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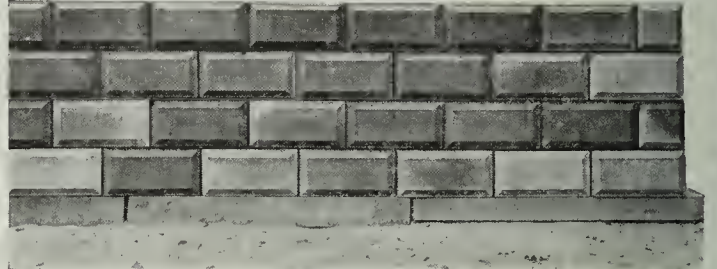
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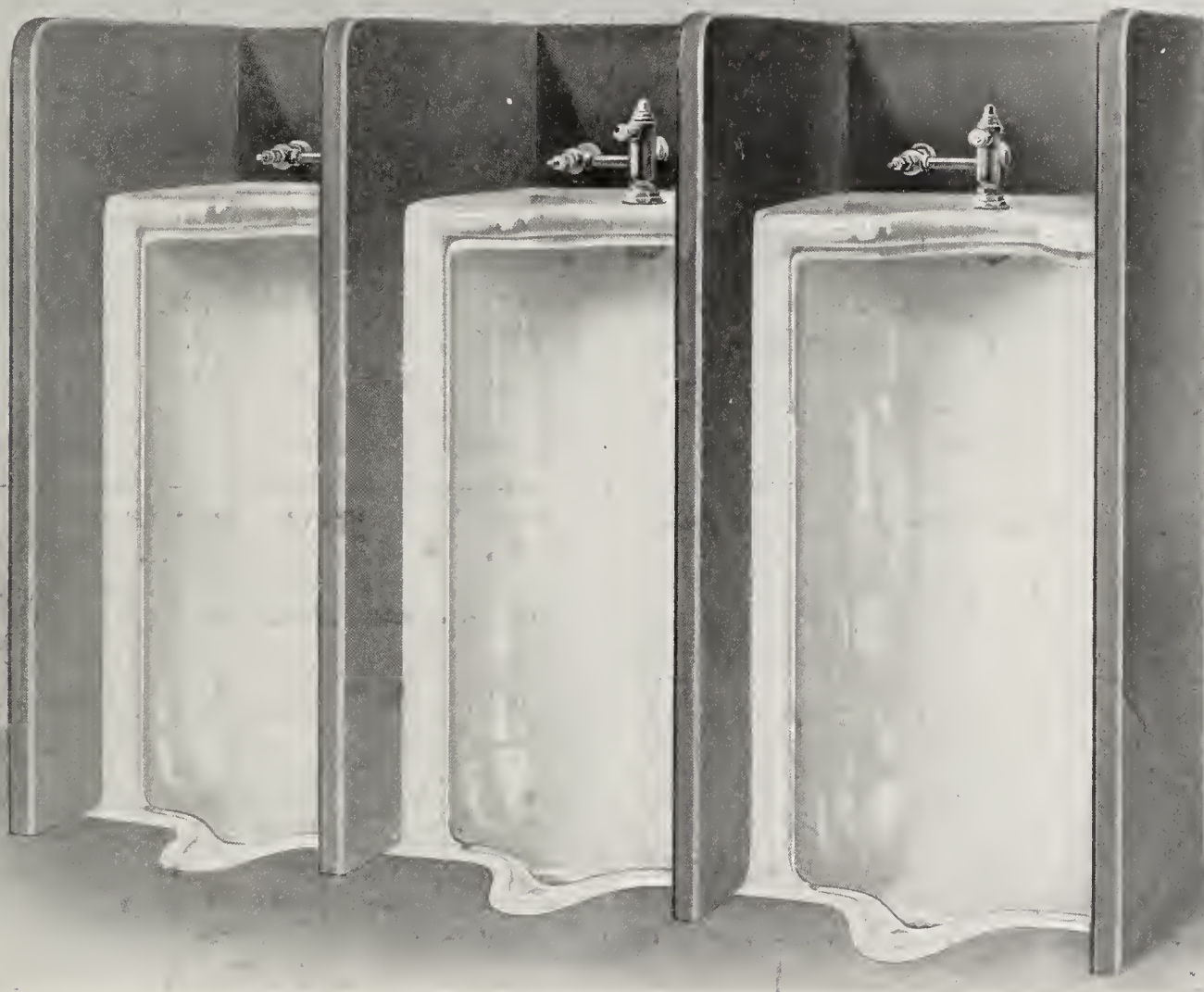
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ROBERT CRAIK MCLEAN, EDITOR.

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PUBLISHERS ANNOUNCEMENT.

WITH THE JANUARY NUMBER the Western Architect will introduce some important improvements which it is hoped will make it of more practical value to every member of the profession. The name will be changed to THE ARCHITECT, because the localizing word "Western" has long been a misnomer in a journal that has a general circulation in the maritime provinces of Canada and the United States, and is a standard architectural journal with the profession westward in both countries to the Pacific coast, and from Winnipeg to New Orleans.

ARRANGEMENTS ARE COMPLETED by which the best examples of our present day work, and only the best as far as architectural judgment can so distinguish, will be placed in the hands of subscribers each month. While as heretofore, the basis of illustration and current articles will run along the lines of design and construction, per se, the entire field of architectural art will be represented in reading matter and in illustration, by the best type and paper, and by processes of reproduction, that give the truest values to the drawings or photographs presented.

IN THIS AMBITIOUS PROJECT the fact that there are a large proportion of architects whose commissions are usually in the line of domestic architecture of moderate cost, and the majority of our building is to provide housing for the people, will not be lost sight of, and domestic architecture will form an appropriately large part of the illustrative portion of the journal. But believing that low cost does not mean indifferent design, the country will be searched for those examples in which that genius for design is shown, which most fitly represents the best work of the profession, and by its presentation form a record of architectural advancement in the direction of pure design.

FOLLOWING THE INCREASING SCOPE of the architects practice in the field of design particular attention will be paid to the landscape surroundings, also the mural decoration and the statuary that embellish the structure, and even the paintings that decorate the finished interior, all will find a place in this journal as they do in the practice of the architect. The works of the foremost artists of Paris, London and Berlin, as well as those of the United States will be described and illustrated.

BRIEFLY, while each number will contain a number of residence designs, with the interiors and plans thereto, there will be added examples in each number of the principal structures in regular practice, such as an office building, a church, a library, an apartment house, a school, a public building, etc. These will each be selected upon the theory that in the United States there are designed each year about one hundred residences, and a proportionate number of each of the other structures named, that are of premier excellence in design. It is our purpose to procure these in drawing and photograph and place them before our subscribers, so that each number will represent in its diversity the best designs produced by American architectural artists, and the current year's volume will present the best conception of American architectural art.

AFTER JANUARY 1ST THE SUBSCRIPTION PRICE WILL BE \$10.00.

TWO CONCRETE CONVENTIONS.

On January 9th to 12th the National Association of Cement Users will hold its second annual convention at Milwaukee, Wis. The programme will include papers as follows:

Mr. Louis H. Gibson, architect, of Indianapolis, Ind., "Concrete Block Architecture."

Paul Davis, city engineer of Reading, Pa., "The Manufacture of Artificial Stone From Slag."

"The General Uses of Cement," by R. H. Bowen, Keokuk, Ia.

Richard L. Meade, chemical engineer, "The Choice of Cement for Concrete Blocks."

Sanford E. Thompson, "Concrete Aggregates."

E. B. Kelley, of New York city, "Concrete Mixers."

R. P. Miller, chief engineer of the bureau of buildings, New York city, "The Legislative Features Concerning Cement as Used in New York City."

"Cement in Fireproof Constructions" is the exact title to the paper to be presented by Mr. Edwin T. Cairns, who is chairman of the special committee on cement for building construction of the National Fire Protection Association, Chicago, Ill.

Mr. Noyes F. Palmer will give an illustrated talk upon constructions with concrete blocks.

These papers, in addition to those announced last month on air tamping, testing cement, building regulations, concrete for farm purposes, water-proofing, failures in the concrete block business and reinforced concrete make a very valuable programme,

The exhibitors of materials and machinery for cement users will be present in full force. Over 4,000 square feet of exhibit space has already been spoken for and new applications are received by every mail.

On January 17, 18 and 19 the Northwestern Cement Products Association will hold its annual convention at Minneapolis. This convention was attended by about four hundred members interested in cement, last year, and as the membership has grown ap-

preciably, the coming convention should be not only largely attended, but prove of immense interest to cement makers and users of every description. So much so that it is hard to understand how anyone at all interested in the constructive use of cement can afford to remain away from this gathering.

BUILDING OPERATIONS FOR NOVEMBER.

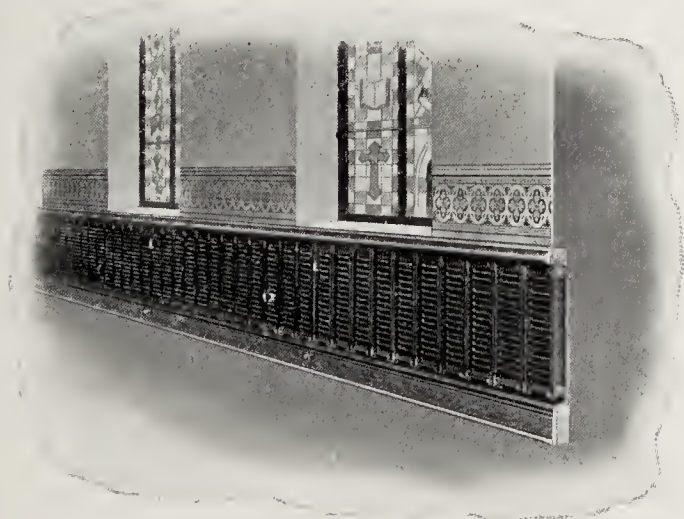
Official reports of building construction in some fifty leading cities throughout the country compiled by The American Contractor indicate that the building industry is in a flourishing condition and in somewhat greater volume than in November, 1904. A general average through the entire list presents a very favorable aspect. Among the cities most conspicuous for increased building construction are: Baltimore, 24 per cent; Buffalo, 38; Chattanooga, 383; Cincinnati, 66; Davenport, 104; Denver, 223; Detroit, 34; Duluth, 61; Harrisburg, 26; Indianapolis, 78; Jersey City, 110; Louisville, 82; Manchester, 152; Milwaukee, 41; Mobile, 84; Newark, 43; New York, 30; Philadelphia, 71; Pittsburg, 43; St. Louis, 76; St. Paul, 131; San Francisco, 33; Scranton, 105; Seattle, 27; Spokane, 113; South Bend, 142; Topeka, 50; Terre Haute, 56; Washington, 152; Worcester, 174; Wilkesbarre, 281. The figures from Denver, Los Angeles, San Francisco, Pittsburg, Washington and especially of St. Louis show an extraordinary building activity, considering the population involved. Denver scored the heaviest building of any month in many years. Thus far building and construction has been satisfactory and there is no sign of a let-up in the near future.

