian buildings were erected in the days of the Achæmenides. This dynasty began in the eighth century B. C., and was so called from a supposed ancestor named Achæmenes, and ended by Alexander the Great's conquest of Darius at Arbela in 331 B. C., or, at least, when Darius was murdered by Bessus (330 B. C.). These palaces with halls domed on a square plan have hitherto been attributed to the Sasanian period. The Sasanian dynasty began at the accession of Artaxerxes I. (Ardshire) in 226 A. D., and was so named from his father Sasan. I should mention that this Persian discovery or practice was not that of the perfect spherical pendentive, but may be called a pendentive partly supported

* A. Choisy. "Les fouilles de Suse et l'Art Antiqué de la Perse" (extrait de la Gazette Archeologique de 1887). Paris, 4to, 1887.



Constantinople.

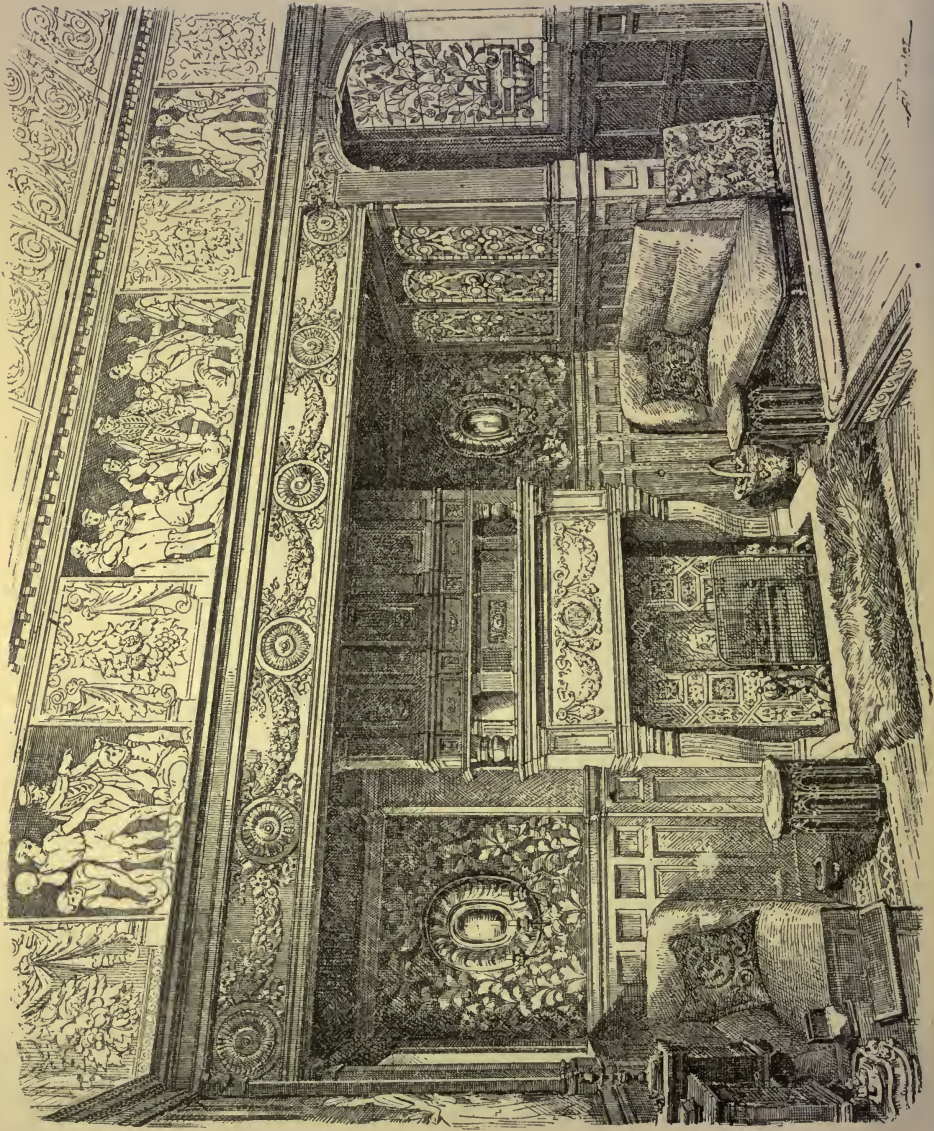
PLAN OF STA. SOPHIA.

on a squinch. A squinch is a stepped or conical vault, commonly called "bonnet-shaped." Circular domes on a square plan have been found at the Palace of Sarvistan, Ferouzabad, and in a pavilion at Ferachbad, places to the south of Susa, or nearer to the Persian Gulf. (See "L'Art Antique de la Perse," by Marcel Dieulafoy, 4to., Paris.) As far as we yet know, the Byzantines were the first who threw aside the squinch and used the pure spherical triangle as a pendentive, except the architect of that isolated example at Caracalla's baths. So numerous have been the invasions that it is more curious that so much has remained than that so much has been destroyed. Still, it has rendered it impossible to follow the steps of constructive improvement, for, not to speak of the repeated inroads of Goths, Huns, Vandals, Lombards, Burgundians and Franks in Europe, and the tide of successive Mussulman invasions, the destruction perpetrated by the hordes of savage Tartars under that monster Tamerlane, was almost enough to have destroyed every vestige of civilization, for he swept over Asia from beyond the Ganges to Smyrna and through Syria to the Holy Land, and this destruction only ended at the beginning of the fifteenth century.

You see how slowly great inventions spread. It was at least 300 years after its introduction into Europe before any attempt that we know of was made to use it on a grand scale. After the discovery of the use of the pendentive at so early a date as the fourth century B. C., it is scarcely necessary to cite examples before the time of Justinian, but the Marquis de Vogue, in his "Syrie Centrale," gives illustrations of a little chapel, or kabyle, at Omm-es-Zeitoun, in Syria, of the year 285 A. D., which has a dome on a square plan, but this is built on corbelling much after the fashion of the tomb at Mylassa.

In 532 A. D. Justinian began the rebuilding of Constantine's Basilica of Sta. Sophia at Constantinople; this cathedral had been burnt down in a riot between the partisans of the rival charioteers. The colors used by the charioteers in the Roman Circus were

white, blue, red and green, but at Constantinople blue and green, called Venetus and Prasinus, seem only to have been used. The bulk of the people seems to have adopted one or the other of these two colors as a political as well as an ecclesiastical badge. The blues were the partisans of Justinian, the greens of the descendants of Theodosius, and as the blues were in favor of the reigning emperor and believed in his orthodoxy, they considered that their zeal on his behalf should cover all their crimes and misdemeanors; robbery, murder and arson were perpetrated by bands of robbers under the blue badge and mostly with impunity. The father of the Empress Theodora was the Emperor Justin's bear-ward, and when he died, leaving his widow and three daughters penniless, the widow appealed to the "fancy" in the circus to continue the employment to her new husband and thus to provide for her and her family. This appeal was received by the greens with contempt, by the blues with compassion, and they elected the new husband as their keeper of the beasts. Theodora and her elder sister were brought up as actresses and her genius led her to be a comic one. After she became Empress she always protected the blues and persecuted the greens. A riot took place at the conclusion of the games on the Ides of January, 532, and some of the rioters of both colors were executed. Thereupon the two factions joined, elected a new Emperor, and, after having burnt down about half the city, besieged the Emperor in his palace. Justinian was about to fly, but by the remonstrance of Theodora and his general, Belisarius, he consented to remain and allowed Belisarius to quell the riot, called the "Nika." Belisarius, Mundus and Narses forced their way into the hippodrome where the people were crowning the new Emperor Hypatius and butchered the bulk of them. Thirty thousand people are said to have perished in these riots. Forty days afterward the site of the new Cathedral had been cleared and the rebuilding was begun under the directions of two Asiatic Greek architects or mechanicians, Anthemius of Tralles and Iso-



London, England.

BILLIARD-ROOM.

Notley & Trollope, Architects.

dore of Miletus, from the model of Anthemius. The Cathedral to Sta. Sophia, Holy Wisdom or the Word of God, was completed by ten thousand workmen in about six years, and its cost is estimated at a million pounds sterling.

You see by the plan that the nave consists of a square, over which is the great dome, with semicircular apses at the eastern and western ends of the square.

On each side of the great apses are two subsidiary apses, and what we should call a "choir" projects from the centre of the eastern apse, but with the Byzantines the nave was the choir and the choir was the sanctuary or bema. There are aisles on both sides of the cathedral, the middle parts of which form the transepts; these, however, are hidden from view by the screens of columns to the north and south, so that the cross is only apparent from the plan. In front of the cathedral there is a narthex, "the reed," so called from its narrowness, and an exonarthex. The narthex was used by the Catechumens, or scholars not yet fully initiated into the Holy Faith, and by penitents guilty of backsliding, both of whom were not allowed to enter into the body of the church during the service.

It was a brilliant idea of Anthemius to employ pendentives on so grand a scale, and although the use of pendentives, as we have seen, was not novel, it was so to the unarchitectural contemporaries of Anthemius. Procopius, who had been the secretary of Belisarius, and was afterwards made a Senator and Præfect of Constantinople, has given some account of the building and appearance of Sta. Sophia. Speaking of the centre part, he says: "As the arches are arranged in a quadrangular figure, the stone-work between them takes the shape of a triangle, the lower angle of each triangle being compressed between the shoulders of the arches, is slender, while the upper part becomes wider as it rises in the space between them and ends against the circle which rises thence, forming there its remaining angles. A spherical-shaped dome standing upon this circle makes it exceedingly beautiful. From the lightness of the building it does not appear

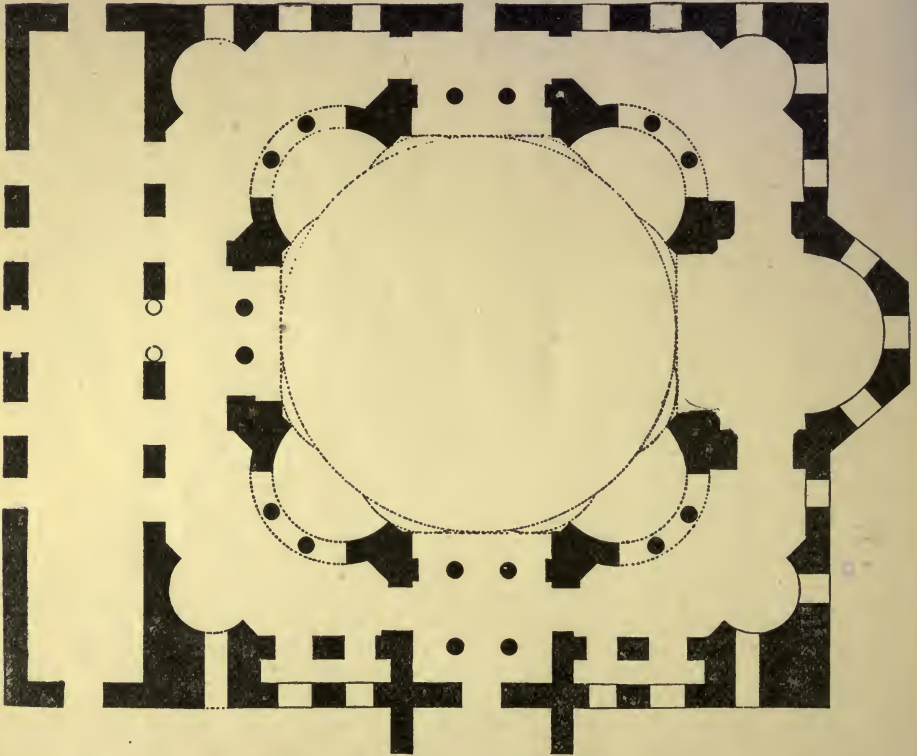
to rest upon a solid foundation, but to cover the place beneath as though it were suspended from heaven by the fabled golden chain." ("Procopius of the Buildings of Justinian," Lib. 1.)

This splendid discovery in the art of doming is, as I said before, considered by M. de Verneilh to be the distinguishing mark of Byzantine architecture in the West. Besides this prime invention, many minor constructive improvements were made. The Corinthian capitals, which in Diocletian's Palace bore the arches directly on them, were no longer fit for carrying great weights when the pier carried by them was as wide or wider than the abacus, as the thin abacus of a Corinthian capital would have broken. A squatter capital was therefore used, mostly of a cup-like shape or a square, bevelled off into a circle, just as you see a pile bevelled to get on the ring. The capitals were not cut into deeply, but were mostly covered with surface ornament of the Byzantine Acanthus or of basket-work. There are, however, capitals of the fifth century that have the angles carved in high relief, and old classic caps were used, but mostly with a block over them. We by no means find in Byzantine architecture the artistic perfection of the best period of Greek, nor do we find the majestic dignity of the Augustan period of Roman; the profiles want vigor and style, and the mouldings are also wanting in character and beauty and too much resemble those used by a cheap marble mason to save labor and material. There is, too, in Byzantine architecture a lack of perception for the finest proportion. Though Procopius pays Sta. Sophia the following left-handed compliment: "It is distinguished by indescribable beauty, for it excels both in its size and in the harmony of its proportion, having no part excessive and none deficient; being more magnificent than ordinary buildings and much more elegant than those which are out of proportion."

