DOCTOR, did I ever tell you what I know about medicine?"

"No," responded the Doctor, dryly, taking a sip of claret, and opening his eyes in my direction as much as to say, 'I wonder what you know about medicine.'

You see, the Doctor and I had contracted a sort of acquaintance; not to say friendship, while I was building St. Mary's, and he, next to the Rector, figured as the strongest and most influential member of the Building Committee.

After our morning inspection of the works, he often invited me to his frugal lunch, which included a glass of wine and a cigar.

On these occasions the Doctor gave me his reminiscences of the English cathedrals, nearly all of which he had visited in flighty summer trips to Europe, and quoted Ruskin and Ferguson when our architectural discussions seemed to need reference to authority on his part.

The Doctor enjoyed quite a reputation as a critic of architectural art, also as an expert mechanic, because he spent many of his leisure hours in a workshop attached to his house, where he was known to perfect a machine for stamping pill boxes out of sheet metal on a Japanese principle of two elliptic cups of slight eccentricity fitted over each other. The Doctor often told me when I praised his mechanical ingenuity, that when he was made a physician he feared a good mechanic was spoiled.

And so I liked the Doctor's claret and cigars, and for that matter also the Doctor himself, for he was a kindly old gentleman who loved St. Mary's, architecture and mechanics, and who never hated anyone or anything.

I give up all claim to popular sympathy, but many of my professional brethren doubtless know what a terrible thorn in the side of the architect is a man of the Doctor's description; and then you see I cannot fight him any more than I could a woman or a child. And if I try it by gentle logic or scientific or artistic reasoning, it is of no earthly use, for the Doctor does not know when he is down in an argument, and no man of courage can kick a fellow when he is down whether he knows it or not.

So I made up my mind I would tell him some day what I knew of medicine, and when I saw him open his eyes wide, I plunged into it at once.

"To begin with, Doctor, I inherit medical knowledge from my grandfather, who was a physician, and so were my uncles for that matter. It's in the blood, you see, on my mother's side. We must grant that there is something in heredity and environment and early training. Darwin does as much——"

"Fiddlesticks," said the Doctor, "you may inherit from your grandfather mental and physical vigor or defects, but not medical knowledge; and let me
tell you that if you did, you would be worse off than if he had been a shoemaker, for you would inherit the medical errors of the times. I venture to say your grandfather bled, cupped and leched his patients copiously, and suffocated persons suffering from fever in closed rooms. If your mind is in any sense affected by this sort of heredity, it must be disinfected before it can be said to be receptive of true knowledge. It sometimes occurs that the ancestors of eminent men in various walks of life were of the same profession and more or less distinguished; but, as a rule, great men develop spontaneously without a grain of heredity to show for themselves. So, if you want to show me what you know about medicine begin with yourself, and don't talk about your ancestors.

"Well, Doctor, my parents being poor they boarded a number of medical students, and I may say that I was brought up in an atmosphere of anatomy."

"Good," said the Doctor, "you doubtless played with the bones; but will you tell me what you know of the os tibia, and what is its condition in a child and in a grown person?"

"Well, Doctor, I must confess that it has slipped from my mind, if I ever knew it; but then think of the practical experience I gathered as one of a large family of children, who all went through the measles, and the whooping cough, broke their arms and ribs walking on picket fences and swinging on gates, and of the large family of children I have brought up myself, to say nothing of my personal sufferings with dyspepsia and rheumatism. Why, I have tried experimentally on my own person most medicines to be found in the 'Materia Medica.' And then I have read much on the Humors of Hipparchus and the Methodism of Gallen, to say nothing of the practice of Sangrado, of modern Water Cures, of the Faith, and Walking Cures. I have visited many of the celebrated baths, and have swallowed many waters from Saratoga to Carlsbad. I should think you might admit that I know something of medicine without doing violence to your professional pride."

"My dear fellow," said the Doctor, "your conceit is not incompatible with common honesty. It may be explained as the result of profound ignorance. For forty years I have devoted myself to the study and practice of medicine. Forty years ago I have graduated with honors, and then I spent five years in Vienna and Berlin at clinical lectures. Since that time I have had a large and lucrative practice, and acquired, as you know, a respectable reputation, not only with laymen, but also among my professional brethren. During these forty years I have devoted much of my time to reading. I will not boast of native genius, but I may say that I conscientiously applied myself to the study of medicine. And what is the result? I am now convinced, and have been so convinced for the last ten years, that to study medicine with success a man should devote himself to some specialty in order to keep abreast with modern progress, and if possible add something to its acquisitions. How can you talk of what you know of medicine, you who have spent your life in studying architecture, and never had the time to acquire even a smattering of anything else. I might as well talk of what I know of architecture."

"That is just what you do talk about. That is just the point I desired to bring you to by my impudent assertion of what I know of medicine. Please accept it as a compliment, a profound trust in your sense of justice, a thorough conviction of your love of fair play, and my utter despair to make you understand the case by any other method. I trust you will forgive me when you realize the enormity of the case. You talk to me of Ruskin and Ferguson, why the Humors of Hipparchus are exact science compared with the speculations of Ruskin on construction, and the ravings of Ferguson on the subject of beauty. If you will be good enough to consider that the anatomy of architecture involves the whole range of mathematics in its application to statical mechanics, that its physiology comprehends a philosophic, historical and ideal conception of the functions of monuments, that its technic in structural combinations and decor-
ative expression demands a laborious training, to be acquired only by hard work and self-denial of many years, and that to compose buildings means a mastery of organisms, which have no model in nature, but must be scientifically and artistically developed on natural laws and not collected, as laymen always suppose, from the surface of existing monuments which almost never express an answer to the problem before the architect, you will admit at once that the suggestions of laymen in architecture are not unlike those of the dear old ladies who are found around the sick bed. And yet the doctor may listen to them and ignore them when he writes the prescription, while the architect is asked to submit his design to the judgment of just such a court and jury."

The Doctor was evidently ruffled. He looked straight at his wine glass for a minute or two and puffed great volumes of smoke from his cigar; then he raised his head, and looked at me in a dazed sort of way, and then gradually melted into a smile.

"Why! you applied to me what we doctors call a heroic remedy; but when I come to think of it, I have no right to be offended, because I am cured. But pray tell me how you architects got into this slough of despond?"

"Architectural and lay human weakness," said I. "To begin with, there is the weakness of the young architect. I wish I could describe to you the mental porosity and effervescence of the immature architectural brain, its illogical gyrations around an axis which is purely a mathematical line and has no foundation in fact, its gymnastics and attitudes, its gaseous inflations and its pyrotechnic explosions. But then it would be of no practical use, the whole thing is so visionary you would not believe it. But I can try it from your standpoint. What is the process by which the young physician gets into practice? He works among the poor. A child filled with green apples is a godsend to him. He gets up nights to visit the woman suffering from compound hysterics and strong drink, and he hopes for the hod-carrier who may fall from the third story and break his head and legs, not from malice to the hod-carrier, nor for the money it will bring him, but purely from a desire to show to the world that he can heal the sick and mend the broken of limb. Now this young doctor has spent years in the study of medicine, he has walked the hospitals, and he knows that he can render services to society as a physician. But to be employed it is necessary that society shall know what he can do; in fact, he must have a reputation.

"It is not so with the young architect. He is not content to hang out his sign and wait for clients—humble clients at first, and others more important afterwards, for very good reasons. In the first place his announcement to the world that he will henceforth do the work of an architect does not imply that he knows how to do it. There is no law which compels him to pass through a prescribed course of studies before he presents himself for professional employment, as is the case with the young physician. In the next place, both he and his clients imagine that his merits may be determined from his designs, his drawings, sketches, etc., which is a radical error."

"You mean to say," the Doctor here interrupted, "that a layman cannot tell the nature and architectural merit of a building from a design of it?"

"No more than they can the merit of a physician from his prescriptions. A physician's prescription is an empirical formula intended to alleviate abnormal physical conditions indicated by a scientific diagnosis. The prescription being written in characters incomprehensible to the layman, he is content, in his avowed ignorance, to abstain from an attempt to inquire into the rationale of the diagnosis. An architectural design is a scientific, logical, deduction from certain fundamental facts unfortunately presented in a more or less artistic form. This form conveys an idea to the uneducated as well as to the intelligent mind of varying artistic merit. The more obtuse the observer the better he will like it. To critically place it at its true value requires analytical acumen of the highest order. Hence it is that men select their
physicians, lawyers, engineers, etc., by consulting the opinion of experts as to their professional merit, or, what is equivalent to this, by their reputation, but they think they can judge of the merits of an architect by their likes and dislikes of his drawings.

"There are architects who have a fair technical training, know something of aesthetics, have passed through an academic course of architecture at some respectable institution, have seen as well as read of the monuments of the world and have in addition to this some practice under the guidance of an architect of reputation. Their number, however, is small; I should say not more than three per cent of the architectural population of the country."

"What of the other ninety-seven per cent?" asks the Doctor.

"To answer this question let me observe briefly that all knowledge begins with a cursory observation of the appearance of things. Take astronomy for instance. Antiquity contemplated the stars as aggregations resembling animate and inanimate forms. The question was not what is the magnitude, distance, motion, constituent matter of these stars; but what is the physiognomy of the starry heavens. Alchemy attempted to produce a metal that should look like gold. From Aristotle to Lavater endless volumes have been written to show how physical and mental conditions of men may be determined by their external appearance.

"Architecture to the ninety-seven per cent is at this day only the more or less critical examination of the appearance and feature of monuments. Mr. Shandy’s account of Slawkenbergius, if mythical, is nevertheless allegorically applicable to modern popular notions on architecture; it is very much a study of noses.

"Let me tell you a story of my young friend, John, as an object-lesson of architectural human weakness. John visits me at my office from time to time, to get my advice, as he says, to follow his own, as I know.

"What is it this morning, John, you are radiant?"

"I don’t mind telling you. The National Discount Bank is going to build a seventeen-story fire-proof building."

"Well, John, have you been employed as the architect?"

"Why, no, it is to be a competition?"

"Then I presume you have been invited to compete and are to be paid for your sketches?"

"Nothing of the kind. Really, I cannot make you out."

"Well, John, let me explain. You know that in most competitions members of the committee are bent upon employing architects in whom they have a personal interest. The only possible guarantee I can have on entering the lists in a competition is in the fact that I am invited to compete, which shows that someone on the committee desires that I should ultimately be employed as the architect of the building, and in order to make sure that the invitation is not an empty compliment, I insist upon being paid for my sketches."

"There I differ with you entirely. I prefer that no one should be paid for his sketches; it keeps out the strongest men in the profession and makes my chances of success all the better. What is more," continues John, slyly, "suppose there is a committee of five, there certainly is not more than one in the five who cares for architecture per se, the other four are bent upon employing their friends. This one man may be in favor of paying for sketches, but he is overruled by the other four who agree with me that architects of reputation must be kept out at all hazards. Hence it is that you are but rarely invited to compete, and lose your opportunities."

"I presume you have secured an invitation from one of the five?"

"Not as yet, but I expect to do so. I have made a formal application in writing to the committee as a whole, requesting permission to submit plans, specifications and estimates of costs of the proposed building for the consideration of the committee. My letter contains references to respectable parties which will not be disregarded, more especially as such a permission involves no
expense. In addition to this, I have called upon four out of the five to request their personal patronage in the matter. I have told each of them that I rely upon his acknowledged influence with the committee, and his superior judgment in matters of building to bring out the intrinsic merits of my design, which without his help would probably not be properly understood, and I asked each of them for his personal views of what the building ought to be architecturally, constructively and economically. I told them that without being in possession of these personal views I should not attempt to enter the competition at all. One of the four said that the committee would probably issue a programme of requirements to all the architects, and that he did not intend to anticipate this by giving his private views. The other three, however, were greatly pleased with my suggestions, and two of them invited me to dinner to talk the matter over at leisure.

"You are in clover, John," I said; 'you will probably be proposed by three of the committee, and find yourself in a majority at the start.'

"So I thought at first, but I since found out that one of the gentlemen who invited me to dinner has a nephew just returned from the École des Beaux Arts. He intends him to be employed as the architect of the building. I did not know this when I dined with him. He seemed frank in his conversation; but interspersed it with perplexing questions such as: Which of the five orders will you select for your design? What is the relative cost of granite and terra cotta? How far would you go in the matter of ventilation in an office building? What are the proper proportions of a room? Do you deem it essential that all carving shall be done after the building is up? What is the relative cost per cubic foot of brickwork here and in Paris? How do you like the American factor of safety? I subsequently discovered that these questions tended to elicit proof that I did not know much of architecture in general and of architecture as practiced in Paris in particular. The gentleman who did not invite me to dinner saw me at his office, where he showered upon me his views without giving me an opportunity to put in a word edgewise. These views related mainly to heating, lighting, ventilation and general economy of construction. He said he did not care much about architecture as long as the building was sufficiently showy to command tenants.'

"Well, John, it seems to me now that your chances of success are pretty slim. What is the use of going into a competition without pay when you have no friends on the committee?"

"True, but you make no allowance for the merits of my design. I propose to carry the day on the bottom rock of merit."

"But I thought you told me that four of the gentlemen of the committee did not know or care about architecture in the abstract."

"Yes, that is so; but I intend to outstrip every other plan proposed, and make my design an education to the committee, an object-lesson in architecture. I have some ideas, and that is just what I intend to talk to you about. What do you think of the Temple of Jupiter Stator?"

"Shades of Phidias, John, you do not propose, I hope, to build a temple forty feet wide and two hundred and twenty feet high and fill it on the inside with offices."

"Not quite so bad as that. I propose a temple at the top, to contain the three uppermost stories, as the crowning glory of the building."

"And what will you do with the fourteen stories below the temple?"

"That is what I called to consult you upon. What do you say?"

"I can suggest nothing better than a dead wall of cyclopean masonry."

"Well, I am so glad, that is just what struck me at once. If I could build such a wall on Broadway, a cyclopean wall forty feet wide and one hundred and seventy feet high my fortune would be made. Just think of the excitement of the press when the wall reaches a hundred feet in height, built of huge stone of from ten to forty feet in length and from two to eight feet in height, say quarry-faced stone-
work twenty feet high and then a polished course of granite, with bas-reliefs of the War of the Rebellion (Sheridan’s ride through the Shenandoah Valley), then again a bulk of rough quarry stone of more or less heights, and another band course of polished stone. Think of the trucks with six to twelve horses unloading single stones in front of the building; of the immense cranes, tackle, gear and steam engines raising this gigantic material to its place on the wall; think of the crowds of people watching the progress of the work from the street and opposite windows and roofs; think of the papers that would be read before learned societies on the probable use of such a structure, of the inquiries by foreign associations of architects; think of the orders for new buildings that would flow into my office; and, mind you, it is all so perfectly practicable. I should light the rooms with minute incandescent lamps spread in ornamental groups over the walls and ceilings. I should pump air of any required temperature into the offices, air permeated with the essence of new-mown hay, of the seaweed or the mountain fir. I should supply each tenant with just the season he prefers—spring, summer or autumn; he shall be at the shores of the sea to-day, or at the top of the mountain to-morrow, or, if he likes tropical heat, with the dry atmosphere of Egypt, flavored with just a suggestion of the essential oil of the lotus, all he will have to do is to touch a button and the janitor would change his atmosphere in a few minutes. I ask you would not offices of this description be in demand and bring high rents? Why, the occupants would be overwhelmed with clients just from motives of curiosity to see how the thing works. If I could talk to that committee for an hour or two twice a week during the next month I am sure I could convince them of the brilliancy of my scheme. As it is, they are doubtless prepossessed in favor of windows, a common prejudice which has so far prevented a true revival of antique architecture. Schinkel, the greatest of modern Greeks, had to succumb to the window mania, and so must I no doubt, and the question still remains unanswered: How am I to treat the fourteen stories below my temple of Jupiter?

