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# THE TECHNOLOGY ARCHITECTURAL RECORD



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### THE

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### DEPARTMENT OF ARCHITECTURE

**General Statement** 

The Course in Architecture. The curriculum is designed to supply the fundamental training required for the practice of architecture. The reputation of the course has been sustained by the strictest adherence to that high standard of efficiency for which the Institute is noted. The Institute recognizes that architecture is a creative art, and requires more knowledge of liberal studies and less of pure science than the profession of the engineer. This condition has been met through specially prepared courses. Full appreciation of the value of the important study of design is shown by the fact that the instructors who have it in charge are not only highly trained men, but that they have the experience which comes from an active practice of their profession.

Advantages of Situation. The school is in the heart of the city, —a great museum of architecture, in which one is in close touch with the work of the best architects of the day. Building-operations can be watched from beginning to end. The nearness to architects in their offices is such that they show their interest in the school through constant visits. The Museum of Fine Arts is close at hand, where every opportunity is offered the student to make use of its splendid equipment. The Public Library offers the students the use of its choice architectural library without any annoying restrictions. The Art Club near at hand is an element of instruction, as well as other exhibitions of pictures and fine arts so generally opened to the public.

**Equipment.** The equipment of the Department consists of a gallery of drawings including original envois of the Prix de Rome, unequaled in this country; as fine a working library as can be desired, containing four thousand five hundred books, sixteen thousand photographs, fifteen thousand lantern-slides, and prints and casts of great value.

Four-Year Course. There is one regular course leading to the degree of Bachelor of Science. This course includes two options. Option I is designed for those to whom the æsthetic side of architecture makes the strongest appeal. It gives the student, however, the necessary training to control intelligently the structural problems occurring in architecture.

Architectural Engineering. Option II is designed for those to whom the structural side of architecture appeals most. At the middle of the third year students of Option II drop architectural design and its allied subjects, and substitute scientific courses, with a thorough course in structural design. **Graduate Courses.** Opportunities are offered in each option for a further year of advanced professional work leading to the degree of Master of Science to graduates of the Institute, and to others who have had a training substantially equivalent to that given in the undergraduate course. The value of this graduate work cannot be overestimated. The good results obtained through a year's uninterrupted study of subjects essential to the highest professional success, and for which the previous four years' training has now prepared the student, are in extraordinary evidence. Perhaps the most convincing proof of the increased value of the student due to his year of advanced study is the fact that the practising architect invariably seeks first in the graduate class for his assistants.

**Summer Courses.** These courses are primarily for the benefit of the student who wishes to distribute his work over a larger portion of a year, or to gain more time for advanced work in the regular courses. They also offer opportunities to students from other colleges to anticipate a portion of the professional studies of the second year.

**Special Students.** Applicants must be college graduates, or twenty-one years of age with not less than two years' office experience. Except college graduates, all applicants will be required to pass, before entrance, examinations in Geometry. All must include in their work at the Institute the first-year course in Descriptive Geometry and Mechanical and Freehand Drawing, unless these subjects have been passed at the September examinations for advanced standing. There is no defined course for the special student. He may select, with the approval of the Department, any subject in the regular course for which he has the necessary preparation. He receives no certificate, but on leaving the Institute in good standing he will be given a letter to that effect by the Secretary of the Faculty.

**Scholarships, Fellowships, and Prizes.** A certain amount of funds is available for undergraduate scholarships and for fellowships for graduate work. Six prizes, varying from ten dollars to two hundred dollars each, are equally divided between the regular and the special student.

The American Institute of Architects accepts the Bachelor's degree of the Institute, in the candidacy for its membership, without the examination ordinarily required.

The Catalogue of the Department, giving more detailed information, will be sent on application to the Secretary of the Institute.





The Technology Architectural Record Vol. 6, No. 4

## The Technology Architectural Record

September, 1913

Vol. VI

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No. 4

T is with much regret that we announce the resignation of Mr. David A. Gregg, who for twenty-six years has been a member of our instructing staff. Continued ill health has finally obliged him to retire from the practice of his profession and to give up his course in Pen and Pencil Rendering at Technology.