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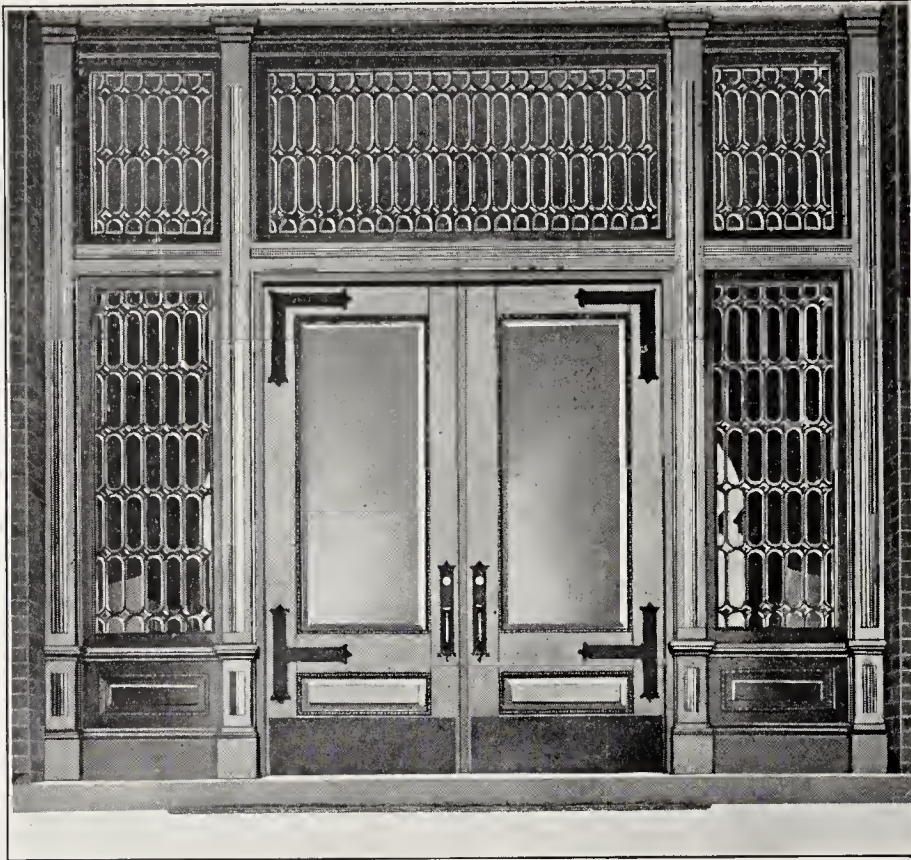
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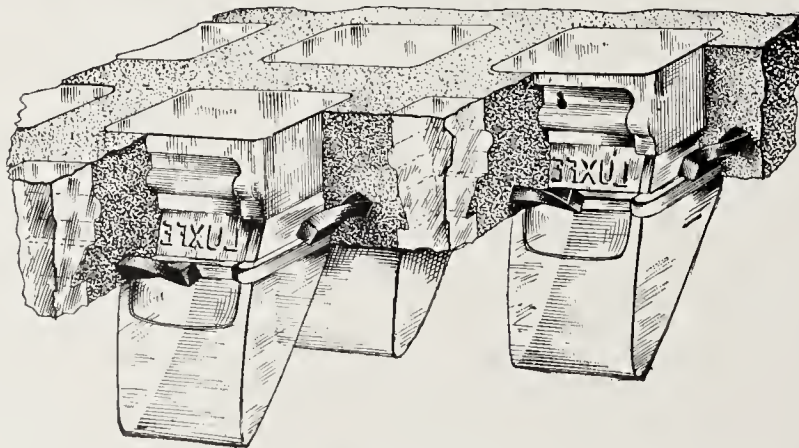
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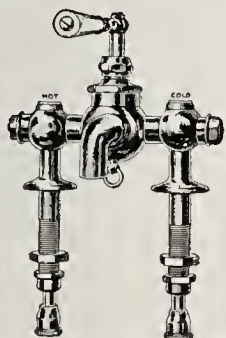
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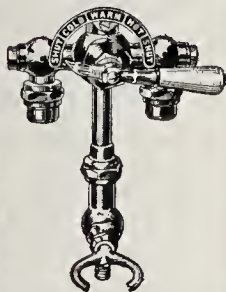
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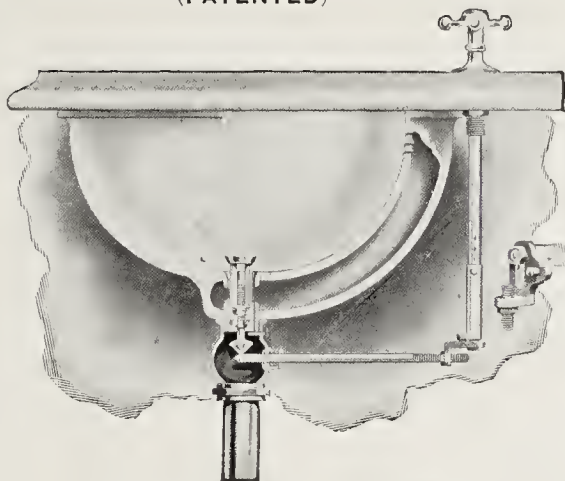
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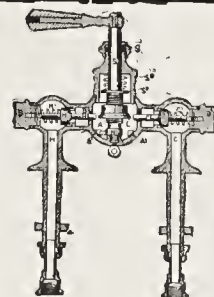
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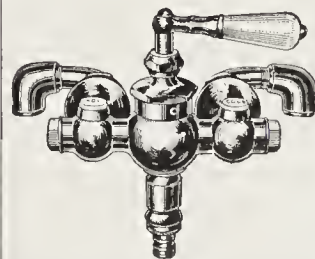
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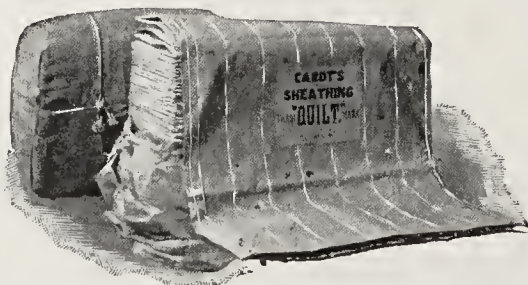
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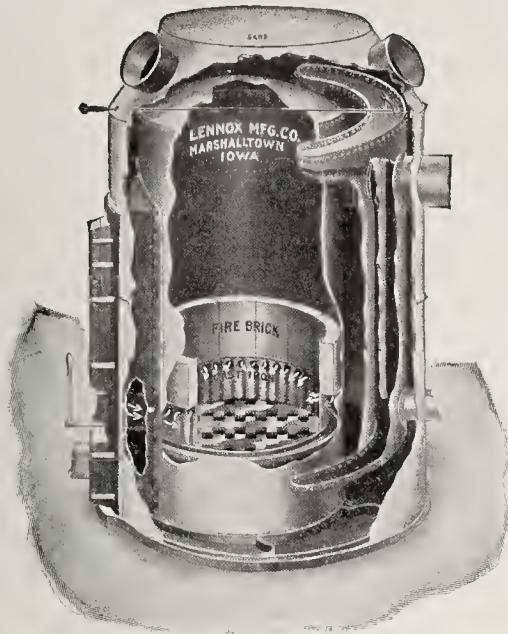
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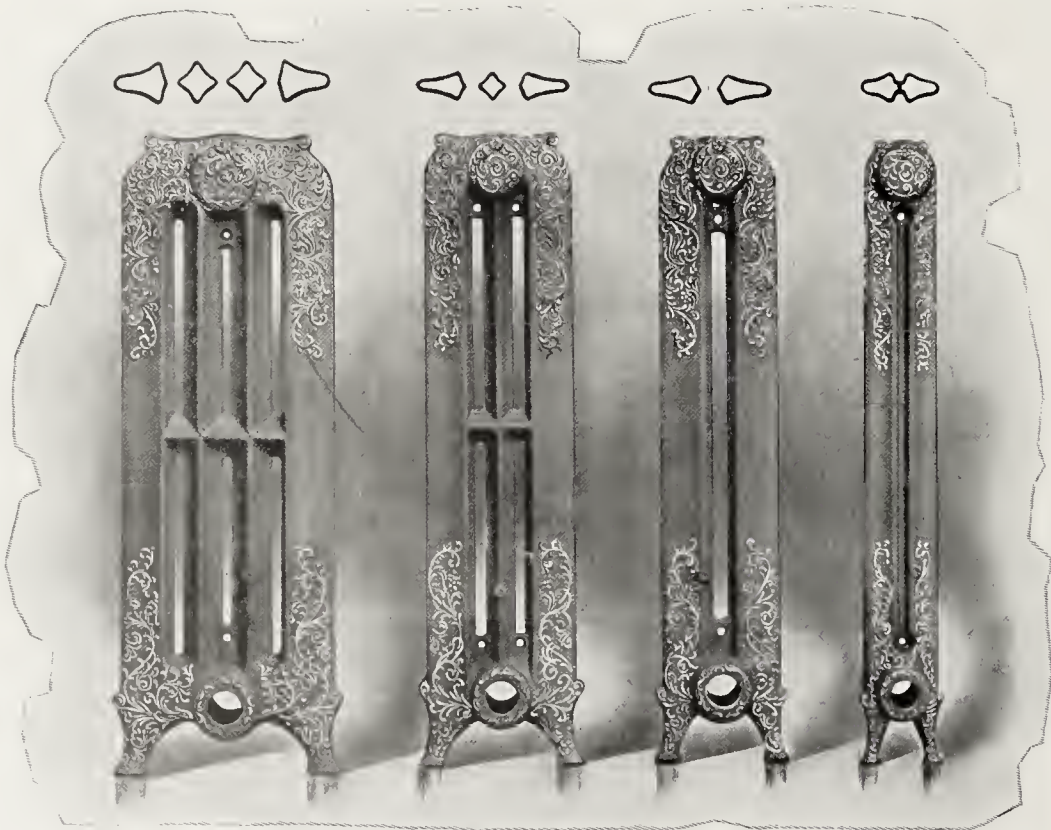
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THE SEVENTH ANNUAL CONVENTION of the Architectural League of America will be held in New York City, January 31st to February 2nd, ending with the banquet of the New York Architectural League which opens its exhibition on that date. The work of the League during its six years of endeavor to advance the architectural interests of the country has not been surpassed by that of any other architectural organization. It has lately secured by gift from "The Fellows of Harvard University" three scholarships in architecture, each equivalent to a year's tuition. These were awarded by competition in September and the winning men are now in attendance at Harvard. The progressive spirit of our leading architectural institutions in the direction of architectural education, as evidenced by these Harvard scholarships, is our strongest evidence of the architectural advancement of the past decade. The competition for these scholarships for 1906 will take place January 15th when three more will be awarded, two by competition in design, and one in regular standing. Money has been subscribed for a foreign traveling scholarship of \$1,200 value and this will be awarded on February 15th next. The San Francisco architectural club is the latest to join the league, which now embraces a federation of eighteen architectural clubs, a federation for architectural advancement that means more probably than can be estimated to the cause of pure design, or the foundation of that dreamed of, but illusive, "American Style."

THE general movement throughout the United States in the direction of replacing the buildings devoted to state and county purposes with others, necessitated by the local growth in business and population, and allowed by the general prosperous conditions in all localities, has brought a flood of controversy in its train that is phenomenal in architectural history. It is deplorable that where there is one design procured by an equitable competition there are five that, by ignorance or intention upon the part of the commissioners representing the people, and the unprofessional laxity on the part of the architects, which at once plunges all concerned into controversy. In South Dakota a capitol program was recently announced that was impossible to be considered by architects. At Peru, Indiana, the commissioners passed on the designs for a county court house, and influence with the commissioners was relied on by the architects submitting plans, and now bribery is freely charged by both architects and commissioners. In South Carolina the completed capitol building is in the courts, contractors, public and the architect each seeking to defend their honesty and convict the other. The controversy over the county building competition at Peru, Indiana, fully demonstrates that where architects or the public destroy the vital principle of competition which is its equity, the one by proposing and the other by entering plans, by methods other than those laid down as proper by the representatives of the architectural profession, that all sorts of complications will arise to the general discredit of all concerned. There the commissioners, after calling to their aid an advisory board of eleven members to examine the plans submitted for a county building, they, the commissioners, selected the plans of Lehman & Smith of Cleveland, and eight of the advisory board in a sort of minority report, backed by a petition signed by seven hundred citizens, advocated those of Crapsey & Lamm, of Cincinnati, while as an offshoot, and to make the complication more interesting, a third architect, Mr. J. H. Stem, was arrested and charged with attempting to bribe two of the commissioners. This gentleman in turn states that he was not only innocent, but that his plans were not even examined by the commissioners, and claims that he is being used as a catspaw to shield the commissioners' actions. In South Carolina the state is suing the contractor and architect, who were engaged six years ago to complete the state house, for two hundred thousand dollars damage, which it is claimed has been done to the state

house through alleged breach of contract and collusion between the general contractor and architect. Such suits as these are rare, largely because architects are usually careful not to permit even the appearance of evil to show in their relations with contractors. When it does occur there is apt to be at least a passive collusion on the part of those representing the people's interests. It is not beyond the memory of man when an officer, high in the public trust, refused to investigate, or even make public, a similar case of collusion when he had every evidence of it at hand, but knew that any publicity would affect the political interests of himself and his party. It is hardly probable that the state of South Carolina will win its suit, for while the collusion might be proven, the actual damage sustained by the state by the substitution of materials or bad workmanship is difficult at best, to compute. If each case, of which these are but samples, should be examined in detail, it would be found that the entire trouble lay with the initiative movement of the commissioners' offering a program that was not professionally proper, to architects who weakly accepted the conditions and hoped to "get the job," and trust to luck to "get through somehow." The remedy is in the hands of the profession, for we take it for granted that each architect is professionally honest, and none is obliged to submit plans where he stands a chance of unfair treatment. There is no wrong course that so quickly brings its retribution to both public and architect as any deviation from the strict code of practice established by architects for the government of public competitions, a retribution that commences with bribery and corruption in the choosing of the architects and ends with an unsightly, badly constructed, and expensively useless structure.



MUNICIPAL authorities are slowly waking to the fact that in their care for the public weal they have powers of regulation in regard to corporate use of public streets, where heretofore any interference has been deemed an infringement on vested rights. The use of electricity for power and lighting, which is, in almost every case, transmitted by wire or cable from a central station, the immense growth of telephone and telegraph service, all requiring wires for operation, has at last become as much of an encroachment upon the rights of the public as to be deemed a public nuisance in the eyes of those who own property on any of the main arteries used in transmission. This is probably true in a greater degree in Minneapolis than any other city. Her growth has been so rapid and phenomenal that these features, at first looked upon as a natural inconvenience, have become a general nuisance. If this condition were inevitable it would be borne with more or less patience, but it is easily remedied, for there is no wire in use in our public streets that not only cannot be placed underground, but with beneficial results to its operation. The agitation now going on in regard to the street car system poles, whether they shall be placed on the sides of the streets or remain in the center, should be settled by the city authorities ordering that

they be placed under the streets. The best street car service in the country is in the city of Washington, where the overhead trolley is unknown. Other cities have succeeded in getting the service wires underground in some degree, but where they have failed it has not been because the necessity was denied, but because corporate interests too largely controlled municipal action. We assume that this is not the case in Minneapolis, and the time has come for drastic measures if persuasion will not answer. In one portion of the city as many as ten immense poles carrying upwards of two hundred telegraph and telephone wires besides cables and electric wires concentrate on one corner in front of several of the most expensive suburban residences, to the utter destruction of these from a monetary standpoint, as well as unsightliness to their present occupants. No city should be able to give so unlimited a franchise as to make their utilities a public nuisance and a private loss, and it is hoped that the mayor will end the controversy by demanding that not only the wires in down town streets but those in the residence districts be placed underground, and at once.



THE ambition of the Society of Beaux Arts Architects is most commendable and its work seems to be advancing rapidly in the direction of what is called a National School, but which in affect will be an advance upon the lines pursued by the architectural clubs for the past twenty years. It is time that this was done, for the architectural club cannot go beyond its own precincts and membership in its work, while the atelier system with its en loge instruction and periodical exhibition, will reach all draftsmen wherever employed. It is also desirable that the architectural schools be connected with the system. It is probable that this is the only system by which draftsmen can be instructed and advance in pure design, for the routine of office work leaves little time for theoretical work, and unless the training and criticism comes through masters in design the draftsman has little chance for advancement. It is true that the influence of the French school may at first predominate through the enthusiasm of those who are now directing the movement, and in an academic sense this will be beneficial, but as the National School grows in strength this should be modified in the direction of what many are pleased to term an American style, but which in reality is design expressive of American life and conditions. The work of these earnest spirits, who through their Beaux Arts training wish to advance their art among those not so fortunate, is prompted by an enthusiasm for their art, and the results will not fail to refine and broaden American architectural practice.