“If you set yourself the problem of balancing a full-fledged temple one hundred and seventy feet above the sidewalk of Broadway and cannot use a cyclopean wall, I can suggest nothing that will answer the purpose.”

“I have been thinking that a great arch might do it. ‘Ihe arch is expressive of strength. What do you think of an arch with voussoirs ten or twelve feet high?”

“That would do well enough if you had room for abutments to sustain the lateral pressure indicated by such an arch. There is not room enough in forty feet for an arch such as you have in mind, and also for its abutments, considering the height, You would find upon due calculation that your arch will be ridiculously small.’

“Of course you know,” said John, “that the end piers are tied together at every story with iron beams, and there is practically no lateral pressure; besides, the arch is supported vertically by the piers between windows at short intervals.”

“In that case, John, you need no arch at all, but if you present to the public a great arch, as you say, with an expression of great strength, then the public is entitled to proper and sufficient abutments, or else you are not pursuing architecture as a fine art.”

“We cannot have everything in this world; I shall have to stick to the arch and abandon the abutments. I thought you might help me out of this dilemma, but now I see that I shall have to shift for myself. Wait till you see my drawings, I think you will admit that I have done my best under the circumstances, and no man can do more.’”

“And with this John left in a huff, and I saw nothing of him until after the competition had been decided. He came into the office in a great state of excitement, dashed his hat upon the floor, and dropped into a chair. I knew at once that his sanguine expectations regarding the Discount Bank competition had not been realized, a blow which involved disappointment
in various directions, and a pecuniary loss which poor John could not well afford.

"'I would not mind being beaten by a better man, but this is too bad,' he burst out after a while, with tears in his eyes.

"'Tell me all about it, John,' I suggested, in order to divert his mind.

He straightened up a bit and told me this story:

"'You know when I saw you last I was full of the idea of a cyclopean wall, and, as an alternative, of the great arch. The great arch and the temple I concluded must be the winning card; but the cyclopean wall had such a hold on my mind that I would have been willing to barter a year of my life for its success. So I made up my mind to present a plan for either scheme. Of course, you know what it means to prepare two sets of plans in a quarter inch scale within the prescribed time. Then there was the matter of perspectives of the exterior. The programme was silent on the subject of scale, point of view, picturesque treatment, coloring, etc. It was important that my perspectives should be the largest presented and highly colored. I engaged the services of an eminent colorist to do the coloring at the rate of one hundred and twenty dollars apiece ($150 is the current price). Then there was the work of preparing specifications and detailed estimates, consultations with contractors and experts in steam-heating, ventilating, plumbing, electric lighting, manufacturers of elevators, etc. It is not necessary to detail to you the immense work involved in preparing completed plans and specifications for a building of the magnitude of the Discount Bank in the short space of six weeks as you are familiar with the subject. I commenced with four draughtsmen; at the end of a fortnight I had six, and we talked seriously of working overtime in order to get through with the perspectives to give the colorist an opportunity to do his work with leisure sufficient to do it well. While buoyed up with hope of success a man can do much work in a short space of time, and so I did in the hours between eight A. M. and six P. M., spending the rest of my waking hours in thinking how the effect of the drawings may be enhanced here and there and the cost of construction decreased everywhere, for this was not merely a question of who could produce the best design to answer a given purpose; but also, who could execute it cheaper than anyone else. The matter of ventilation being seemingly uppermost in the minds of the committee, for they talked about it constantly, I made this my special study and worked upon it nights after all others had retired; and I do think I developed it to a degree heretofore unparalleled in business buildings. I devised two great fans, sixteen feet in diameter, to be placed one in front and the other near the rear of the building to supply fresh air to each of the separate offices; air heated in winter and cooled in summer so that the inmates could regulate its temperature by simply touching a button which, by an electric contrivance governed the ingress of air by means of ingeniously-constructed valves. A system of this magnitude is necessarily costly; and I spent many nights in simplifying the apparatus and reducing the cost to twenty-five thousand dollars, a sum so small when you consider the work accomplished and its great importance in the minds of the committee that I felt sure of success on this ground alone. At times, however, I got very blue, thinking of the many possibilities outside of the merit of my design which might operate against me, and one morning after I had been working on my plans for nearly a month I awoke in a cold perspiration from a horrible dream. You see I intended to ask permission to explain my plans personally before a final decision; and at stray moments I rehearsed in my mind what I would say on that occasion. I was so full of the subject I expected to command the attention and interest of the committee for hours and finally elicit unanimous applause. So I dreamt that I was standing before a green baize-covered table in the directors' room of the Discount Bank, the members of the committee on either side and the chairman at the head, and I, of course, at the foot of the table; my drawings
pinned up on the wall behind me. Now, the directors' table, which I had seen many times, was large enough to accommodate twenty-three directors comfortably, besides the president and cashier who acts as secretary. It is about twenty-four feet long. In my dream, however, the table seemed one hundred feet long with the committee sitting away off at the other end of it; the nearest member being no less than ninety-six feet away from me. This discouraged me ever so much; but while they were consulting at the other end in low tones I endeavored to collect my thoughts, and when the chairman said that the committee was ready to hear my explanations, and have me answer some questions, I proceeded at once with a well-studied description of the Erechteum, touched lightly upon the invasion by Xerxes, the defense at Thermopylae, the subsequent federation of the Greek states, the vast contributions accumulated under Pericles, the building of the outer harbor, the artistic triumphs of Phidias, etc., when I was interrupted by one of the members of the committee by the statement that a directors' meeting within half an hour necessitated that I should confine myself to the subject of my plans, and that I should be as brief as possible as the committee would probably want to ask me a few questions. Upon this I plunged into a description of my plans, and dwelled at some length upon my system of ventilation, which seemed to interest the committee somewhat, until interrupted by the question "what this matter of ventilation would cost." I answered, "not more than $25,000." This seemed satisfactory; but one question being asked it opened a flood-gate of them, and I was not permitted to say another word regarding my plans, and the interview rapidly tended to a conversation between the members of the committee, of which I now and then heard a word, or a sentence such as "Ridiculous." "Phidias is not one of the competitors, is he?" "There seems very little business about him." "Humbug, etc.," and then I was gently pushed aside by the cashier of the bank who said the directors' meeting was opened, and I occupied his place. The janitor rushed in with a couple of chairs upon his shoulders, and tore a great hole in one of my perspectives, and the president of the bank jumped upon the table, stamped his foot three times, and called out in a loud voice "the board is in session; clear out, all architects;" and I awoke with a shiver.

Whether this horrible dream was owing to overwork, want of sleep, or a late supper, I cannot say, but I do know that it left me in a dreadful nervous condition. Arrived at the office, I found everything dragging; nothing finished, and the men tired and discouraged. Instead of trying to get matters into shape in the office I felt that I could do nothing definite until I had made the rounds of the committee, to learn something of the prevailing state of mind. When I now look back upon this visit it seems to me that they questioned me extensively as to what I was doing, and told me little of what they were thinking about; but a clerk of the chairman, a schoolmate of mine, who noticed my nervous state, told me that nothing would succeed in the competition but the plainest sort of a building, a plain wall with as many and as large windows as are needed to light up the offices. This information upset all my plans and I reluctantly came to the conclusion to prepare a third design, retaining the idea of the temple for the upper stories, but supporting the temple with a plain wall pierced with the necessary openings. If the openings were not made too large, I felt that the aesthetic result must be reasonably fair and pleasing to the committee, probably inferior only to the cyclopean wall. I engaged three more draughtsmen, you were good enough to lend me one of yours (many thanks); he was a high-priced man and worked very leisurely, certainly with much repose (no snap), but in the end his work was perfect, and also abundant as he never had to do any of it over again. A new set of estimates had to be prepared for the third design. This was essentially my work, and I
can assure you I worked hard. I should not like to live over again those last two weeks prior to handing in the plans, which I did punctually at the time appointed; but I can only say that the moment the drawings were out of the office I fell into a heap in my office chair and finally rushed home and went to bed.

I heard nothing from the committee for a week, when I received a short note from the secretary stating that no meeting would be had in less than a month from date, and that I might expect further notice of a hearing to be granted to architects prior to a decision. At the end of a month I was notified to appear for a hearing at three P. M. of a certain day, and when I arrived at the office of the chairman, I met one of the competitors coming out of his private room, and three others waiting outside. Evidently the process of giving a hearing to the competing architects was to be dispatched at one session of the committee. Called in by the secretary of the committee I found the members in close conversation, evidently interesting to themselves, as they did not notice my advent. I looked around the room where I saw the various perspectives pinned up against the walls (no ground plans or other geometrical drawing). One of the perspectives struck me as hideously bad. It represented a Corinthian temple two stories high and on the top of this fifteen stories of plain box with windows distributed indiscriminately over the surface without regard to construction. In the corner of the room next to me stood a megalethoscope on a tressel. I had just time to peep into it when I saw a representation of that same ugly perspective on the wall, a temple with the great ugly box on top of it. The temple was evidently meant to represent the banking rooms, for in front of it, on the sidewalk, there was painted a crowd of gentlemen, clerks and bank messengers in the act of rushing in and out of the building. The bank messengers carried heavy satchels; the bank clerks' portfolios and large pocket-books, and the gentlemen jostled everyone in their hurry. At the curbstone a number of drays were backed up, from which specie and ingots of silver were in the process of being discharged. The ingots were loaded upon an elevator intended to run down to the basement. An apple-stand and a few policemen completed the picture. I saw all this in a very few moments, and when I looked towards the committee they were still engaged at the other end of the room in examining something which stood on the floor. This gave me plenty of time to rehearse a resolution not to say one word upon architecture or art in general, but to confine myself to matters practical, such as the arrangement of the offices, of the access to them, of light and ventilation, heating, etc. I repeated once more my speech, which commenced somewhat in this way:

"As men of business, eminently practical, gentlemen of the committee, I will not detain you by a dissertation on the aesthetic motives which generated my designs, but will at once proceed to practical results attained, which you will permit me to speak of as matters of interest to you, rather than as achievements of mine."

"I was saved all trouble of saying a single word of all this, for suddenly the chairman turned round and members took their seats at the table which disclosed to my view a plaster model of precisely the same thing I saw in the megalethoscope.

"The chairman at once addressed me as follows: 'Ah! Mr. X, we are very glad to see you here; we have looked with interest at your drawings. Admirable! We all like them! Great industry and enterprise. You need not say one word on the subject; we know it all; and I express the conviction of the members of the committee when I say we appreciate your efforts. Our secretary had prepared a synopsis of your specifications, description and estimates, and I may say without conceit we are perfectly familiar with them. We especially value your remarks upon ventilation. So pertinent, "without oxygen, you say, we cannot exist." But let me ask you. Are you aware that a system of ventilation has been invented,
inexpensive, simple, a series of flues with a gas-burner or two at the bottom of each which produce a draught of fresh air into the respective rooms?"

"'No,' I said, 'I am not.'

"'I presume,' proceeded the chairman, 'you do not read the papers, and are not familiar with the latest progress of science?"

"'Pardon, I am aware that such a notion exists; but I am not aware that it answers the purpose.'

"'And why not, pray?"

"'Because the number of cubic feet of air to be moved through a given space represents a mechanical force, the equivalent of which in units of heat cannot be produced by less than twelve hundred times the number of burners contemplated by the invention you speak of.'

"'Who says so?'

"'I have gone through the computation on the theoretical principle of the correlation of forces and this is my result. Practically, the number of burners required are greater by reason of inevitable losses by friction, radiation, etc.; but if these losses by the ingenuity of man were reduced to nil then my calculation would be correct.'

"'And pray who guarantees the principle of the correlation of forces?'

"'Such men as Joule and Meyer.'

"'Are they in the ventilating business? I never heard of the firm.'

"They are in no business whatever. Mr. Meyer, a German scientist in the fore part of this century, deduced the value of the unit of heat in terms of mechanical work mathematically; and Mr. Joule, an English scientist, demonstrated it by a well-known experiment soon afterwards.'

"'You say, Mr. X, that Mr. Joule lived in England and Mr. Meyer in Germany in the fore part of this century?'

"'Yes.'

"'We now count the year of our Lord 1894. What did those gentlemen know of the requirements and construction of business buildings in this country and at the present day?' He expected no answer, but continued: 'I am glad to have seen you again. I can only say your drawings are most beautiful. (To the Secretary.) Call in Mr. Y.'

"'I have since learned from my friend, the clerk, that Z, the author of the design of the plaster model, has been employed as the architect of the new bank. His paper on ventilation contained the statement that the use of steam engines and fans is obsolete, and their work is now done by a few gas jets. This statement he supported with a guarantee of the inventor, who therein agrees to return half the cost of the apparatus if within six months from the time it is put in the building it fails to answer the purpose. The total cost not to exceed fifteen hundred dollars.'

"'Now, Doctor, I am done. I am heartily sorry for John. He is a poor man of business, illogical, visionary, sanguine and idiotic at times, not thorough in construction and æsthetics, but as architects go far superior morally and intellectually to men like Z, for instance. This unfortunate competition has cost him all his little savings, and has materially impaired his health and spirits.'

The committee was doubtless pleased with the pictorial illustration of the business rush in front of their future bank, impressed upon their minds repeatedly by the plaster model and the wonders of the megalethoscope.

This pleasure led them to like the perspective, hence the architectural design it represented; they admired the businesslike facility with which Z condemned an obsolete method of ventilation. They took it for granted that it was obsolete because he said so, and because he promptly supported his assertion with a guarantee from a known business house. They liked Z as an artist, and as a business man, and it is not surprising that they intrusted him with the charge of their new building, and men like John had to go to the wall. The next time we meet, Doctor, I should like to have a talk with you on the human weakness of building committees and the vicissitudes of architecture arising from the same.

Leopold Eidlitz.
THE INFLUENCE OF THE EARLY RENAISSANCE ON PAINTING.

The attitude of painting, as an art allied to architecture, towards the development of the early Renaissance movement in English art of the present day is fully as worthy of our attention as that of sculpture, which in these pages we have already considered. Moreover, the subject requires to be treated on somewhat similar lines, for as we said that pedestal sculpture is a branch of the art usurping to-day too prominent a position, as compared with sculpture applied to architecture, so to a still greater degree we shall find that easel pictures have all but destroyed decorative painting.

As an architect writing in an architectural magazine we must consider the subject from our point of view, which is a decorative one, and entreat our painting friends to lend us their ears in all tolerance and good-fellowship, while we tell them what we think and want.