Coming to the Institute almost at the beginning of his career as an architectural illustrator, our students have had not only the benefit of his instruction, which has kept pace with his marvelous progress in his particular field, but what is of greater value, they have been brought in contact with a rare personality. Mr. Gregg was eminently an artist by temperament, one of those men of modest and retiring nature who accomplish their successes quietly and surely. He was the pioneer in architectural illustration in this country, and his work is known and admired throughout the profession. Although as a teacher he gave freely to others the results of his study and effort, none of his pupils and imitators have ever equaled him. On a succeeding page we publish an appreciation of his work by Mr. C. Howard Walker.

Mr. Gregg began his career as an architect, but ultimately became an illustrator as the result of his great love for this work. He was thus exceptionally fitted to teach his subject to students of architecture.

Our former students will share with his associates at Technology the regret we all feel in losing the services of a man so long identified with the Department and so successful a teacher. We give in his own words a short account of his professional life:

"My architectural career began when I was about the age of twenty, leaving my home in northern New York and entering the office of an architect in New York City. After ten years' office experience I felt the need of some means of more direct improvement, and taking the advice of a good English draughtsman friend I went to London, England. I was favored in getting into the office of Messrs. Belt & Roper, 4 Garden Court Temple. Our office was closed every Saturday, and the time thus given me I endeavored to use well, sketching in South Kensington Museum and taking sketching-trips near to London. I also entered the Royal Academy Architectural School, attending there certain evenings. The late R. Norman Shaw, R. A., was one of the instructors. I received in due time my 'ivory' disk certifying that I was a student at the Royal Academy Architectural School.

"During this two years' London stay, as well as in New York, I made attempts at rendering, and I became ambitious to become attached to some architectural paper. This finally took place when I returned, and

coming to Boston I entered the service of the American Architect. This was in 1880. As near as I can recall, about seven years later I was honored with a call to take charge of a course in Pen Rendering at the Massachusetts Institute of Technology. As to the measure of success the course has met with it is not for me to say. I have always felt that the best effort on my part was none too good for highly esteemed and honored M. I. T."

In this year's competition for the thousand-dollar Traveling Fellowship in Architecture offered by the Institute there were eight competitors. According to the conditions of the competition candidates must have passed two consecutive years in the Department of Architecture within the last three years, one of the years being in the graduate class. The winner of the fellow-ship was T. H. Mace, Jr. F. N. Breed received first mention and G. I. Edgerton second mention. The prob-lem was a Design of a Large Hippodrome. The jury of award consisted of Professors Chandler and Duquesne, Messrs. Codman, Cox, and Mead.

At the end of the past school year the Rotch Prize of two hundred dollars for the regular student in Architecture having the best record in his four years' course was given to A. Vogel. The prize for the special student having the best record in his two years' course was given to C. H. Hopkins.

### A Discourse on Architecture

#### By E. E. Viollet-le-Duc

[Believing that many of the younger architects are not familiar with Viollet-le-Duc's "Discourses on Architecture," we are reprinting an excerpt, hoping to bring this interesting work to their attention. Though

excerpt, hoping to bring this interesting work to their attention. Though written for the architects of the last century, many of the truths therein expressed are equally applicable for us of to-day. Eugène Emmanuel Viollet-le-Duc, an architect and archæologist of the nineteenth century, was born in Paris in 1814, and died in 1879. He was educated at the Collège Bourbon and at the École des Beaux-Arts in the atelier of Achille Leclère. After extensive travel in France and Italy, he returned to France and practised his profession, which, during the greater part of his career, was the work of restoration. He was as-sociated with Lassus, an architect celebrated for his study of Gothic Architecture in the restoration of the Sainte-Chapelle in Paris. In 1842 Lassus and Viollet-le-Duc were commissioned to superintend the restora-tion of the Cathedral of Notre Dame, in Paris; and at the death of Lassus he took sole charge of that work, and designed the central spire and great he took sole charge of that work, and designed the central spire and great altar, as well as the new sacristy and treasury adjoining the south flank. Later he began the restoration of the abbey church of S. Denis; was architect of the diocesan buildings of Rheims and Amiens; took charge of the restoration of the *cité* of Carcassonne, with the ancient fortifi-cations; reconstructed the Château of Pierrefonds; and besides many less important restorations he erected many new buildings throughout France. In 1863 he was appointed Professor of Æsthetics at the École des Beaux-Arts; but his lectures were not in agreement with the traditions of the school, and the students refused to listen to him. He resigned his position the following year, and published the material which he had prepared as the *Entretiens sur l'Architecture*.]