A COMPETITION for a library building at New Orleans has just closed which has a unique feature in the way of consolation prizes. Beside the main building, there are required three branch libraries, and the designing of these is given as prizes to the designs placed second, third and fourth in the competition.

ILLUMINATING ENGINEERING.*

JAMES R. CRAVATH, M. W. S. S.

I surmise that the subject of this paper will be received with widely different mental comments by those into whose hands it may fall. Those who have made some study of illuminating engineering will answer the question unhesitatingly and emphatically in the affirmative. Those who have given no attention to the subject will ask first of all what is meant by illuminating engineering and second, what chance there is for engineering in connection with so simple a thing as illumination. The answer to the first question is simple. A full answer to the second would require a treatise. I believe, however, that enough of an answer can be presented within the limits of this evening's paper so that the average person will be convinced not only that the efficient use of artificial light requires considerable special engineering knowledge but that there is a great need for the application of such engineering knowledge at the present time.

The term "illuminating engineering" as commonly used at present applies to that special branch of engineering which has as its aim the efficient use of artificial light. It does not concern itself with production and distribution of light producing energy but with the utilization of light after it is produced in order to secure the best illuminating effects from an economical, artistic and hygienic standpoint.

As in most other branches of engineering, the fundamental principles of this branch are simple and easily mastered; but the knowledge of ways and means of accomplishing practical results and the technical data on these ways and means can only be obtained and kept in

*Abstract of paper read before the Western Society of Engineers, Oct. 13, 1905, and the Chicago Architectural Club. Reprinted with illustrations from the journal of the Western Society of Engineers through the courtesy of its editor and Mr. Cravath.

shape for ready use, as in other engineering branches, by long continued work and study.

I will not attempt to review here even the fundamental principles of the Engineering of Illumination, as these were set forth in a paper on that subject, read before this society, by Mr. V. R. Lansingh, on February 4th, 1903. (Mr. Lansingh was, by the way, I believe, the first person to begin professional practice under the title "Illuminating Engineer.") It will be rather my object to show:

First, by the discussion of some concrete examples



Figure 3—Orchestra Hall, Chicago

of lighting that there is room for much more careful application of illuminating engineering than is now usual.

Second, that the amount of special technical knowledge that the illuminating engineer should have at his finger's ends is such that any one who successfully deals with illuminating problems must have something beyond a knowledge of general principles.

In discussing the specific examples of lighting that will be shown by the lantern slides, any adverse criticisms that may offer must not be taken as too serious a reflection on those who were responsible for the lighting arrangements under discussion, as it is not surprising in view of the newness of illuminating engineering that insufficient thought should have usually been given to these matters in the past. The following examples have been selected:

View of the Auditorium Theatre, Chicago, Fig. 1, from a balcony, the lighting of which is painfully familiar to Chicago audiences. As shown by this view, there are a large number of exposed lights which are near enough the line of vision of persons in the audience so that, when all lights are turned on for any considerable length of time, it causes considerable strain on the eyes of persons in the audience.

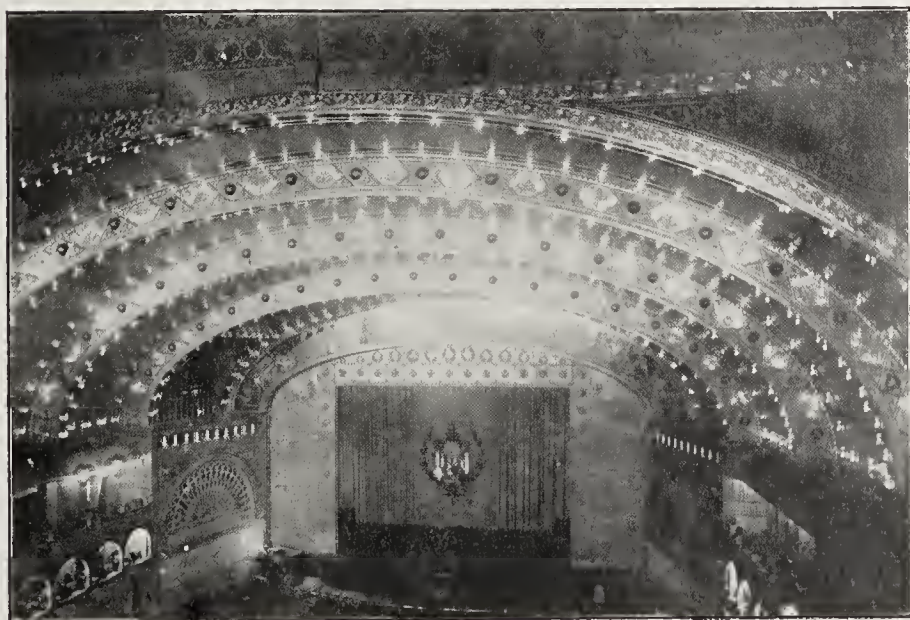


Figure 1—Auditorium Theatre, Chicago

It can be laid down as a general principle to be followed in the lighting of all places of this kind, that the lights should either be kept entirely out of the line of ordinary vision of persons in the audience or should be shaded or diffused in some way so as to reduce the



Figure 5—La Salle Station, Chicago—Waiting Room

intensity of the light which falls in the eye. The presence of so many lights on the arches, in plain sight, in this theatre produces an effect on the eyes similar to that produced by any bright light, namely, the contraction of the iris. This contraction cuts down the amount of light entering the eye. The result is that the theatre as a whole appears darker than it would if the lamps were kept out of the line of vision. While a person with exceedingly strong eyes will sit through an evening in the Auditorium with all lights turned on without noticeable discomfort, the lighting has been bitterly complained of by others not so favored, and there is certainly considerable eye strain, although in many cases it is probably not pronounced enough to be painful.

The view of the Auditorium Theatre, Fig. 2, taken from one side shows how easily it would have been to locate all instead of a part of the lights behind the arches and so do away entirely with the exposed lights which caused such a practical reduction of the efficiency in the lighting of the theatre. Another point which is open to criticism from an engineering standpoint is that no reflectors are used on the lamps. The amount of useful light thrown down, could be increased as much as 30 or 40 per cent, and perhaps more, by the use of any one of several common types of opal or prismatic reflectors. Such reflectors, since they are placed directly over each lamp, have a much higher efficiency as reflectors of useful light than

the walls and ceilings, which are at a distance from the lamps.

As this is a point which will come up in connection with some of the other examples shown, I wish to make it clear before proceeding further. It is frequently assumed that a ceiling of a light tint or gilt, as is the case of the Auditorium, is such a good reflector that lamps placed upon it need no reflectors over them for throwing the light down in the room. While these surfaces may be fairly good reflectors, their shape and location with reference to the lamp is not such as to give the rays the desired direction, in most cases. With a reflector, one can choose a form which will throw the rays in any direction desired.

Another reason why the ceiling is not usually an efficient reflector is that the reflected rays strike the ceiling at some distance from the lamp. As the intensity of light varies inversely as the square of the distance from the source, it is evident that the intensity of the rays which are reflected from the ceiling at some distance from a lamp is much less than if they were reflected by a good reflector placed immediately over the lamp.

Still another reason why it is inadvisable to depend on the ceiling for reflection is that the color of the ceiling is likely to be changed from time to time, and furthermore, the ceiling is not as easily cleaned as a smooth reflector placed on the lamp.



Figure 6—La Salle Street Station—First Floor.

In the recently finished Orchestra Hall, Chicago, Fig. 3, the lights are placed behind the arches out of the ordinary line of vision, thus avoiding the mistakes made in the Auditorium in this respect. No attempt, however, has been made in this hall to make use of the higher illuminating efficiency which could be secured

by the use of reflectors on all the incandescent lamps.

A view of the new LaSalle Street station waiting room, Fig. 4, shows the arrangement of ornamental lighting fixtures on the pillars, these fixtures taking the basket form of the ancient censers. Another view, Fig. 5, of the waiting room of the LaSalle Street station, shows the lighting fixtures before mentioned and also a large chandelier in the foreground. The greater part of the lighting of this waiting room, however, is done, not by lamps in the fixtures, but by incandescent lamps around the border of the main skylight. This skylight can be seen in the background of this view. The simple architectural features of this waiting room appear to the layman to be beyond criticism. When we come to the illumination, however, it furnishes an excellent example of the desirability of the architect and the illuminating engineer working together, for without interfering with the artistic designs of the architect, not only could much better illuminating efficiency be secured but certain crude effects in connection with the artistic lighting fixtures could be avoided.

First, as to efficiency. The principal part of the lighting is accomplished, as said before, by lamps around the border of the main skylight. These lamps have no reflectors, and although the ceiling is light in color, much more light could be delivered on the floor of the waiting room by the use of reflectors on these lamps. It is furthermore not altogether evident why lamps were not placed in corresponding locations around the borders of the smaller skylights, on the east and west sides of the room. Either by the use of reflectors or by placing some of the lights on the borders of the smaller skylights, or by both changes, the same amount of illumination could have been

secured with considerable less current consumption and without in any way interfering with the artistic appearance of the room.

Now as to the chandeliers and fixtures. The baskets which are seen supported from the pillars by chains are provided with opaline glass, not sufficiently dense to hide the filaments of the lamps contained therein, so that these filaments show through with a sickly red glare, which ap-

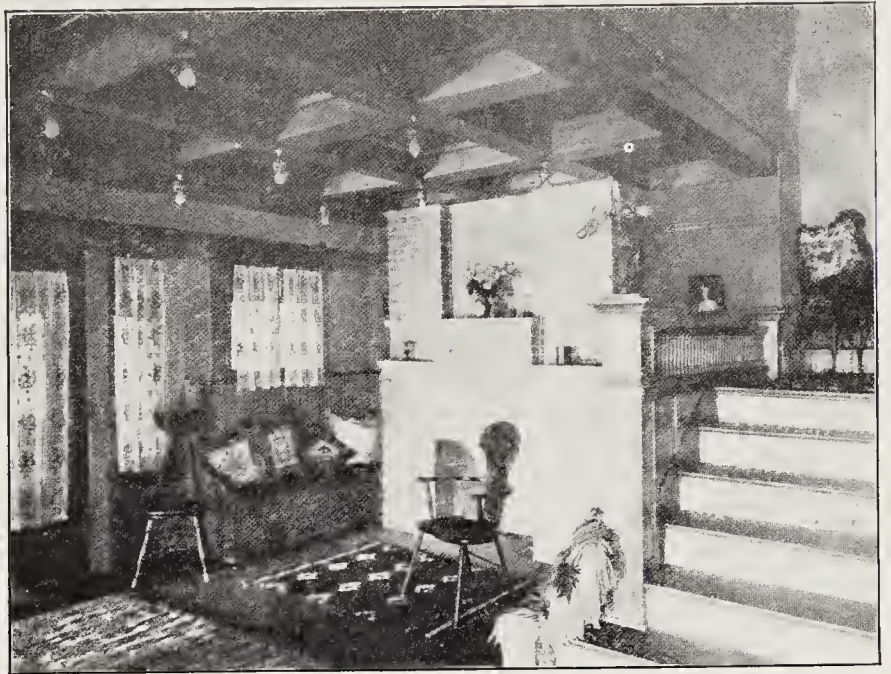


Figure 8—"Model" Reception Room, with inefficient lighting arrangement.

pear very crude and out of keeping with the surroundings. If it was the desire of the architects in this case to produce a red glow in these baskets, to add a little warm color in this room where everything else is in white, it could have been much more artistically secured by the use of a different glass in the baskets or by the use of frosted bulb lamps in the present baskets. In the case of the large chandeliers in the foreground a still more crude and inharmonious effect is found, due to the use of a number of lamps grouped around the baskets with nothing to diffuse the glare of the filaments. These bare lamps, on account of their intensity, are entirely out of keeping with the diffused light with which the balance of the waiting room is illuminated, and this effect is accentuated by the fact that they are arranged around a basket from which nothing but diffused light escapes. Whether by design or accident, a very neat arrangement is found for the lighting of the arched ceilings along the east and west sides of the room. The useful lights arranged around the main skylight gives illumination sufficient for the lower part of the sides of the room, but the walls and ceilings along these two sides would be in comparative darkness but for the fact that the basket fixtures along the sides act as excellent reflectors, throwing most of their light upward.

On the first floor of the LaSalle street



Figure 7—St. Hubert's Grill Room.

station artificial light must be used by day as well as by night. In such rooms the illuminating engineer has a difficult problem to provide artificial lighting arrangements which will make the person entering such a room in the daytime forget as far as possible the presence of artificial light and prevent the room from appearing gloomy and the light sickly. This room is lighted by clusters of incandescent lamps placed under small mirror reflectors, Fig. 6, on the ceiling. In the first place, these reflectors are not of the proper size or shape to accomplish what was intended. To be efficient, they should be considerably larger; but it is a serious question whether the crude effect of a mirror reflector is not out of place in a room of this kind. Mirror reflectors are exceedingly important tools in the hands of the illuminating engineer but they are not suited to use in such a location because of their inartistic appearance. The effect of the light from them is to assist in making the room appear gloomy. In general, incandescent light diffused by ground glass appears less sickly than bare filaments under mirror reflectors. A much more cheerful appearing room could be made by placing bracket fixtures with lamps in frosted or sand-blasted globes on the pillars, which are of white enameled brick. This can be demonstrated to the satisfaction of anyone by noting the effect of the present brackets on the side walls near the ticket windows. In order to relieve the plainness of these pillars, the architect had to provide a kind of ornamental fixtures as seen, and it would be but a step further to have made these fixtures genuine electric light fixtures and accomplish the lighting from them.

St. Hubert's Grill, Chicago, Fig. 7, is lighted with Holophane spheres suspended on chains from the ceiling, while bracket lights in Holophane globes along the walls bring up the illumination along the sides of the room. The lighting of this room is comfortable to the occupant because the light is so well diffused by the Holophane globes and at the same time a large per cent of it is directed below the horizontal to serve useful purposes. By the use of proper reflectors in ground glass spheres or hemispheres, good results could also be secured without altering the general scheme of lighting in this room.