Regarding our subject, then, however briefly from the historical side, let us first consider what has been the line of development of the art in the past, so as to be able to judge what we may expect in the future, for it appears to be true that no art attains to a high standard of development in any country without some roots in the past.

It appears, then, that as far as churches are concerned, fresco painting was early employed in England on Byzantine lines, and some such early and rude work in our churches has been deciphered by the aid of the instructions issued by the Councils of the Eastern Church for the guidance of sacred painters. These instructions, resulting from the Iconoclastic movement, were so thorough in prescribing the treatment of saints, their relative rank, colors, etc., that one of the Fathers urges that painters could not be fairly accused of heresy, seeing that they painted according to the principles and instructions of the Church.

Modern artists would have a good deal to say as to such restrictions, but, as a fact, such a priest-regulated art is not unfavorable to decorative effect in architecture, as may be seen not only in Egyptian work, but also in modern Greek churches, which often have a solemn and dignified aspect as compared with many modern Roman Catholic interiors. This is due to the traditional lines having been observed; for the severe lines and straight attitudes, the simple coloring and conventional backgrounds and also the absence of all perspective are all character-
SOUTH LEIGH, OXFORD (OLD).

(No. 1.)
Influence of Early Renaissance on Painting. 159

istics of this early style. Though often unappreciated by the modern painter, they are elements that harmonize with the inevitable severity of the architecture. For architecture is the most restrained of the arts; and atmosphere, foreshortening, perspective, etc., the triumphs of modern art, are, when in excess, elements destructive of architectural grandeur. Our friends, however, need not be alarmed, they may continue to talk of dead Byzantine art, and we will content ourselves with a wish that they may learn to combine a decorative element with their modern improvements.

In England, however, at no period were the fresco decorations of importance compared, for example, with those of Italy. There are churches, in Norfolk and Suffolk especially, where color is admirably applied to screens and roofs, and saints are painted on the panels, but even allowing for all possible Puritan destruction, it is difficult to imagine that the art had a great development. The most important work seems to have been in the palace at Westminster, where a room, called from its decorations, the "painted chamber," had tiers of subjects of a highly decorative character, the gold employed having a roughened ground, a detail of much importance too often neglected in modern work. The use of stamps to form patterns on which this gold was to be applied was common in Italy, as in Cimabue's work at Assisi, and very likely a somewhat similar method was employed in the chamber mentioned. Some churches in England are distempered in color all over, and have diaper patterns painted upon the surface, producing a somewhat gloomy effect, unless we suppose that the original colors were glazed over and that this glaze has subsequently been destroyed by damp and white-wash. The supposition of glazing is advanced to explain the crudeness of much mediæval coloring, too often copied in restoration of modern Gothic interiors, producing a rawness of color that one cannot imagine to have been the product of an artistic taste.

These restored interiors, fortunately more common in France than in England, raise the question of the limit of color in the Gothic style, for if a church is to be painted to the extent practiced in these restorations it might as well be built in plaster as in stone, seeing that the surface is entirely covered, and the colors themselves, crude reds, blues and greens used on the shafts and in the imitated wall hangings, destroy the plain architectural effect of the natural stone. Moreover, the attempt thus made to rival the glass in strength of color is one which the nature of the materials renders a certain failure. A somewhat similar question is a difficulty in St. Paul's, London, and indeed in any stone-built interior, namely, what material is most likely to harmonize with the stone which will darken and perhaps look dirty compared with the painted surface, when if all the stone work be painted there is a loss of dignity, the effect being that of a plaster instead of a stone interior. In St. Paul's Cathedral, an opaque glass (a sectile mosaic), is being used which it is expected will harmonize with the stone surface, and a trial attempt at painting the same in cream color with gilding in parts, has fortunately been abandoned. Some people are bold enough to declare that painted architecture is a relic of barbarism and that it has decreased with the increase of art perception, that as in Greek temples, the latest had the least color.

But, to return, at Westminster the employment of French or even Italian artists explains the superior character of what was done, and we doubt if the state of the country was such as to allow of a grand art at that stage of its development. Consequently, Charles I. must be considered as the introducer of decorative painting on a grand modern scale by his employment of Rubens, then on an embassy to his court, to paint the ceiling of his new Banqueting Hall. Thus, this building was not only, as we saw in our first article, the beginning of the Anglo-Italian classic school but was also probably the first example of decorative painting of the epoch in England. If, however, the Whitehall palace remains a grand dream, not less so was this branch of the sister art checked at its commencement.
GRAND STAIRCASE, EATON HALL.

Nicholas Hawksmoor, Architect.

(No. 4.)
Our next example is the ceiling at Greenwich, 1708-1727, the work of Sir James Thornhill, the father-in-law of Sir Christopher Wren. In consequence of this connection we find him decorating the buildings of his son-in-law and his pupils, the chief works of the age, such as the great hall at Blenheim, the staircase at Eaton and the dome at St. Paul's.

The well-known staircase and saloon at Hampton Court Palace, painted by Verrio for William III., also display the characteristics of the style especially in the treatment of the cove, supporting the central circular painting. It is true, this type of work is in no favor in the present day and was denounced some years ago as sham. It is, all the same, extremely characteristic of its age and is in close union with its architecture.

We find this Chiaroscuro work in the Vatican forming the base of the fresco work of Raphael, and from being merely the imitation of a sculpture panel occupying a vacant space, it advanced to be the sole occupant of the walls, and adding imitations of architectural forms, transformed walls and ceilings into columned perspectives crowned by receding domes. It has been well said that Paolo Veronese painted the surfaces of Palladio's saloons, and in return borrowed his architecture for the background of his pictures.

So close a union of painter and architect must be good, although the result is vitiated to our eyes by faults of style. This scheme of decoration is praised as extending the apparent capacity of the apartments and transforming the enclosing walls into agreeable distant views, a result to be obtained in the succeeding age by the employment of gigantic mirrors which, perhaps, illustrates as well as anything the futility of the end proposed. As far as the ceilings are concerned, we are invited to admire the art whereby a flat ceiling becomes a lofty cupola and not to forget to notice the people looking at us from a balcony, with a background of blue sky. Decoratively we have shades of brown, which age has often rendered of cool and hand-some hue, and which deserves to be admired by the school which affects a sombre if somewhat muddy style of decoration. The staircase of Eaton Hall, built by Nicholas Hawksmoor, Wren's best known pupil (illustration No. 4), is a restrained example, the frescoes being confined to the panels formed by the strongly marked architectural features.

Sir John Vanbrugh, also a pupil of Wren, and one of the most original of classic architects, was unable, through his quarrels with his lady-client, the Duchess of Marlborough, to complete the interior of his masterpiece, Blenheim Palace, according to his own wishes, but probably the result (see illustration No. 5) does not greatly differ from his ideas, being decorated in the style of the day, as may be seen by the illustration of the characteristic saloon of the palace.

This effort at the grand art was, however, short lived in England. Apartments became French gold-and-white roccoco, with Watteau panels in color at the most, and at a later period were hung with silk, on which easel pictures were displayed in heavily gilt frames, the ceilings being treated in a corresponding style (see illustration of Grosvenor House No. 7). The churches of the epoch remained clad in puritan whitewash. St. Paul's, alone, remained the crux of would-be decorators, ambitious to complete the work of Wren.

The most hopeful of these attempts, due to Sir Joshua Reynolds, was crushed by a bishop as a Roman innovation, and nothing came of it but the acquisition of an easel picture or two, regarded then as the only safe scheme of decoration for a church. The great artist was to have been assisted by several others, including Angelica Kauffmann, the Swiss-born lady artist, who was one of the original forty members of the Royal Academy. In decorative work she executed panels in the gold-and-white saloons of the day, the subjects being of the sham pastoral or sentimental type.

What her contributions to St. Paul's would have been we are left to imagine. As a strong admirer of the Italian school, and of Michael Angelo
GROSVENOR HOUSE.

(No. 7.)
CEILING PAINTING.

(No. 8.)
in particular, Reynold's scheme would doubtless have been one of a full and complete use of color, though, we may expect that he would not have been uninfluenced by the evil features of his own age. We fear that the style would have had more of the characteristics of the Carracci school of Bologna than of the Sistine Chapel. Angels on clouds, after Correggio, correctly foreshortened, visions of the upper heavens in yellow, with ascending and descending nymphs in blue and white would, we fear, have detracted from the grandeur of the church, unless we suppose a genius, rising above the level of his age, and impressing on his work the character of religion and the grandeur desired by the architect. As we have practically no examples of this style in England, it is not worth while to dwell on the extraordinary errors of the mannerists of Michael Angelo, by whom architecture was subordinated to be the provider of surfaces large enough for their drop scenes (see illustration of Italian ceiling No. 8). An instance of decoration due to a single artist, James Barry (born in Cork in 1741 and a student in Rome for five years) is the large Hall of the Society of Arts in the Adelphi, where six large panels as much as 42 feet long and 11 feet high were executed by him at the price of the materials. The impetus towards a new departure was due to the Prince Consort who suggested that the Houses of Parliament should be suitably decorated, and a commission was appointed to study the subject of fresco painting, and a grand competition was held in Westminster Hall in which Sir John Tenniel, hereafter to be — the great Punch artist — and Maclise, Cope, Dyce, Herbert and others were prize winners, and Haydon, the man who had preached the necessity of a grand style of historical painting was beaten by his own pupils. Mr. Frith, R. A., records, in his reminiscences, that he saw the unhappy artist on the award day in a restaurant at Westminster, and he was shedding tears in the bitterness of defeat. The suicide of the ill-starred apostle is a blot in English art history. Strange though it may appear, it is true that Sir Chas. Barry was excluded from the commission, and the resulting work hence lacks that unity which it would have had if there had been a leader to control the various works undertaken. As it was, a number of more or less isolated pictures were executed by Watts, Tenniel, Cope and others in the various halls and corridors of the palace, the greatest unity being obtained in the House of Lords, where the architect employing gilding in harmony with the six frescoes by three R.A.'s, Horsley, Dyce and Maclise, placed, three at each end of the oblong chamber in arcaded recesses, ranging with the side windows filled with stained glass and constituting the sole pictorial decoration of the interior. To-day it is known as the gilded chamber, a title suggesting the aim of the architect, who, it is recorded, desired to treat the roof with solid gilding as in the Basilicas at Rome. This leads us to the question of decorated glass and mosaic, which, with gilding, form a strictly architectonic style of treatment.

Stained glass has exercised a potent influence on the development of painting, which it has undoubtedly checked, if not destroyed, in northern countries. Fergusson makes a striking and just comparison between King's College Chapel, Cambridge, and the Sistine Chapel at Rome, hesitating to decide between the architecture and painting predominant in the one and the other respectively. We doubt if there is an example of a satisfactory interior in which painted glass and paintings are used together. St. Peter's, at Rome, owes much to its clear glass. And, if this is so, naturally we must choose between the two, and our painter friends must, in an interior predominantly architectural, be content to paint glass and to adopt some style of decoration of a rough and architectural character for the adjacent wall surfaces. For instance at Albi are some notable mediaeval frescoes painted on the rough brick-work of the interior, producing, at a distance, something of the low-toned decorative effect of a mosaic. Mr. Pearson, R. A., has been trying the same method in the chapel of St.
John's, Red Lion Square, London, the key note being to preserve the continuity of the wall effect both in the wall paintings and the stained glass, and in the grand early mosaic interiors the idea is the same.

Attempts have been made to place the fresco over the chancel arch painted on the rough brick-work. It is idle to deny that this is a sacrifice for the painter, but it is in harmony with the Gothic style.

Probably Sir Charles Barry's ideas were in the same direction, and unity would have been obtained as thoroughly as in an Egyptian temple or a Sicilian Basilica. However, it was not to be at Westminster, and the method of the fresco painters proving little durable, the attempt was left unfinished and a few faded wall paintings remain as the result of a grand idea.

As an influence, however, in English art the competition referred to, proved most salutary. It was the break-up of the old school and the pre-Raphaelite movement was a step in advance.

The decorative side of this romantic effort of Holman Hunt, Rossetti, and Millais has been much overlooked. Holman Hunt records as the starting of the movement, a study by them of the Pisan frescoes, then newly published. Surely nothing could be more significant, for this early Italian school is nothing if not decorative and in close alliance with the architecture of the age right up to the time of Raphael. The misfortune was that for reasons we shall discuss later, there is no scope in England for decorative work on a large scale and the style of the Pisan frescoes is another thing when applied to easel pictures. Hence the efforts of the "brethren" struck the English public with amazement. Nothing of the kind pre-existing in our midst, and architects lent no aid. In spite of the desire of the late Mr. Street and a few others to do so, the movement, decoratively considered, fell short of its promise and the best known of the three developed only into an easel painter necessarily reverting to the traditional modern style for the purpose. Illustration No. 12, one of a series of decorative panels in Marlborough College chapel shows the influence of Rossetti. The Prince Consort's efforts were not only exerted on this occasion, but also on several others, with more or less success, and by him some German artists were encouraged in this country, Grüner, the author of some works on Italian decorative work being employed at the Mausoleum at Frogmore. A glance at Grüner's representations of Italian work in his books will give a good idea of the dry formal character of his work. It had little of the Italian grace and beauty. One of this group of painters was employed at Bridgewater House, one of Sir Chas. Barry's most important works in the Italian style, without his concurrence, and on the termination of the work the architect being asked to advise upon it, found himself unable to accept the responsibility of suggesting any alteration, the second case in which he had no opportunity allowed him to give effect to his own ideas.

Meantime, however, another force was springing up and Thackeray's saying to Sir John Millais was a true prophesy, "I have met," he said, "in Rome a versatile young dog, named Leighton, who will run you hard some day for the Presidency of the Royal Academy." In fact, starting a few years later in style than the brethren, the "young dog" came to the front in England, with a picture, significantly chosen, of Cimabue's triumph in Florence. Here, in fact, was decorative painting of early-Raphael rather than pre-Raphael style and the effect was gained without what could be called archaic drawing. If then, we had the history and tendency of a national historical school, the artist would have painted in the important churches, mansions and public buildings of this country, employing a style of perfect drawing with gorgeous color, harmonizing in effect with the best architecture of the epoch, but in place of which we have nothing else to show you, but the two frescoes at South Kensington Museum, besides which there are only the unexecuted scheme for St. Paul's Cathedral and some minor work.

It is to be feared that in this country the easel picture reigns supreme. True,
MARLBOROUGH COLLEGE CHAPEL.

(No. 12.)

One of a series of panels by E. Spencer Stanhope.
MEDALLION FOR ST. PAUL'S CATHEDRAL.

(No. 15.)

By Sir F. Leighton.
SCHEME OF DECORATION FOR THE DOME OF ST. PAUL'S.

(No. 16.)

Detail by E. J. Poynter.
SCHEME FOR DECORATION OF THE DOME OF ST. PAUL'S CATHEDRAL.

(No. 17)  
Details by E. J. Poynter.
it is often decoratively treated and is so far, pleasing in the decoration of an interior, while satisfying our idea of portable property, still it can never be the same thing as fresco work proper, both as to decoration and in forming a school of artists able to work on a large scale.