RUE architectural knowledge does not consist in an exact understanding of the relative proportions of the orders according to the ancients or the modern masters of the Renaissance, in the correct treatment of a moulding, in the conventional relations which exist or are thought to exist between the parts and the whole of an order. It is not bounded by any such precise and artificial limits, but it is based supremely

upon reason and common sense. It consists in knowing how these qualities should govern architectural forms, and mould them so that they shall become the expression of a civilization,- an expression so direct and frank that the common sense of the people can sit in judgment upon them and recognize what is good and what bad. It consists in erecting common sense into a standard of criticism which, although not quite infallible nor philosophical enough to explain its instinctive praise or blame, shall be so prevailing as to compel the freemasonry of the schools to discuss and defend their dogmas, if they have any, or to state the grounds of their opinions, if any such can be found. It consists, finally, in instituting an investigation so thorough into the philosophy of the development of form in the best periods of art, that any given schedule of requirements can be rationally interpreted in the broad light of precedent and according to the most complete understanding of the theory of architectural expression.

Among all civilized nations, of whatever age, the practical requirements of the same class of buildings have been, on the whole, nearly identical; but these requirements have been subject to especial architectural interpretations according to the climate, traditions, manners, customs, tastes, and other local conditions in each case. Thus, for ancient Athenians and for modern Parisians, the requirements for a theater remain the same as regards the destination of the edifice. In both cases there are required accommodation for numerous spectators so that all may hear and see, a stage, an orchestra for choruses or musicians, waiting-rooms, apartments for actors, corridors for spectators, and ready facilities of exit and entrance. But a modern theater bears very little resemblance to the theater of Bacchus. And why? It is because, by the side of this program, indicating only the destination of the edifice, there are other requirements dictated by local manners and customs. Among these, the single fact that while the scenic representations of the ancients took place in broad daylight ours are reserved for the night is itself enough to create between the ancient and the modern edifice an essential difference of construction, interior distribution, and decoration. And if, to these contrasting conditions, we add the thousand details which our theatrical habits have rendered indispensable, such as scenic effect, the machinery of the stage, the division of the auditorium into boxes, etc., there must result an architectural work which has nothing in common with its classic prototype except name. Thus we have a program presented to satisfy the same necessity at Athens and at Paris; but, because the local habits are different in the two places, two edifices result entirely different in character. We are authorized, therefore, to establish it as a general principle that in every program of requirements there is a basis of similarity, as the practical wants to be satisfied by building must be nearly the same in all ages of civilization; but that there is also a distinction of form or style imposed by local and immediate necessities; that architecture is nothing more than the expression of this distinction of form; that the usages of society cannot be expected to yield to any fixed architectural dispositions, but that these dispositions must depend upon the usages and vary with the variations of manners and customs. No one, I suppose, will contest this principle. But certainly, since the beginning of this century, it has not been recognized in practice.

Now, therefore, as architectural composition must consider first the general program of requirements imposed in each case, and second the local habits and conditions in the midst of which we live, it is essential, in order to design intelligently, to have a definite program and to be sensitive to the practical requirements of such habits and conditions. A program imposed in the time of the Roman Empire, like one presented in modern times, must require windows to give light to the interior apartments. The architecture which arises to satisfy the conditions of this program can in neither case disregard this primary requirement; yet a Roman window does not and cannot resemble a modern window, because the usages are different in the two cases. In either case, of course, the window can be nothing else than an aperture in a wall; but the manner of contriving, closing, and glazing this window, its treatment, whether it is regarded as a means of admitting light from without inward, or of affording a prospect from within outward, the character of the material with which the aperture is built or framed, and of the room into which it opens all these things must produce very different compositions of this feature if the architect is alive to the conditions and requirements of his time. Architecture assumes a distinctive character, and attains its proper rank as an index and type of the civilization to which it belongs when it is not only the faithful interpretation of the program imposed, but when it is made to assume the forms best and most naturally adapted to the practical requirements of the moment, and suffers all those traditions, however venerable, which interfere with a due regard for the progress of invention and discovery to be laid aside as antiquities. A people regardless of these conditions can have no architecture; with them the architect compiles, but he does not compose.