What is supposed to be a model reception room, Fig. 8, taken from a recent issue of "Good Housekeeping," shows the lights are placed on a dark ceiling and a very small per cent of the light purchased will serve any useful purpose. This is another case where reflectors are needed, and would in no way interfere with the artistic effect.

Electric lighting arrangements in the living rooms of the majority of the homes are decidedly faulty.

To begin with, the average electric table lamp delivers but a small percentage of the light to the reading page that might be so delivered with a different arrangement. To end with, the general lighting of the room usually permits the undiffused glare of one or more incandescent filaments to fall into the eyes of visitors and others who are sitting around the room.

An excellent arrangement of chandelier for an ordinary living room, where both general illumination and

good reading light are desired, is shown in Fig. 9. This chandelier has a center socket pointed straight down, equipped with a powerful prismatic glass reflector for use in reading under the chandelier. This is a much more efficient reading arrangement than can be secured with any portable stand lamp because of the large amount of light that is necessarily wasted on the table with any stand lamp. The distance from the light to the page is but little greater than with a stand lamp, while the total amount of light that can be delivered to the reading pages of three or four persons seated in the center of a room is much greater with the chandelier reading lamp than with a table lamp, the same candle power lamp being used in both cases. The general lighting of the room is accomplished by two lamps on the chandelier arms, enclosed in Class B, Holophane globes, which give good general distribution of the light at all angles below the horizontal. Approximately the same distribution could be obtained with certain types of opal and glass reflectors, but if reflectors are used, frosted bulb lamps should be employed to avoid the glare of the incandescent filament.

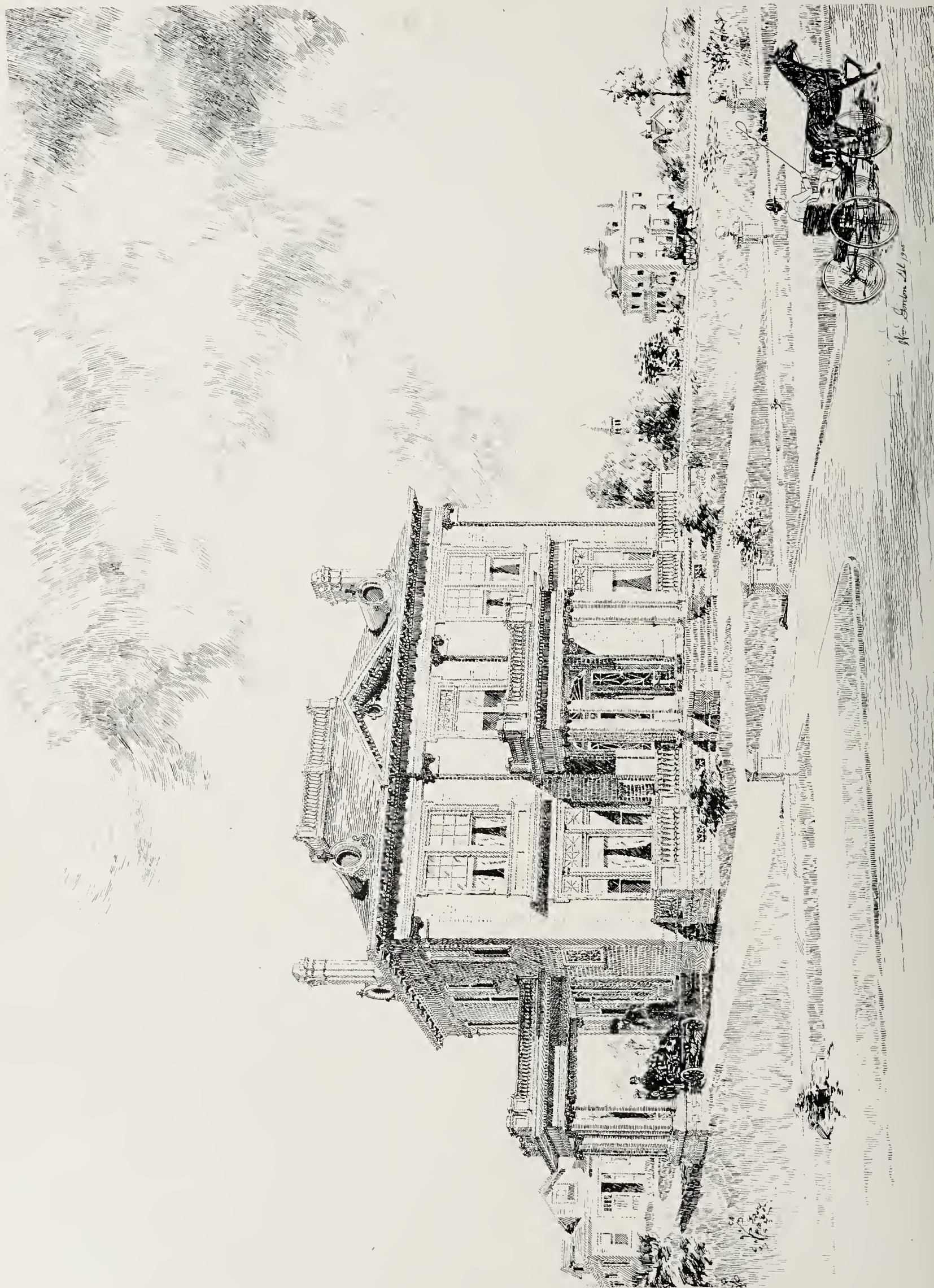
Badly arranged desk lighting is responsible for much trouble with eye-sight. The best method of desk lighting is to place the light high at the left-hand side of the desk, as shown in Fig. 10. By equipping a lamp with a good reflector and pointing it at an angle of about 45 degrees to the right, a strong, fairly even illumination over the whole desk surface is obtained, and the glare of the regular reflector from the paper passes off in a direction to cause no annoyance.

With a reflector, having a smooth white or polished reflecting surface, such as the ordinary green opal desk shade, polished aluminum or white enameled shades, lamps with bulbs frosted by the etching process should always be used to avoid the streaks which are always present in the light from clear bulb lamps with these shades. These streaks are largely eliminated by frosted aluminum, prismatic glass, fluted opal, or properly corrugated mirror types of reflectors.

These examples *when seen and discussed are I think sufficient to show that the artificial lighting of buildings both public and private is worthy of more engineering consideration than it usually get. I think also that it will occur to you that one of the important items (but by no means the only one) in the stock in trade of the illuminating engineer must be a knowledge of just what results various types of reflectors, shades and globes will give, for on these he is largely dependent in his efforts to economically direct and diffuse the rays of light. To give this information photometric curves are the most valuable and most common sources of information. Unfortunately the number of such tests that are available in convenient form is rather limited, although the engineer who makes a special study of these matters and loses no opportunity to add to his collection of photometric curves, can in the course of time make quite an accumulation of them.

*A large number of lantern slides were shown by the author illustrating different forms of electric lighting.—Editor.

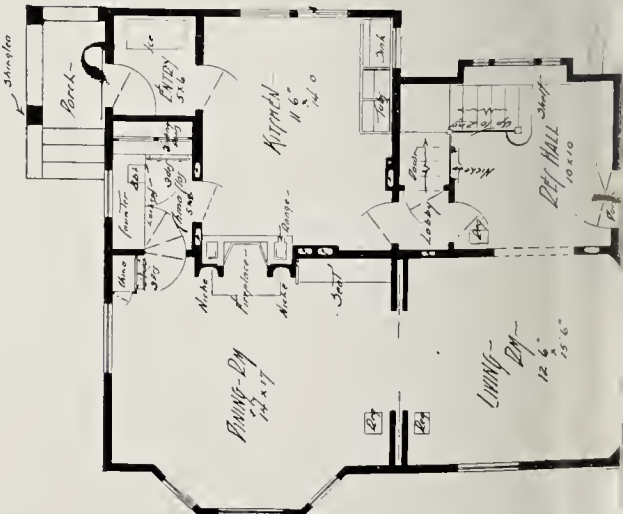
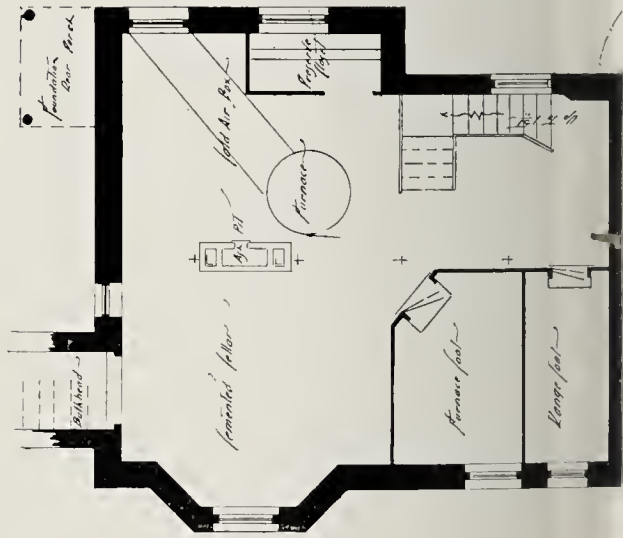
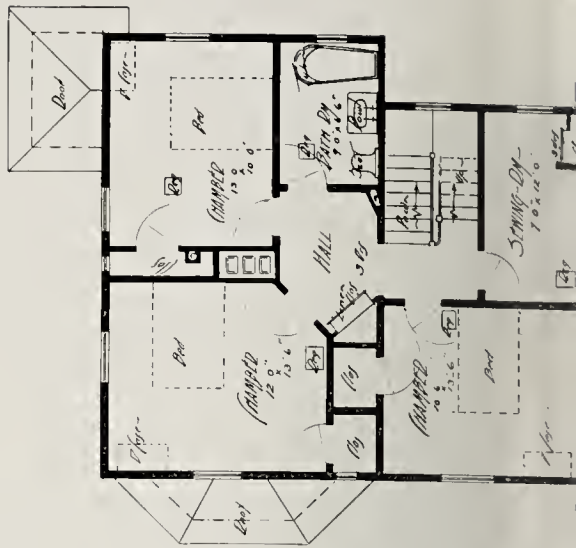
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SKETCH OF COUNTRY RESIDENCE