Alfred Stevens came later with the ideas of Michael Angelo rather than of Raphael, his scheme for the dome of St. Paul's remains in a model impressed with the unmistakable stamp of genius and far above any scheme yet proposed for that subject.

Inspired by the Sistine Chapel roof, it consists of a series of ribs and grand circles containing subjects between. The ribs are formed by tiers of men in couples, supporting entablatures piled above each other, and these bold figures, nude or semi-nude, were not calculated to please the clergy, and would certainly have to be the work of a great artist, if the necessary sublime character of the religious edifice were to be maintained.

Our illustrations of four trial cartoons (No. 14) hung in the dome itself, form a modification of this scheme by Sir F. Leighton and Mr. E. J. Poynter R. A., the former contributing the lower medallion of the rising of the dead from the sea (No. 15), the decorative framework being by the latter. The details given Nos. 16 and 17 will enable our readers to form a good idea of the whole, which was found to be somewhat less effective in position than had been expected.

Apart from this scheme, the question of the treatment of the dome with ribs is one for very serious consideration. St. Peter's at Rome and many Italian churches of the age are so treated, most of them having constructed ribs to start from which, however, do not exist at St. Paul's, and are not the natural method of constructing the dome. Moreover, however large the ribs are at the base they taper to a most unpleasant extent towards the top, and the usual intervening circles are not suggestive of stability. A plausible concentric scheme was proposed for St. Paul's by Mr. T. P. Teddon, F. R. I. B. A., consisting of rings of figures round the base without any ribs at all. That is certainly in accord with the constructional idea of a dome.

The dome of St. Paul's, at present, is the most majestic in internal effect of any in the style, having a spacious and crowning character, seeming to cover in the great octagon without effort and without the excessive and detrimental height of its rivals. Of Stevens' work one pendentive exists, executed in mosaic—a grand figure of Isaiah—being the best of the eight that have been finished, in the execution of which various artists have been employed. No doubt from the strictly architectural point of view, these pendentives are open to the same criticism as the late Italian school in general, and cannot pretend to have the same harmony as the Sistine ceiling which we should like to regard as the limit of freedom allowable for work in conjunction with architecture. It is a fact that the Byzantine style of which parts remain in St. Mark's, Venice, at Ravenna, and in Sicily, possesses a dignity that is most in accord with the strong lines of architecture. This dignity is, perhaps, among living artists in England most closely attained by Burne-Jones. His mosaics, glass and tapestry are full of that harmony of line and severity of treatment that the decoration of an interior demands. Their style is one allied to early Italian Renaissance, though there is much of Byzantine and Gothic character in it. For its due appreciation it requires something more than a knowledge of the modern schools of painting. Hence the alleged incomprehensibility of his work, which is quite natural to those unacquainted with its basis (No. 18). William Morris, a pupil of the late G. E. Street, and thus learned in Gothic art, has powerfully helped decorative art in England, executing the designs of Mr. Burne-Jones and carrying out work in which a similar feeling prevails. Our illustration (No. 19) of a room in Eaton Hall, of not much architectural merit, owes its charm entirely to the decorations executed by him, which are of a strongly conventional character, as will be seen.

Somewhat similar in style is the inte-
THE ANNUNCIATION.  
(No. 18)  
By E. Burne-Jones.

DRAWING ROOM IN EATON HALL, MR. MORRIS' DECORATIONS.

(No. 19.)

A. Waterhouse, Architect.
S. F. BODLEY'S DECORATION.
(No 20.)
rior (illustration No. 29) by Mr. Bodley A. R. A., whose churches and houses present numberless examples of interesting decoration of this character. Mr. G. F. Watts, R. A. represents another type of Renaissance, reminding us often of Titian in the large style of the decorative work which he affects. His pendentive in St. Paul's represents a flying angel holding a scroll and has a movement that recalls the rape of Ganymede in the ceiling at Venice by Titian. He was one of those employed at the Houses of Parliament, where there is a fresco of St. George and the Dragon by him, and one can only regret that several of his well known canvasses so strongly decorative in character were not executed in some such public building. There is a story, that on the completion, many years ago, of the grand hall of Euston Station, he volunteered to decorate its walls at the price of the materials, an offer which, incredible as it will sound, was actually refused. Mr. T. D. Crace was an energetic exponent of color decoration, and his son continues his work having been employed in recent additions to the National Gallery, which however is no instance of decorative art on a grand scale.

Mr. Stacey Marks, R. A., should have been mentioned before. The fine frieze of Chaucer's Canterbury Pilgrims, shown in our illustration (No. 21), is a good example of his work, though perhaps to-day such a subject would be considered too literary for decorative painting. The interior is by Mr. Waterhouse, R. A., and illustrates a domestic interior of the Gothic revival. In the Gothic revival the ideas of color decoration were influenced unduly by stained glass and much of the work executed reminds us of non-transparent glass by its strong outline and flat treatment and general conventional character. One class of this work was executed in brown on the plaster surface without any color at all, or only perhaps gilding in parts, being considered a cheap and effective form of decoration for a church. Somewhat similar in style was the painting on tiles, the subject extending over numerous squares without regard to the joints. The best examples of this latter may be seen in All Saints, Margaret street, by Mr. William Butterfield, whose interior is one of the most highly-decorated examples of the epoch.* The grand chapel of Keble College, Oxford, by the same architect, has a similar style of decoration only that the subjects are in ceramic mosaic, the material not being favorable to their effect. The new mosaic decorations of the choir of St. Paul's Cathedral by Mr. W. B. Richmond, A. R. A., promise to be one of the most important schemes of modern times. I have had the pleasure of visiting these, the scaffolding being still up, and perhaps on some future occasion the subject may be taken up with proper illustrations. Mr. Butterfield has been one of the most consistent advocates of the use of color, his work taking generally the strongly architectural form.

A recent article in this journal has given an account of the use of mosaic in England, so that it is unnecessary to say more on this head, which could not, however, be entirely passed by without notice.

In that article reference was made to Mr. Walter Crane and a frieze by him was illustrated and the general character of his work is so well known that it is needless to speak of it. We give, however, an illustration (No. 24) of a fine interior by Mr. Norman Shaw, having a painted frieze by him. Mr. Crane's name suggests, moreover, the important element of wall paper, as affecting the subject of color in houses and which in England has taken such a great and almost exclusive share in the decoration of our houses. The use of paper in France and Italy is not nearly so important and the character of the work not nearly so good.

To-day, wall-papering occupies the place of the tapestry of the mediaeval and early Renaissance ages and in so much is detrimental to the extension of painting.

One may see in Italy a common village inn with an elaborate attempt at a fresco ceiling, in which figures are in-

*Illustration No. 23.) The effect here is obtained by the use of natural-colored materials and is, as will be seen, very architectonic in character. The painting of the reredos panels is by the late Mr. Dyce, R. A. (the same who was employed in the House of Lords.)
DECORATION IN ALL SAINTS' CHURCH, MARGARET STREET (GOTHIC REVIVAL.)

(No. 23.)
introduced freely, and though it is undoubtedly bad, still the fact of its existence is significant. From such rude beginnings the works of the great artists have their origin, and the latter are but the final perfection of a long series of previous efforts. If then in England it has not been and is not common to have decorative painting on any large scale in either houses or the smaller public buildings, how is it possible all of a sudden to be able to successfully decorate a great building. Obviously both the experience and the men will be lacking. Tapestry, in the past, with its cool, pleasant, decorative tones, formed a surface satisfying the eye while it protected the inhabitants of the apartment from cold and damp, both inherent in this country and both fatal to fresco work. Tapestry, again, combined admirably with the ordinary woodwork used in paneling and doors and while enhancing the furniture, it left its rivals far behind in comfort and effect. Illustration No. 25 shows the mediaeval hall of Hampton Court Palace with tapestry dado, and No. 26, the council chamber of Hardwick Hall, and No. 27, the state bedroom, showing how exclusively the tapestry covers the surface. The interior (No. 28) from Holland House has tapestry panels with a fine plaster ceiling of Jacobean date, while the example (No. 29) from Blenheim Palace shows tapestry combined with the coves and wood dados of the later epoch. Herein, too, to-day should be a field for artists able in decorative design, for tapestry well treated in accordance with the good periods and not in foolish imitations of paintings, is a material worthy of the best efforts of any artist.

The fault of the exclusive easel form of painting is that so many artists seem unable to work in any other medium, and though all forms of art have their restrictions, they cry out against the limits of mosaic, glass, or tapestry, in all of which their predecessors did notable work.

With regard to the position of decorative painting in domestic interiors, seeing that there is a rooted objection to paintings on the ceiling, forming with the obtrusive character of modern furniture an element hostile to painting, other than in easel form, the best solution may be found in the treatment to be seen in early Renaissance interiors in Venice, where a deep frieze is formed by well-detailed pilasters and cornices framing the canvases. The ceilings are paneled and have suitable paintings. The whole upper portion of the room forms a rich and suitable covering to domestic interiors. In Venetian interiors of the Renaissance, the canvas surface, from the point of view of the grand style of Florence and Rome, whose frescos are on the wall itself, is, no doubt a defect; but it is equally certain that it is more in accord with modern feeling, which prefers interiors relatively small but rich and whose luxury takes the form of high finish in surfaces and ornament. The interior illustrated (No. 30) at Hewell Grange, by Bodley & Garner, is an effective instance, only that here the canvases are exceptionally long and not sub-divided by pilasters, nor are the panels of the ceiling decorated.

There is a feature in French life which does not exist with us, namely, the "Mairie" or small town hall, where the Salle des Mariages and the Salle des Fêtes are elaborately frescoed with appropriate subjects.

Political feeling, tending on one side to exalt civil marriage, takes this form of increasing the effect of the ceremony, a state of things having no counterpart with us. Certain of the larger towns or cities as they mostly are, or aspire to be, have recently attempted to decorate their public halls. Of these, the best known is Manchester Town Hall, the work of Mr. Alfred Waterhouse, R. A., which is decorated by a series of large frescos by the late Ford Madox Brown. They are executed in spirit fresco, also employed by Sir Frederic Leighton at South Kensington—it is a method invented by Mr. Gambier Parry, and which it is hoped will withstand the English climate. The subjects are suitable passages of Manchester history, leading off with Roman soldiers building the walls of the first city, a bold and vigorous treatment of the theme. Another subject is worthy of
STATE BEDROOM HUNG IN TAPESTRY, HARDWICK HALL.
(No. 27.)
TAPESTRY IN ROOMS (OF A LATER DATE THAN THE BUILDING) OF BLenheim,
(No. 29.)
remark for its curious coloring of purple and yellow, a key rather affected by the pre-Raphaelistes, introduced here by the quaint costume of the boys' school, the long coats being purple and the stockings yellow. Perhaps the most successful of these subjects is the local astronomer observing the transit with rude contrivances of his own make. A strong ray of light is passing through his instrument across the dark garret, which the astronomer is just about to enter. As to his scheme, Mr. Madox Brown says that he kept the colors light, with the idea of suiting the style of the hall.

At Birmingham, a bold attempt has been made to employ native and youthful talent, the students of the municipal art school being the executants, under the general direction of the head master.

Other towns will probably proceed to rival these great undertakings with, we may hope, increased success. Certainly such work requires to be thorough and proposed from the outset. The forms of the surfaces, of the ceiling, the method of lighting the floor surface and all the details require to be fully considered between architect and painter.

For color decoration on a grand scale is not a matter of one or two isolated pictures, but is the complete expression of the whole interior. In the most recent large church in London, that of Holy Trinity in Sloane square, it was the hope of the late T. D. Sedding, its architect, to employ the talents of numerous decorative craftsmen and especially to have the powerful aid of Mr. Burne-Jones in painting a grand frieze round the church and also in decorating the chancel roof. It is to be hoped that in spite of the architects' death some part of the scheme may yet be executed.

We referred to the last of our public buildings, viz, the Imperial Institute, in the previous articles on architecture and sculpture, but in regard to painting it presents us at present with no more than a few single-figure panels on the elaborate vaulted roof of the staircase, which must be considered only as a beginning which will, we hope, be extended in the future.

An idea which we might borrow from the early Renaissance is the use of these large intersected coves, which were so common in Italy at that epoch, and whose surfaces are often admirably occupied by single figures in varying altitudes. No doubt the surface presents great difficulties to any artist unused to such work but as a master of his craft, he should be equal to it.

These coves have the advantage of being well placed and easily lighted, both of consideration in modern interiors.

A curious idea of to-day, just worth mentioning is to execute a grand flyaway subject like one of the frescos of the late Renaissance, in leaded and highly colored glass in the day-light of a hall or staircase, that method of lighting having become almost indispensable in modern buildings. Such a work involves of course as much skill in perspective and foreshortening as was employed in the previous age. We hardly venture to express any opinion as to the advisability of such a proceeding.

One thing we can condemn, and that is the common use of the heavens as a decorative adjunct in our ceilings. This is a phase of work executed by a class of Italians over here, who delight in such features as the rising of the sun, or the gathering of clouds for a storm, as the suitable covering in for an apartment, but although such ideas are as old as the Romans we find it hard to accept them as forms of artistic expression.

The utter inanities of restaurant decoration in London are often due to these workmen who decorate such places with sickly cupids, wreaths of flowers and other trappings. The restaurant of the South Kensington Museum is in strong contrast to such places, the "grill room," due to Mr. William Morris, is decorated with large panels of tiles painted in blue and white varied with pale reds and yellows, set in a paneling of polished walnut, and the whole scheme forms an admirable interior for such a purpose (No. 32). The subject of these panels, which are from the designs of Mr. E.
PANEL IN GLAZED TILE.

(No. 32.)

By E. J. Poynter.
INFLUENCE OF EARLY RENAISSANCE ON PAINTING.

J. Poynter, R. A., is the Seasons, and the style is that of early Renaissance glass in France, consisting of figures decoratively treated in conventional architectural tabernacles. The room adjoining is more purely architectonic, having a ceiling of enamelled iron treated in early Italian style, and having windows of Renaissance glass with subjects in strong color set in a general surface of pale glass. The walls and columns are lined with glazed faience with detailed friezes and bands modelled by Messrs. Moody & Sykes.

The two frescos in the same museum by Sir Frederic Leighton, already referred to, constitute perhaps the most important work of the kind in England of to-day. In point of color, the one representing "war," which is mediaeval in character, has purple and red and dark colors generally, while the companion fresco, "peace," which is Greek in character, is yellow and white, with blue for sea and sky, contrasted by angle groups of brown-skinned men. (Illustration No. 33.) These two frescos are thus extremely interesting to compare, being at opposite ends of the same hall. The latter unfortunately is only of decorated iron and glass and thus no general effect is produced as of some grand renaissance interior.

Those who wish to pursue the subject of English fresco art further will find at South Kensington the chief cartoons from the Westminster competition alluded to above, together with one of a mosaic by Mr. E. J. Poynter and some for stained glass by Mr. Burne-Jones.