... It is very certain that for us, in the nineteenth century, there is only one true method of architectural composition,— and that is to submit implicitly to all the requirements of the problem given us; and then, avoiding any attempt to force modern necessities to fit antique forms, so to modify those forms that they shall become the expression and the exponent of the necessities we are called upon to accommodate. A form which is truly such an exponent must of necessity be good and lasting; for all those who have studied architecture for any length of time without having imbibed too many of the prejudices of the schools have had occasion to observe that every form which is the unaffected expression of a necessity, even though the necessity is vulgar, has a peculiar charm.

Every part of a building should, therefore, have a good reason for existing in its particular form and place. We instinctively love to look at a beautiful tree, because all its parts, from the trunk which fastens itself firmly in the ground to the topmost twigs which are lifted up into the air and sunshine, indicate clearly the conditions of life and duration which belong to the whole. But if every part of an edifice must, in the same way, have its share in expressing the necessity which called for its erection, there must exist between those parts the most intimate relations. It is in making up

(Continued on page 76)



### DAVID A. GREGG ARCHITECTURAL ILLUSTRATOR

THE work of Mr. Gregg as an architectural illustrator has a marked individuality. There is at once recognizable the training of an architect, in that by wise restraint in the expression of accidental shades and shadows and concentration upon masses, and by clear definition of structure, the organic qualities of architectural factors become evident at the same time that the picturesque setting of trees and vines and walls receive their full share of attention. His rendering is to express architecture, not atmosphere; to make clear the character of buildings, not of landscape; and yet but few painters of landscape show a greater affection for the intricacies of trunk and branch, the varying individuality of masses of foliage, than appear in Mr. Gregg's drawings. Especially are they skilful in contrasts of tones, - staccato at times, when sturdy shadows are associated with them, but delicate when harmony with fine mouldings and subtle detail demands it. Occasionally he calls to his assistance the blending tones of washes of tint or of color, but always subordinates them to his chief intention,that of expressing architecture truly and with decision. Not infrequently a design has gained materially in character after having passed under Mr. Gregg's touch.

And his art, which was unusual in its restraint and in

its clearness, was one which a student could appreciate and grasp and imitate to the point of respectable achievement. It did not overdo accessories and bewilder with lost lines and vague, indefinite suggestions. Clear, direct, appreciative, Mr. Gregg's drawings are touchstones of both the good and the bad in a design, and it is interesting to notice how tenderly at times he veils with foliage any solecisms in the architecture. It would be an easy matter for this type of work to mercilessly display crudeness or ignorance; but Mr. Gregg's whole desire, a desire which is unconsciously emulated by his pupils, is to make the best of his subject. Seldom has architectural drawing had so sympathetic a master and so firm a delineator, and it is needless to say how much his influence will be missed in the future.

As a teacher Mr. Gregg has the happy faculty of winning the personal affection of his pupils and associates, a faculty of which he seemed unconscious, but which was manifest in his kindness and patience, his instant retreat from anything which he feared might hurt the pupils' sensibilities, his equally instant assistance where it was desired. He is of the best type of altruist,— he who unconsciously has regard for his pupils' personality. C. HOWARD WALKER.







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PLATE 13



ISOLA BELLA, LAKE MAGGIORE, RESTORATION

PLATE 14





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PLATE 15



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#### (Continued from page 68)