Where ornament is used it wants that perfection of grace that Greek ornament had, though it is freer and more varied in design, and some of its acanthus-work is effective, elegant and

beautiful. The ornamental parts, however, are too frequently wholly covered with ornament of nearly the same weight. In the interior of Byzantine buildings the eye is fascinated by the color, the walls being wholly covered with beautiful marbles, often inlaid in superb patterns, and the domes and vaults with glass mosaic; in short, it was the decoration of the days of im-

The later buildings, called by some "Neo-Byzantine," have always high drums to the domes; those that are octagonal and whose window heads cut into the dome are almost hideous outside and contrast most unfavorably with the plainness of the earlier buildings; but for all this I think we may say that Roman architecture had at last logically advanced to a purely



PLAN OF ST. SERGIUS, CONSTANTINOPLE.

perial Rome, only, instead of the ideal forms of beauty portrayed in gods and goddesses, heroes and nymphs, we have "grisly saints and martyrs hairy." Perhaps, too, the judgment is somewhat warped by the lovely materials employed. The outsides of early Byzantine buildings are mostly left to take care of themselves, though an inclination to this method was characteristic of the post-Augustan architecture of Rome and is a favorite programme for obtaining excellence in the present day.

arched and domed construction, and had clothed that construction with a new system of moulding and of ornament, so as to form a distinct architectural style. In the present day all the architects of Christendom are striving to find out what will take the fancy of the people. Each architect has so far mastered one of the bygone styles as to have rendered it flexible in his hands, so that he can mould the style to the wants and uses of the present day (We get every past style admirably paraphrased, if we except Greek and

the work of the sculptor architects of the early Italian Renaissance.) If the varieties of styles be considered, ranging as they do from prehistoric architecture through the solid marble architecture of Greece, the venerated architecture of Rome and Byzantium, through the Saracenic, Gothic and Renaissance styles, and their endless schools, this must be looked on as no small achievement. Still, we have to make the one step forward which will captivate the sense of beauty and æsthetic fitness that we think must be floating in the minds of the public, and thus lay the foundation of a new style, which our successors may improve upon and perfect. We especially want to give to the new materials employed—particularly to iron—some vigorous stamp of architectural beauty.

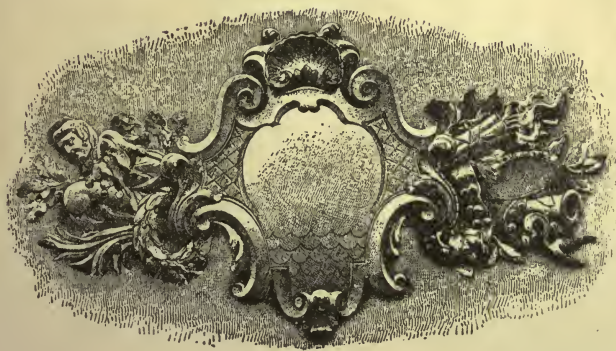
The late Mr. H. H. Richardson, of America, gave a Byzantine air to some of his buildings, and adopted or adapted some Byzantine forms and ornament, and some of you may have heard Professor Babcock's eulogy on the new Byzantine architecture of America.

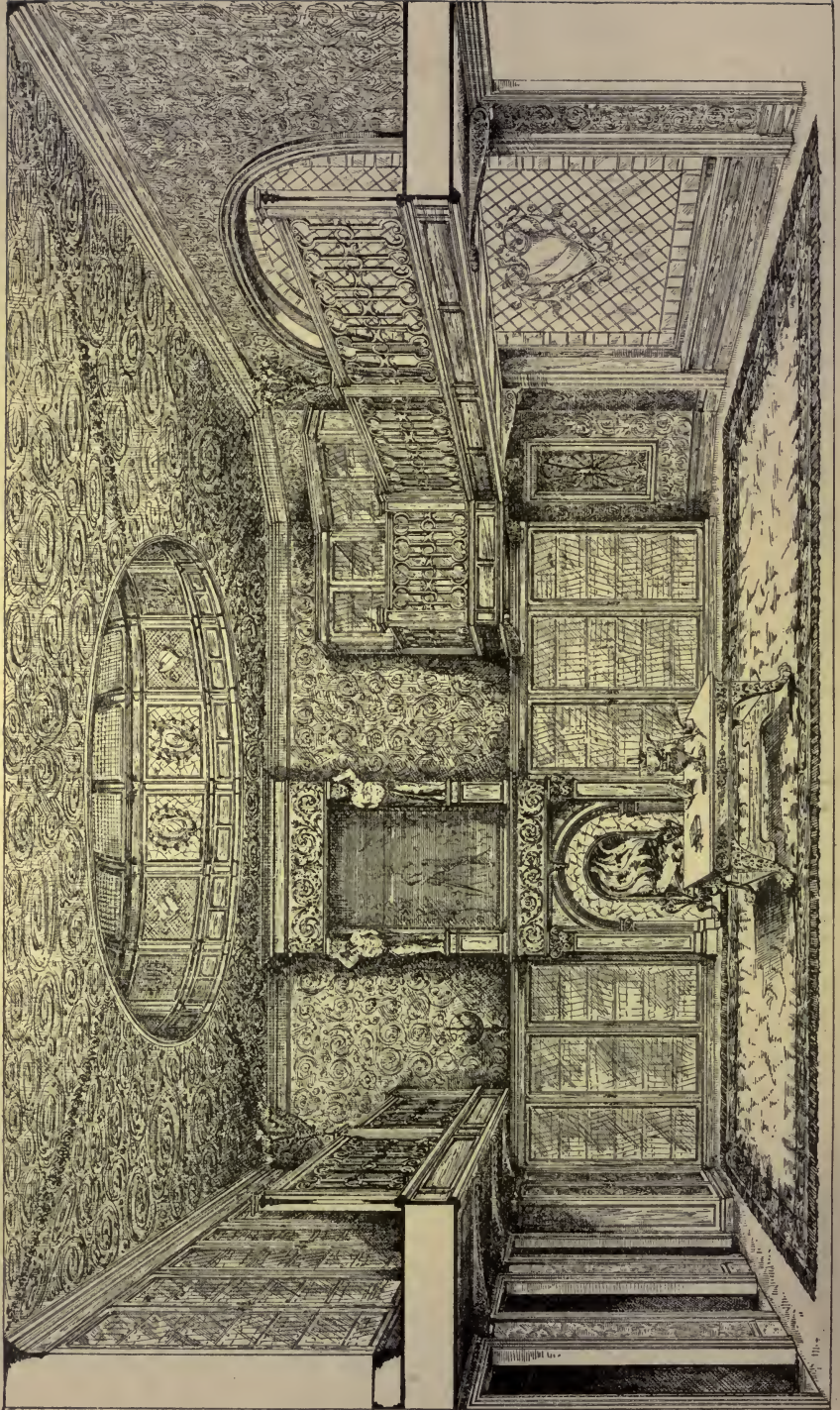
It is not so much, however, as a style to be paraphrased, as a valuable study to be pursued, that I am drawing your attention to it, though if iron were eliminated there are few bye-gone styles that are so capable of being now used, and are in many respects so satisfactory. Byzantine buildings of the best age look internally stable, grand and simple, and we are by no means bound to perpetuate the poor mouldings or semi-barbaric figures of Byzantine art; we want architecture, not archæology.

*Professor Aitchison.**

(TO BE CONTINUED.)

* Lecture delivered at the Royal Academy.





A LIBRARY INTERIOR.

Herris Brothers, Designers.



SOME COMMON FACTS ABOUT PLUMBING.



WITH all who are connected with the building industry of the country at the present day, it is unnecessary to draw attention to the prominent position which "sanitary plumbing," so called, occupies in the construction of buildings. It engages the attention of the architect in a marked degree, partly because of the newly-awakened interest in all that pertains to healthy home surroundings, but in a greater measure because of the fact that in New York and other of the principal cities of the country the practice of the trade of plumbing is regulated by law, and architect, owner and plumber are alike bound to an adherence to the requirements of the State plumbing law or the municipal ordinance, according to circumstances. At first sight, the prominence given to the plumbing work in a building suggests an inquiry as to the "reason why." This is easily explained. The purpose to be effected by the work of the plumber is the safe removal of the sewage and waste matters of the house to the public sewer or some other accepted place of deposit, the introduction of a proper water supply, and the exclusion from the building of sewer air, laden as it is with the germs of disease. The pipes to be used as channels for the accomplishment of these objects are for the most part covered up when the building is completed, because

they are placed in partitions and recesses, under floors and in places in a great measure inaccessible after the work of the other mechanics is finished.

SEWERAGE AND WATER SUPPLY OF THE ANCIENTS.

Although the improved methods which have of late years come into practice tend to give, in a way, a modern character to sanitary plumbing, its objects were comprehended, and methods were devised for attaining them, in the early ages of the world's civilization. Sewerage and drainage, water supply in dwellings, exclusion of sewer gas and ventilation of sewers, all of which are dwelt upon at the present day as being indispensable to healthy living, were enjoyed as far back as a thousand years or more before the Christian era. The great sewer of ancient Rome, the *Cloaca Maxima*, commenced 2,500 years ago, and still existing, bears evidence to the importance attached to sewerage works; and it is worthy of note that the existence of sewer gas was as well known to the ancients as to the sanitarians of our own time. In Justinian's "Digest," completed Anno Domini 534, it is stated that "the Prætor took care that all sewers should be cleaned and repaired for the health of the citizens, because uncleaned or unrepaired sewers threaten a pestilential atmosphere and are dangerous."

In the same manner the water supply

for use in houses was made a matter of paramount importance, and in Rome, in the closing days of the Republic, there were no less than nine aqueducts traversing the city and supplying water in the houses. In the reign of the Emperor Augustus the water system was as closely regulated as it is to-

not appear to be out of place in an article dealing with the subject of plumbing and drainage in our own times to give a brief statement of the methods adopted 2,000 years ago in order to secure the advantages which some of us seem to consider as the outcome of modern civilization and progress. There



THE CENTURY CLUB.

West 43d street, New York City.

McKim, Mead & White, Architects.

day in most of our American cities. Severe penalties for misuse of water were imposed, and rules adopted for its distribution were formulated and enforced with the utmost exactness. It is foreign to our purpose to enter minutely into the forms which were observed at the time, in connection with applications for water concessions, but it does

was neither a Board of Water Commissioners nor a Department of Public Works, having a Board of Health in active co-operation, in Rome, but the son-in-law of the Emperor, M. Agrippa, was in sole charge of all the aqueducts and of the entire water supply of the city. He reorganized the system and introduced admirable order in the ad-

ministration of an office which might, if he lived now, be known as that of Water Purveyor or Register. He opened a regular account of the receipts and of the distribution of water for public and private uses and made laws to insure the preservation of the aqueducts, the maintenance of an abundant supply of water as well as to apportion the quantity to be reserved for public use and for distribution to individuals. These were some of the advantages enjoyed by the Roman citizen on the threshold of the Christian era; and, nearly at the close of the nineteenth century of that era, it does not appear that we enjoy any more advantages in this respect.

THE PLUMBER OF OLDEN TIME AND HIS WORK.

Speaking as we are at this point, of the ancient plumber, him who flourished when the Roman aqueducts were in full operation, we are unable to define with any degree of accuracy at what point the limits of his trade were set. The records which come down to us of the baths in the ancient cities of the East in which so much lead pipe had been used show beyond question that the plumber was in demand, as the lead pipe of that period was the work of his hands. There does not appear to be any information extant as to the method of pipe construction before the Roman era, but it is generally supposed that the Roman plumbers borrowed their methods from those of Babylon and other older cities. They manufactured their pipes from sheet lead cut in strips of required width, so that when folded over and the edges united by solder a tube of the diameter required was completed. The pipes were made up in lengths of 10 feet, and in a variety of bore from 1 to 12 inches, the thickness of the sheets varying in accordance with the diameter of the pipe.

We lose sight of the plumber, until in the fourteenth century, with his sphere of usefulness considerably enlarged, we encounter him in England busily engaged in covering roofs with lead, making gutters and overflow pipes, and what we would call at the

present day rain leaders. The plumber also made lead coffins, baptismal fonts, lead cornices, and had as a part of his duty to do *repoussé* lead work, the sheets for which were made thick enough to allow the pattern to be beaten out with the aid of small hammers. Another feature of the plumber's work of the period was the fashioning of "heart caskets," it being a custom of the time that when a leading personage died his body should be placed in the family vault, while his heart, inclosed in a casket, should be sent to some noted shrine to be buried before the high altar. In certain instances these caskets were made of silver, but in most cases they were of *repoussé* lead, fashioned and worked out by the plumber, who claimed, at that period, to be only what his name implied, a "worker in lead."

FIRST PLUMBING LEGISLATION.

At the present day one of the alleged injustices to which the plumber is subjected and against which he rebels is—plumbing legislation. He is at a loss to account for its necessity and thinks that he could get along just as well without it. He probably is not aware of the fact that 127 years before the discovery of America by Columbus the plumbers of London set the example and had presented in Parliament, in the year 1365, and had passed the following statute, which we give verbatim, as showing that the individual members of the Guild of Plumbers had so little faith in the personal honesty of each other as to seek by Act of Parliament for "Trade Protection," as they understood it, which meant the enforcement of certain rules which they could not accomplish otherwise than through the aid of the common law. This is the text of the Statute known as "38 Edward III., A. D. 1365:"

"May it please the honorable men and wise, the Mayor, Recorder and Aldermen of London, to grant unto the plumbers of the said city the points that here follow:

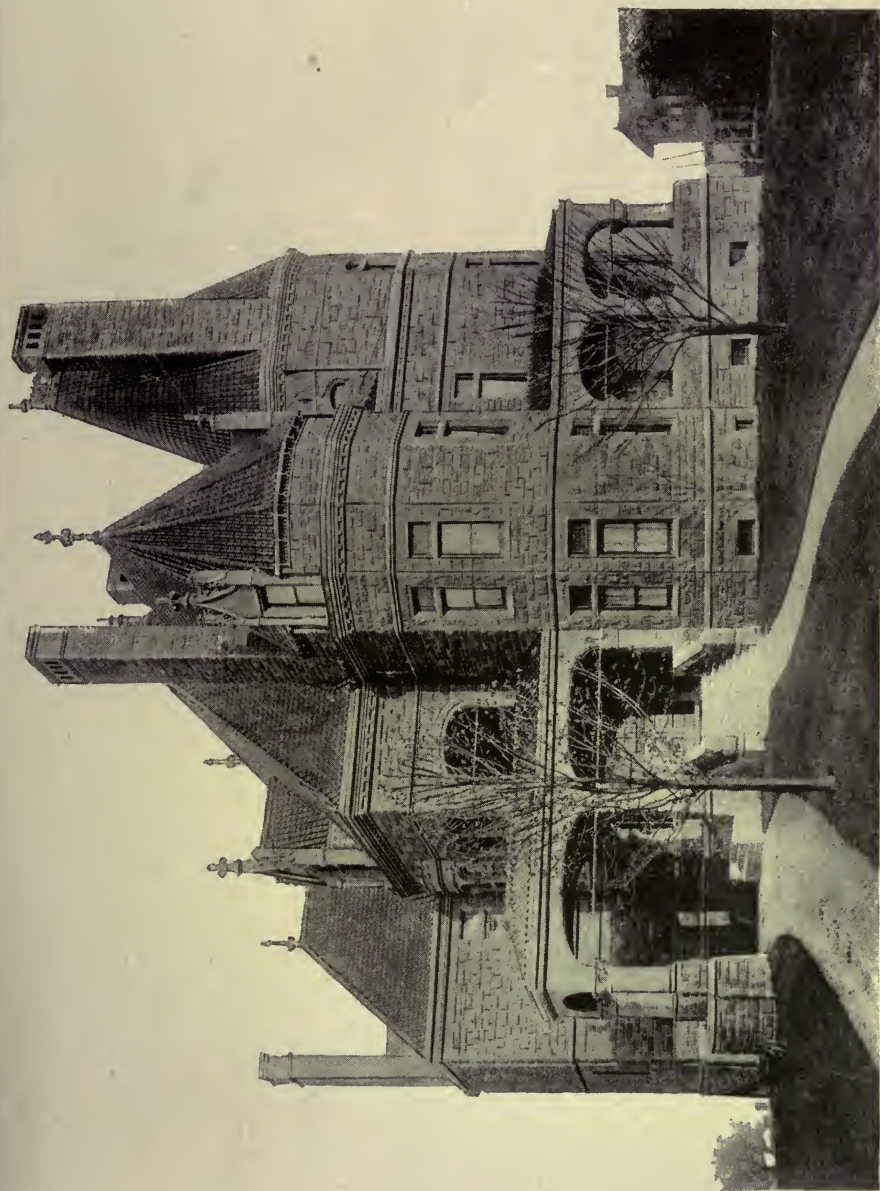
"In the first place, that no one of the trade of plumbers shall meddle with the works touching such trade within the said city or take house or apprentice or other workmen in the same if he be not free of the city, and that by assent of



DOOR IN RESIDENCE OF THOMAS ADAMS, ESQ.

Carroll Street, Brooklyn.

Charles P. H. Gilbert, Architect.



Montclair, N. J.

COL. FELLOWS' RESIDENCE.

Francis H. Kimball, Architect.

the best and most skilled men in the said trade testifying that he knows how well and lawfully to work, and to do his work that so the trade may not be scandalized or the Commonalty damaged and deceived by those who do not know their trade. Also, that no one of the said trade shall take an apprentice for less than seven years, and that he shall have him enrolled within the first year, and at the end of his term shall make him take up his freedom according to the usage of the said city.

"Also, that everyone of the trade shall do his work well and lawfully, and shall use lawful weights as well in selling as in buying without any deceit or evil intent against anyone, and that for working a clove of lead for gutters or for roofs of houses he shall take only one halfpenny, and for working a clove for furnaces, *tapetroghes*, belfries and conduit pipes one penny, and for the waste of a wey of lead when newly molten he shall have an allowance of two cloves as has been the usage heretofore.

"Also, that no one for singular profit shall engross lead coming to the same city for sale to the damage of the Commonalty, but that all persons of this said trade as well poor or rich as may wish shall be partners therein at their desire. And that no one himself or by another shall buy old lead that is on sale or shall be within the said city or without to sell it again to the folks of the said trade and enhance the price of lead to the damage of all the Commonalty.

"Also, that no one of the said trade shall buy stripped lead of the assistants to tilers, 'lagers' or masons or of women who cannot find warranty for the same. And if any shall do so himself or by his servants, or if anyone be found stealing lead, tin or nails in the place where he works he shall be ousted from the said trade forever at the will and ordinance of the good-folks of such trade.

"Also, that no one of the said trade shall oust another from his work undertaken or begun or shall take away his customers or his employers to his damage by enticement through carpenters, masons, tilers or other persons, as he would answer for damage so inflicted by good consideration of the masters of the trade.

"And if anyone shall be found guilty under any one of the articles aforesaid let him pay to the Chamber of Guildhall in London for the first offense forty pence, for the second half a mark, for the third twenty shillings and for the fourth ten pounds or else forswear the trade."

It does not appear that this statute was ever repealed. If so, it should still be in full force and effect. A plumbing ordinance was passed in London in 1754, which gave to the Corporation of London considerable power over the plumbers of the city.

PLUMBERS AND THE WATER SUPPLY TO BUILDINGS.

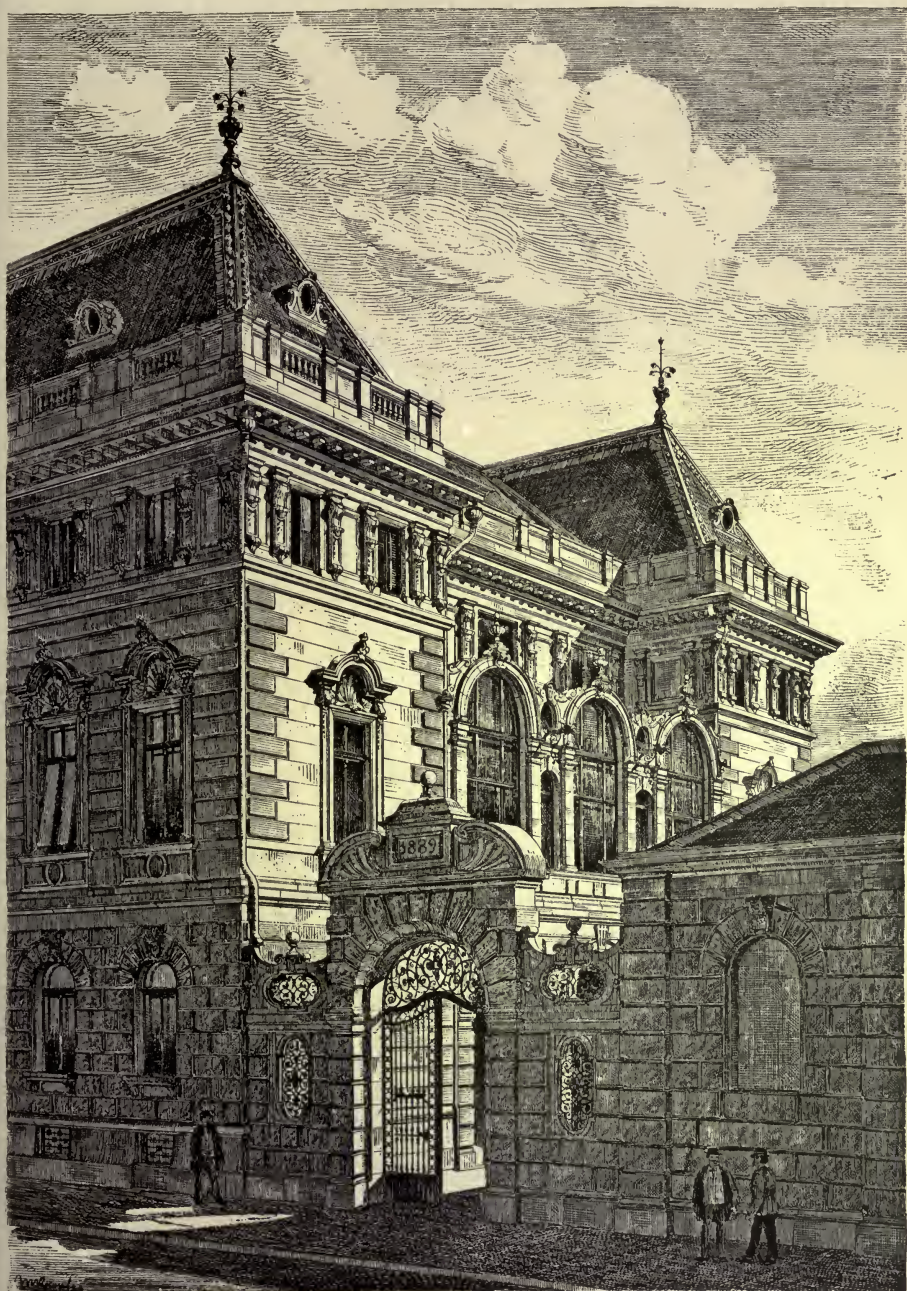
The introduction of water into buildings in England in the fourteenth century opened up a new source of indus-

try to the plumber of that period. In our day when water is abundant it seems strange to read that the early permits for its introduction restricted the size of the pipe to that of a "goose-quill," from which it may be inferred that the use of stopcocks was unknown and that the water flowed constantly into some receptacle intended for that purpose. The first water so introduced was, however, done surreptitiously, an old record being extant in which the theft is thus quaintly set forth: "A wax chandler in Fleet street had by craft peered a pipe of the conduit withynne the ground and so conveyed the water into his selar, wherefore he was judged to ride through the citie with a conduit upon his hedde."

There is an early reference to the introduction of water into dwellings in Dublin, as appears by a Latin entry in an ancient and curious book in the possession of the Corporation of Dublin called the "Domesday Boke of Dyvelin City," to the effect that on the morrow of St. Leonard in the thirty-ninth year of King Henry (7th Nov., 1239), the Prior and Convent of the Holy Trinity, Dublin, received the water from the Vase (basin or reservoir) of the citizens of the said City of Dublin * * * to be held by them for three next following years from the said day."

A grant was made later on by the Mayor of Dublin to Sir Richard de Exeter of "a certain portion of water that is of a pipe equal to the size of a goose-quill, and also to their fellow citizen Henry le Marshall for the convenience of himself and his neighbors dwelling near him, that he should be allowed, at his own expense, to attach a pipe to theirs to conduct the water to his house * * * but the pipe not to exceed the grossness of a goose-quill."

Similar permits were given in London and precautions taken to keep the water mains from being privately tapped, a task not over difficult, considering that the conduit pipes first laid were of timber lengths of roughly squared elm trees, bored through after the fashion of the wooden pump. One end of this crude pipe was tapered so as to enable it to be driven into the next length, but



Budapest.

PALAIS WODIANER.

Baurat A. v. Wlémans, Wien.

this did not last very long, for the interior of the pipe became decayed and worm-eaten, and the water being vitiated in taste, the timber piping was gradually replaced in London and other cities by metal mains, and the increased water supply, as is the case at the present day with us, brought increased patronage to the plumbers.

It was not until within the present century, however, that the introduction of baths, water-closets and other kindred plumbing and sanitary appliances became general, and as this brings us to our own times, we will leave the consideration of the progress made in Sanitary Science in England since that time for some future occasion and turn our attention to what has been done in America in that direction within the present century.

SANITARY PROGRESS IN AMERICA— WATER SUPPLY.

As one of the greatest incentives to sanitary progress is an abundant water supply, it is necessary that we should here inquire into the provision made in American cities for the needs of residents. As far as can be learned from the earliest available records the water supply of New York (or New Amsterdam as it was called until 1664) was derived from wells. No mention was made of pumps during the Dutch occupation, nor in any of the "Minutes of the Common Council" up to 1691, so it is to be presumed the water was only to be obtained by the old time chain and bucket. This state of things evidently continued to September 24, 1700, at which date an entry appears in the Minutes of the Council to the following effect:

"Ordered, that the neighborhood that live adjacent to the King's farm and have benefit of the public well there built do contribute to the charge thereof in proportion, or else be debarred from drawing water there." Not until the year 1741, or 150 years ago, was there any reference to pumps, and then only through an entry in the fifth volume of the Minutes, under date of October 25, 1741, referring to a "draft of a bill for mending and keeping in repair the public wells and pumps in this city."

The rapid growth of the population of the city between 1741 and 1774—from about 7,000 to over 21,000—rendered it necessary that measures for an increased water supply should be taken, and in the latter year plans were perfected "to insure a more abundant supply from a large well in the Collect, the water to be raised by machinery and distributed through the city in wooden pipes." A proposition was further entertained by the corporation in the same year "to erect a reservoir and convey water through the several streets of the city;" and the work being authorized a committee was appointed to assist the projector and superintend the work for which contracts were duly made and the necessary financial guaranties provided. The Revolution, however, put a stop to the project, and it was not until 1797 that it was revived and the Manhattan Company incorporated. In 1804 the pumps which had been in use up to that time, and which consisted of three or four common forcing pumps worked by horses, were superseded by double-acting pumps worked by a steam engine. These did duty until the Croton Aqueduct became an accomplished fact.

The water works in Philadelphia, commenced in 1799, were constructed on a more expensive scale. As might be expected in those early days, there was no incentive offered for the cultivation of the work of the plumber, as there was no water supply. We have, therefore, no data as to the actual existence of that individual, and have to search for him and his work later on, when the enjoyment of baths, water-closets and other sanitary luxuries became possible. In fact it is hardly worth the trouble to search out the antecedents of American plumbing prior to the creation of the Croton Aqueduct Board in 1829, but inasmuch, as under the law creating that Board, the Common Council was authorized to make all necessary rules governing the supply of Croton water to buildings the plumber became indispensable, and from the natural desire to enjoy the blessings of an abundant water supply, to a great extent a necessity. Changes or transfers of the authority for regu-

lating the water supply occurred in the years 1849, 1864, 1870, 1871 and 1873, from the Common Council to the Croton Aqueduct Board, and finally to the Department of Public Works, where it is at present vested, and under it the plumber at the present day holds his license to open streets and make sewers and water connections.

FIRST STEPS TOWARDS OFFICIAL SUPERVISION.

The earliest movement towards providing some means of official supervision of sanitary work appears to have been outlined in 1859 at the Third National Quarantine and Sanitary Convention held in New York in that year. At the Convention of the previous year held in Baltimore a committee was appointed to prepare a draft of Sanitary Regulations for the City and State approval, and at the New York Convention the report was presented, discussed and recommended for adoption under the title of "The Sanitary Code for Cities." It was, as far as is known, the initial step in placing the sewerage, drainage and water supply of cities under the control of the Health authorities, and a few of its recommendatory clauses will suffice to show its comprehensiveness. In defining the different terms used in the draft, the following relating to sewerage and drainage occur:

"The term 'waste pipe' shall mean the pipe which discharges the waste water from within any house into the drain.