There is also here a series of ceramic mosaic single-figure subjects in a wall arcade, contributed by various artists of the age more or less valuable or interesting. Here, too, are the Raphael cartoons, a priceless standard of decorative work, and one to which the decorative painters of to-day seem wholly unable to attain.

In summing up, it may be remembered that we were not very hopeful on the sculpture side, still less we fear can we be on the side of decorative painting on a large scale. Unless the future prove different to the past we fancy that easel painting more or less decorative in character will continue to hold the only place in spite of the isolated efforts of artists in each generation.

While town halls are bare and churches are thought complete when the last window has been filled with stained glass and private houses are fields for wall-papers and tapestries, the fresco artist is likely to remain without any scope for the exercise of his talents.

Is it to be wondered at, then, that men of ability turn their thoughts, either at once to easel painting or else to such forms of art as mosaics, stained glass, tapestry, or wall papers, fields of art in which there is much to be done by giving to our architecture that adjunct of figure work and color which it lacks, forming interiors of a home-like character. One form of painting common in early Renaissance times remains, but is little followed and that is the painting in a decorative manner of smaller objects, as in cabinets, furniture, etc. For, except some pianos and such articles, decorated by artists of name, we hear of little of such work which however is a promising field for further effort.

Alfred Stevens painted some chimney pieces with figure work, and also other panels belonging to a general scheme, and though the work sounds unimportant to an ambitious artist, the renaissance examples show that it affords admirable opportunities for good work. Allied to such work are the reredos in our churches, too often treated only as easel pictures, while from the Renaissance in Spain we might borrow the idea of those immense retablos which would afford panels of sufficient scale for good figure work. We illustrate a modern example of reredos from a church by Mr. Norman Shaw (No. 34).

The influence of the early Renaissance is essentially decorative, for color and form are allied with architectural detail in close union, and dissolved only in the later age when such detail was ignored to give room for an excessive development of anatomy, perspective, and other, then new, and
progressing resources of the painters art. Now that these have become more or less commonplaces, it is surely the time to renew the alliance of architecture, the centre point of all the arts, with painting, under the influence of the early Renaissance, while at the same time striving for a style in harmony with the best aims of modern civilization and artistic development.

Banister F. Fletcher, A. R. I. B. A.
A TEMPLE OF THE TOKUGAWA AT NIKKO.

O not use the word magnificent until you have seen Nikko,"* says the old Japanese proverb, Nikko being used comprehensively for the temples of that fair spot.† For though Nikko has ever furnished the "mise-en-scène" for all Japanese fairy tales, fairyland materializes when one stands before her shrines, and reaches its climax in the mausoleum of Ieyasu.‡

This temple, like all others in Japan, is not a single building, but a collection situated on the terraced slope of a hill, and treated in regard to distribution as a feature of the landscape. High above the waters of the Daiyagawa it rises, with tier on tier of crimson lacquer and gold set jewel-like in grooves of giant criptomerias born two thousand years ago; while over all hangs that violet cathedral light one learns to love in the land of the Mikado. For distance in Japan is not rendered in Payne's gray or dirty white, but by violet, that gentlest of all solar lights; and at Nikko (with the exception of an occasional after-glow on sacred Nantaisan at the western vanishing point) all the warm colors of the perspective

* Nikko wo minai uchi wa, " Kekko to iuna."
† Nikko means Sun's brightness or splendor.
‡ Ieyasu Shogun, statesman, lawyer, and patron of art, was born in the year 1542 and died in 1616. He was the founder of the great Tokugawa dynasty which controlled the destinies of Japan through two hundred and fifty years of unbroken peace, and started a renaissance in art only rivaled perhaps by the Medici in the cinque cento. The period of the Ieyasu Shogunate is often called the Periclean Age of Japanese art.

... seem to emanate from the temples themselves.

Honda Kadhusa no Suke may justly be styled the architect of this great masterpiece, superintendent of works being the term actually employed in the archives; for the Japanese, like the French before the days of Pierre Les-cot and Philibert de L'Orme, had no word exactly corresponding to our own term of architect.

Of Kadhusa, personally, little is positively known, save that he was an adherent of the Shogun Tokugawa Hidétada, but any question regarding his ability may be answered by quoting the epitaph of Sir Christopher Wren: "Si monumentum requaeris, circumspice!"

Architecturally speaking, the temple of Ieyasu is for the most part Buddhist, and from 1634 to 1868 was ruled by a Buddhist Abbot chosen from among the princes of the Imperial house; but after the revolution it was stripped of much artistic treasure, and (by a decree of the Mikado) converted into a Shinto place of worship.*

This change, however, was less radical than would at first appear, for in the early part of the ninth century, after Kobo Daishi had made his master-

* Shinto was the indigenous religion of Japan before the introduction of Buddhism, and is practised at present in its greatest purity in the province of Satsuma. It is a combination of nature-worship, hero-worship and ancestor-worship, and numbers eight million deities in its calendar, all of whom have been incorporated in the pantheon of Japanese Buddhism. Its moral teaching is usually summed up in the words: "Follow your impulses, and obey the Mikado!"
ON-CHOZUYA, OR HOLY WATER CISTERN.

Fig. II.
stroke of reconciling Buddhism with Shintoism by teaching that Shinto deities were only varied manifestations of Buddha, the art forms of Buddhism, which had been imported from Corea, became in like manner grafted upon those of the rival faith, until each became so absorbed in the other, that it is difficult to-day to find more than two or three temples throughout the land that are not hybrid in this respect.

Even the temple of Iyeyasu is no exception to the rule, as is declared at the first approach by the granite "torii," a sort of Japanese propylaea composed of two columns, a lintel with projecting ends and a tie-beam, a thing of purely Shinto origin and symbolical of the early faith.

In old time the torii was always of wood and used (as the name would imply) for a bird-rest, whereon perched fowls offered to the temple; but in later days, when the Buddhist cult grew more universal, its true significance and use was forgotten, and beauty of form commending it as a gateway, it was ever after employed for that purpose.

A typical bronze gateway or arch of the kind, inlaid with the crests of the Tokugawa in gold, stands in the first court. (Fig. 1.)

Before entering what may be termed the close of the temple, a pagoda given by "Sakai Wakasa-no-Kami" (a stanch adherent of the Tokugawa clan), claims attention.

The Gojin-no-to, or pagodas of Japan differ from those of China in that they are almost invariably square, those in other countries being octagonal or round. Within stands what at first sight appears to be a column passing through the centre as a support; a careful examination, however, reveals it to be no column at all, but a heavy beam hung from the apex of the roof, like the tongue of a bell, so that in case of typhoons or earthquakes the centre of gravity is automatically raised or lowered according to the deflection of the building from the vertical, thereby preserving the whole in equilibrium.

The pagoda in question is composed of five stories, each set a little back within the lower, and gilt about with galleries and overhanging eaves. A twisted spire forms the culmination, and the whole is lacquered in dull red, save the lower story, where the painted carvings of the bull, tiger, hare, etc., of the duodenary cycle disport themselves in pleasing distribution.

To ascend in to the first terraced court of the temple, the worshiper is compelled to pass through "Nio-mon" or gate of the two kings; so called from the statues of two heroes originally occupying the niches on either hand. The mode of worshipping these was to chew up a prayer printed on a small bit of tissue paper and then throw it or spit it at the god. If the paper adhered to the image owing to the saliva, it was thought that the petition would be answered.* These statues have now been removed to the temple of Iyemitsu and in their place stand the bronze "Ama-Inu" and "Koma-Inu," or Japanese and Korean dog, which are believed to guard the temple against demons.

It has been the usual custom for critics to make only a slight allusion to "Nio-mon" and pass hurriedly on to the more elaborately executed gate of "Yomeimon." But the former, like all things Japanese, is not without its own individuality, and (what is more important) comprises many of those qualities peculiarly characteristic of all the better class of Japanese buildings.

Like the "Yomeimon" (Fig. IV.), it is a species of "arc-de-triomphe" surmounted by a roof, without a single nail used in its construction. No foundation (in the American or European sense) hugs it to the earth; for Japanese houses are not built in the ground but on the ground, so that in case of typhoons or other convulsions of nature, they avoid being snapped off, and tend rather to slide.†

Twelve columns with lions and tapirs for capitals support and embellish

* Torii from tori, meaning a fowl.

† This performance is still practised by the faithful.

† Mr. Y. Tsuchiki, the government architect, informed the author that the Great Temple of Nara shifted its position a foot during a recent earthquake, and yet retained its strength and stability.
"Nio-mon" externally; above which, in lieu of cornice, springs a riot of complicated corbelling; a nightmare of complexity to the inquisitive engineer.

Other animals, such as unicorns, tigers and elephants, carved with conventional freedom, contribute their quota to the scheme of decoration, to which must be added the fabulous "takuju," who are said to visit the earth only when a virtuous lord occupies the throne. But when everything is said, the real touch of genius (architecturally) is the roof. Not on account of its graceful curve, nor the manner in which the overhanging eaves blend and soften the tones of color; but from the dignity and distinction which it sheds over the whole mass, like the Renaissance top of the Giralda tower designed by Fernan Ruiz.

A fence thrown right and left of "Nio-mon," and painted in deep vermillion, encircles the first court; and here within, the mausoleum of Iyeyasu may be said to properly begin.

To the right stand the store and treasure houses, disposed in picturesque irregularity, rich with the carvings of Hidari Jingoro (the Grinling Gibbons of Japan); to the left, the stable of the sacred white pony, the "On-chozuya," and the Library of Buddhist Manuscripts clothed in crimson lacquer; while through the "torii," before mentioned, tiers of architectural loveliness rise in limitless perspective.

One fault is prone to present itself to the Occidental mind, namely: that all these buildings are of wood. But when it is understood that this choice of material is not from motives of economy but from necessity, and that lacquer covering if renewed preserves wood to an age equal to that of stone, further objection simply relapses into prejudice.

One exception to the wooden theory declares itself in the "On-chozuya"

or holy water cistern (Fig. II.), where the piers supporting the pavilion are of granite from the quarries of "Nagahata;" but these carry very little weight, are not built in the ground, and batter in the Egyptian fashion; a precaution usually taken throughout the island of Hondo.

The water-basin itself (a gift of the Prince of Hizen) likewise engages attention through being a single block of granite so delicate in adjustment that the water pours over all sides simultaneously. Its purpose is for purification before prayers, and in old days the Mikado personally performed the ceremony of ablution for his subjects, as a symbolic cleansing of the nation from sin. This custom no longer obtains, and at present each penitent performs his own lustration for himself.

A small ladle is employed for rinsing out the mouth and pouring water over the hands, after which the believer goes to the shrine, rings a gong to attract the Deity's attention, and bowing low, silently offers prayer and supplication.

Above the "On-chozu-ya" springs a roof of graceful curve, composed of bamboo sheathed in copper, the ends of the rafters being embossed with the three Asarum leaves of the Tokugawa crest. Flowers and winged-dragons carved in relief fill the pediment, all so softly tinted that the color seems breathed on, rather than painted; while plates of burnished bronze, cunningly wrought, flash at intervals throughout the design in rays of golden brown.

A pebbly path leads by the Library of Buddhist scriptures called "Kyodo" (Fig. III.) (with its stone lanterns presented by the daimios) and stops at a flight of steps climbing to the second court, where beauty is still in crescendo.

Here two belfries rise on either hand, suggestive of palanquins, one containing a bell, the other a drum which plays so important a part in the ritual of the "Nichiren" sect. Behind stands the temple of "Yakushi Niorai," and straight before, "Yomeimon"

* In the great earthquake at Nagoya the stone buildings were reduced practically to powder, the loss of life within them being almost unprecedented, while on the other hand many of the lighter wooden houses successfully resisted the shock.

† Many wooden temples of Japan are a thousand years old and the Great Temple of "Kwannon" has been in existence twelve centuries. The lacquer covering of these buildings is renewed every twenty years.

* There are 118 lanterns altogether in the inclosure, presented by various members of the nobility. When a policeman committed a sin, he gave a lantern to the temple, and felt more comfortable.
(Fig. IV.) the masterpiece of glyptic art, guarded by the lanterns of "Satsuma" and "Sendai."*

To give a true impression of Yomeimon (Fig. IV.) in words is quite impossible, since it is a thing to be described with colors or music rather than nouns, attributive adjuncts and verbs. One can only catalogue its several parts, and leave synthesis to the patient reader.

Four columns form the principal constructive features of each façade. These, like everything about the building, are carved, but with a conventional design in such low relief as to preserve a certain severity and punctuate the architectural hyperbole of the rest. On one of these shafts (known as the "Mayoye-no hashira" or evil averting column), the design has been reversed, lest the too great perfection of the building should incur divine jealousy. On another, a tiger (chiseled with Genoese delicacy) is so cleverly disposed that an illusion of fur is effected by means of the natural grain of the wood. All bear capitals of carven "kirin" (hybrid monsters born of dragons and cows), and support a bracketed cornice, in which a row of the same beasts grimace at equal intervals above sculptured groups of Chinese sages. Over the heads of these rises a balustrade, suggesting a cameo linked-bracelet of Florentine workmanship, with panels pictorially precious wrought with birds, tangled leafage and children at play, and accentuated with points of light and shade like the work of Gabriel Rovezzano. This forms the perimeter of a second story gallery, on which give archways somewhat Saracenic in shape, flanked with columns crowned with white dragons. Another of these latter monsters indulges in picturesque contortions upon each architrave, his province of usefulness being here limited to the ornamental, though Japanese legend tells us that "when the white dragon breathes, the breath of his lungs goes into the earth and turns to gold."

More dragons and complicated cornices dipping support the double raftered roof, which, twisted into graceful curves, dominates the whole and makes the picture more distinctly etched upon the mind.

But "who can convince of charm by enumerating the features of a face." These are the several component parts and their synopsis, minus the color scheme; which latter Percival Lowell has aptly described as "a jewel of a thousand rays, yet whose beauties blend into one, as the prismatic tints combine to white;" to give the true impression in words which "Yomeimon" exerts upon a beholder is artistically impossible, it can only be felt.

The third court to which "Yomeimon" gives access, is bounded on the north by a stone wall (on which rests the gate of "Karamon"), and on the other three sides by a cloister, in whose panels one sees the Buddhist love of birds, insects and all living things magnificently portrayed in sculpture. Indeed, it is this religious reverence for all things created that has probably brought Japanese sculpture to its present perfection and made it realistic when not decoratively conventional. Its birth is said to have been about 3 A. D., when the custom of burying alive* the wife and two or more servants with the deceased lord was still in vogue. For tradition tells us that on one of these occasions a courtier named "Izumo" made clay images and got them substituted for the human article, which stroke of ingenuity served the double purpose of ever after doing away with "Junshi" (or burial with the master), and of bringing about the evolution of plastic art.

A good example of Japanese wooden sculpture was formerly to be seen on the gate at the right of the court. This was a cat, carved by Hidari Jingoro, in such perfection (we are told) that it used to go off on nocturnal expeditions and not return until morning. On one of these occasions it remained away altogether, wherefore it has now been replaced by another of more sedentary habits, but less artistic worth.

*The bronze lanterns to the right were given by the Prince of Sendai in 1641, those to the left by the Prince of Satsuma.