Drawn by Wm. Gordon, St. Joseph, Missouri

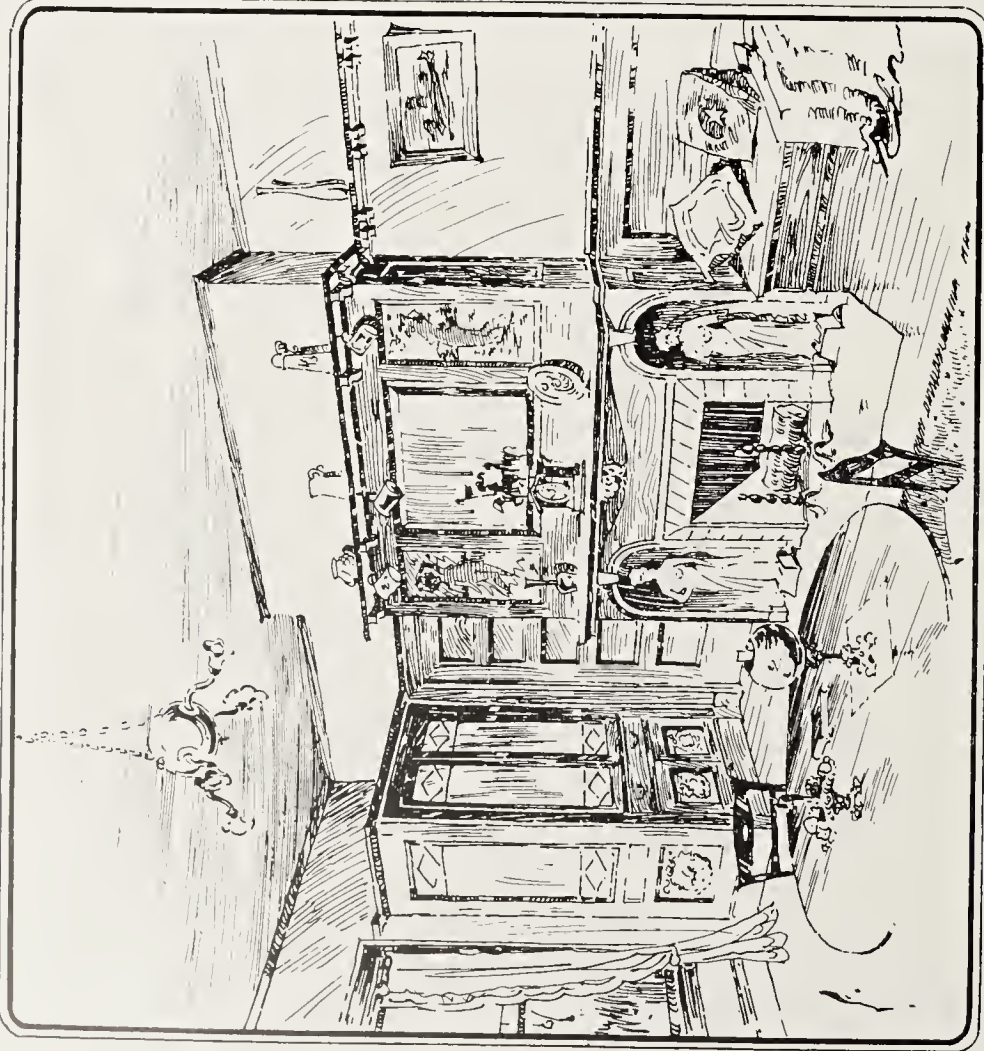
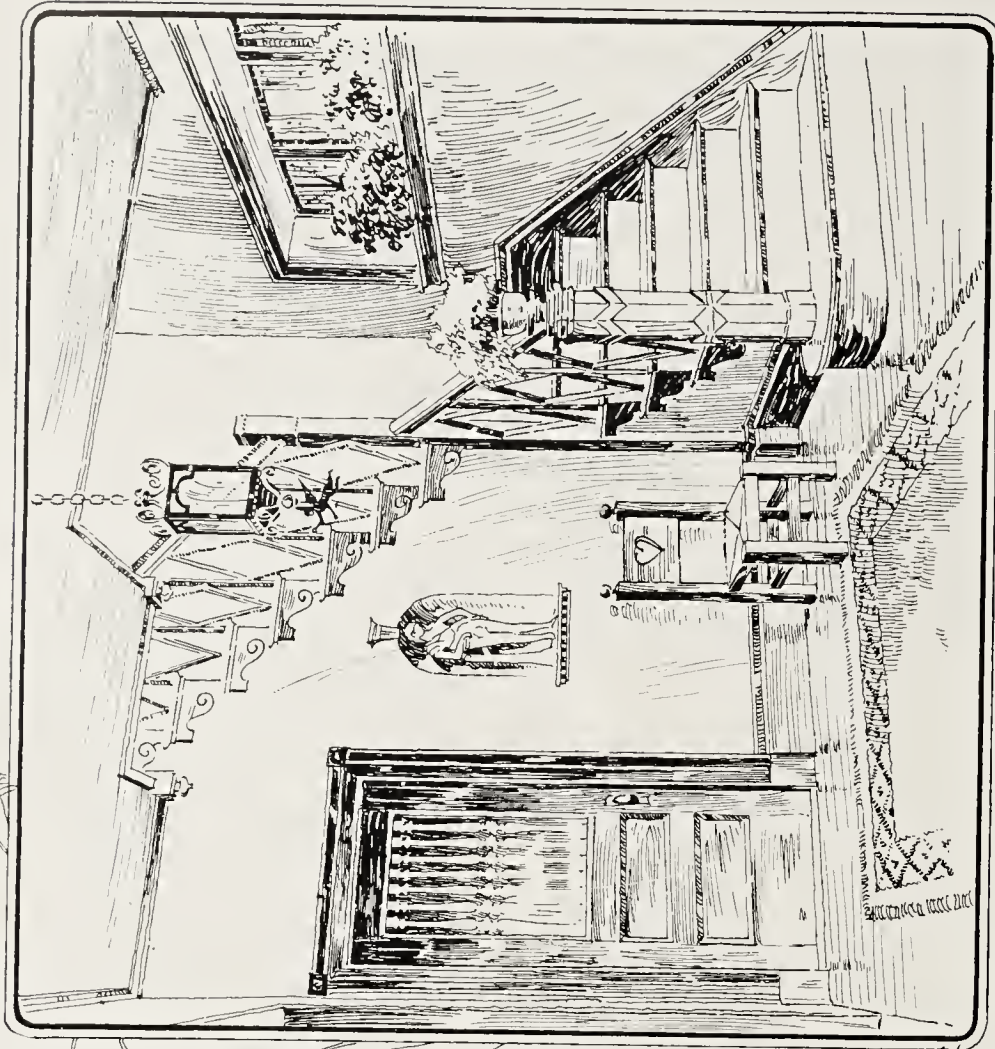
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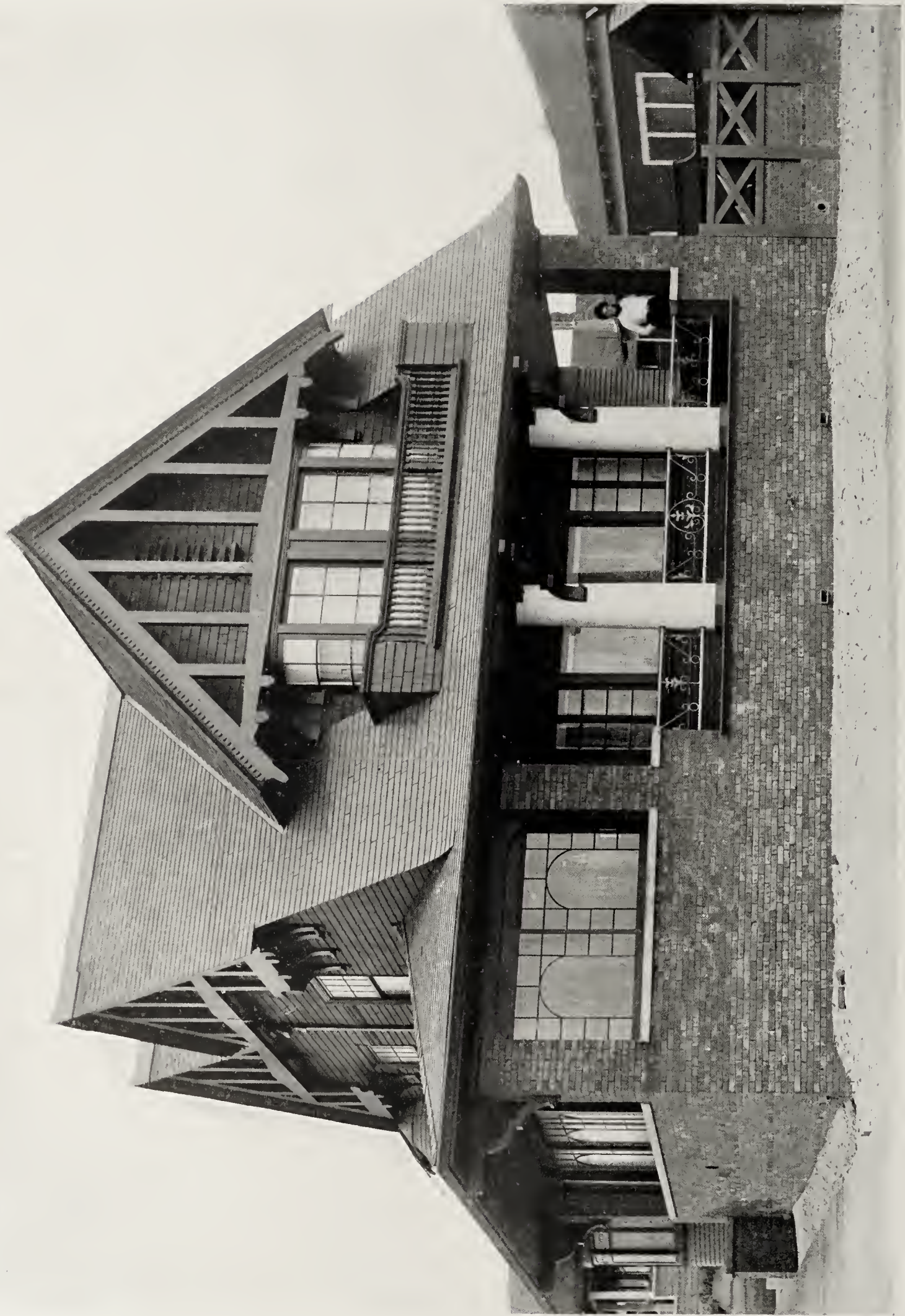
E.S.R.

THE HALL

THE DINING ROOM



OF THE
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RESIDENCE IN LOS ANGELES, CALIFORNIA
Marsh & Russell, Architects





Supplement to
The Western Architect
December, 1905

GENERAL VIEW OF GREEN
Frederic Roehrig, A



EL, PASSADENA, CALIFORNIA

Los Angeles, California

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ST. PAUL'S METHODIST CHURCH, TOLEDO, OHIO
E. O. Fallis, Architect



LOWELL CHAMBERLAIN FLATS, DES MOINES, IOWA
Libbe, Nourse & Chamberlain, Architects

LIBRARY
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SECOND FLOOR PLAN
Scale 1/4" = 1'-0"

THIRD FLOOR PLAN
Scale 1/4" = 1'-0"

BASEMENT PLAN
Scale 1/4" = 1'-0"

FIRST FLOOR PLAN
Scale 1/4" = 1'-0"

PLANS FOR \$3000 COTTAGE

Elmer R. B. Chapman, Architect, Boston, Massachusetts



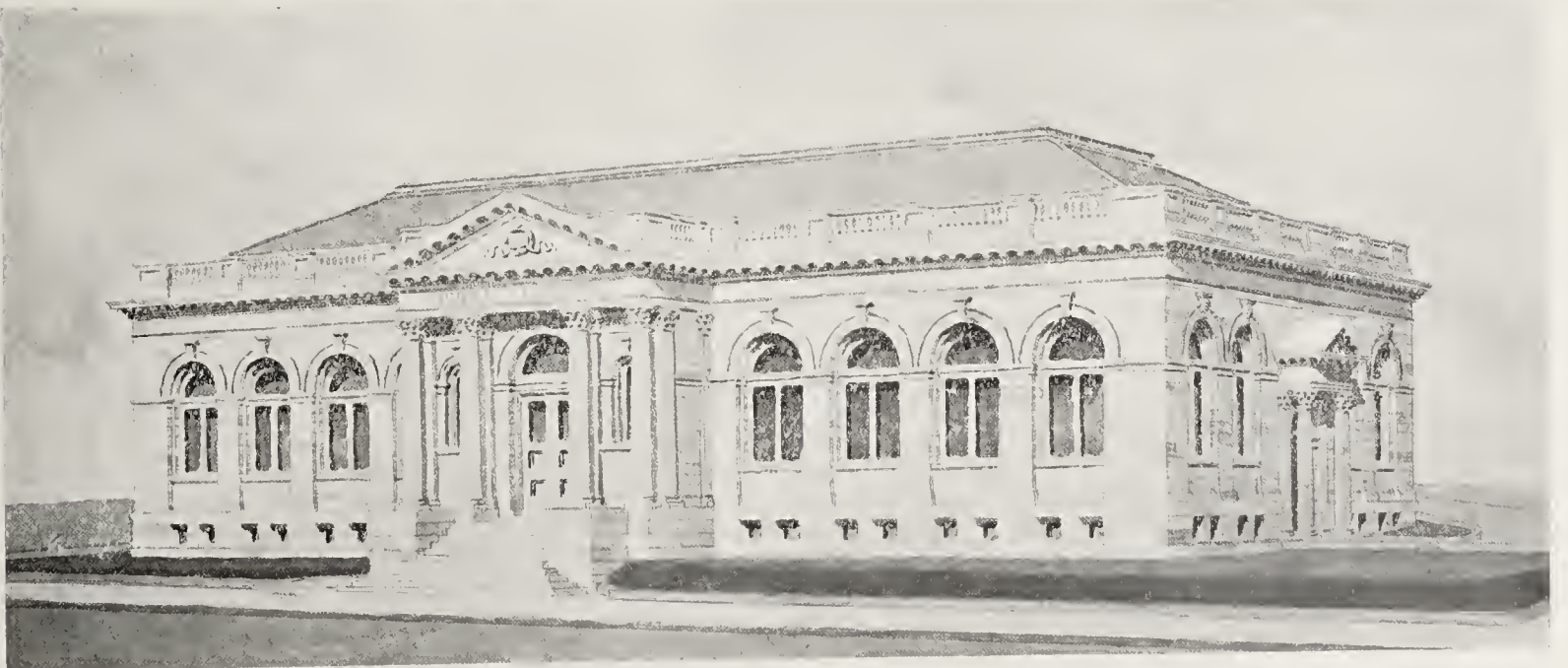
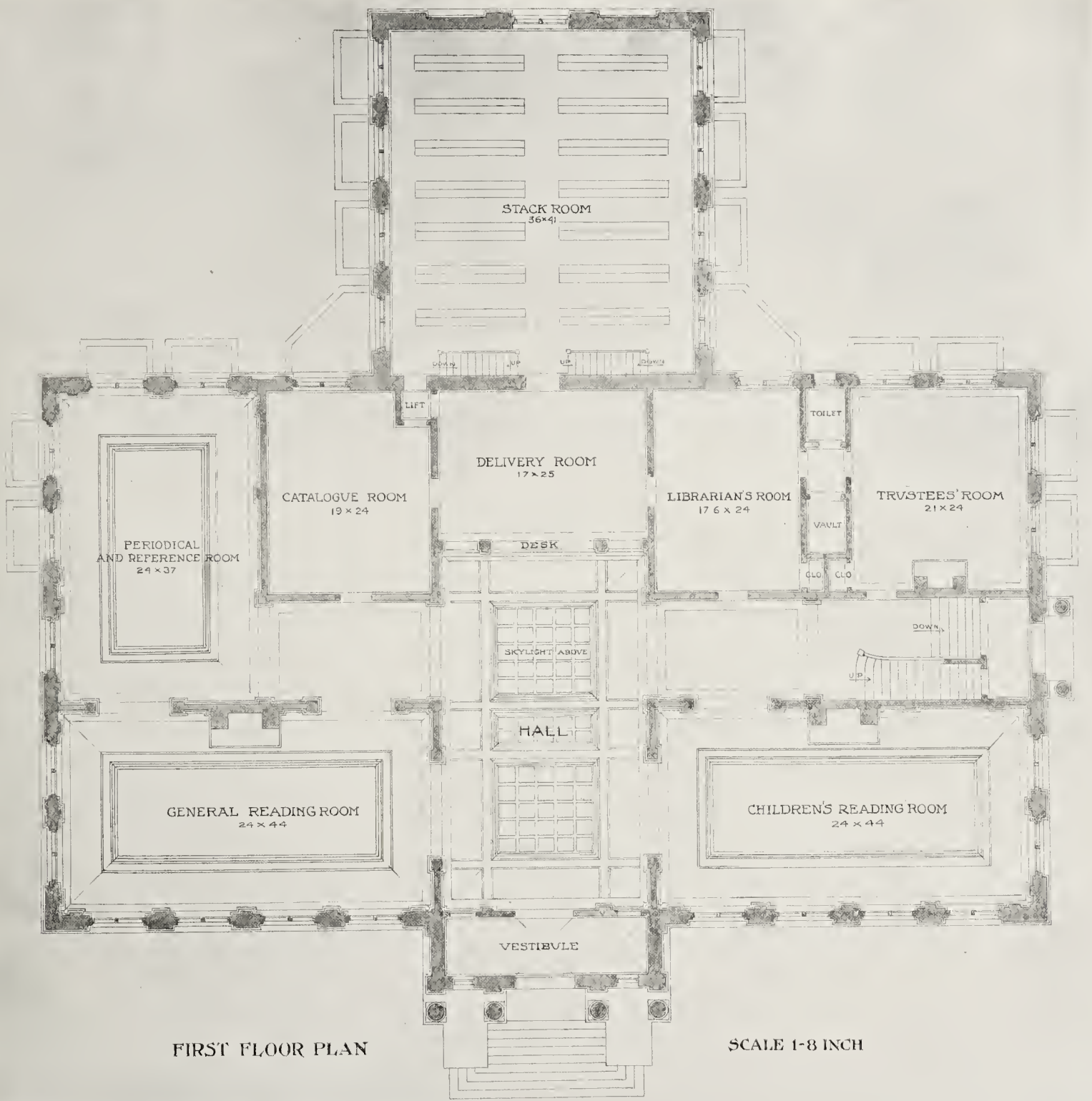
FROM THE FRONT