an harmonious whole out of such sympathetic parts that the artist develops his natural faculties, his talents, and his experience. If, therefore, a varied and precise acquaintance with precedent in all preceding styles of architecture is of assistance to the architect in enabling him to see how others have proceeded before him, it is sometimes a serious embarrassment to him. It is apt to encumber his imagination with a thousand forms, all, it may be, excellent in themselves, but, in any combination, mutually detrimental; and, not being able to apply them to his purposes without change, he is forced to such compromises that his design must inevitably lose character. I am far from lamenting that we have this extensive knowledge of precedent, but that it is so difficult for the architect to prevent this knowledge from becoming his master. The more extensive and exact his archæological information, and the more sensitive his artistic instinct is to the beautiful features of preceding styles, the more self-denial, firmness, and strength of mind are required to enable him to subordinate this information and sensitiveness to the requirements of the object he has in hand; the more necessary it becomes to submit his entangled mass of recollections to the severe chastisement of a correct principle of architectural design. The more numerous and conflicting the elements of an army, the more strict and decisive must be the discipline,- which is to make them all available to the uses of generalship. Now more than ever before, therefore, in architectural composition, do we need to become saturated with the broad and true principles of art, and to class methodically the knowledge of precedent which we have acquired. If an architect in studying out his plan does not keep constantly in view the entire structure he is to build, if the general arrangement and masses of it do not remain a fixed unity in his mind to direct every line, if he relies upon the resources of his memory and his sketch-book to apply to every part successively an appropriate form, his work, as a whole, will be indecisive and without unity, character, or frankness; and if, before arranging his plan, he has adopted in his mind a certain favorite façade or architectural combination simply because it is his favorite, or if he has been compelled to adopt it by the will of others, his work must be bad. Neglect of those invariable principles which are, as it were, the moral sentiment of art, the absence of method in study and in the classification of the materials we have accumulated out of the past, submission to the fancies of the moment - these things have filled our cities with monuments approved neither by reason nor taste, however superior in execution and workmanship. If we imitated not the works of ancient and mediæval architects, but the spirit with which they usually composed those works, in subjecting form to reason, according to the supreme law of good taste, we should have a distinctive and characteristic architecture of the nineteenth century. As it is, so long as we forget this supreme law, we may be decorators more or less skilful and fashionable, as we interpret well or ill the fancies and vagaries of the day; but we shall not be architects.

It is very natural that architecture should be simple or complicated, as the requirements to be satisfied by the architect are simple or complicated. There is no

more remarkable characteristic in the architecture of the Greeks than the evidence existing in their plans of the extreme simplicity of their national habits. But no Greek would have undertaken the impossible task of applying this same simplicity of form and plan to the exigencies of such a social state as ours. Now the Romans, although they borrowed these forms from the Greeks, rather interpreted than imitated them; and their programs being more complicated, extensive, and varied than those which were satisfied by the Parthenon, the Erechtheum, and the theaters of Athens, they developed architectural dispositions far more elaborate, and involving new questions of construction; but these Greek forms often embarrassed the Romans, and their modifications of them were apt, as we have seen, to become corruptions. The western mediæval architects, on the other hand, who were almost as practical and much more artistic, finally and conclusively abandoned the Greek forms, thus modified or corrupted by the Romans, to adopt others more in accordance with their resources, manners, and spirit. The investigations of the last twenty years have distinctly proved this.

Now if the Greek buildings, whether religious or civil, were erected to meet exigencies too simple and wants too restricted to be applicable to Roman customs; if the practical requirements to be met by the mediæval architects differed so much from those which had created the architecture of all preceding times that they, in their turn, were constrained to seek new modes of construction and new forms; and if our modern necessities are so complicated that even the architecture of the Middle Ages cannot be accommodated to them without fundamental changes of form - by what singular process of reasoning are we, in our days, led to go back to the architectural forms or to the mixture of forms in use among the Romans? How can we, without violence to our habits, apply to our public or private structures the arrangements of plan convenient to the Rome of antiquity? In fact, the more we have occasion to admire the perfect adaptation of Roman architecture to the requirements and the daily manners and customs of the Romans,- manners and customs bearing no resemblance to our own,- the more cautiously should we avoid reproducing that architecture in the cities of the nineteenth century. . .

The first condition of design is to know what we have to do. To know what we have to do is to have an idea; and, to express this idea, we must have principles and a form-that is, grammar and language. Now as the grammar of architecture is properly a mere affair of common sense, it ought to be intelligible to everybody. But to be able to understand and use forms — the visible language by which our ideas, when rationally arranged and organized, are to be expressed - requires a long course of theoretical and practical study, and a spark of the sacred fire of inspiration. To design, therefore, we must first regulate our conceptions according to certain immutable architectural rules, based upon common sense, and then have in our head and at our fingers' ends forms pliable to the freest expression of these conceptions. We have no right to expect genius of an architect, but we can require reason, and a form which can be explained and understood.





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### Alumni Notes

The Department is in receipt of many applications from architects and others for assistants. We have no information as to whether our alumni are satisfied with their present positions and prospects, consequently many opportunities for Institute men are doubtless lost.

The Secretary of the Institute will send application blanks to any of our former students who wish to register their names with the view of making a change whenever a suitable opportunity occurs.