*Sometimes the wife and servants were permitted to commit suicide before being buried.
Two buildings of medium architectural merit share the right of the court with the cat-gate; one is the theatre in which the "kagura," or sacred dance is performed by a native virgin of the Imperial house; the other covers an altar whereon aromatic woods are burned during prayer. Directly opposite rises a building inlaid against a dark green ground of foliage, called a "Kura" or "store-house," for the sacred chariots; but none of these, whether purposely or otherwise, detract from the masterful brilliancy of the sacred inclosure called "tamagaki,"* containing the oratory and chapel. A trellis (Fig. V.), divided into panels and roofed, surrounds this feature, which in itself is a work of art, each front compartment being webbed in the centre and framed above and below with bands of conventional decoration and polychromatic carving. The Gate of "Karamon" (Fig. VI.) clasps it together in the middle, tricked out in all the bravery of carved and inlaid Chinese woods; rare importations in Japan, where the "Keyaki" (a native elm) and camphor wood are the favorite materials for temples.

Gilt is used here and there in "Karamon" as well as in the adjacent walls, but sparingly for elegance, not lavishly for splendor as in the interior of the Oratory, the only two ways in which gilt should ever be used; for that medium occidental use of gilt, which only begets a tawdry monotony is unknown in the Far East.

Statuettes, flower-carving and embossed bronze, dispute the prestige of beauty on the door and lintel of "Karamon," while a sort of pterodactyl known as the ninth-dragon coils itself picturesquely around the columns. The name ninth-dragon is given to this particular animal to distinguish him from his brethren; for the female-dragon was believed always to bring forth litters of nine, each member of which had some especial passion or attribute; thus one delighted in music, and hence is usually to be found on the carved ornamentation of the "koto," or other musical instrument; another had a passion for strong drink, and decorates in consequence the handles of wine cups. But the ninth-dragon, a sort of Japanese atlas, enjoyed most the bearing of great weights, which useful "pennon" has caused his image to be perpetuated upon the legs of tables and all kinds of constructive features.

Other fac-similes of this patient member of the dragon family serve as brackets in the porch of the temple proper, situated back of "Karamon," which building easily holds the first rank in Japanese architecture.

The plan includes an oratory with adjacent ante-rooms in the foreground; a sanctuary at the back, and an intervening apartment uniting the whole together.

Externally a certain simplicity rules (save in the case of doors which were richly arabesque), and a railed gallery, composed of columns* welded together with horizontal beams,† girdles the whole. The architrave suggests the panels of Sguarcione of Padua wrought in painted sculpture, and supports the usual bracketed cornice; over all of which broods the great double-raftered roof, with tile-crested gables, and overhanging eaves, warming the whole with rich contralto tones of purple shadow.

But within (Fig. VII.) splendor reigns supreme, not so much as regards size and quantity, as material and quality; for Orientals never mistake bigness for greatness.

Nevertheless one thing is always a source of conjecture to the average foreigner, namely: how an entire congregation can be collected for service in the oratory, which though the largest room in the house, still measures only 42 by 27 feet. But it must be borne in mind that all the worshipers do not arrive together, nor remain throughout the whole ceremonial, and that even a large "mat suri" partakes rather of the nature of a social gathering outside the building, than a religious ceremony

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* The "tama-gaki" is 50 feet square.

† A "Ken" is also subdivided into 22 minutes, and each minute into 22 seconds.

Diagonal bracing is unknown in Japan.
ONE SIDE OF THE DOOR OF KARAMON.

Fig. VI.
within it; hence it is a rare thing to see more than forty praying at a time inside the temple proper. Besides whatever Japanese religion was in the days of Kobo Daishi, Shinran or Nichiren, today it is little more than a form.

Indeed it is the commonest sight in the world to see a young girl leave some laughing, frolicsome party at the gate, and (after clapping her hands prostrating herself, and holding a moment or two of serious converse with the Deity), trip gaily back to join in the romp, or meet her lover at the tea-house. For about the temples are always grouped a number of tea-houses, where, as Mitford expresses it: “Mademoiselles Sugar, Wave of the Sea, Flower, Seashore and Chysanthemum are pressing in their invitations to enter and rest.”

But though religion is not taken as seriously as it might be in Japan,* there is no apathy shown in regard to art (whether it be ecclesiastical or secular), as may be seen in the scheme of decoration used within the “heiden” or oratory (Fig. VII). Gold is the neutral of the walls on which “kirin” painted by old masters of the Tosa school perform decorative gambols. Two bands of inlay and two of open-work carving form the frieze, which is pierced at intervals with columns gold-lacquered and capped with embossed bronze. Japanese brackets support a coved and coffered ceiling with dragons, magnificently involved, posing in each compartment on a blue ground; and the whole room is reflected like a monochrome in the black floor of polished lacquer.

Soft silk bordered mats, about six by three feet, protect the latter on ordinary occasions, and by their number declare the size of the room, for the mat is the unit of square-measure in Japanese architecture, it being customary to speak of a room of six, eight, or four and a-half mats, according to its square contents.

The decorations of the two anterooms (Figs. VIII. and IX.) are even more splendid in detail than those of the oratory, though the general constructive distribution is the same. And this brings us to the very practical question of price, a thing of great importance with us, but much simplified in Japan through the ingenuity of the pious priests.

A native proverb supplies the clue when it states that “the tortures of hell are graded according to the amount of money one has.”* For masses are sold at high prices to the rich; “matsuri” or temple festivals bring in money to the amount of twenty-five thousand dollars at a time, while at ceremonies attending the casting of bronze bells or statues of Buddha the high-born dames of “kuge” and “daimio” throw their jewels and gold ornaments into the crucible and pay huge sums for stamped handkerchiefs certifying to their presence on the occasion.

Perhaps the most picturesque of the many little ruses is the Nagare kajo, or flowing invocation, a familiar sight to every visitor in Japan, and first introduced by the Nichiren sect. To clearly understand this it must first be borne in mind that when a woman dies in child-birth it is held to be a punishment for some sin committed either in this life or some previous existence, and that her soul remains in purgatory until released by the prayers of relatives, friends or others upon earth. To this end a napkin is stretched upon four stakes near some stream or runnel, accompanied by a wooden dipper, and every pious wayfarer is expected to pour a ladleful of water upon the bit of cloth and offer up prayer for as long a time as it takes the liquid to strain through. When the centre of the napkin becomes so worn away that the water flows through without hindrance the soul of the poor lady is believed to be free.

The pecuniary gain to the church arises from the fact that these napkins can only be purchased from the priests, and that whereas only those woven in the coarsest material can be obtained

*It has been advanced that religion is less needed in Japan than in other lands. And the fact that there is not a profane word in the Japanese language; that there are no strikes or unemployed; that there is little or no discontent; that the men do not get drunk like the Europeans or smoke opium like the Chinese; and that it is the rarest thing in the world to see a Japanese lose his temper; all goes far to render this possibility probable.

*Jikogu no sata mo, kané shido'.
A PANEL.

Fig. IX.
A CEILING IN THE TEMPLE.

Fig. XI.
by the poor; others, scraped thin in the centre, and consisting of little more than paper, may be bought at high prices by the rich. But to return to the temple and its ante-rooms:

The most unique feature in each of the latter (Fig. VIII. and IX.) is the frieze of carved open-work, where certain panels are placed back to back with those of the oratory, and where every detail occupies exactly the same area as the corresponding detail of the frieze on the oratory side of the wall; the designs as a whole being totally different and “sui generis” in each.

Gilt in various shades is used with great prodigality throughout, and is laid over red surfaces for the sake of brilliancy. The ante-room to the left being dedicated to the Mikado, each ceiling coffer bristles with unconventional carvings of the imperial chrysanthemum, while eagles decorate the oaken panels of the walls (Fig. IX.). Its “pendan” (Fig. X.) being sacred to Ieyasu, bears for the same reason the Tokugawa crest in the centre of its ceiling, with phenixes and flowers filling the other compartments, no two of which are alike (see Fig. XI.). Carved phenixes are likewise to be found emblazoned on the wall-panels, and were they executed in relief would be marvels of glyptic skill, but unfortunately these designs are for the most part only carving appliqué.

The two remaining rooms of the temple are treated architecturally in much the same style as the foregoing, save that the chapel has three sub-divisions: the “heiden” (where hangs gilt “gohei” or cut paper, which is said to keep away evil); the sanctuary (where none but “bonzes” or priests may enter), and the reliquary shrine.

But none of these are considered appropriate to hold the remains of the great Ieyasu, the founder of Yedo, and hero of “Sekigahara.”* Far away, on crest of the sacred hill of “Hotoke Iwa,” far from the fret and bustle of the world, rises the bronze tomb of the great “Shogun,” bathed in the purple light distilled from Heaven alone (Fig. XII).

“A dreamy place, where one may muse.
On all that might have been.”

Stone galleries on flights of steps, bordered with giant trees three hundred feet high, lead to the little oratory standing before the grave. Up these steps in 1617 wound the funeral “cortége” of all the great lords and captains of the realm bearing the deified hero to his last resting place. For three whole days a choir of priests chanted the sacred hymn, repeating it ten thousand times, and from that day Ieyasu, “Noble of the first degree of the first rank, Light of the East, and Incarnation of Buddha,” has been worshiped by the faithful throughout the land of the Mikado.

The simplicity of the tomb itself strikes pleasantly on the mind after the tumultuous splendor preceding it, like the dreamy melody which follows the bursts of sonorous grandeur in Wagnerian music. But when everything is said, the greatest achievement of the whole mausoleum lies in the artistic distribution of the buildings. Great splashes of crimson and gold light up the dark green neutral of the mountain side, mellowed by the purples of the air, while the beauty of abstract proportion is ever present to govern and control all, and furnish an additional proof of how nature, art and refinement go ever hand in hand throughout the far away “Land of the Morning.”

* Sekigahara was the most decisive battle in Japanese history.

C. T. Matthews, M. A.
Faubourg, St. Denis, Paris.

ADMINISTRATION BUILDING,
(Chemin de Fer de l'Est)

M. Gouny, Architect.
THE influence of the French school upon our architecture, or more properly, the influence of the men who have been educated there, has already been very considerable, and in the future this influence will doubtless be greater than in the past, but it will manifest itself in a different way. The school herself and her methods will be felt rather than the personality of the individual who has been trained there.

In the past, the men who have been educated in Paris have been pretty much the only ones in this country who have received any training in architecture, excepting such as might be picked up in the offices of men who had had no special training themselves.

In the future this will not be so, and the power of the individual to set the fashion will be lessened. Our students who go to Paris will not be satisfied with the superficial training heretofore received; they will stay longer and not be content with a mere smattering of what may be learned there.

The fact that so little of French feeling is to be seen in the work of Americans who have been at the school has often been commented upon and has generally been ascribed to the different conditions which confront them when they return. That certain conditions here are different cannot be denied, but the great principles of the art are always the same, and it is these very principles which are so often abandoned by our young men after they return from Paris. When they come back they usually enter some prominent office here for a time to learn what is regarded as the practical side of architecture. There they are soon given to understand that French ways are not our ways; they see certain architects of the best standing and the greatest reputation making a business of the profession and designing in ways that will yield them the greatest financial return with the least expenditure of thought, some even reproducing European buildings as their own creation. In time these young men come to the conclusion that if they are to succeed they must adapt themselves to circumstances and give what the people seem to prefer. They find no national style and no restraints of any kind. Each man is permitted to erect on his

RESIDENCE,

M. Pascal, Architect,
own property whatever suits his fancy without regard to any consideration as to whether or not the structure may tend to the perversion of public taste. They find few people who know or care much about architecture except when they have a house to build for themselves, in which case they must have something odd, which is what generally stands for picturesque, or else simple and chaste, which as often means dry.

Our traditions are few and our history of architecture is short.

In colonial times architecture here was generally good. In those days common sense was a factor in design. Suitable buildings were required rather than picturesque ones. The country had recently been wrested from the savages, and the colonists, as prosperity increased, were desirous of erecting buildings which should appear to be designed for the occupancy of civilized creatures.

The materials for building were collected with difficulty and were often even brought from Europe. The builders endeavored to obtain the most for their pains in the comforts and refinements of civilization and they worked straight to that end without affectation, for professional architects were scarce. Classic architecture was in vogue at home, as England was called, so classic details were used here, but modified and refined in the most naive and natural way to adapt them to wood. The result of all this was generally a building symmetrical in plan, bold in outline and stamped with a character of refinement and originality which goes to make our architecture of this epoch compare favorably, in its humble way, with any architecture of the same date in the old world.

After the war these traditions soon died out, very little interest was taken in architecture until it began to show itself again some time in the thirties, following what was known in England as the classic revival, when we too, in our turn, discovered that the Grecian temple was the correct model for every class of building, from a church to a wooden cottage.

After these curious productions came the brownstone fronts and iron fronts for the city, while the so-called French roof and cupola flourished in the country.

The people were busy developing a continent and cared little for the aesthetics; all love for and appreciation of art had died out as completely as they ever have died or can die out among people who are not savages. In the midst of such surroundings we could scarcely be expected to produce any great works of architecture.

After the civil war Americans began to travel abroad in considerable numbers and a renewed interest in architecture soon became apparent, manifesting itself in precisely the way which might have been expected under the circumstances.

The so-called Queen Anne style was introduced.

Architecture in the time of Queen Anne, having reached probably the lowest state of debasement and degradation ever known in a civilized country, appealed strongly to our tastes, and upon it was founded the style with which we are all familiar. Some original characteristics might be claimed for the American variety which do not appear in the genuine article. The buildings are for the most part far more illogical. Probably no such ridiculous structures were ever erected before. The guiding idea seems to have been, or one may say, seems to be, to pile together in an unstudied heap, roofs, gables, towers, bay windows, projections, etc., with the utmost degree of confusion, in order to secure what is regarded as a picturesque result. The success in this line has been very considerable, and is something of which most Americans are extremely proud. Architecture is regarded as the one fine art which has made real progress among us.

The advent of the elevator opened a new field to American genius, and our architects for some years have been trying to solve the impossible problem of building structures all out of proportion to the width of the streets and which at the same time shall be successful as works of art. In a more
civilized community where the arts are fostered, such greed on the part of the land owners to secure more than their legitimate share of light and space at the expense of their neighbors and the public in general, would have been promptly suppressed; not so here. With us it is allowed to go on without let or hindrance until some day we shall awake to the fact that to continue in this course means the conversion of our streets into dismal ravines and the congestion of traffic in thoroughfares already too contracted. Even now an irreparable evil has been committed and the city has been permanently disfigured by these monstrous overgrown structures, which, ugly in themselves, dwarf into insignificance and injuriously affect in appearance and value all neighboring buildings of more modest and reasonable proportions.

What then has been the influence of the French school as exercised through our men who have been educated there, and how far are they responsible for this state of affairs?