FROM THE REAR

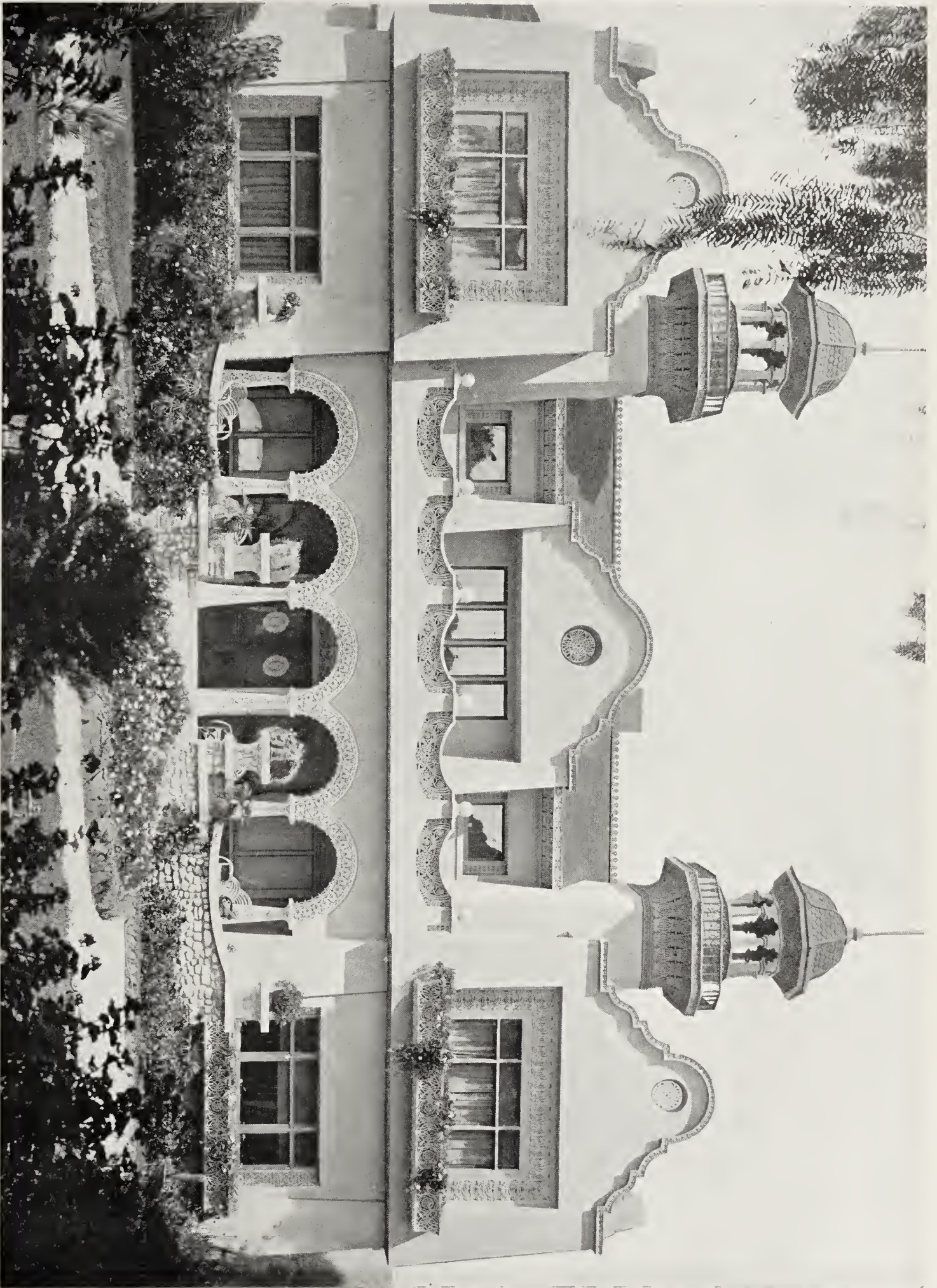
SKETCHES FOR A \$3000 COTTAGE

Elmer R. B. Chapman, Architect, Boston, Massachusetts



DESIGN AND PLAN FOR PUBLIC LIBRARY, EAST LIVERPOOL, OHIO
 David C. Myers and Mahlon H. Fisher, Associated Architects, Williamsport, Pennsylvania

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RESIDENCE OF PAUL DE LONGPRE, HOLLYWOOD, CALIFORNIA

Designed by Paul De Longpre

FRONT ELEVATION

Supplement to
The Western Architect
December, 1905

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NUMBER 23 SCHOOL, SCRANTON, PENNSYLVANIA

E. H. Davis, Architect

Supplement to
The Western Architect
December, 1905

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RESIDENCE OF THOMAS FITZGERALD, LOS ANGELES, CALIFORNIA
J. C. Nesman, Architect

Supplement to
The Western Architect
December 1905

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END VIEW AND GROUNDS

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December, 1905

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Supplement to
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December, 1905

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J. C. Nesman, Architect

INTERIOR

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RESIDENCE OF A. L. HARDING, LOS ANGELES, CALIFORNIA
Hunt & Eager, Architects

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The Western Architect
December, 1905

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CHARLES A. CUMMINGS.

BY W. P. P. LONGFELLOW.

Half a century ago or so American architecture was at its lowest level. The New England carpenter, who planned most of our houses, had been drawn aside by changes of fashion from the sober taste in which the traditions of the Georgian school had nurtured him and, with Downing's books or perhaps Batty Langley's in his hands, was a different being from the old carpenter with his kit of quasi-Classical moulding-planes and his temperate habit of design, who had preceded him.

There were in those days hardly any professional architects among us; the influence of the training of older ones lingered in the traditions of the builder's trade, in the buildings of the Colonial time, or in a few books which contained pictures, more or less adequate, of the Classic orders, or designs based upon them. Among the few men who took the title and work of architects were capable and instructed builders, like the late Gridley J. F. Bryant and Nathaniel J. Bardley, and they gave employment to two or three designers of talent, but not of thorough training. Hammat Billings and Arthur Gilman, for instance, in whose work, so far as it remains, we still see much to admire.

At this time there came forward, under just what influences it is not easy to say, two very able artists—Edward C. Cabot, the honored first president of this Society, and George Snell, a member of the Royal Institute of British Architects—whose practice went far to set architecture on a solid professional footing, and give it the position and the quality of an understood art. They were followed by a group of young men of very different type from most of their predecessors; men of education and aspiration, the greater part of them college men, who twenty years earlier would have gravitated to the ministry or the law, but who had an artistic impulse that would not be satisfied in these. They found architecture already a profession, calling for a definite professional education. They took possession of it, and they and their successors have given to Boston its prestige as a city of architecture. Among them was Charles A. Cummings, the second president of this Society, whose honored life we commemorate to-night.

I have stopped to say these things because they mark the conditions under which he began his practice; conditions that influenced the quality of his work, and gave tone to his career. They are in a way an index of the professional position in which he began his practice.

Mr. Cummings's advanced schooling was in the Van Rensselaer Polytechnic Institute, and his architectural study was in Mr. Bryant's office, where he met Mr. Sears, who afterwards became his partner. His fondness for knowledge was great, his artistic instinct strong; before he began practice he took a long professional tour

through Europe and Egypt—a thing not so much a matter of course then as now—and on his return opened an office for himself. After a year or two of solitary work he made a partnership with Mr. Sears, a partnership which lasted with singular felicity and efficiency as long as he continued in practice.

This was a most stimulating period in our architectural evolution. The note of the time was innovation. Independence was in the air. The self-reliant architect had unlimited opportunity to embody his aspirations and experiments; could bring all the arts into his service. Architectural books and journals, richly illustrated, photographs, new processes of reproduction; these put before him an abundance of precedent such as had been before unknown, and were soon to become, as the late Mr. Van Brunt used to say, an embarrassment and a snare to the young designer. The Gothic movement in architecture and the Romantic movement in letters were behind the architect; the excitement of novelty was his continual spur. It became the doctrine of the day, new to our people, that the architect should be an artist broadly versed in all the arts; that the correlation of the arts in great monuments and great cities should be his special study. The doctrine was as old as Vitruvius, was the foundation of the practice of the great artists of the Renaissance; but it came like a new gospel into our profession here, and all our young architects made haste to illustrate it. The buildings of our cities took on a new aspect. There was no better representative of the new spirit than Mr. Cummings. He had a ready invention, a wider range of resource than most, a sober judgment and refined taste that held him back from unprofitable vagaries. His work from the beginning showed a dignity and sobriety that lent it character, and so it was in pleasant contrast to much of the work of those rather fantastic days. His designs were greatly varied; their composition was always well arranged; their detail animated and graceful. Perhaps their chief distinction was a certain tranquil elegance that was certainly not the common characteristic of our revival.

I have not time nor opportunity to consider his buildings in detail. The earliest that I remember, the Macular-Parker building, designed in what we then called the Italian style, attracted much attention by its elegance, and still stands in witness of him. He did not work long in this style, for his travel in Italy had sent him home an ardent mediævalist, and the invasion of the Victorian Gothic, which swept over our country in the sixties, chiming in with his own inclination, turned him quite away from Classicism. But he was too independent to give himself over to the Victorian movement. The broadly pointed arches and the fair surface of the Italian Gothic buildings tempted him more than the buttresses, the sharp arches and crowded mouldings of the English. His liking for polychrome effect led him in the same direction. The polychrome treatment certainly was Victorian, but it was really un-English; and Mr. Cummings' tendency was, apart from the drift of his fellow architects, into a manner of his own. He was a reader and admirer of Ruskin,

though not a devotee, and one of his earliest buildings, the Mason & Hamlin building, beside the Common, is a graceful adaptation in plain white marble of Venetian forms, into which he may very well have been led by the study of Ruskin's writings. It still stands, but commercial exigencies have robbed it of the elegant loggia at its base that was its distinction.

The burning of Boston in 1872 was the greatest opportunity and stimulus that her architects ever had, and Mr. Cummings' firm, in which, as I understand, the designing fell mainly to his share, was very busy in covering the burnt district with new commercial buildings. It is interesting to see how readily, artist and student as he was, he bent his ideas to the new forms and multiplied fenestration that were called for. Much of the work of that period is already displaced, but several of his buildings on Devonshire Street are left to show how decisively he could sink the restraints of style in favor of practical wants. The Montgomery building on Summer Street is more characteristically Italian than most, for all its Victorian roof, and shows the graceful trend of his design undismayed by commercial restrictions. A competition design for a bank building, which appears in Volume II. of the "Architectural Sketch-Book," is a very happy example of the play of his fancy, when it was untrammelled. It does not appear to have been carried out, and I doubt if the designer himself would have chosen it for a bank in his later years; but it is a charming composition almost purely Italian, worked out *con amore*, and with an easy command of delicate detail that would have done credit to Sir Gilbert Scott.

His sense of style was keen; a natural product of the feeling for harmony in all things that was essential to him. Yet he was very independent in his conceptions and very far from being a pedant, as the buildings which I have quoted may show; indeed, pedantry has not been the vice of American architects. His magnum opus, the New Old South Church, with its stately campanile, is an illustration of his free handling of his chosen style—in subservience to the exactions of Congregational worship—of the abundance of his resources and of the sumptuousness of detail in form and color that he had at command when the occasion allowed it. He did but little in other styles after he was actively busy, I suspect; but I recall one city house on Clarendon Street that he designed for Mrs. George Fiske in the modern French manner, which showed that he could successfully express himself in another language, if there were need.

With all his artistic quality and fineness of instinct, the background of Mr. Cummings' character was an eminent sanity of mind, a fairness of judgment that made his counsel valuable in practical matters and public questions. He was one of the founders of this our Society; at one time, if I remember rightly, its secretary; later its vice-president, and as you all recall, for a number of years, its president, following Mr. Cabot. As a member of many committees, both of this Society and of the American Institute of Architects, he did long and useful service to our profession. He served on many public committees—on

the commission for preserving and restoring the Massachusetts State House, later on the city's Art Commission. He was a director of the Boylston Bank, president of the Permanent Committee of the school at the Museum of Fine Arts, trustee of the Boston Athenæum and of the Museum of Fine Arts. The memory of his colleagues and in many cases public record are witnesses to the faithfulness and amenity with which he performed these important duties. The last of his public services, and characteristically enlightened ones, are the bequests in his will of ten thousand dollars to enlarge the architectural equipment of the Boston Athenæum and of fifty thousand dollars to the Museum to found and maintain a collection of representations—"whether medals, casts, paintings, drawings or photographs," of the best architecture of all ages.