"The term 'drain' shall mean any drain of and used for the drainage of one building only * * * and made merely for the purpose of communicating therefrom with a cess-pool or other like receptacle for drainage or with a sewer into which the drainage of two or more buildings or premises occupied by different families is conveyed.

"The term 'sewer' shall mean and include sewers and drains of every description except (house) drains to which the word 'drain' interpreted as aforesaid applies."

The sections which bear directly on supervision of sanitary work are as follows:

Sec. IX. required all sewers, drains or waste pipes to be constructed under control of the Board of Health.

Sec. X. provided that the Board

should have power to repair, alter, etc., any existing sewer or drain, to construct any new sewer or drain, or carry it to whatever point of discharge it deemed proper.

Sec. XIII. distinctly provided that all connection of waste pipe, sewer and drain with any public sewer should be alone made with consent and approval of the Board of Health.

The draft thus prepared was intended to be sent to the Governors of all the States and the Mayors of the principal cities, and it is probable that in the main it may have been the first step in the direction of sanitary supervision being so generally adopted as it is at the present.

The creation of the Health Department followed in a few years (1866), but it was not until 1881 that power was given to prescribe rules for the guidance of the plumbers in their work. Among the acts of the Legislature of that year was one (Chap. 450) which required that before the first of March, 1882, every master or journeyman plumber carrying on his trade in the City of New York under the rules laid down by the Board of Health should register his name and address at the Health Department in said city, without which registry it would not be lawful to carry on the trade of plumbing. The same act provided that the drainage and plumbing of all buildings, both public and private, erected after the 4th day of June in that year should have the sanitary work constructed in accordance with plans previously approved by the Board. These plans, showing the plumbing and drainage of the buildings, were required to be filed in the Health Department. The statute was not, however, retroactive in so far that it did not require that existing plumbing should be remodeled so as to make it conform to the new rule. All that was done in respect to the old buildings was merely permissive—"the said Board of Health was authorized to receive and place on file drawings and descriptions of the plumbing and drainage of buildings erected prior to the date" of the said law.

A reorganization of the Health Department followed the passage of the

act, and for the first time a code of rules governing the practice of plumbing was formulated and the plumber required to conform to its provisions. This code prescribed the manner in which the work was to be done, the main point of which was that it was to be subject, according as it progressed, to inspection by the inspectors of the Department. A revision of this plumbing code was found necessary in 1887, and under its present provisions the plumbing work in New York City is brought as near to perfection as it can be hoped ever to attain to, for at every stage and before any of it can be covered up the work is subject to a rigid supervision, and any departure from the plans or specifications is promptly reported in violation, notice of which is served on the owner, who is required to see that the defective work complained of is made to conform to the requirements of the plan and specifications and the rules of the Department. As a result, the tenements which have been erected within the past three or four years (that is dating back to the revision of the rules and the increase in the force of inspectors which, as already stated, occurred in 1887) have better plumbing and drainage than many of the Fifth avenue mansions erected prior to the improvement in plumbing work inaugurated by the Board of Health; and the standard set up for sanitary work in New York City is so far accepted by other cities that wherever a code of plumbing rules is established it is certain to be based on the rules of the New York Health Department.

WHAT SANITARY PLUMBING MEANS.

It may be asked, what are the requirements which a plumbing contract properly carried out should call for? They are many, of which the following may give an idea as being the main points. Commencing with the house connection with the main sewer in the street, the connecting or house branch should be laid with an even grade of at least one quarter of an inch from the building line to the sewer. If the earth be what is known as "made" or "filled-in" ground, earthen sewer pipe should not be used, but where the soil is a natural

bed of loam, sand or rock, earthen pipe properly laid will answer every purpose. It should commence, however, at least two feet outside the building line, as it is not desirable that there should be a mass of either brick or stone work above the earthen pipe, in view of the danger of settling and the resulting breakage of the pipes. The joints of earthen pipe should be made with cement, and care should be taken that the interior should be a continuous smooth bore, free from danger of any portion of the cement being allowed to remain inside and prove an obstruction to the free flow of sewage. Iron pipe should be laid in case the soil is not a natural bed, or if it should happen to be wet or swampy.

The house drain, by which is meant the horizontal cellar drain, should be laid at least at the same grade as the house sewer, above the cellar bottom and along the cellar wall or ceiling if possible. Inside the front wall there should be a running trap at the point of connection of the house drain and the house sewer and a 4-inch fresh air inlet pipe leading to the outer air should connect with the cellar drain on the house side of the running trap aforesaid. The house drain should receive the contents of the upright soil and waste pipes through Y branches—that is, the connection of the vertical and horizontal pipes should be thus made and not by T openings as is often the case. The rain leader should be trapped at its base and made to discharge its contents through the house drain. There should be no fixtures in the cellar unless a water supplied sink, properly trapped and vented, to receive the discharge from safe and refrigerator waste pipes. When the iron pipes throughout the building are in position and the joints well caulked with oakum and lead, the openings or branches should be stopped and the entire system tested either by filling the lines to the roof with water or subjecting them to an air pressure test of not less than ten pounds to the square inch. If the cellar is liable to have surface water in it from any cause, rendering cellar drainage necessary, there may be a drain pipe laid from an opening at some

depressed point in the floor to the lowest point of the house drain (inside the main running trap) to carry off such surface water. This special drain pipe should have a running trap under grating in floor, and also between such trap and the point of connection with house drain there should be a flap-valve set to provide against sewage backing up to cellar in the event of any stoppage occurring in the running trap on house drain. A small sink sunk in cellar floor, the sides flanged over on concrete surface and water supplied, will be found better in practice than the perforated plate usually set in floor.

One point in connection with the laying of house drains should not be overlooked, viz., laying them straight, and where deviations must be made they should be done with bends or Y branches. "Broken joints," as known to the trade, should be avoided. The area drain pipes should be trapped and made to discharge into the house drain on the inlet or house side of the main running trap. Yard drains should also be trapped before connecting with house drain and the hand or cleaning hole of all cellar traps should be fitted with brass cleaning screws to facilitate the removal of obstructions and at the same time to keep them air and gas tight.

The iron pipe to be used throughout the building should be of the grade known as "extra heavy" and untarred at the time of placing in position. Each vertical line of soil or waste pipe should have a line of vent pipe of reduced calibre for the venting of the trap of the different fixtures; viz., a 5-inch line of soil pipe taking in several fixtures should have a 3-inch vent pipe, and for smaller lines a 2-inch vent pipe will be sufficient. All the vertical lines, both of soil, waste and vent pipe, should be carried through and at least 5 feet above the roof, the bore of each increased so as to provide for thorough aeration of the entire pipe system. No offsets through the roof should be permitted. Every fixture should be trapped and a connection made with the vertical vent pipe by means of a branch pipe taken from the crown of the trap so as to prevent

siphonage. It is usual in kitchens where stationary tubs and sink are in a line adjoining each other to make the trap of the sink do duty for the tubs also by having the latter discharge on the inlet side of the trap. The waste pipes and trap for tubs and sink should not be less than 2 inches in diameter. The basins should all be trapped and the traps vented, and where the plumber has to supply the overflow, care should be taken that it is connected on the inlet side of the trap. The bath should not discharge into the water-closet trap, but there should be a separate opening in the soil pipe provided for receiving the bath and basin wastes. Water-closets (porcelain) having trap and bowl all in one piece and consequently above the floor should have a floor plate connection—that is, where the lead soil pipe is brought above the floor level, there should be a brass floor plate having a circular opening screwed to the floor, the lead waste pipe to be flanged over and soldered to the plate and the closet set over the plate with a cushion of red lead putty between closet and floor plate and the closet then bolted on through holes in the plate to the floor. By this arrangement the danger of sewer gas entering at the joint beyond the trap is provided against. Water-closets should be at all times flushed from cisterns capable of holding from three to four gallons of water, placed from 8 to 10 feet or more above the closet seat, and supplied with a flush pipe not less than an inch and a-quarter in diameter so as to discharge the contents of the cistern with such force as to completely empty the closet bowl and trap of the excremental matter. When a lead safe is used on the floor under the closet it should be so set as to drain all moisture or dripping directly into the safe waste pipe discharging into the cellar sink. As there are circumstances under which the water should be drawn out of a water-closet cistern by opening faucets on the floor below it is always advisable to place a check valve on the supply pipe to the cistern. This will not interfere with the water on its passage upwards to the cistern, but will prevent its return under the circumstances referred

to. Water-closets should not be flushed by means of valves from the water-supply pipe for domestic use. There should be a separate supply for the water-closet cisterns, so as to keep the water intended for domestic purposes in the completest manner free from all danger of pollution by connection with the water-closet in any manner. This has been overlooked in the past, as may readily be seen in old houses, but under the new order of things the ounce of prevention is infinitely preferred to the pound of cure, so frequently applied by the Board of

Health. These specific rules embody in most part the essentials which go to make up the proper execution of a plumbing contract under the new *regime*. The old-time plumber, however, is not in accord with such advanced ideas, and he is consequently falling to the rear, while the young progressive craftsman is going to the front, equal to the altered conditions of the trade and fitting himself by acquaintance, with not only the improved methods of work, but with the theories which underlie the practice, is fast ceasing to be a mere worker in lead.

W. T.





CROSS - CURRENTS.

AN acquaintance of the Editor's said, not long since, with an air of profound conviction, "I like to take my literature in scraps." At this utterance of an irresponsible intelligence, we smiled inwardly, at the same time, however, expressing our gratification that he should "like to take" literature in any manner whatsoever. But later, upon turning over the pages of a current magazine, we understood that other editors appreciated the significance of the remark, if we did not; and we have since gathered that our acquaintance but expressed in an off-handed way the literary craving of a large part of the public. So we decided, in the belief that he was giving utterance to more than a personal peculiarity, to grant his application—for that is what the remark signified to one in our responsible position. We determined that our magazine, also, should have a department of essays in little, of literature in "scraps." We, too, shall compress large subjects into a small compass, and conversely give small matters a large significance.

To drop for a moment our editorial function, we will confess that these little essays seem to us to be very much in the nature of vanities—designed mainly to give a minimum of literature with a maximum of signature. In the good old days a magazine essay could stand on its own merits. When a reputable publication, whose editor was known to be responsible and intelligent, printed an article, that very fact was sufficient. The public had confidence in his judgment, in his ability to discriminate between personal crotchets and sound, stable generalizations. Their opinion thereof was not confused by a high-sounding name; but every article in the magazine was stamped with a like authority. The reader faced opinions, not mere signatures. This excellent practice has now been largely superseded by that of signed articles, the tendency of which is to give importance to a man rather than what

a man says, and which directly abets a chaos of conflicting opinions begotten of individual shibboleths. The mind of the public is thus confused, and the editor, no longer a representative of the larger point of view, has become a mere seeker after celebrities. All this is vicious enough in connection with the long articles which constitute the proper stuff of a magazine; but such is the demand for names that magazines and periodicals must introduce departments of protracted paragraphs flowing from the easy pen of some literary oracle. It is a sorry state of things.

These little essays really amount to no more than signed irresponsible newspaper leaders; but there seems to be a demand for them, and that demand it is the duty of the Editor to supply. We are but servants of the public. All

"Others abide our question. Thou art free."

This will be a department of short essays. If they be not signed it is because we have found the right kind of a signature quite beyond our reach, and we have been able to supply the deficiency only by a pair of writers who consider themselves fortunate to get their names into the Directory or on the back of a cheque. They have solemnly asserted to us that they are perfectly familiar with the kind of essay needed. One of them has declared that, although in the honesty of his heart he cannot forge a great literary man's name, yet, through the readiness of his mind, he can make style and ideas to suit. As he is a rather testy person, we did no more than smile reprovingly at this bit of egotism, while we threw a sympathetic nod at the other contributor's modest disclaimer of any great intentions. We feel it but right, however, to assure our readers that they can depend upon our assistance in checking the vagaries to which the minds of mere persons are always subject, sometimes by adding points of view which their temper leaves unrecorded, sometimes by rigorously excluding a weak or

willful sentence or paragraph. So small are our expectations, however, that in closing we must ask the reader to pass only charitable criticisms, just as the reformed baronet in "Ruddygore" would cut up only respectable capers.—*Editor.*

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Before putting pen to paper to say what I have to say about a department of this kind, I have insisted upon reading the Editor's introduction. I have also insisted upon some freedom of utterance at this important juncture; and therein the Master has grudgingly acquiesced. Let no one be deceived by his temporizingly twists, his airs of superiority, his assumption of station. Poor man! He cannot even sit down without falling into a "position of responsibility." Be assured that the last thing he wants is a contributor with a representative name. He is very jealous of what he calls his prerogatives, is this Editor. He knows very well that the "I" is the enemy of his queer, foolish "we," and that it is continually encroaching on the latter's sphere. He knows that the "we" is gradually ceasing to convey that vague sense of mightiness which formerly awed the reader into unsatisfied expectancy and dumb affirmation—something as the subject of an old-time monarchy was awed by the proud "we" of his sovereign. The king's "we" meant a state embodied in a person; the editor's "we," if it means anything, means public opinion embodied in a person. Both pretences are equally false and equally silly, for a man is never more than a man. But an editor always thinks that he is a function of some sort, and that in so being his pen becomes a wand which charms out of everything unlimited and most appropriate significance. Consequently the complete effacement of his functional self, which the perpetual signature entails, is most obnoxious. He is no longer autocrat; he is but minister, and scarcely that. I admit that he is Master under the present heading, and that I, who am of a hot and rebellious disposition, and my brother-contributor who is as meek as Moses, must submit to his harrying interference. It is well that he should ask for us the charity of the reader, because it is his shadow which baffles the free working of our minds and crushes the palpitating individuality of our styles. I have always believed, for instance, that editors were pretentious cheats, exploiting the public much as Oliver le Diable exploited Louis XI. Unto the world they pose as right royal counsellors; but in point of fact they

do little more than shave the public, their king, and domineer over his worthier servants. This, I am sure, I could explain to the satisfaction of every impartial reader; but did I so attempt, the Editor, with ruthless pencil, would cross it all out, just as the editor of an English quarterly "killed" some of the most delightful portions of Lamb's delightful essay on Shakspeare. It is but my right, however, to caution the reader that, since the Editor assumes "responsibility," he must take the full measure of it. If ever my argument appears to halt, my style to lack lively vividness, my illustrations to want fullness and point, it is the Editor that is to blame—and this despite the fact that he can claim no merit for any positive quality. The blue pencil is a blighting thing to many a poor contributor; but it is also something of a boomerang. Together with a pair of shears (which are to him as the knife to the surgeon), a bottle of paste, a scratching pen, and airs of functional superiority, it constitutes the editorial stock in trade.