This influence has certainly not been what one might have expected, for not only are the final results often far removed from the teachings of the school, but what is perhaps more remarkable, the modern French style of architecture is not imitated here. We have no structures which resemble the modern buildings of France. Even in the work of those of our men who have received their training in France, one can find but little trace of French influence so far as style is concerned. In general the work of these men shows perhaps more refinement and sobriety, a greater facility and more careful study, than that of those who have not received similar advantages, but in other respects there is little difference. Their designs sometimes indicate a leaning towards archaeology and again often bear a striking resemblance to modern English, Italian and Austrian work, but not to that of the French, which is the more strange as almost all of these men profess great fondness and admiration for French architecture of the present day. The explanation of this seeming inconsistency doubtless lies in the fact that French architecture of today is more distinctly national than any other, and not so easy to acquire as the Vignolesque styles of Austria and Italy and the semi-Dutch architecture of England. Our students do not stay long enough at the school to acquire the style or to become thoroughly imbued with the French spirit, neither are they of French blood, so the work of Frenchifying architecture in America, so much dreaded by certain ignorant writers on the subject, has not yet begun.

Among the first Americans to be received at the school was Mr. Richardson, who subsequently exercised a most extraordinary influence upon the art in this country.

It was unfortunate that Mr. Richardson drew his inspiration from the source he did. He was a man of ability and could doubtless have done quite as well, if not better, had he adopted a more refined and suitable style.

The Romanesque architecture of the south of France was the work of barbarians as they were slowly working their way out of the night which succeeded the fall of the Roman Empire, and however well suited it was to those people, it is entirely out of accord with the spirit and thought of this century, and totally unsuited to the manners, customs and climate of our country. It was out of date and abandoned in France itself before the end of the twelfth century, and unless we have gone backwards it cannot be suited to this.

Mr. Richardson's work was popular, but the very fact of his having chosen such a parti for this country and time shows, I think all critics must concede, that his ability as an architect was misdirected, to say the least. His own work was often good, if work can be called good which was fundamentally wrong, but of the work of his followers what can be said? They have covered this fair land with structures which will appal future ages. Mr. Richardson's example stimulated them to exploit the mine from which he drew his ideas, and a wonderfully rich field they found it, full of strange and curious
36 Boulevard des Invalides, Paris.

RESIDENCE,

C. Mewes, Architect.
Cours-la-Reine and La Rue Bayard, Paris. RESIDENCE, C. Mewes, Architect.
things, interesting and instructive, too, in their way, and highly creditable to the semi-barbarous people who made them, for their work, though generally clumsy and savage, is almost always interesting and impressive. The builders, under the influence of a gloomy superstition, were working out the problems before them in the best way they could, with the means at their disposal, but the problems were not those of the nineteenth century, nor of the United States of America.

These considerations seem to have had small weight with Mr. Richardson's followers. Indeed the most unsuitable features were the most admired and the most exaggerated. We have fairly "out-heroded Herod;" our work is more barbarous than that of the barbarians themselves. We glory in conceits which cannot be justified on any reasonable grounds. Buildings in cities have rough hewn walls like those of a fortress or a town. Towers are used ad nauseam and on every kind of building; profiles have lost all pretense at refinement and are often simply rough hewn rolls of stone; grotesque figures are used without rhyme or reason, porches are carried on columns fit to bear the nave of a great church, doorways of dwellings are made to look like the entrances to caverns, and their windows like those of jails; columns are swollen and often appear ready to burst, and the combination would be comical were it not painful to behold.

In short, millions are sunk yearly in erecting monuments to perpetuate the want of taste and the folly of this generation.

To the French school are ascribed many things which are not justly her due. Many of our architects have an entirely erroneous idea of her methods and aims. She is often judged by the works of those of us who have been received there, and many of our sins are visited upon her head. To her has been ascribed much of the responsibility for the buildings of the late Chicago Exhibition, nor can it be denied that they were due in a great measure to her influence, yet these buildings were as far as possible removed from her principles, and it was in France that they were most vigorously denounced.

The French mind and method of thought is pre-eminently logical. Good taste contains a large admixture of common sense. A thing which is not reasonable, suitable, convenient, proper and right for the purposes to which it is to be applied cannot be very good. This is the most severe and searching test which can be applied to works of architecture, and only the greatest buildings in every age can stand it.

Perhaps we can point to no better illustration of this logical quality of the French mind as applied to design and construction, than the buildings for their last Paris Exhibition. These buildings were in themselves an illustration of the discoveries and resources which modern science has placed at the disposal of the architect, and a most successful attempt at the application of these discoveries to the science of building and the fine art architecture. They had two chief characteristics:

First—They were strictly modern in design and construction.
Second—They were honestly what they pretended to be, buildings for a fair in the last years of the nineteenth century.

Neither of these characteristics were to be found in the buildings of the Chicago Exhibition, and it was precisely for this reason that they were not admired by the French and not on account of any absurd feeling of jealousy. At present we are no more able to compete with the French in architecture, than we are in painting or sculpture. We could, and did make a larger exhibition than the last French one, just as we could, if we felt disposed, make a larger picture than any which they have thought it worth while to make, but farther than this we are not at present able to go.

It is asserted by people who ought to know better, that the French school teaches only a dry classicism, that it is bound hand and foot to the doctrines of Palladio or Vignola. Could anything be farther from the truth? Let any impartial man compare the designs for the two exhibitions above
63 Boulevard Haussmann, Paris.

RESIDENCE,

A. Hermant, Architect.
referred to and say which nation seems to have the strongest leaning towards dry classical architecture.

It is true that in French work one sees the classic feeling strongly developed, indeed pervading almost every design, be the motive inspired from the Gothic or any other style, but this feeling is the spirit of classic work, not its dry bores. It is a spirit of refinement, of study, a searching for the purity of line, scale, proportion, and for the fitness of things; it stands for vigor and originality, founded on sound principles of good taste and education. It is architecture not by the rule of thumb, nor is it servile copies of buildings ancient and modern. It has not, in short, the characteristics of our attempts at classic architecture, which may well be called dry.

It ill becomes us to criticise the French in matters of art. Let us rather cultivate humility in speaking of our betters, and learn from them that honesty is a quality in design. If architecture in this country is to be elevated to a high plane, we must adopt the same honest methods and noble aims which are encouraged at the French school.

What the school does teach is a glorious Renaissance of the nineteenth century. She has already entered upon the course prescribed for her by Charles Blanc some fifteen or twenty years ago, when, after summing up the wealth of documents and the resources of science now placed at the disposal of the architect, he says: "How can one despair of our architecture now, when we remember that the knowledge of these beautiful models is entirely recent and that the true Renaissance does not date beyond thirty years. Guided by an intelligent study and luminous criticism armed at all points, our school has before her the most illustrious career. She can henceforth, reconciling the rivalries, cover the most immense voids, sustain vaults at prodigious heights, employ for the future needs of an advancing humanity either the sublime effects of the Egyptian art, the expressions of strength, grace and magnificence invented by the Grecians, the richness of the Arabian fantasy, the gravity of the Roman style, or the pathetic eloquence of the Gothic. But her regeneration can only be accomplished upon one condition, that she will not be led by the way of archaeology into the pure imitation, but on the contrary seize the spirit of things, separating from such a mass of relics the many and grand ideas which can be disengaged from them."

A great work of architecture, like any other great work of art, is chiefly valuable for the seal of personality which it receives from its author. Thus a picture by Vandyke is valuable, not so much because it is well done as because it reflects Vandyke himself; he has sealed it with his seal, stamped it with his personality. The personality of Vandyke was high, noble and refined, therefore his works are priceless. They are the productions of an exalted genius. So the productions of other men are valuable as works of art just in proportion as the authors are great themselves and show themselves in their work.

Take the Paris Opera House as a case in point. The work is stamped all over with the personality of Charles Garnier, and although opinions may differ in regard to matters of detail, all will agree that its author is a man of genius; his production will always rank as a work of art.

If a man of inferior parts attempts to imitate this quality, he falls short of the mark, and instead of a work of genius we have simply a display of affectation or mannerism, which is as distressing as the other is interesting. Such are the characteristics which we see in the works of Mignard, Borromini and Prospero Bresciano.

None better than the men who preside over the French school know how to appreciate genius and originality in architectural design, for many of them have these talents to a greater or lesser degree themselves. Moreover they are ever on the alert to discover and stimulate such gifts in their pupils, but they are not foolish enough to suppose that even the most talented, were he endowed with the gifts of Michael Angelo himself, could bring those gifts
to their true and perfect development without long study and practice.

Thus the school not only does not encourage that dry classicism which would reduce the most noble of the fine arts to a mathematical science, but her teaching is of a directly opposite nature. She desires of her pupils that they know everything, then forget all and be themselves; such teaching is inconsistent with anything but the most free and liberal spirit, and such a spirit pervades the École.

We are already under a deep debt of gratitude to France and the obligation increases yearly. With unparalleled generosity she opens the doors of her matchless school and invites Americans to come there and be educated at the expense of the French taxpayer. Nor are our young men blind to the opportunities thus afforded, for each year an increasing number of Americans are found seeking admission.

Five or six years ago those of our architects who had been educated there raised a fund of six thousand dollars to found what is known as the "Prix American," a prize open only to Frenchmen. It was a graceful act of recognition on their part and was highly appreciated by the French with whom it has done much to confirm and strengthen the feeling of friendship and good-will for our students which has always existed at the school.

At the time the prize was founded the records showed that there were only about twenty Americans who had ever entered the school, recently the list had grown to nearly two hundred. There are twenty-five Americans there at the present time and probably as many more seeking admission. The movement is a growing one and likely to be fraught with great good for the cause of architecture in this country. Our students are staying longer than formerly, and we shall soon see the day when the first American will receive his
107 Avenue Henri Martin, Paris.

RESIDENCE.

L. Magne, Architect.
INFLUENCE OF THE FRENCH SCHOOL.

diploma from the French government. If this movement continues it will surely result in the foundation of a national school of architecture in this country, modeled after the École des Beaux Arts. Nor need any one be alarmed, for such a school will not be French, but American. If our students have learned well the lesson taught them in France, our school will appropriate the principles and spirit of the French school and be no slavish imitation. It will study the parti for America, and that parti will not be the imitation of French architecture, but the principles which the French apply to art. Principles which are universal, the same which guided the Grecians and all others who have achieved distinction in art. Form will be preferred to color, as is always the case in a high civilization, and reason will guide in design. The foundation of such a school will be the first step towards a national style, and in time America will take her place among the nations foremost in art. That we have the requisites of greatness is often made manifest in individual cases, but two stumbling blocks here lie in our path. Our young men are in too much of a hurry to make money, and we have a leaning towards English ideas; both are fatal to architectural art, and success can only be accomplished when these are removed.

Let our young men continue to go to Paris. Even if they cannot stay long they will still receive great benefits. They will see architecture in a new light, occupying her proper place as chief of the fine arts, and they will come back with higher aims and ideas. Each one who goes is a gain to the cause of art in this country, for upon one matter at least they will all be agreed. Having seen the immense advantages to be derived from such a school as the École des Beaux Arts, they will most earnestly desire the foundation of such a school in the United States, a school established and continued upon sound principles of common sense, where education is thorough, where the best men teach, where advancement is based on results, a school closely allied to the profession, provoking rivalries and constantly working for the advancement of art.

What we need here is artistic education; education of the thorough kind dispensed at the French school. When we have that we shall have a foundation on which to build, and will eventually evolve a national style. The time is now ripe for such a movement. Already the public is beginning to look askance at what has heretofore pleased. The rapid imaginings of uneducated and tasteless men, calling themselves architects, cannot much longer masquerade as works of art. The experiment of trying to create architectural style on a basis of ignorance has not been a success; we have been constantly sinking deeper in the mire. Soon a halt will be called. A true American can have no doubts as to the final result. Education will triumph in this country.

Before long Americans will discover that education is needed in the most difficult of the professions as well as in the others. They will cease to tolerate ignorant architects just as they have ceased to tolerate ignorant doctors or lawyers.

Is the taste of the nation a matter of no importance? Should everyone be allowed to disfigure our cities with structures no matter how hideous?

If a man makes a bad statue or a poor picture, little harm is done; people need not look at them, they can be removed, but this is not so with works of architecture. The building must be seen, and the structure, if bad, wars continually against public taste. In communities which persist in disregarding this danger, the sense of and appreciation for the beautiful becomes blunted so that the public do not know the good from the bad. Such matters are regulated by law in France, and should be, and in time doubtless will be, so regulated here.

Let us license our architects just as we license our physicians or lawyers. Let us solve the high building problem by laws limiting the height in proportion to the width of the streets.

Let us appoint our most distinguished
105 Avenue de Neuilly, Paris.

RESIDENCE,

Paul Sedille, Architect.
architect, City Architect, and let it be his duty to pass upon all proposed structures in regard to their artistic fitness for the place they are to occupy.

When this is done we will have made an immense step towards civilization in art.

France learned these lessons years ago, and we would do well to follow her example. "They order these matters better in France." The results of such legislation can be seen on the banks of the Seine, and if we are wise future generations will see and glory in a city no less beautiful here.

_Ernest Flagg._
THE UNIVERSITY OF CHICAGO.

The University of Chicago owes its foundation to the munificence of Mr. John D. Rockefeller and the energy and faith of the American Baptist Education Society represented by Reverend F. T. Gates and Reverend T. W. Goodspeed, the present secretary of the University. The plans for the new University of Chicago date from 1886, the year of the final extinction of the older institution bearing that name. In 1888 occurred the first conference between Mr. Rockefeller and Professor Harper, and in the same year the Board of the American Baptist Education Society gave its hearty approval to the effort to establish the University. In May, 1889, the society at its anniversary meeting in Boston ratified the action of its board, and Mr. Rockefeller pledged his first subscription of $600,000, on condition that $400,000 should be raised before July, 1890. This condition was complied with by the Education Society through its representative, Mr. Gates, assisted by a College Committee in Chicago represented by Dr. Goodspeed. A block and a-half of land was secured by the gift of Mr. Marshall Field, and two and a-half additional blocks were purchased, giving the University a campus of four blocks on the Midway Plaisance, between Ellis and Lexington avenues. A more appropriate situation could scarcely have been found.

The next step of importance in the history of the University was the election of Professor Harper, who had from the first been intimately connected with Mr. Rockefeller's plans, to the presidency of the institution, and his acceptance of the same in the spring of 1891. Before this Mr. Rockefeller had added a million dollars to his former subscription, and the Theological Seminary at Morgan Park had been incorporated with the University as its Divinity School, and preparations were at once made for its removal from its old quarters at Morgan Park to the University campus.

After President Harper entered upon
the duties of his office in July 1891, the work of organizing the institution was rapidly pushed forward. The trustees of the Ogden fund had already offered to appropriate seventy per cent of the estate, amounting to about $1,500,000, for the founding of a Graduate School of Science. This offer was accepted. Mr. Rockefeller added during the year 1892 two further sub-

$50,000, Mrs. Elizabeth C. Kelly $50,000.

After these additions to its resources the University proceeded rapidly with the construction of its buildings, which had been begun in November, 1891, until at present there are ten structures on the campus, excluding the temporary library and gymnasium building. These are: Cobb Lecture Hall, Graduate Dormitory, Divinity Dormitory, Foster, Kelly and Beecher Halls for women, the Kent Laboratory, the Ryerson Physical Laboratory, Snell Hall and the Walker Museum. In the construction of the dormitories, the requirements of the social as well as the individual life of the students have been considered. The University system has also influenced the construction of the recitation buildings. As that system

FONNT OF KENT CHEMICAL LABORATORY. Henry Ives Cobb, Architect.
REAR OF KENT CHEMICAL LABORATORY. Henry Ives Cobb, Architect.