But to those who knew Mr. Cummings well his personality was the first thing. Like all men of real individuality, he was more than his work, excellent as that was. His interests were so wide, his cultivation so general, that he was one of the most interesting of companions, one of the most valuable of friends. If you visited him at home, you found his study table covered with stimulating books, his walls with clever sketches and pictures. His taste was as sure in literature as in art. A great reader, he was also a graceful and suggestive writer on purely literary topics as well as on professional. In his younger and more leisurely days he wrote much for reviews and magazines, especially for the *Christian Examiner* in its palmy times, under Dr. Hedge and Mr. Hale. Afterwards he was an important contributor to the literature of our profession. He had a large share in the writing of Scribner's "Encyclopædia of Architecture in Italy, Greece and the Levant," and furnished articles to Mr. Sturgis' "Dictionary of Architecture and Building." He wrote the architectural section of Dr. Winsor's "Memorial History of Boston." His chief literary work is his "History of Architecture in Italy," extending from Constantine to the Renaissance, which by virtue of its breadth of scholarship, its sanity of judgment and interest of presentation treats this difficult subject more successfully, I think, than any other book in our language. The same qualities which made his published writings interesting and valuable gave charm to his correspondence and conversation.

We have lost a valued associate; a rare example of the best in private, in public, in professional life. Absolutely without self-seeking, he received ample acknowledgment: whatever of general recognition, of positions of trust, of public confidence, was natural to his profession, was given him in good measure, with no shadow of rivalry. To his intimates the loss of his friendship is very great. It is not common to meet a personality so generous and so upright, a mind open on so many sides, with so much charm of fancy and of thought, a companionship so winning—I suspect in these eager, strenuous, prosaic days it may come to be rarer still. If you have such friends, cherish them; when you lose them, it will not be easy to replace them.



MR. RED DANIEL WEBSTER

ET US DEVELOP THE

Photo by Edmund A. Brush

THE OFFICE FORCE OF HOLABIRD & ROCHE, ARCHITECTS, CHICAGO

Portrait Group taken in the Senate Chamber of Minnesota State Capitol at St. Paul, October 25, 1905. The group includes Architects George E. Carsley and T. G. Holyoke of Cass Gilbert's office, F. S. Hansen, Secretary of the Capitol Commission, and R. C. McLean and Joseph T. Mannix of the Western Architect

ONTARIO ARCHITECTS SCHEDULE OF CHARGES.

The revised schedule of charges is just issued by the Ontario Association of Architects. In general, the practice is similar to that of the American Institute of Architects, the main difference being found in the scale of charges effecting different classes of structure.

SCHEDULE OF MINIMUM CHARGES.

For full professional services the charges will be as follows:

1. For factories, 4 per cent. For churches, schools, opera houses, office buildings, warehouses and public buildings, 5 per cent. For residences, from 6 per cent to 8 per cent.

2. For alterations and additions a charge in excess of the above is made for measuring and plotting the existing building, work becoming part of the new design is included in the amount and for the extra work of supervision; and the value of all old upon which the commission is computed.

3. For selecting or purchasing mantels, stained glass furnishings, fittings, fixtures, carpets, wall papers, curtains, etc., and for giving general instructions for and supervising decorative work, 10 per cent.

4. For designing decorative interiors, mantels or other fittings, furnishings, from 10 per cent to 25 per cent.

5. For designing furniture, sculpture, monumental or other special work, the charge should be regulated by special circumstances and conditions.

6. The commissions above are reckoned on the total cost of the building when completed, including all fittings and fixtures of every kind necessary to render it fit for occupancy, and if any material or work used be already on the ground, or come into the possession of the owner apart from the contract, the value is to be added to the sum actually expended before the commission is computed.

7. The following are the professional services included in the above charges: the preparation of necessary drawings and specifications, such detail drawings as the architect considers necessary to insure the carrying out of his ideas, a general supervision of the work, and the examining and passing of accounts—exclusive of measuring and making out extras or omissions.

8. The supervision of an architect, as distinguished from the continuous superintendence which may be secured by the employment of a clerk of the works, means such occasional inspection by the architect, or his deputy, as he finds necessary to ascertain the general character and progress of the work, and to enable him to issue certificates of payment as provided in the contract. When the client desires to have closer superintendence than the architect's supervision, it will be necessary for him to employ a clerk of the works. On buildings where it is deemed necessary to employ a clerk of the works, he is to be paid by the owner in addition to the commission paid to the architect. The appointment and dismissal of the clerk of the works is to be subject to the approval of the architect.

9. For partial service, or in case of the abandonment or suspension of the work, the commission is as follows: preliminary studies, one-fifth of the full commission. Preliminary studies and general drawings and specifications sufficient for estimate and contract, one-half of the full commission. Preliminary studies, general drawings, specifications and details, four-fifths of the full commission. Where the drawings, details and specifications are prepared by one architect, and the supervision undertaken by another, the latter is to be paid two-fifths of the ordinary commission, which with the four-fifths for drawings, etc., will make the total charges 20 per cent in excess of the commission where but one architect is engaged.

10. Payments are successively due as the services are rendered in the order of the above classification. Until actual tenders are received the charges are based upon the estimated cost.

11. When alterations (either additions or omissions), are made to the drawings or specifications after the client has approved the design, or when changes are made in the building as the work proceeds, an additional charge is made.

12. The above commissions are for work executed within the city limits. For work beyond those limits a charge will be made in excess of the above, and all travelling and other incidental expenses being paid by the client.

13. None of the charges above enumerated covers the charges for professional services in connection with the negotiation for sites, or agreements respecting party walls, nor for services consequent upon the failure of builders to complete contracts, disputed accounts, or measuring and valuing extras or omissions, or subsequent litigation.

14. The services to be performed by an architect do not include the preparation of contracts or other legal work.

Clients are to pay for advertising, for tenders, journeying, and other incidental disbursements.

16. Drawings and specifications, as instruments of service, are the property of the architect.

17. The charge per day which may be made by the architect will depend upon his professional standing, but the minimum charge is to be \$16.00 per day of eight hours. Time occupied in travelling will be charged for at the rate of \$2.00 per hour, if in office hours, and \$1.00 per hour if out of office hours.

18. Consultation fees for professional services, or commission for valuations, will be charged in proportion to the importance of the question involved. Time spent by the architect in visiting for professional consultation, and in the accompanying travel, whether by day or night, will be charged for, whether or not any commission is given.

Toronto, Aug. 1905.

AN ARCHITECTURAL FIRM'S EXCURSION.

The Chicago Architectural firm of Holabird & Roche, gave to its employes an excursion to St. Paul, Minnesota, on October 25th, the object being a visit to the State Capitol. Headed by Mr. E. A. Renwick, of the firm, thirty-five of its employes occupied a special car on the Pioneer Limited, arriving at their destination in the morning and returning in the evening.

The party was met at the Capitol by Mr. George H. Carsley representing the Architect, Mr. Cass Gilbert. Under Mr. Carsley's direction, assisted by Mr. Thomas G. Holyoke, Mr. Frank T. Hansen the Secretary of the Capitol Commission, and R. C. McLan and J. T. Mannix of the Western Architect, every part of the structure was inspected.

The visitors were entertained at lunch by Mr. Carsley in the restaurant of the Capitol, and in the evening the architects invited their friends to dine with their party at the West Hotel.

Though this is the first time in the west that an architectural firm has taken its force of draftsmen such a distance, to inspect a finished structure, its chief significance is in its educational feature. The Gustavino dome construction was particularly interesting to the visitors, and the harmony of color in marbles and mural decoration, and the general plan upon which the grouping of columns, the vistas through corridors, etc., was displayed, awoke general enthusiasm.

Those in the party were; E. A. Renwick, R. G. Holabird, M. A. Auger, F. M. Carroll, F. J. Theilbar, George Schell, F. W. Denijer, G. Hammer, J. B. Blake, Donald Frazer, G. F. Graves, W. A. McDougall, Harold C. Ferree, E. Roy Sholes, L. R. Broadway, F. L. Sutherland, Swan Ingerman, C. F. Austin, O. D. Whittaker, Joseph D. Kopp, M. A. White, W. R. Smythe, W. J. Denigh, C. R. Perceval, Chas. D. Barnes, Irving G. King, K. A. Raltze, Joseph Ludgin, Paul V. Hyland and F. B. Long.

ASSOCIATION NOTES.

MEMPHIS ARCHITECTS.

The architects of Memphis, Tennessee, have formed a preliminary organization for the purpose of "promoting the observance of professional ethics and furthering development of civic improvements." A movement toward securing concerted action for obtaining the passage of a state license law was also considered.

The society will be chartered and named as soon as the constitution and the by-laws have been drafted. At a meeting held September 22 a committee of three was appointed to prepare the constitution and by-laws and make application for a charter by the temporary chairman. J. B. Cook, to report at a subsequent meeting to be held at the call of the chairman.

IOWA CHAPTER A. I. A.

The Third Annual Meeting of the Iowa Chapter of the American Institute of Architects was held at Des Moines on September 19th. The principal business of the meeting was the discussion of the advisability of securing an architect's license law for the state of Iowa. Letters on the subject had been received by the president from W. S. Eames, president of the American Institute of Architects, and also Glenn Brown secretary. The former said in part:

"Your present constitution and by-laws are in thorough accord with the principles and aims of the institute. The matter of a state license law is open to question. It has been most thoroughly tried in the state of Illinois, with apparent success, but the conditions in other states may prove unfavorable to its adoption. There certainly can be no harm in the passage of such a law, for the reason that it is a public recognition of our profession, and I suggest that if conditions in Iowa are such that a license law would at the same time benefit the practitioners in that state, you would be materially aided by the advice of the board of examiners of the state of Illinois, Mr. Peter B. Wright

being secretary of that board, and deeply interested in the subject. I certainly hope for a successful meeting of your chapter and can assure you that the status of our profession is being constantly improved by the support of chapter work on the lines adopted or projected by the Iowa chapter."

It was the general sense of the meeting that it would be advisable to apply to the State legislature for such a law, but nothing conclusive was done and the matter will probably be referred back to the board of directors for discussion at the next meeting.

The officers elected for the year as follows: President, Wilfred Beach, Sioux City. Vice president, Park Burowa, Davenport. Secretary and treasurer, F. J. Heer, Dubuque, Executive board, George E. Hallett, Des Moines; John Spencer, Dubuque.

PITTSBURG CHAPTER, A. I. A.

The City Building Inspector of Pittsburg has invited the members of the Pittsburg Chapter of the American Institute of Architects to assist him in preparing data for certain changes in the local building laws. The existing law in Pittsburg in reference to high steel frame and fire-proof buildings is not what it should be, and the city is without a specific law pertaining to the construction of concrete buildings. The inspector, realizing that the architects are thoroughly versed on construction laws in general, and understand just what is needed, believes that by conferring with them adequate laws can be arranged for and changes provided for that will make the present laws more satisfactory.

BROOKLYN CHAPTER, A. I. A.

An election dispute enlivened the annual meeting of the Brooklyn Chapter of the American Institute of Architects at the Moutauk Club on November 27, when the Washington Hull ticket, headed by Charles T. Mott, was defeated. Several members left the meeting with the threat that they were leaving the chapter. The successful ticket was as follows: President, F. H. Quinby; vice-president, A. Mackintosh; surveyor, S. W. Dodge; treasurer, Henri Fouchaux; secretary, H. S. King. Directors: I. E. Ditmars, J. M. Hewlett, Charles T. Mott, A. G. Thompson, J. J. Petit, W. E. Parfitt, A. J. McEntree, A. F. Buys. A friendly competition between candidates for office in chapters is beneficial, and while, as in this case, certain acrimonious elements will sometimes disturb the desired harmony, it is not serious enough for members to "leave the chapter." In fact this is just the time when the chapter most needs the membership of all its conservative members, and its best interests should be loyally sustained, because it is the chapter, and not the conduct of certain individual members which counts.

OBITUARY.

ADOLPH CLUSS.

To the older members of the American Institution of Architects the name and familiar figure of Adolph Cluss is one of pleasant memories, for his place was that of a strong, conservative, member and genial friend. Mr. Cluss' death which occurred at his home in Washington, D. C. on July 24, was directly caused by heat prostration, which occurred about a week before his death. For several days he was confined to his chair, and then was forced to take to his bed, from which he never arose. During his illness and since the announcement of his death many friends have visited the house and shown the greatest interest. Among his closest friends, Mr. Cluss numbered President Grant, Gen. John M. Wilson and other men high in official circles at the national capital. He was asked to submit a design for the Grant meorial tomb in New York City, and did so, winning the first prize for the structure. But upon the decision of the management of the enterprise to give the work to a New Yorker, his plans were not used. He received the prize money, however, and nothing was detracted from the credit of his work.

Heilbronn, Wurtemberg, Germany, was the birthplace of Adolph Cluss, who early began the study of civil engineering and

architecture, as well as academic subjects. He entered the practice of his profession in Mayence. He came to this country in 1843 and filled appointments in the technical branches of the United States Coast Survey and Navy and Treasury Departments until the outbreak of the civil war. When the junior naval officers of the navy had been absorbed by the sea service he was given a confidence position with Admiral John A. Dahlgren in the ordnance ward of the navy, having become a close friend of that officer. During the time he had charge of the ballistic pendulum and the experimental battery of the navy, testing new inventions, etc. His work there won for him considerable recognition.

He was intrusted with work under the district government while he held this position. Competitive tests were necessary before he was given this latter employment, and he measured up to the requirements. He worked out many engineering and architectural problems for the local government. Some of his designs in this way were awarded gold medals for "progress in the school architecture" at the World's Fair in Vienna in 1873 and in Philadelphia in 1876. A great many of the older school buildings of Washington were built from his drawings. His official reports and personal efforts brought about the substitution of covered vaults, subsoil drainage and sewerage for the offensive nuisance of Tiber Creek, which ran through the heart of the city.

As stated, he designed the Department of Agriculture Building. He also reconstructed the building of the Smithsonian Institution after it had been burned. The designing of the new government printing office was one of his latest achievements. He also designed the Masonic Temple in Washington and the Concordia Opera House in Baltimore.