One other comment remains to be made. Since I am to write many of these essays, I may state that it is a great mistake to compare them in any way, except that of length, to the newspaper leader. The signature that is generally attached to them makes all the difference in the world. Being personal, they treat of subjects more varied, more distinctive and less inevitable than those which come within the ken of the editor of a daily journal. Being written by people who have a name, a mind and a style, they offer no points of analogy with the equally "scrappy" outgivings of those whose name is merged in some *World* or *Post*, whose mind is dominated, thwarted and clogged by a superimposed "policy," and whose style is debilitated by a tumid mentality, ignorance, bad atmosphere, bad traditions and the exigences of time and position. The conditions of daily journalistic work make men rather inhospitable than receptive, rather blunts than sharpens their sensibilities, rather coarsens than refines their appreciation of intellectual shades. This hardening of temper does not mean that they remain stationary in opinion. Journals change their editorial "convictions" just as they change their "bright" and "brainy" reporters; but the movement is more unconscious and derivative than conscious and original. Day in and day out the overwhelming element in their editorial columns is repetition, one of their files being possibly the dullest reading in the world. But when people with minds and styles repeat themselves, it is always with a difference, and a

difference that is rather temperamental and intellectual than merely temporal or circumstantial.

And yet I would not have it understood that I at all approve a department of this sort. While deeming it eminently desirable, for reasons well known to every "author," that everything which I write, should be read, and read carefully, widely and repeatedly, I must counsel the public to grant but small attention to similar departments in other magazines and periodicals. These essays in little—so neat, so prettily-plumed, so invitingly short, so delightfully readable—what are they? What do they *do*? Are they more than literary pastime for idle people? Do they not foster that spirit of easy trifling with great matters which inevitably accompanies a complete absorption in small matters? In them some pleasant little shade of truth gets the graces of the world and bows with hand on heart to a listless crowd. "Hear, hear," say they, "you are a handy fellow. Why didn't I think of that myself? But what is the price of Great Northern Fizzle?" And so the handy fellow passes away until the next publication day. They are easily written, easily read, and as easily forgotten; they dissipate the energies of good writers, and satisfy in the reader no more important need than does one of Bill Nye's terribly funny articles. Hence these departments become but counters, where over the great literary bankers pass their change to hasty customers who stop not even to count the items. Men of vast resources should not stoop to such petty business. Good credit ought to be reserved for time drafts.

This, I say, is a great pity, and it is a great shame. Here is this great modern world of ours making machine-men, almost as the scientist made his Frankenstein—from human entrails. The literature of knowledge is growing at such a rate that no man can keep the pace and be more than specialist. Meanwhile the literature of power, more than ever needed, is losing hold. The Philistines are swaggering around, with mouths open and chins high. They are twitting culture for being ornamental and pleasant play-work. They are saying the only good culture is rich culture, and that the Jay Goulds and Rothschilds are the "pillars of modern society." Sure, then, modern society must be a sorry thing and in sad need of worthier support. But those who should give this support give it not. They permit the bawling showmen, who amplify on the great girth of these pillars, full swing. Instead of devoting themselves steadily to the spread of the spirit of mental integrity and

mental hospitality, they waste their precious time in dilating on "points of view" and other little bits of truth. They lack any true sense of the responsibilities of their craft; they lack reserve; they lack the disposition to make their work cumulative and persistent; they are willing to fritter away their time in aimless and profitless scribbling for periodicals.

"Points of view"—that is the common phrase for them; and it means a dangerous thing—one that is ever tending to be subversive of intellectual authority and responsibility. Each point of view is an idol of a kind, one among many, and though but a little thing, yet has neither friends nor enemies, but wanders a forlorn vagrant in the world of thought. There may be a thousand supplementary ideas that are crying to be placed alongside of it; there may be a thousand other ideas against which it ought to declare deadly war and vanquish in fair fight; but our point of view little reckes. It is simply indifferent; it will neither strike out nor reach out. It is very comfortable where it is, can afford to put on airs and be slightly impertinent without assuming duties to any one but itself. Thus the world is chopped up into innumerable little bits of impression, and all organization and development are cast to the winds. In suggestive and discriminating minds an intellectual mosaic of some brilliancy and workmanship, perhaps, is the best result; but the weaklings have naught to show but a whimsical hodge-podge which, however, they delight to describe as eclecticism.

This is simply the pseudo-democracy of Rousseau turning up in the intellectual sphere. In his state each person was sovereign by fact of existence, and was not required to prove his right to life, liberty and the pursuit of happiness. So our "points of view" are justifications unto themselves. They are begotten by the predominance of the passive over the active intelligence. Time was when the merely receptive man took his untwistings of the many knotty world-problems from those bundles of authority and retrospect—the clergy; the native vagrancy of his intellect could be exercised only on the affairs of every-day life. The wise fathers, it has been said, sat heavily on mankind, and by dint of decapitation and the argument of fire kept all but a few in seeming concord of opinion. What Anselm, the maker of creeds, proclaimed abroad was the word of God and nothing less, and so the receptive man could go through the world with a little kit of latin phrases and with small bother; but now, alas! he has some work in merely being receptive. The new order to which the old has

yielded place substitutes the dominion of the many for the dominion of the one. The palace of Truth contains so many rooms that in a lifetime we can see but a few. The grand but irksome chant to which men paced with measured tread for dreary centuries has been succeeded by a medley of frisky airs, and if we would be in the fashion we must cut a merry caper to them all. The man of the present is often the intellectual prototype of the Yankee "notion" peddler—not in shrewd trading, but in the kind of goods he dispenses. His pack is an unconscionable jumble of cheap wares.

"There are two sides to every question," says he; and so saying, trots out his time-honored fable about the headstrong knights and the double-faced shield. One of the warriors, as we know, declared that the shield was golden, and the other that the shield was silver. Words became blows, and each struck so well that he wounded his enemy to death. Then too late they discovered that the shield was both gold and silver, and that each was right and each was wrong. The analogy has served a good turn in rebuking intellectual dogmatism, but it is a false analogy. The world is no double-faced thing; it has but one side, that of the golden truth. The trouble with the shield was that the gold obscured the silver, and the silver obscured the gold; the knights could have seen both faces only by straddling the emblem or jumping over to the other side. These are the courses which our so-called eclectics generally take; they are either trimmers or reach convictions through leaps and spasms, and if by any possibility the receptive man converts his philosophy of "notions" into theory of action or action itself he is either

the skeptic or the crank. He is never cool, strong, steady and wise.

Sometime before Galileo was known, Plato declared that the earth—that is the world—was a sphere; because the world was perfect and a sphere was the type of perfection. We are frequently reminded that this is a vicious and utterly futile kind of reasoning; and doubtless so it is. But Plato was a master of spiritual verities, and in making a sphere the symbol of perfection, he was as right as a Greek can be. A sphere has but one true side, yet it has many sides also; and he who can distinguish or separate the one from the many must have a strange prismatic eye. The full sweep of the sphere is revealed to but one inner Person; and we mortals, who are mostly on the outside, find but a small part of the curve. We may be sure, however, that so far as it goes, our glance is true; and we have the consolation that it is ever seeing farther. So long as we remain mortals we may not see the whole; but we know that it is there, and we know that it is knowable. Our worst enemies are those who would break up this fair round of truth—revealed in its limited fullness only to the common reason of humanity—and setting up a parcel of little "points of view," declare that the world is made up of such small fry. Egypt is in danger of being smothered by a pest of these buzzing flies; and every one who can should strenuously and persistently maintain the integrity of reason. It is just here that lies the point of my quarrel with departments of this sort. They assist the spirit of exclusion in representing the world as a broken thing; and all the more effectively because they speak with the high authority of great names.—*Primus*.





MOORE'S GOTHIC ARCHITECTURE.

Development and Character of Gothic Architecture. By Charles Herbert Moore. With Illustrations. London and New York: Macmillan & Co. 1890.

Mr. Moore has performed a very valuable service for serious students of Gothic architecture, who have already expressed their acknowledgments to him in various prints. His view of the character of Gothic architecture is not essentially new. If it were it would be very unlikely to be true, so much research and acumen have been expended upon the subject within this century. It is indeed in general the view that every student must have taken who looks for a meaning in architectural forms. This class is not so large as one would suppose. Indeed, from the time that mediæval building ceased until within half a century, nobody seemed to imagine that Gothic forms meant anything more than the applied forms of the Renaissance, or seems to have imagined that the difference between them was anything more than a question of taste. That these forms were the logical and necessary expression of structural facts, and that in the development of them a keen artistic sense waited upon the evolution of mechanics, is really a very modern discovery. Horace Walpole was as far from making it in the eighteenth century when he built Strawberry Hill and fancied that he was reviving Gothic, as was Sir Christopher Wren in the seventeenth when he restored the west front of Westminster and fancied that he was reproducing Gothic, when he was merely showing that he had not the least notion of what it meant.

Of course we do not mean to derogate from the merits of this work in saying that the view is not essentially new, and has been anticipated in architectural literature among others, by Viollet-le-Duc among French writers, and by Dr. Whewell and Professor Willis, and in architectural works by the strongest among the Gothic revivalists of England, Germany and the United States. In one point Mr. Moore's contention is

indeed quite novel, and that is in the showing, for it is a demonstration, that not only was France the birthplace of Gothic, but that there is no Gothic out of France, none, that is to say, which has not been directly inspired by French examples. Apart from this his merit is in the clearness with which he discerns and expounds the true principles of Gothic, and in the careful and wide research he has made in tracing the outcome of these principles in building. Alongside of this irrefutable proof such attempts as that of poor Mr. Fergusson, for example, to maintain the superiority of English Gothic and especially of "English vaulting" become merely ludicrous.

Mr. Moore's definition of Gothic, then, is "a system of construction in which vaulting on an independent system of ribs is sustained by piers and buttresses whose equilibrium is maintained by the opposing action of thrust and counter-thrust." This is the root of the matter, but this is a definition of Gothic structure, of Gothic engineering, so to speak, and not yet of Gothic architecture. It is conceivable that a building which answered this definition might yet not be a work of architecture at all. It is only when the constructor becomes also an artist and sets himself to expound and accentuate and decorate his construction that he becomes an architect and it a work of architecture. Mr. Moore goes on: "This system is adorned by sculpture whose motives are drawn from organic nature, conventionalized in obedience to architectural conditions, and governed by the appropriate forms established by ancient art" (we are not sure that we know what this last clause means) "supplemented by color design on opaque ground and more largely in glass." This is quite true, but the addition of this ornament to a Gothic structure does not yet make it Gothic architecture. It is in

the purely technical devices of functional modeling of the parts that the architecture consists, and a building so modeled throughout would be a work of architecture and of art without a single carved or painted ornament. Of course, Mr. Moore is quite aware of this. Nobody knows it better, and not many so well. But his language, while it does not mislead those advanced students to whom his book mainly appeals, might confuse beginners; and in matters of definition one cannot be too careful.

The cathedral, according to Mr. Moore, is not only the typical Gothic building, but it is in strictness the only Gothic building. That is to say, the full development of the buttress system, which is the skeleton and the structure of a Gothic building, involves a nave and aisles, the nave rising into a clerestory, the thrust of the vaults of which is met by the flying buttresses sprung over the roof of the aisles, while the ribs of the vaulting are foretold in the modeling of the compound-piers, together with the other structural features that radiate from these piers. A single-aisled building, even so fully developed otherwise as the *Sainte Chapelle*, is not a complete Gothic building. It is noticeable that in the summary of the form and feature of a Gothic building our author agrees with what we have been saying, for he does not include the ornament as a necessary part of it, while he does insist upon the architectural development of the structure, and the expression of all the members and their connections.

The body of the book consists in a detailed examination of the mediæval monuments of Europe, in order to ascertain how far they correspond to the author's definition of Gothic. The result is a most instructive and most interesting volume, in which the text is everywhere intelligent and acute, and is illustrated by drawings which are for the most part excellent for their purpose. There is no exposition of Gothic architecture extant so completely satisfactory, because there is none in which an equal intelligence has been brought to bear upon so wide a field. The careful reader must agree that he has made out his case that there is no Gothic but French Gothic, and that truly Gothic buildings in other

countries have been inspired by French architecture.

Nothing could be more thorough or more satisfactory than the author's treatment of those buildings which he has personally examined, and this includes the mediæval buildings of all countries except Germany and Spain, which he explains that he has not visited. This is a pity, because, although Spanish Gothic in Spanish hands is weak on the logical side, and German Gothic in German hands is weak on the æsthetic side in comparison with that of the architectural "mother country," there is much in each that is worth study by such a student as Mr. Moore. His slight and disparaging treatment of German Gothic is, indeed, the chief blemish of his book. Granted that there is a hardness and stiffness about Cologne in comparison with the best French examples, a hardness and stiffness aggravated by the newness of the work; yet it is true that Gothic has never been better understood than by the architect of Cologne, who borrowed nothing without intelligent analysis, and who availed himself to the full of his privilege in coming after the French masters, insomuch that his work must be accepted as logically the most typical specimen in the world of the style, the "norm" of Gothic architecture as the Parthenon is of Grecian architecture. Moreover, one peculiarity of German Gothic which Mr. Moore regards, too carelessly, as a corruption is in truth a logical development, and that is the frequent stopping of the conoids of the vaulting of the aisles upon corbels instead of upon vaulting shafts. As a matter of fact, the pressure, unless it be a resultant of two pressures, is not vertical but outward and this fact is expressed in this arrangement, and denied where a vaulting shaft is continued to the floor.