Of the class of 1913, Franklin is with the firm of James Chisholm & Son, Winnipeg; Franzheim is with W. W. Bosworth, New York; Hall is to join the corps of archæologists in Egypt in the employ of the Metropolitan Art Museum of New York; Herbert and Mac-Tarnaghan are in the office of A. G. Zimmermann, New York, in connection with the National Biscuit Company; Lloyd is with the Carmichael Construction Company, Akron; Martsolf is with his father in New Brighton; Robb is with Alden & Harlow, Pittsburgh; Wallis is with the Carnegie Institute of Washington in the Department of Terrestrial Magnetism; in Boston remain Byrne and Harty with Monks & Johnson, Horgan with G. F. Shepard, Mooney with Parker, Thomas & Rice, North with Wisner Martin, Redfern and Warner with E. T. P. Graham. Of the fifth-year class, Brigham is with Kilham & Hopkins, Boston; Corrubia will teach architectural design at the University of Illinois; Edgerton is with Guy Lowell, Boston; Foster is with Lowe & Bollenbacher, Chicago; Willis is with Bigelow & Wadsworth.

G. E. Robinson, '11, and Miss Gertrude B. Hughes were married, June 18, at Somerville, Mass. Mr. and Mrs. Robinson are now traveling abroad.

R. T. Walker, '11, is with James H. Ritchie, Boston.

H. S. Cleverdon, '10, was married to Miss Frances Sheldon, of Rupert, Vt., on June 25. Cleverdon is in business at Turner's Falls, Mass.

J. M. Gray, '10, is traveling in Europe.

R. D. Johnson, '10, has moved his offices to the Staats Building, Pasadena, Cal.

W. T. Spalding, '10, has charge of the office of the Spalding Construction Company in Honolulu, Hawaii.

At the last annual meeting of the Portland (Ore.) Architectural Club, Frank Logan, 'o6, was elected president.

E. S. Campbell, 'o6, Assistant Professor of Architecture at the Carnegie Institute of Technology, had charge of the Summer School in Architecture at the Massachusetts Institute of Technology during the past season.

S. E. Gideon, 'o6, for the past eight years connected with the Drawing Department at Technology, has been appointed Associate Professor of Architecture at the University of Texas.

C. P. Howes, '04, has been appointed representative of Hildreth & Co., at Sao Paulo, Brazil.

H. S. Pitts, '04, has moved his offices from the Industrial Trust Building to the Turk's Head Building, Providence, R. I.

B. S. Clark, '02, has been appointed building inspector of Hartford, Conn.

Garber, 'o2, & Woodward, 'o2, have moved their offices from the Andrews Building to the Union Central Building, Cincinnati, O.

W. P. R. Pember, '02, is associated with C. V. Merrick, '00, for the practice of architecture, with offices at 51 State St., Albany, N. Y.

H. W. Maxson, 'or, for several years associated with the Carnegie Steel Company in Pittsburgh, is now with the United States Steel Products Company in New York.

Hutton & Buys, '00, announce the removal of their offices to 103 Park Ave., New York City.

R. B. Whitten, '98, and Mr. G. A. Oman have formed a partnership under the firm name of Whitten & Oman, with offices at 413-415 Lougheed Building, Calgary, Canada.

H. P. Beers, '97, is successor to the firm Beers & Beers, with offices in the First National Bank Building, Chicago.

F. M. Mann, '94, has severed his connection with the University of Illinois, and is now in charge of the new school of architecture at the University of Minnesota.

E. A. Crane, of the firm Rankin, '90, Kellogg, '87, & Crane, '90, Philadelphia, has been appointed city architect of that city.

E. B. Homer, '85, announces that, as the firm Clarke, '94, Howe, '92, & Homer has dissolved by mutual agreement of the partners, he will open offices for the general practice of architecture at 87 Weybosset St., Providence, and at 20 Bellevue Ave., Newport, R. I.

Cass Gilbert, '80, was successful in competition with six prominent architects in se-curing the commission for Detroit's new million-dollar library.

At the meeting of the Executive Committee of the American Institute of Architects held in New York, June 16, the following Course IV men were elected to membership in the Institute: W. H. Brainerd, Joseph Everett Chandler, Philip Richardson, Thomas A. Fox, H. W. Gardner, J. Lovell Little, Jr., James Purdon, George C. Shattuck.



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