AN INTERIOR, KENT CHEMICAL LABORATORY. Henry Ives Cobb, Architect.
ENTRANCE TO KENT CHEMICAL LABORATORY.

Henry Ives Cobb, Architect.
LARGE LECTURE HALL, KENT CHEMICAL LABORATORY.

Henry Ives Cobb, Architect.
CEILING OF THE LARGE LECTURE HALL, KENT CHEMICAL LABORATORY.
Henry Ives Cobb, Architect.
requires, among other things, small classes, there is an absence of large lecture halls. Many small class-rooms take their place.

After having thoroughly well established the financial condition of the University it became necessary to consider the architectural conditions which were likely to arise in carrying this great undertaking through. The Board University Building, at the same time the Board had accepted and given consideration to all that had been presented, and as the subject of the new University Building had been brought well before the architects of the country there was no lack of plans to select from.

Mr. Henry Ives Cobb was chosen as the architect to carry out the wishes of Trustees was composed of many of the prominent business men of Chicago. They had at considerable trouble and expense gone very carefully into the matter of college building and the requirements needed to cover the field. Intelligent people had been sent abroad, and much thought, time and money expended to give them the information needed. Although no general competition was offered to the architects of the United States to submit plans for the and plans of the Board, and to him in a large measure may be attributed the good taste and thoughtful work exhibited in the present University Building.

As we notice by the ground plan the entire plot is surrounded by a series of buildings which form a complete barrier to the outer world. The four quadrangles at either corner are faced on two sides by dormitory build- ings and the inner portion of the col-
College grounds are occupied by recitation, lecture and educational buildings, with the main University hall and library and the chapel forming the central group. The museum and gymnasium are so located that they are accessible from the outside without entering the college grounds proper; but all other buildings receive their entrances direct from the college grounds, and to reach these one has to pass through one of the seven main entrances.

The reason for this arrangement was to, as far as possible, exclude all outside conditions from the student when he had once entered the University grounds and so, likewise, was the style of architecture selected made as far as possible to remind one of the old English Universities of Cambridge and Oxford; in fact, to remove the mind of the student from the busy mercantile conditions of Chicago and surround him by a peculiar air of quiet dignity which is so noticeable in old university buildings. When the quadrangles are completed this will be very marked and, as this style of English Gothic architecture easily takes on an air of age by the help of a few vines and weather stains, the effect will certainly be most restful and suggestive of university conditions. The illustrations show us most plainly how the buildings all harmonize, and the entrance doorway to Kent Chemical Hall serves as an excellent example of the ornamentation which has been used throughout. The interiors in most instances are very plain. More thought and care having been given to sanitary conditions, ventilating and hygienic conditions. In the interior of the present buildings there is an absolute absence of ornamentation of any kind, except perhaps in the
FOSTER HALL.  
Henry Ives Cobb, Architect.

LECTURE ROOM IN COBB HALL.  
Henry Ives Cobb, Architect.
large lecture hall of Kent Chemical Hall, where the arched ceiling, although simple in its way, still by comparison with the severity of the rest of the building gives one the feeling of being quite elaborate. In most instances, in the lecture-rooms and public-rooms the walls are finely finished brick in soft tones of red and yellow. The ceilings are generally finished in bright wood, numerous kind friends of the University saw fit to purchase at the late exhibition in Chicago. Although at present it is in a state of chaos, in fact few specimens are unpacked and almost none can be said to be in place, still there is enough to make some little showing, and by the end of the year the museum will be quite filled. It is hardly necessary to enter into any considerable descrip-

and the whole effect is cool and restful, quite suggestive of thoughtful and studious conditions. The laboratories in Kent Chemical Hall are very finely appointed. There are some dozen similar to the one represented here, and every modern appliance that could be procured to add to their perfection of equipment can be found there. The Walker Museum, although very simple in its interior, affords an excellent space to exhibit the very rare collection the
tion of the buildings. The illustrations show quite plainly what they are. Ryerson Hall is perhaps generally considered the handsomest building so far erected, but Cobb Hall with the Graduate Dormitory and two Divinity Dormitories connected makes a very imposing effect. In Foster Hall, which is part of the Women's Dormitory, there is a fairly-good carved oak stairway and some little elaboration of entrance hall and drawing-room effect,
THE PRESIDENT'S HOUSE.

Henry Ives Cobb, Architect.
but nothing worthy of any special mention. Landscape architects and many workmen are preparing the grounds, laying out tennis courts, arranging flower beds and grouping foliage so that the campus is rapidly improving in appearance, and what was three years ago a piece of western prairie land without house and hardly without street is fast becoming a thoroughly well equipped University. All around it handsome buildings are springing into existence; beautiful residences are being erected, the streets and avenues are finely paved and the southern end of the grounds, which face the Midway Plaisance, will soon look out on a beautifully appointed park, as the South Park Commissioners are redeeming this strip of pleasure ground from its turmoil of last year and laying it out in charming manner. The foundations for Professor Harper's house are completed and it is expected that his residence—a sketch of which is shown—will be finished by January 1st.

The house of Professor J. L. Laughlin which faces the college grounds is a noticeable example of the class of architecture which is fast springing up in the neighborhood, and no doubt by the time the University buildings are completed all available space surrounding them will be occupied by delightful residences. When we think that the first contract for the erection of any of the University buildings was let November 20th, 1891, it is no great stretch of the imagination to picture the completion of the present plans in the near future.

Chas. E. Jenkins.
E may reasonably expect to see educated architecture in a place of education, even if it be not a place of specifically architectural education. There is a particular incongruity in crude and illiterate collegiate architecture. For which reason, among others, the new buildings of the College of St. Francis Xavier, in West Fifteenth street, New York, are especially striking and painful, and clamor for rebuke. If this pile of gamboge and grey were a factory, or a tenement house, it would still be lamentable and painful, but it would not be worth talking about. The speculative builder or the contract builder does not pretend to be engaged in inculcating morals or aesthetics. His humble aim is to make as much money as he can, subject only to the Building Department and the Board of Health, and his monstrosities are only what are to be expected of him. But when the most reckless and thoughtless performance of the speculative builder are recalled by the work of what calls itself a college, the case becomes one for public protest.

Certainly the speculative builder in his maddest moments has done nothing worse than the new buildings for the college of St. Francis Xavier. In the first place, since one must begin somewhere and thus establish an order of precedence among its vices, it has nothing whatever to do with the other buildings of the same institution. The church on Sixteenth street and the schools in Fifteenth street, are all parts of the same scheme, one may assume, since they are all called after the same name. The church and the schools together might have formed an imposing and interesting architectural group, and one would have supposed that the first effort of their projectors would have been to make of them an architectural group of some kind. A quarter of a century ago the buildings consisted of a church in the style that is known in Europe as Jesuit architecture, and was indeed an imitation of the Jesuit Church in Rome, and a school building in the rear, still standing, in German Romanesque, pretty evidently imitated, not with great skill or success, from those familiar examples of that style, the American Exchange Bank and the Continental Bank, and executed
in the same material, New Brunswick sandstone, while the church, if we remember aright, was in Caen stone or possibly in stucco "to that effect." When the old church was burned the present edifice was erected in grey stone and in a sumptuous Roman style. The designer is not to be blamed, very likely for not conforming in any respect to the subordinate school building, which did not form an architectural appendage to the church of which it adjoined the rear. But the latest designer, if it be not absurd to call him so, had an opportunity to enhance the effect of his own work, not indeed by conforming to the church, of which the part visible from Fifteenth street was only a brick back without pretense of architecture but by conforming to the existing school building either in material, or design, or at any rate by prolonging some principal lines, and getting the advantage of the unusual frontage of something like 300 feet.

No consideration of this character, it is evident, has ever entered his pure mind. He had to do a new school building of 150 feet front, and a connecting link, in the form of a quadrangle-gateway and lodge, of 75 feet front between this and the existing building. He not only did not make his works conform in any respect to the existing building, but he did not make them conform to each other. His large four-story school is built of grey stone and the hottest colored bricks he could find, a brick so hot in color and so uniform that it seems to have been painted instead of being the unsophisticated product of the kiln. In the two story central building he has used the same brick, but has substituted a sandstone of the color of the old building for the greystone of the new, so that the architectural relation between the three buildings is reduced to its minimum, and no one of them has the effect of belonging to either of the others.

The big building, "surprised by itself," is about as bad in design as bad can be. The grey stone basement is comparatively quiet, being at least monochromatic in color and simple in form. But even this derives a restlessness from its design. The openings in the curtain walls are so huddled and the arches at the ends so devoid of visible abutment that even this basement, strong and quiet compared with the superstructure, looks weak and uneasy. But for all that it is the most tolerable piece of work in the building. The next story is of brick with flat arches over the openings, of brick in the curtain walls and of terra cotta at the centre and terminal pavilions. The third division is of two stories in one, its vertical dimension emphasized by brick pilasters with terra cotta capitals, the openings covered with round arches in terra cotta, and this is surmounted by a tin frieze and parapet. The central pavilion, it is evident, has been the chief object of design, and accordingly it is the chief terror of the front. The basement shows two pairs of square-headed and very lanky openings, flanking pairs of granite columns standing free and all projected from the wall, with which they are connected by pieces of entablature, but not connected at all with each other, so that the waiter at the door is entirely exposed to the weather and disabused of any notion he might rashly have entertained that the feature was a porch and not a purely monumental fantasia. The opening that forms the doorway is closed by a very depressed thee-centred arch, between the pseudo classic orders, that is Gothic if it be anything though furnished with a foliated key-stone. Over this in the next story is a large bull's eye at the centre, in a terra cotta frame, that is quite inexplicable. One would imagine it to be a staircase light if he did not see the stairway cheerfully cutting with its diagonal line the adjoining window, a square-headed, lanky, flat-arched opening. The adjoining window of this centre is, if possible, more awful than what is below. The fluted bases of the lanky two-story pilasters run through one of the stories, or nearly half way up, the ridiculous bull's eye is repeated, and there is a double-arched opening above it.

What we have called the quadrangle gateway shows a diversity of detail but the same spirit. It is flanked by pilasters, with a vertical slit ingeniously gouged out of the centre so as effectu-
ally to deprive them of the aspect of strength or of repose. The openings of the upper story are round arches with protruding keystones carrying crosses.

The prevailing expression of the new buildings is one of extreme meanness. This is due in great part to the huddling of the windows. Seventeen openings, some of them quite large, cannot be arranged in a front of 150 feet without giving the front a very pinched appearance. This appearance is greatly aggravated by the union of the upper two stories into one architectural division. This union would in any case preclude the establishment of a harmonious proportion between the united stories and the two single and separated stories below. In this case it emphasizes the pinched and huddled appearance of the openings, which is still further emphasized by the perfectly wanton introduction of the two-story pilasters. Again, the character of meanness is necessarily imparted by the use in the crowning member of sheet-metal, and it is unnecessarily imparted by the mechanical and lifeless design and execution of the detail. This in the larger building consists mainly of the archivolts of the windows, and the panels that sub-divide the two-story openings, and that are decorated with the well-known dish-towel ornament of a festoon hung up by the ends. All this detail looks so mean that one is apt to suppose it to be of sheet-metal and it takes close inspection to determine that it is in fact of terra-cotta. Nay, such is the lifelessness of the design that the arches of the two-story building seem to be of cast-iron though they are really of cut stone. To make sheet-metal look like cut stone or moulded clay is a feat beyond the reach of the constructor of shams. The converse feat of vulgarizing moulded clay or cut stone to look like sheet-metal does not seem very easy either; but it has here been accomplished.

There are many audacities in this preposterous erection, but the boldest thing that has been done in it is to inscribe the sheet-metal monument over the centre of the school building "A. M. D. G.," which, lest the wayfaring man might not understand it, is repeated and spelt out, also in tin, over the gateway: Ad majorem Dei gloriam. To dedicate a signaly illiterate building to educational purposes is bad enough; but to dedicate with an exhibition of sham and meanness and vulgarity to the greater glory of the Creator is impudence that borders upon blasphemy.
CORRESPONDENCE.

Chicago, August 27, 1894.

Editor Architectural Record:

I notice in your Quarterly of June 30th, the paper entitled, "Wasted Opportunities, No. III," referring to office building, northeast corner La Salle and Monroe streets, Chicago. The author gives an alternative plan, which he designates "as it should be."

It is to be regretted that he chooses such arbitrary phrases as "wasted opportunities" and "as it should be." for there is at least ample opportunity for differing with him very radically.

It is safe to say that the alternative plan he presents would not have been accepted by the owners. An office building must be planned to satisfy the requirements of the city where it is built and the class of tenants for which it is designed. It is safe to say that had the alternative plan been used instead of the one carried out, the building would not have been rented to the same class of tenants, nor to the same extent, nor would it have produced as large a revenue.

The building in question is located in the very center of what is known as the "Insurance district." There is no location for an office building superior to it in the city of Chicago, and it was built with the expectation that it would be occupied by the most desirable tenants in the city. The plan was only adopted after an exhaustive study, many experimental plans having been made, some of them containing features of the plan designated by your author as, "as it should be."

The objections to his alternative plan for the building in question, however good it might be in some cities and some situations, are as follows:

Large wastage of the Monroe street frontage, where the ground is worth, for interior lots, $5,000 per front foot, and advancing. The objections of your author to south frontage for offices is not sustained by the facts in Chicago.

Passenger elevators inadequate and located too far from the Monroe street entrance, the five elevators in the "as it should be" plan occupying the same length, and less width than three of those constructed. Experience in the building indicates that their elevator system is correct. Cars run very rapidly and at busy times quite full. No diminution can be accepted.

Entire omission of the freight elevator, which is dismissed by your author as "wholly unnecessary in an office building." Evidently he is not familiar with the Chicago office building. For example, in the building in question, an entire upper story and a portion of the roof space is leased for the General Western office of a large Insurance Company. Their business of receiving all the blanks and stationery for their extensive Western department, re-boxing it and distributing it to the many local offices, alone demands a freight elevator. The moving in and out of tenants; the receipt of samples, models, etc., by the different offices representing manufacturers, etc.; the taking up of ice and drinking water to the different offices; removal of sweepings, and a long list besides, make a freight elevator one of the essentials, only to be omitted when it cannot find a location without very serious damage.

The long, narrow, dark halls is another very serious objection to the alternative plan, and the one that enables your author to get the additional space, and is so serious that it would reduce the building at once to second or third class in the character of the tenants and the rental per square foot.

What we can understand of his schedule of differences reduced to dollars is not in accord with our views and is not sustained by the facts.

It is quite impracticable for a person at a distance, how well informed generally, to criticize correctly a building erected in another city for a purpose and for a class of tenants with which he is not familiar. The alternative plan your author proposes would have ruined that building, which has the reputation to-day of being the best general office building in the city.

W. L. B. J.