The strength of the book is its analysis of French and English pointed architecture, for it did not need our author's acuteness to prove that there was, properly speaking, no Gothic in Italy. The analysis has never been done before so intelligently or so dispassionately, and it confirms and fortifies the conclusions already reached by intelligent and dispassionate students who have to thank Mr. Moore for having produced a very instructive and valuable book.



RAYMOND LEE.

PART I.—THE QUESTION ASKED.—IN ENGLAND.

CHAPTER I.

FIRST of all, I must tell you something about the Rev. John Fergus.

He was at the height of his fame; certainly the most influential priest at the time in the Church of England. The Public, already, had fully accepted him as one of its Teachers, which, in this case, does not mean that he was a charlatan: nor, of course, that people really learned anything from him. No doubt a few did, for the man had—no, not power—gentleness, a power etherealized, which though it did not coerce, nor make itself felt in the brutal and sordidly purposeful struggle of the World, was subtly, persuasively potent in those quiet moments which once in a while like angels come to all of us.

That Sunday he had preached, to a congregation even larger than usual, from the text, "Blessed are the pure in heart for they shall see God." I give you the verse because it held as in a golden vase the spirit of his theology. He had little love for formal religion, damnation, and a narrow road to Heaven; and, on the Sunday of which I am speaking, he had striven that nothing might be lost to his hearers of the hope and comfort of the Divine promise—surely the most gracious and the most human ever given to man. I know that to many that heard him it was very sweet to be called back to the simple way and to find still blooming, fragrant as of old, flowers they had thought were long ago withered or dead.

John Fergus was not one of those who use their emotion as an economical housewife does a candle. The glow was still in his heart; the light was still in his eyes when he knocked at the door of his own house. It was the centre one of a row of five. A speculative builder had embodied within them his æsthetic ideas and a limited amount of capital—and the atmosphere of London had done the rest. John Fergus' was the most dismal of them all. About the others there was a grimly-respectable, commonplace air, a sort of shopkeeper refinement which I believe is

the peculiar possession of a certain class of English tradesmen: his had the appearance of shabby desolation. The windows were stained with dust and rain, the three stone steps before the door were greenish, and the name-plate was covered with verdigris. Some houses, like some men, carry the appearance of having failed in life; and the clergyman's was one of these.

After he had knocked, John Fargus waited rather longer than usual before he was answered. Then the door was opened about half a foot by a fat, slovenly creature in a red petticoat who looked like a jailer. Her sleeves were rolled up to her shoulders displaying a pair of enormous coarse arms. She was graced with a very conspicuous black mustache. It was evident that she was prepared for battle, and that any one but the master of the house would have been regarded at that moment as a hostile intruder.

"Oh, I'm glad yer come at last, sir," she exclaimed.

"Why, what's the matter, Mrs. Peace, what's the matter?" asked the clergyman, hurrying along the hall. The woman followed him, shaking her head and her hands dolefully.

"The misses has broken out wuss, sir; dear! oh dear! and the doctor 'as only just left her, sir."

"Where is she?"

"Upstairs, sir."

"In bed?"

"Oh! no, sir. She's a wanderin' about the 'ouse, quite quiet-like, sir; but a-hactin' so strange. Doctor said not to contrary her. The nuss is keepin' her from 'arm. Poor crittur! God help us poor worms."

A door at the end of the hallway opened, and Mrs. Fargus, attended by a woman, appeared on the threshold. She was dressed in a shining black mackintosh. A pair of rubber overshoes were on her bare feet and an old high silk hat on her head. Her hair was curled fantastically in long ringlets. Even without this grotesque costume the look in the woman's eyes was sufficient to tell she was insane.

For a second, at the first sight of his wife, the husband shrank back dismayed; then he hurried forward to her:

"Mary!"

A loud ringing laugh greeted him.

"She's dead, your Eminence; food for worms. Eh? and now the King grows tired of Anne. They say he will apply again to the executioner for a divorce; a more pliant authority than Rome. Well, let him. Ha ha!"

John Fargus covered his face with his hands.

"Don't weep, Cardinal. Don't. Tears are for women. I

thank you for your pity, from my heart I do. Give him the divorce. Why not? We should make buttons of our beliefs to fasten on us the silk of a rich benefice. Tell that to the King and watch his fat sides shake. Ha ha! I am going for a canter now with Lady Elizabeth, the future queen. Prepare the papers sir; I will subscribe to anything; we will sign them on our return."

She swept past her husband to the front door, followed by the nurse. The clergyman was about to intercept her; but the nurse whispered:

"No, sir. Don't."

The demented woman endeavored to open the door, but it had been locked when Mr. Fargus entered and the key removed.

"Your Highness," said the nurse, softly, "the horses, you know, never come to this door, only the servants."

Mrs. Fargus looked at her for a minute searchingly, questioning her words with the perverted intelligence often shown by mad people. The stolid countenance of the nurse assured her.

"My careful Elizabeth," she exclaimed, laughing. "The world! the world! Yes, we must be careful; lie to it with our lives as well as our lips. It stings," she hissed; "enforces its code of propriety better than God does his commandments. Cardinal," she added, "tell me, did God write those commandments? But how foolish of me to expect candor from an ecclesiastic. Your face, Cardinal, recalls a man I have met somewhere. Let me see; where was it?"

She paused to think.

"No," she muttered to herself, "not there. Where? where? Dear me," she continued aloud, "I have a bad memory; but it doesn't matter much. He was an honest fellow; a priest. He did believe—at least, it seemed to me he did believe, though perhaps he may have been merely subtle. No; I'm wrong; he was good. Do you know, Cardinal, we can be too good, as the world goes; good to our own hurt, until we are a ball for others to kick. Beware! Cardinal. Don't *you* fail. Follow me, Elizabeth, I've some writing to do."

The poor creature ascended the stairs. The nurse followed; and, bending over the balusters, she whispered to Mr. Fargus:

"Don't follow, sir. I think she will sleep now. Dr. Hoadley will be here at six."

The mad woman heard the whisper.

"Ah, Elizabeth," she said, archly, "making love to the Cardinal, eh? For shame! And a maiden, too. You will make him blush as scarlet as his robe. But I am afraid his Eminence is used to dallying in forbidden places. Eh, Cardinal? Have you never

confessed anything besides your holy sins? Come Elizabeth, come. I think I must keep guard over you. The world loves to pluck such dainty flowers. I am withered you see—withered, I think, prematurely.”

When the clergyman stood alone, he cried:

“Oh God, give me light that I may see Thee in this!”

He entered the library, sat down at a big cumbersome desk, and, with his face buried in his arms, wept. A ray of foggy sunshine stole into the room, ran along the ink-stained carpet and terminated amid the cold ashes in the fireplace. The stillness of the house awakened the clock on the mantelpiece, and it commenced to cry very loudly in a jerky way: “Ha ha! Ha ha! Ha ha!” The canary in the window was aroused and joined its piercing song to the clock’s monotonous tale.

Before the clergyman lifted his head from the desk, the daylight had faded; the objects in the room had become like black shadows; the canary had fallen asleep, and the clock was in full possession of the silence. It continued its tale. What had it to do with the anguish in tortured hearts? Nothing in all the range of human life could add another note to its pitiless story.

John Fargus lit the gas and began to pace up and down the room. Old emotions were struggling against his new misfortune like a wounded bird beating against the bars of its cage. Many times he ran his fingers through his long disheveled sandy hair, and lifted his hands as though in supplication for help. Suddenly he caught sight of an album on a side-table and opened it eagerly—at times there are things we grasp more hungrily than a miser does gold—at a page which contained a portrait of a young girl—his wife before he married her. He removed the picture from the leaf with a gentleness that was worship. Oh, the tyranny of old memories! Who has not felt it? John Fargus kissed the portrait: instead of replacing it in the album, he put it within the leaves of his Bible.

As he placed the book softly on the table he perceived two unopened letters which he had brushed away from him unobserved with the litter of papers when he first sat down. One was in a woman’s handwriting. Here are the contents:

“MY DEAR JOHN:

“It seems I must worry you, but I cannot, cannot endure this place longer despite all you have said. I am convinced only while you are with me. Let me hide myself and my baby anywhere. I am sure it is best to do so. Help me. Come to see me soon.”

The letter was signed “Janet.”

The other letter ran:

“DEAR JOHN :

“We are off, or rather will be to-morrow before you are out of bed. We inspected the *Aden* this morning. She is a fine ship. We find that we have a very comfortable cabin, so that if Neptune will only pity a certain weakness of ours and not sport with us too savagely we shall have a pleasant voyage. We ought to be in Calcutta by the 14th of next month, and will start up country at once in order that Marian may not feel the climate too severely. She is smiling at me now from her little cot. If she could speak I am sure she would join with me in this good-bye to her godfather. I will write as soon as we touch shore. At the eleventh hour Alice is out shopping—the ability of women in this direction is amazing to me—so I suppose we will go aboard with a score or more of paper parcels poorly fastened, all possessed with persistent centrifugal tendencies. She told me to give you her love and say that she will write surely before we sail, which, let me add by way of parenthesis, is barely possible. Good-bye, old man. Be sure that absence will not touch my affection for you.”

This letter was signed “Herbert Pilgrim.”

Of course it was from absent-mindedness: John Fargus mechanically pinned these two letters together as though they were in some way related and dropped them into a drawer.

Then the hall bell rang, and Mrs. Peace admitted Dr. Hoadley. When the physician departed half an hour later John Fargus knew his wife was hopelessly insane.

CHAPTER II.

I CANNOT find “Smugglers’ Cove” in any atlas that I have consulted, nor is it in the gazetteer. It may be I have failed because in these days even geography is commercial and interests itself chiefly in towns “noted for tanneries,” “extensive carpet factories” or “large sulphuric acid works that give employment to three thousand hands.” However, the omissions are of no importance to the reader. Any one who has sailed southward from Seahaven will remember that about ten miles from that port the high cliffs of chalk run abruptly inland and form a narrow bay or creek like the letter U. Into it the waters of the English Channel tumble, and, breaking upon the seaweed-covered rocks, roll in foam high up the yellow shingle beach. This little bay is named the Smugglers’ Cove, and stories are still told of the great things done there by a more vigorous generation than ours in the good old

times of King George III. and high duties. At present, smuggling is carried on elsewhere, and is practiced, I believe, in a different manner.

To-day, on the beach, in the central curve of the U there is a low whitewashed building with a flag-pole in front of it where usually a coast-guard is to be seen scanning through a long telescope the ships which sail by on the horizon like white shadows. Up the face of the cliff a very steep zigzag road winds to a cluster of little thatched-roof cottages—these constitute the village of Saint Michael's. They say the hamlet took its name before the days of Henry VIII. from a monastery which stood on the very point of the southernmost promontory of the cliffs. Indeed, some of the ruins of the building remain to this day—a few stones of the foundation and walls and parts of some of the traceried arches. The wind and the birds hold service there now, but the villagers declare that at night they have seen priests in lurid vestments and flaring eyes performing mass amid the ruins, and as evidence of how true the story is they declare that even the odors from the ghostly censors have been wafted to the village.

Making a guess, I don't think there are more than two score of cottages in St. Michael's, and this computation, includes the blacksmith's forge, a small two-story brick house.... all the others are built of rounded flint stones.... the "Ship".... where there gathers at evening-time such a jolly crew under a captain so liberal with grog and so exact in his reckoning.... and the few little shops which stand on the road that runs out of the village and winds up and down the hills to Seahaven, where our interest in it ends. All the inhabitants of St. Michael's are fisher-folk—people who know very little of the "great world" where there are sanitary improvements and a fever in every man's soul. The natives often speak of their village as the "nest on the cliff." There is a Sabbath peace there always, filled with the voices and the odors of the sea; and, as far as my experience runs, the only trouble the hamlet knows is when the earth in the graveyard is opened afresh or the sea refuses to return the mariner that went forth.

It has been discovered that in a little town a reputation is inevitable. Everyone is a public character, and Fame, which in cities is a great tree that stands out boldly in the light of day and casts a shadow—and some coldness—upon other men, is in villages like St. Michael's a lichen which fastens itself even in the most inaccessible places. However, there was nothing inaccessible about Joe Slagg's character. Long ago the wit and the satire of

the village had made free companionship with it, and had discovered that his identity accorded better with the title "Fine Moral Joe" than with his actual cognomen; so there had been a slow rechristening whereby the fitness of things had been recognized. But that was long ago, and in time wit, like other things, grows old and wizen and can only grimace instead of smile, and satire without teeth is of small account. Joe Slagg remained of the same nature as ever, but to the villagers his nickname had no longer a caustic suggestiveness. It had become symbolic instead of descriptive.

A few days—to be exact, three days—after the Sunday spoken of, St. Michael's was shrouded in a thick sea-fog. It was so dense that, looking downward from the cliffs, neither the beach nor the sea was visible. Joe Slagg was shuffling about his forge in slippers; a dirty, untidy-looking man, with a beard that grew like a fringe around his face and under his chin. Everything was out of joint with him that morning. The forge-fire wouldn't burn, and after the manner of men he was stamping furious.

"Blow, blow, will you," he cried, jerking the bellows savagely. "No you won't, d—n you, no you won't. But if you've got a spirit, so 've I."

A lad emerged out of the mist and stood at the forge door. There are times when it is so easy to offend.

"What are you looking at?" cried the blacksmith, dropping the bellow's handle.

"Nothing, Mr. Slagg."

Oh, it's you, is it. Didn't see you. Did Zipcy start this morning?"

"Yes, Mr. Slagg."

"Come here. . . . what! you've been a cryin', and what's worse puttin' your woe in mourning, wipin' yer eyes with dirty 'ands. Who licked yer?"

"Uncle."

"Zipcy did, eh. What for?"

"'Cause I hadn't done my 'rithmetic."

"Zips right, damn-me."

Joe Slagg was recovering his equanimity. Things had gone wrong with some one else that morning.

"Take a 'and at the bellers there, will yer, while I fill a pipe. Tell me how do yer think yer going to get through Life without 'rithmetic. It's one of the fundamentals. What's the difference between Zip and the 'osses he drives, I'd like to know? Why, he can put two and two together, and they can't. All Life's a putting two and two together. You're uncle and me's the only two in the village as can do it."