In 1872 a commission was tendered him by President U. S. Grant as the technical member of the board of public works of the District of Columbia, which inaugurated comprehensive systems for the grading, sewerage, paving and ornamenting of streets and avenues, laying out of numerous parks and reservations and the planting of 75,000 shade trees, which have converted Washington into "the city between trees." This board expired by limitation in June, 1874.

He designed the building for the National Museum in association with Paul Schulze which contract was obtained after a limited competition among architects in 1877, and built the Department of the Interior and present office buildings after the fire of 1879 with the fireproof construction. The whole interior architecture was independently designed and rearranged in Italian renaissance, while harmony with the classic Grecian architecture of the exterior was maintained. An extensive practice in all branches of private and corporate, ecclesiastic and regular work, most of it above utilitarian and tending toward the monumental type, had been accumulating since the civil war.

In 1890 he became inspector of the public buildings of the United States throughout the country and continued as such until 1895. Later he assisted on problems intrusted by Congress to the chief of engineers of the army, Gen. J. M. Wilson, and generally on technical consultations, preferring in general practice to give way to younger generations.

Mr. Cluss had been an active member of the American Institute of Architects since 1867.

EDWARD THOMAS AVERY.

The supervising architects office of the United States loses a valuable and honored employe in the death of Edward T. Avery, which occurred November 20th, at Washington, D. C. For the past twenty-five years Mr. Avery has been in the employ of that department in different capacities, among them being inspector of public buildings and general agent. Originally of an artistic temperament Mr. Avery gave considerable study to photography in his youth, and planned to perfect himself in that art, but his attention being turned to architecture he entered the profession in the office of William A. Potter, of New York. He was a teacher of drawing for seven years at the Cooper Institute

and entered the government service in 1873 as superintendent of construction of the custom house and postoffice at Fall River, Mass. After the completion of this work he was attached to the supervising architect's office. Besides being an artist and constructive architect he was an accomplished scientific scholar. He was for seven years a member of the 22nd regiment of the New York volunteers and served through the civil war.

STEPHEN VAUGHN SHIPMAN.

Among the older architects of Chicago, one of its best remembered and honored by those who were so fortunate as to know him, was Colonel Shipman, who died on November 11 in that city. A wound in the thigh, received during the Civil war, while in command of the First Wisconsin Cavalry, always troubled him and was a constant reminder to his friends of his service to his country in war, as his architectural work afterward was always dignified and practical. He lived in Madison, Wisconsin, where he designed the dome of the old state capitol, till 1871, when he removed to Chicago and became actively engaged in the rebuilding of the city after the great fire, and was actively identified with many of the important structures which have been built since; his work, though finally placed in the hands of his son, having his careful counsel up to the time of his death at the age of 80 years. He designed many of the state institutions of both Illinois and Wisconsin and was an authority on the planning of hospitals.

A conservative, kind-hearted, and broadly informed man, he left his impress upon his time. He became a member of the American Institute of Architects in 1884.

W. C. ALBRANT.

The death of W. C. Albrandt, of Fargo, North Dakota, is announced. Among the younger and energetic architects who are bringing to the far western towns the art and architectural advancement of the older cities of the East, Mr. Albrant was typical. He was born at Winchester, Ontario, June 24th, 1871. In thus leaving at its commencement a career in which he was but fairly launched, the many friends who mourn his loss feel that a valuable force in the upbuilding of his adopted city has been taken away.

SOUTHERN RAILWAY BOOKLETS.

It is probable because the Southern Pacific railway traverses the garden spot of this country, that the literature descriptive of California, distributed by the passenger department, is the most attractive of any scenic descriptive matter which is issued. Though in letterpress and photographs, such books as "California South of Tehachapi," "California and the Coast Country" or "The Yosemite Valley," make plain statements of facts, these facts take on the tinge of romance and give to the dweller in more northern latitudes the feeling that he is reading some of the tales of the old Spanish explorers, and the photographs of the farms and orchards seem like artists' fairy pictures, and those of the mountain-protected valleys remind one of the tale of Rasselas. But the tale is true and the photograph cannot lie, for this country of California, in its diversification of scenery, its wildness and grandeur, in its natural aspect and the high art displayed in its architecture, both in its past and present, cannot be surpassed.

The distribution of these booklets brings all these beauties before the people in a practical way, and when one remembers that the Southern Pacific Railway, that brings the products of this garden spot to the less favored communities, can take the traveler, whatever may be his object, to the center of these scenes in a few hours the marvel grows, and the interest excited by a brief description, extends into a contemplated journey, which soon becomes an actual experience. We have seen many photographs of the Garden of Gods; El Capitan, that monarch of the Yosemite, and of other wonders of that remarkable valley, but none have surpassed those reproduced in this Southern Pacific Railway booklet, descriptive of the Yosemite valley.

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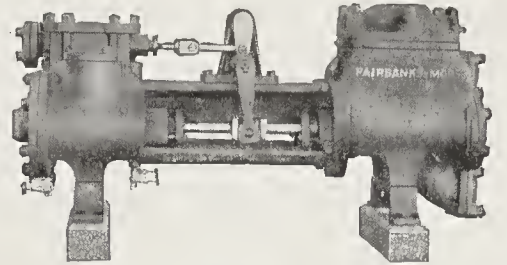
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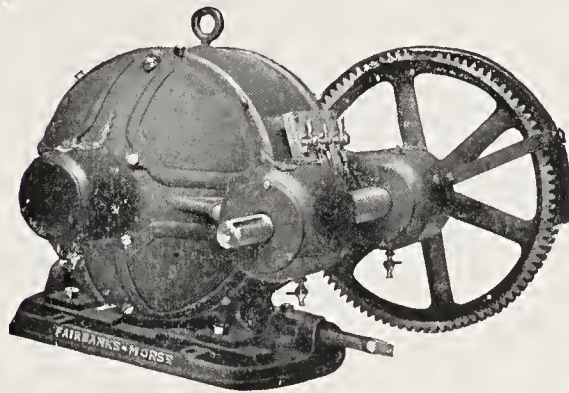
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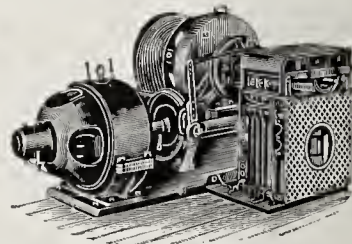
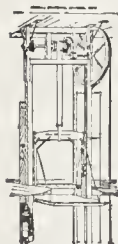
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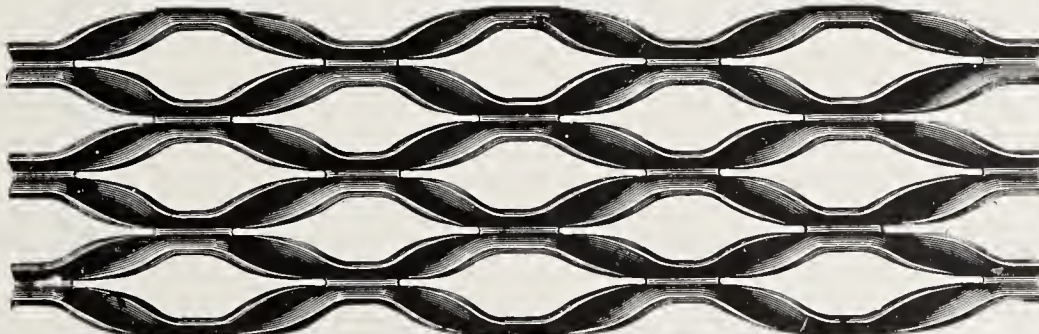
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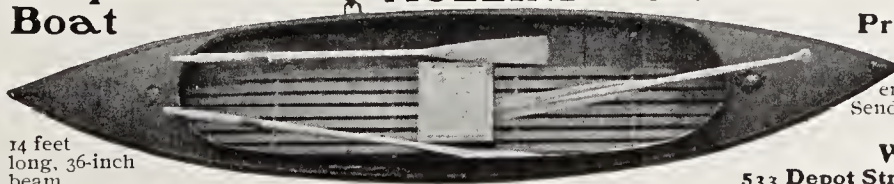
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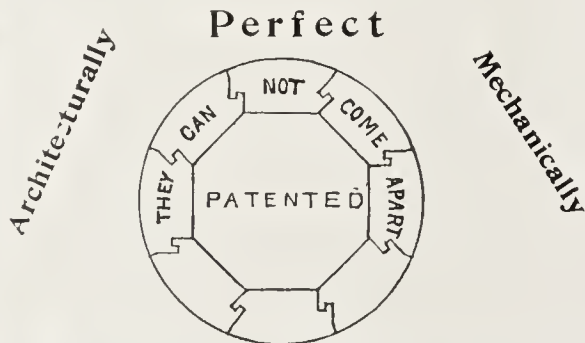
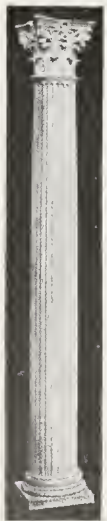
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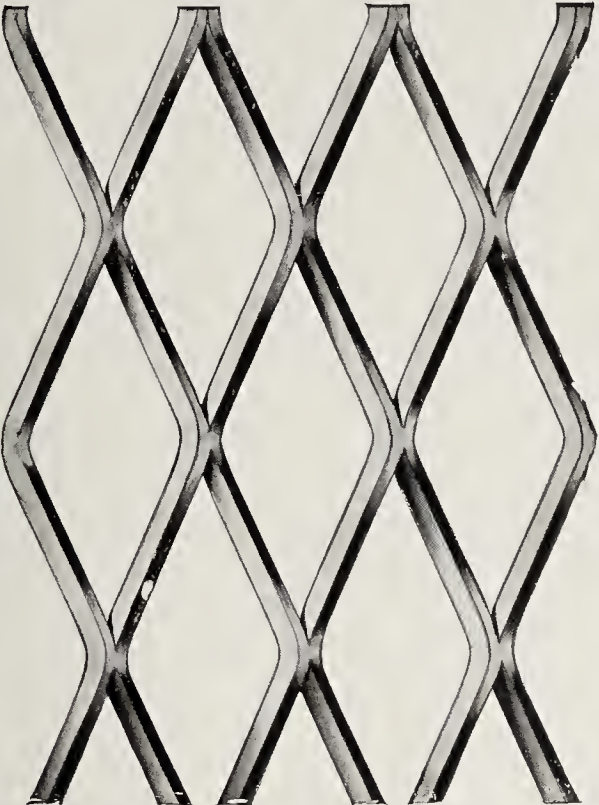
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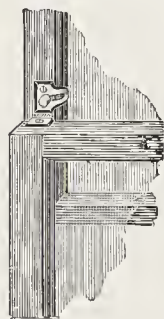
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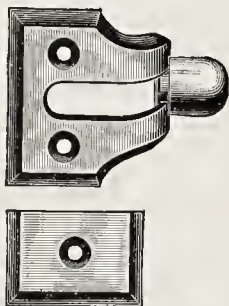
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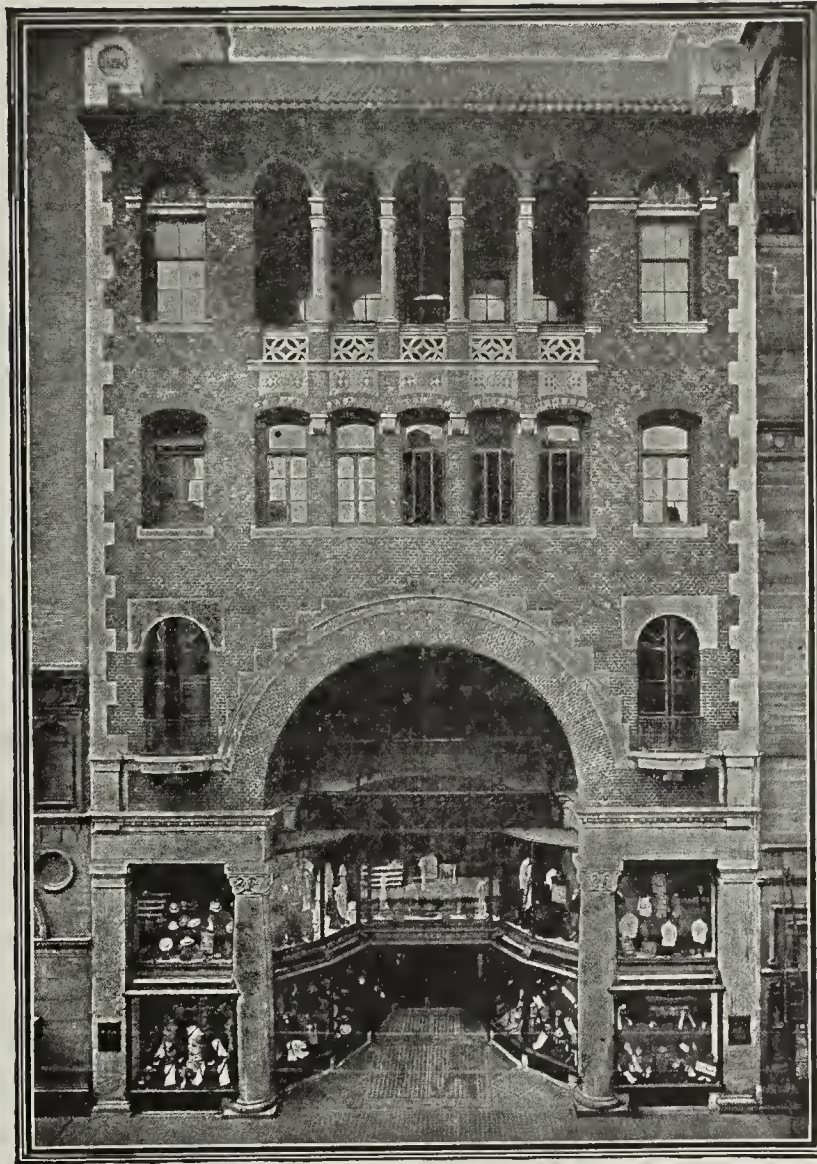
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