Greatness is not without its grief: the little man sighed.

"That comes from having lived in Lunnon," he continued. "I know Zip wants ter make a man of yer, he does. He doesn't want yer to drive bus for seventeen years between 'ere and Seahaven as he has. You ought to be ashamed of yourself. Pull slow on those bellers. I'm blowed if that fire aint burning now, just because I've sat down."

The old man put some rough iron-work into the flame-spot on the forge and resuming his seat on the edge of an old box, puffed thoughtfully at his short clay pipe. Joe's two special weaknesses took the shape of a repugnance for physical labor and a love for speculating (in the hearing of others) about "Life." In these respects Joe Slagg, blacksmith, is not singular. Everywhere it may be noted that there is some relation between these two traits of character.

"Pull away, lad; what yer doin' now, mark yer, is like everything else in Life. The iron's got to be 'ot first, red 'ot. Then strike, as the sayin' is. Arf the world, ay more'n arf, spend their time 'ammering 'of cold iron. Only there's this about Life, we can't make the fire ourselves. Chance does that. In a way, Will, you're actin' like Chance now, and by and by you'll see me get up and do something with that iron."

"What's it for?" the boy asked.

"Tom Borrough's boat. 'E wrenched the rudder-irons off on the beach the other day. And that means we've got to do good work, Will; for we can scamp on land and cheat and mebbe it will never be found out, but the sea tests everything, I tell yer, and brings to naught all that ain't done with a strong 'and. When the Sally.... Who's that?"

Slagg and the boy were at the door in an instant; for the sound of wheels at midday in St. Michael's is a matter more startling than it is easy for any one who does not know St. Michael's to comprehend. The fog was like a thick veil before their eyes. They could see nothing; still the rumble of the wheels grew louder. Joe Slagg and the boy started in the direction of the sound. It stopped: they stopped—within a few paces of the little brick cottage, the last of all the buildings on the road out of Seahaven.

"May I be drowned, Will, if it isn't yer uncle Zip, and"—some one stepped out of the old 'bus—"Mr. Fargus."

"Who's he?"

"To be sure, he was before your time. He was clergyman 'ere years ago, him as got us to build the church, with our own 'ands mind, and he worked hisself with us. He lived in the cot-

tage. It's 'is. But he went to London and Zip says he's got a big church now, and everybody knows him."

Then Joe Slagg hurried away, for he had news for the village.

A narrow walk of brick divided into two equal parts the garden in front of "The cottage," for in St. Michael's this very modest dwelling had appropriated the definite article. After alighting from the 'bus John Fargus hurried up the pathway followed by the driver. Ah, a bitter little man was this Zipcy, wizen-faced like a shrivelled apple, with quick, black ferret-eyes and a nature that was all edge. Everyone said that by daubery or some chemical process Zipcy's blood had been turned into vinegar and that that accounted for his acidity. In front of the cottage door was a lattice porch with a wooden bench at both sides of it. John Fargus sat down while Zipcy kneeling on the ground with a bunch of rusty keys endeavored to fit one into the lock.

"It was very stupid of me to come away without the key," said the clergyman, apologetically, "but it's only a matter of size, Zipcy. I know that lock. Joe Slagg made it."

Zipcy only grunted as he inserted another key into the hole. This one fitted and the lock turned.

"You see, Zipcy, even a bad lock has it's advantages."

But the door wouldn't open. It had been shut so long that it had jammed fast.

"It has no welcome for us, Zipcy, old friends as we are," said the clergyman. "It's like the human heart which neglect has fastened."

Zipcy pushed the door and pummelled it and threw his weight against it without avail—but then there was not more strength in Zipcy's whole body than in many a man's single arm. John Fargus added his force to Zipcy's, and with the combined effort of the two the door burst open and both were precipitated into the hall.

The little 'bus driver slowly picked up himself and his keys. The clergyman opened the door to the right of the hall—opened it wide—but, instead of entering the room, stood on the threshold and as though a momentary dizziness had overcome him, leaned for support against the jamb.

"Anything wrong?" laconically asked Zipcy, after a while.

The question aroused the clergyman.

"No, Zipcy, no. Nothing. Old memories rose up too suddenly."

The room was thick with dust and cobwebs, and the air had a mouldy smell.

"It's twelve years since I was in this room last," said the clergyman crossing to the window. "Twelve years. It seems like yesterday; as though there was something before me that I can put out my hand to but cannot quite touch."

After a pause he wheeled around quickly.

"Do you feel you have changed much, Zipcy?"

Zipcy change? Ha! A faint smile passed over Zipcy's face. He averted his eyes from his questioner's, and changed his position awkwardly, for Zipcy couldn't bear a steady gaze.

"No, sir, not much," he said.

"You don't feel you have gained or lost anything?"

No. Of course not. The road to Seahaven had not changed and Zipcy's life stretched along it.

A long silence followed. John Fargus gazed out of the window. Before his eyes the fog rolled away.... though Zipcy couldn't see it do so.... sunshine filled the valley beyond, and in the air there were voices, and in the heart—the pain which men call the Past.

"Zipcy, I wonder whether this place can be made habitable?" asked the clergyman. "It is very dilapidated."

Zipcy thought it could; that any house could that was wind and water tight, which the cottage was.

"But.... Mrs.... Lee (Zipcy's eyes glistened, and he noticed the hesitancy) has been used to the comforts of London and I fear she will find the accommodations here very meagre."

Zipcy would like to have asked: Then why does she come here? But every thought may not be spoken. He cast his eyes around the room as though inspecting it.

The clergyman continued, but now he was thinking aloud:

"It will be very lonely here."

Zipcy was interested in the subject and he said shyly:

"But the lady will go to London, sir, often, and the change will be pleasant."

John Fargus said slowly:

"I am afraid she will not. Mrs. Lee has suffered a great loss, and—does not like London."

"Has she no children, sir?"

"Oh, yes; a boy; but he is a baby, only three years old. However, Zipcy, we must do the best we can. We will see what can be done to this old place. I will send the workmen from Seahaven, and when the furniture comes—by the way, who can we get to put it in order?"

"There's Mrs. Slagg, she was housemaid in London before she met Joe."

"Yes. That is so, Zipcy. Will you ask her to come to me while I go over the house? We have very little time, for I must be in London this evening."

By and by, when John Fergus came out of the cottage with Zipcy and Mrs. Slagg, a number of the villagers were waiting at the gate to greet him.

"How do you do, sir?" cried a dozen voices at once; and the clergyman was soon hemmed in by a little crowd, which testified very plainly its affection for him.

"You remember Mary Bryan, don't you, Mr. Fergus?" cried a buxom woman, edging her way through the throng and seizing the clergyman's hand. Before her she pushed two little children, who held shyly on to her dress, and a third she carried in her arms.

"Mary Bryan," exclaimed Mr. Fergus. "Well, well, yes, I remember; the shyest maiden in Saint Michael's."

All present laughed at this.

"Time brings great changes, doesn't it, Mary? It is not easy for old friends to recognize you with these around you," he said, pointing to the children.

The woman smiled, and the children clung closer to their mother.

"Now that you have come back to us, Mr. Fergus, won't you christen my Johnnie? I don't think it was done right with these two, they have ailed so ever since."

"Oh, you must not say that, it is not so; but I will christen Johnnie for you," said he, patting the child's head; "though," he continued, "I have not come back to stay with you."

Instantly he read disappointment in their faces and recognized a slight shrinking back, an increasing of the distance between him and them.

"I am sorry," he said, "that I cannot return to you just now. By and by I may; but I will see you oftener in the future now, for a dear friend of mine is coming to live in the cottage. I must be off, for the train at Seahaven won't wait for me, you know. Come, Zipcy. Good-by to you all—for a short time."

While Zipcy was mounting to his seat and wrapping an old blanket in many folds around his thin legs, the villagers crowded to the 'bus door and continued to wave their good-bys until the jolting vehicle passed out of sight at the bottom of the hill.

Then the villagers took Mrs. Lee into their consideration and fashioned her after their own hearts. At least a dozen different conceptions of her were current and they warred with one another.

Everybody said that Zipcy could set matters aright for hadn't he seen Mrs. Lee and didn't he know how wealthy she was and the reason why she was coming to St. Michael's. And Zipcy, being a wise man, said nothing, but shook his head knowingly. "Trust Zipcy for keeping a secret, tight-mouthed little devil," said the Village. And Zipcy was trusted implicitly, and for a time people were curious about him—which is fame or no inconsiderable part of it.

Zipcy played sphinx for a fortnight then put on his best suit of black clothes and set out with the 'bus for Seahaven to fetch Mrs. Lee and whoever was with her. He felt the importance of his mission. He knew the eyes of the village were upon him.

"About what time will you be back, Zipcy?" asked Mrs. Slagg as the 'bus was starting.

"Six o'clock," said Zipcy, shortly, as though he had fully settled that matter.

But, at six o'clock Zipcy had not returned. Joe Slagg had just finished gathering the straw which had been blown over the garden from the furniture van, and his wife had put the finishing touches to the room, poked the fire and lit the lamp on the table where the tea things were set.

"Everything looks well, doesn't it, Joe?" said Mrs. Slagg approvingly.

"Yes," said her husband. "Fust rate."

The room indeed looked cosey. The light of the lamp fell upon the white table-cloth and the bright tea things, and the fire threw a ruddy glow on the warm-colored hearth rug and flickered on the polished furniture. A few water-colored paintings were on the walls, a small cottage-piano stood at one side of the room, and in the little bow window draped with dark curtains was a stand of flowers which Zipcy had brought from Seahaven.

"All this must have cost a deal of money," said Joe Slagg, looking around. In his eyes, everything was most rich and elegant.

"It is only ordinary," said his wife; "nothing to what real rich folks has. But it is all new," she added, conceding something. "There is not an old thing in the place."

The clock on the mantel-piece struck seven; still Zipcy had not returned. Joe Slagg went out to the gate and looked down the Seahaven road. The dusk lay like a purple mist on the hills. In the West a faint tinge of watery-yellow marked where the sun had set. The voices of children playing lingered in the air and the villagers stood in knots along Main Street. Everybody was

awaiting the arrival of the 'bus. The door of the cottage was open and the light fell along the garden walk.

"Zipcy's late," said a bystander in the darkness.

"Yes," said Slagg, "more than an hour."

A minute later the sound of wheels was heard.

Slagg ran to the door of the cottage and cried: "Emma, here they are," then hurried out to the gate.

The villagers had gathered as close to the gateway as they could without being too obtrusive. They saw Joe Slagg open the door and assist to alight a lady dressed in black and heavily veiled. She carried, pressed to her breast, a sleeping child. A tall woman leading a little dog and laden with a number of parcels followed. The two hurried up the garden path to the door where Mrs. Slagg stood. It closed, and all was in darkness.

On entering the room where the tea was laid, Mrs. Lee, without saying a word, sank into the arm-chair which her servant, a tall, angular, muscular Scotch woman, drew up in front of the fire. She leaned back in it as though exhausted, a black veil still covering her face. After a moment she aroused herself, threw back the veil and allowed Mrs. Stewart, the Scotch woman, to remove her bonnet. Then she bent down to the baby sleeping in her arms and kissed it passionately many times.

Joe Slagg and his wife looked on without speaking. Mrs. Stewart noticed the couple, and said, approaching them:

"Good people, there's na necessity for ye to bide any longer." At the sound of the voice Mrs. Lee looked up. A smile passed over her face as she caught sight of the Slaggs.

"I know of your kindness," she said softly. "I cannot thank you now as I want to. You must be very tired, you have done so much for me. Come to see me to-morrow. I shall feel better then."

The kindly tone in which this was said confused the two villagers. They both muttered, "You are very welcome, ma'am," and departed.

"Ye'll have some tea, child," said the Scotch woman, when the two had left.

"Yes, Kate, I will; but nothing to eat. I have no appetite."

While the tea was preparing she lay back in the chair watching her baby. At times she gazed at the fire, and the look in her eyes told that her thoughts were wandering. More than once she returned to herself suddenly, with a shudder, and folded the sleeping boy closer to her breast, and kissed him.

"Here is your tea," said the Scotch woman. "Give me the baby while you eat."

"No, leave him with me, Kate. I feel to-night I cannot part with him even for an instant. I live with his life, not mine."

"Isn't this a cosey little place?" said the Scotch woman, cheerfully, endeavoring to change the current of thought.

"Yes," said Mrs. Lee, looking around. Hitherto she had not noticed anything. "But, Kate, it will be lonely for you. It is wrong of me to allow you to come with me."

"Tut, tut, I am best judge o' that."

This was said decisively, for the Scotch woman's nature was hard, and her affection for Mrs. Lee expressed itself chiefly in unflinching service.

"It is good of you, but...."

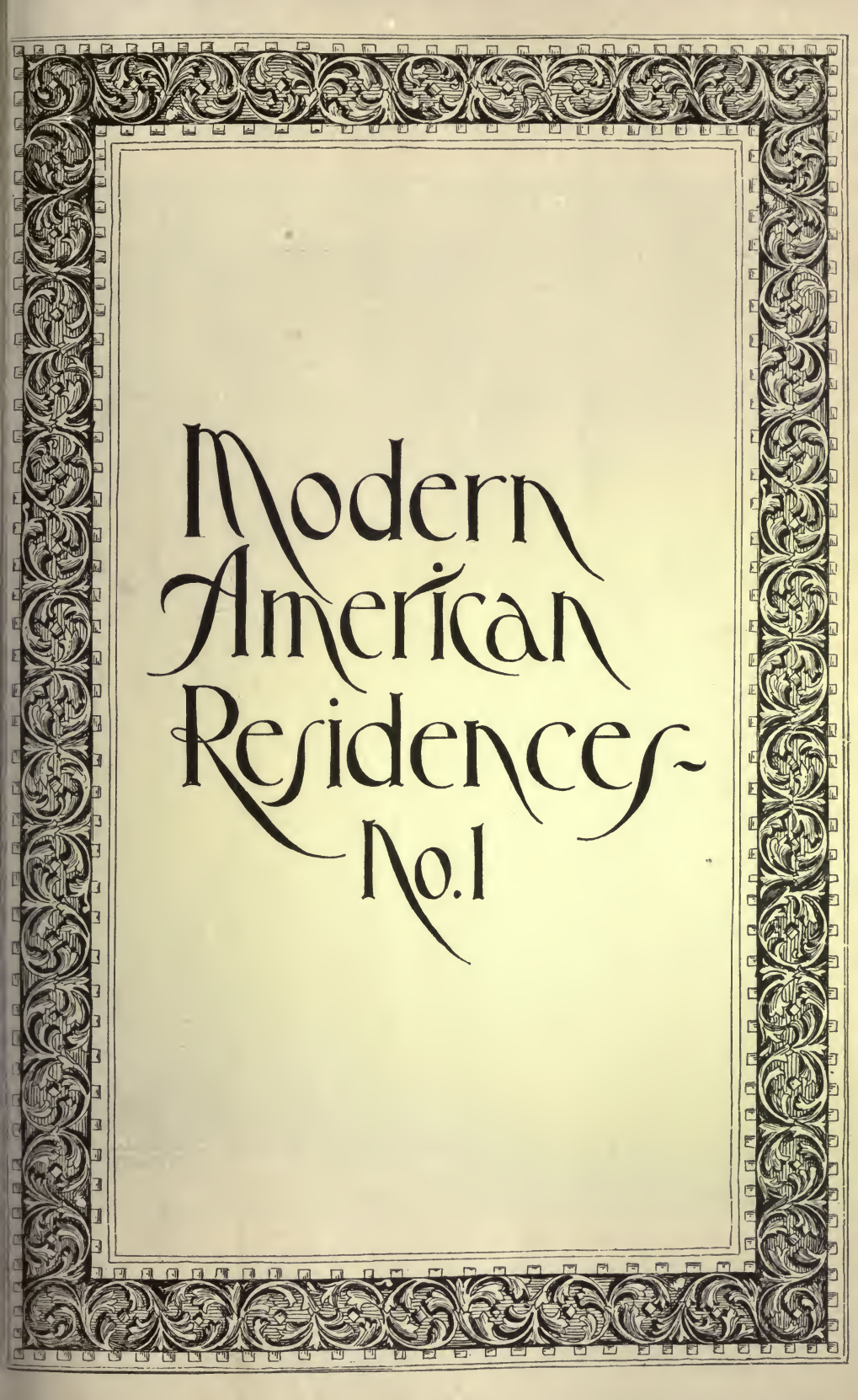
"There's na but. What would an ugly woman like me do without a relation living? I'd soon be in the kirk yard, surely. Na, na, I will bide by ye. That's ma place. We're going to be happy now, and forget a'. The past is done with. Dinna forget what ye said to me at the hotel."

"No, Kate, I won't; I must do so for the boy's sake. I will go to bed now."

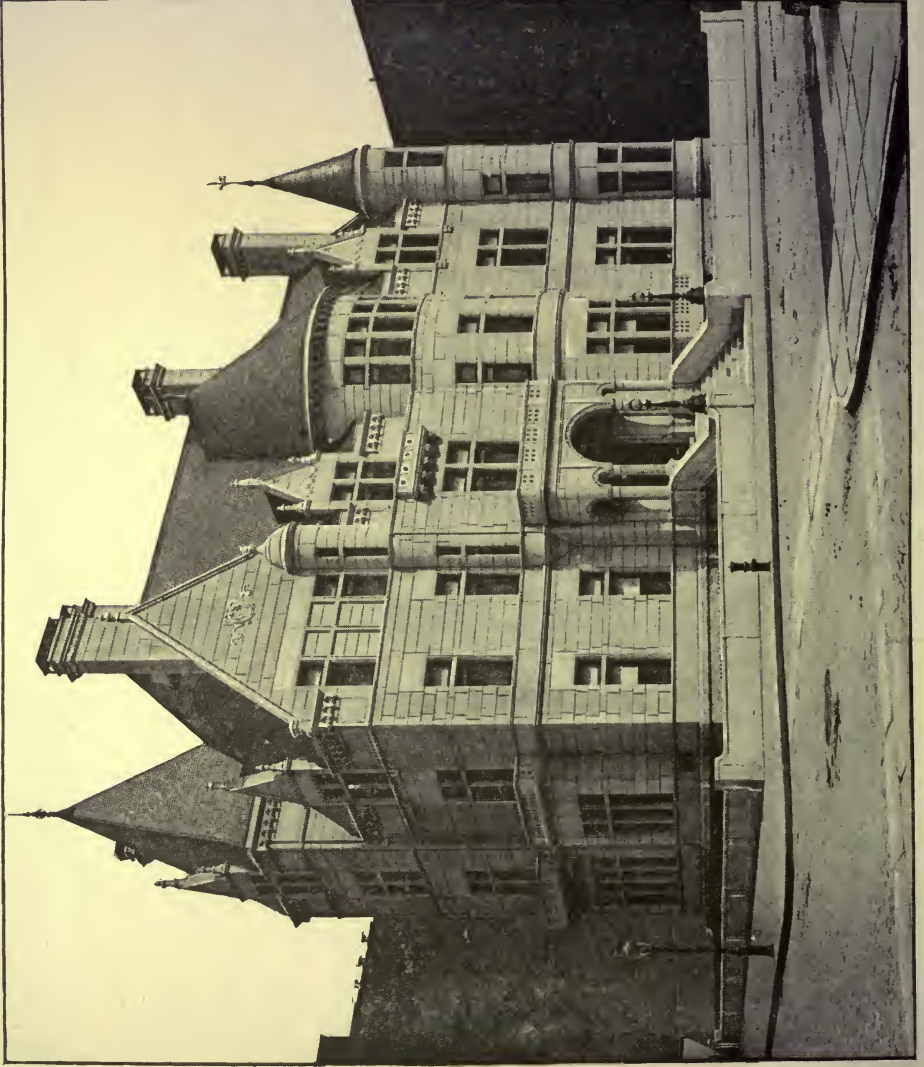
When the child was undressed, she put out the candle, and raised the blinds, so that the faint light of the night came into her room. She knelt down at the side of the bed and stretched her clasped hands over the sleeping boy. Then, with her head buried in the counterpane, the Past took possession of her, and she wept bitterly. For more than an hour she knelt, until grief had spent itself. A movement of the child's aroused her. She put her face on the pillow, with her lips to his cheek, and Love whispered to her until she was overwrought with a vague feeling she did not comprehend. She arose, and with eyes and hands eagerly uplifted to heaven, prayed that whatever blessing the loving-kindness of God might have in store for her, it might descend upon her child. But the prayer was not put into words: it was uttered in an instant. It rose from her soul like an overpowering ecstasy; and after it came peace.

Out in the village they were saying: "She's a real lady," and some envied her.

To be continued.



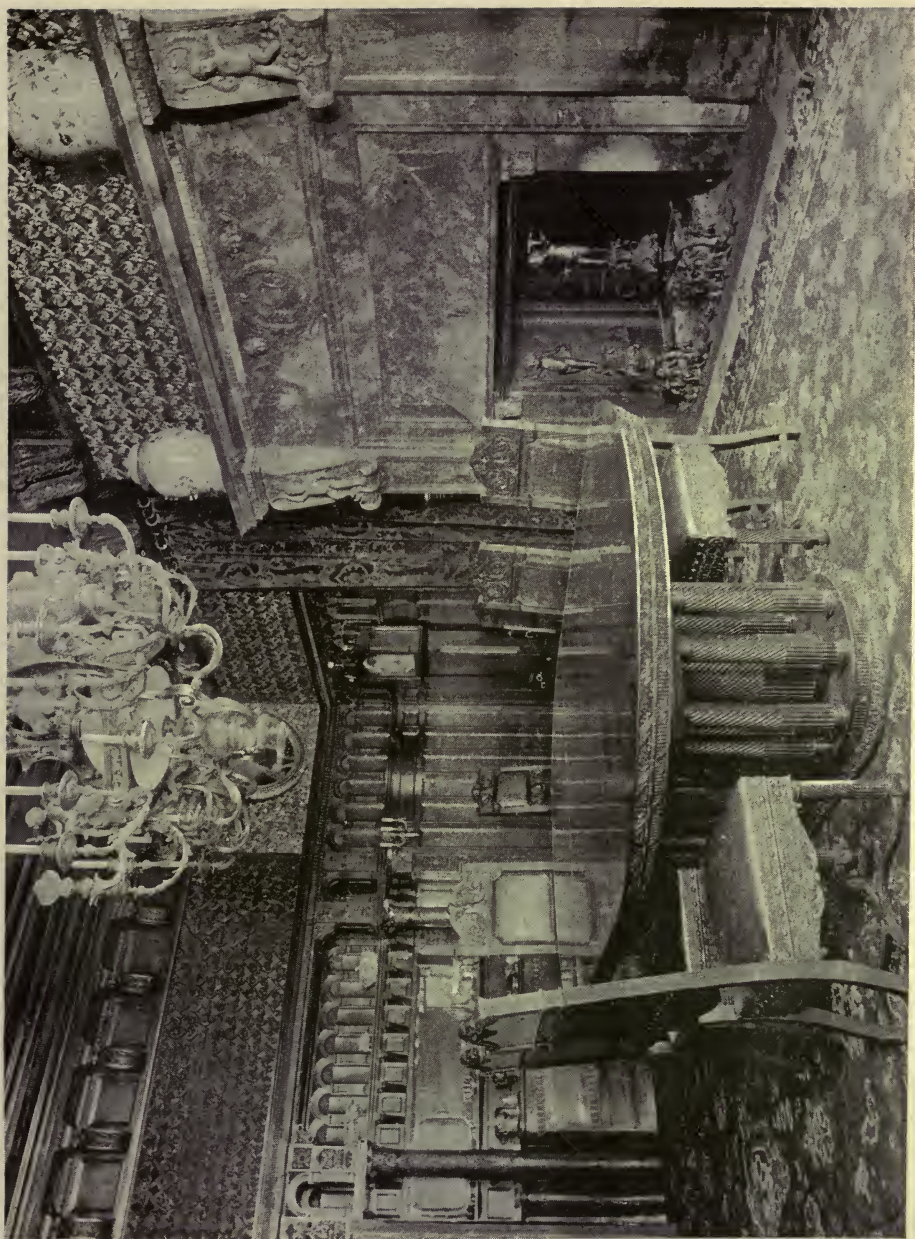
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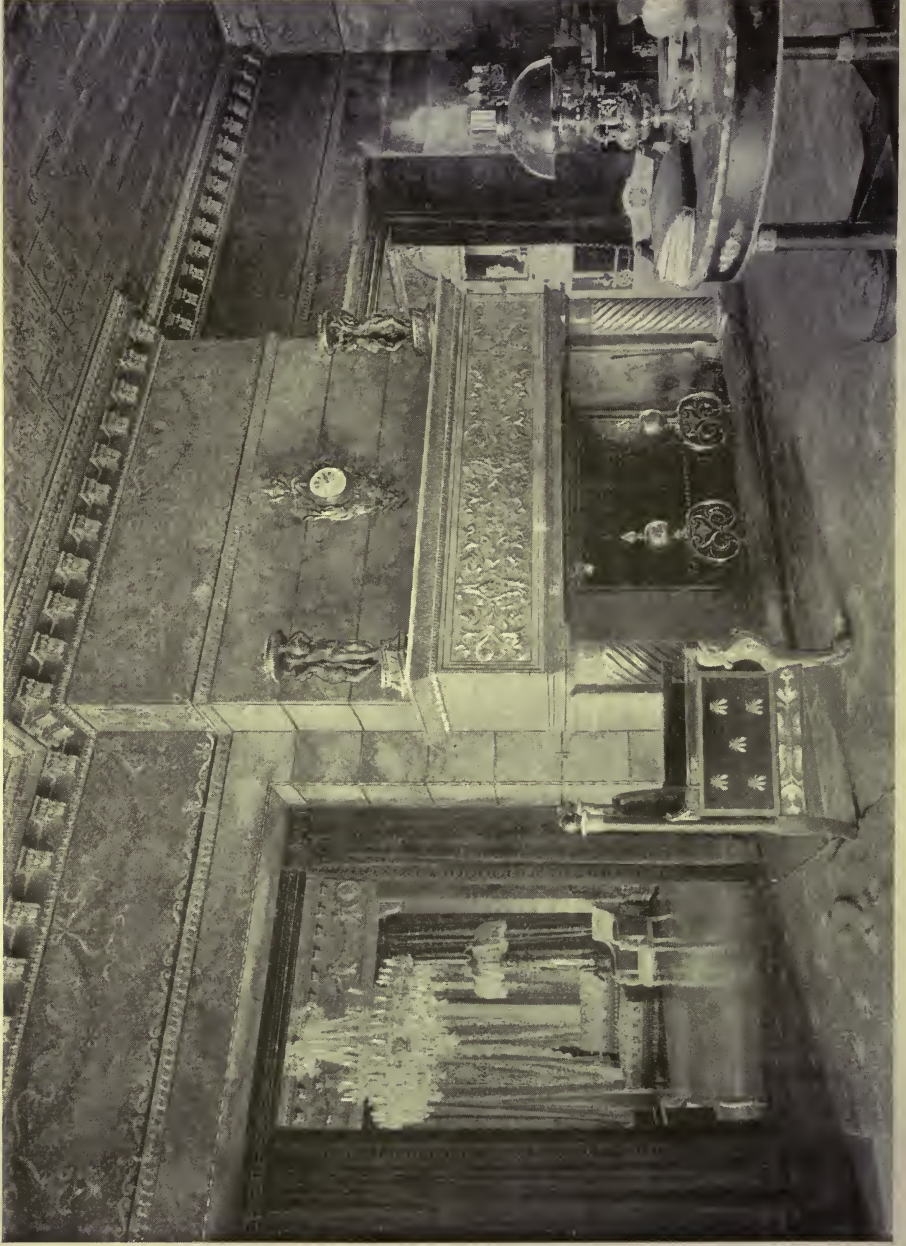
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