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MR. JOSEPH PENNELL goes on record in a magazine article with an opinion that Whistler was "the greatest etcher and most accomplished lithographer that ever lived," illustrating by reproductions of selections from the works of Whistler and Rembrandt intended to show how these masters treated similar subjects. In Mr. Pennell's estimation, the plates do show the "absolute triumph" of Whistler's treatment.



BUILDING codes will be held in greater esteem for a period dating from the Iroquois theater tragedy. There will be for a time careful inspection of appliances, and fire drills also. Then all will become an old story and this sort of history will repeat itself.

By-the-way, it seems not to have occurred to any one before that an asbestos, or other fire proof curtain that works well under ordinary circumstances, will be pretty sure to "stick" when the powerful draughts set up by a real fire rush through the proscenium opening—draughts which are supposed to be emphasized and diverted so as to insure safety to audiences.

THE great theater horror brings to light two kinds of executive—one closes audience rooms until made over to meet legal requirements, the other lets the playing proceed with the repairing. The first kind is getting most of the abuse—and quicker and surer action.



As a rule, in disasters of the magnitude of the Iroquois theater fire, it is impossible to locate the blame so definitely as to remove "reasonable doubt." The evidence points strongly to careless and faulty electric installation, the same to which the Iowa capitol fire is attributed.

It will be noticed that nearly all such disasters come from the work done after the building is completed and not from defects in wiring of the building proper.

This carelessness with wiring for the changing needs of occupants of buildings, is far more apt to escape the vigilance of building inspectors and insurance interests than is the work done at the time of construction. To reduce these risks as far as may be, buildings need to be inspected at short periods after occupancy with even more skill and care than at first. It is needless to say that the ordinary building inspector's force could do this—they have more than enough to occupy their time in looking after construction proper.



REPORT No. IX. from the Insurance Engineering Experiment Station refers to the protection of steel from corrosion, and will be found quite comforting to people interested in building, if we except painters. Earlier reports establish pretty clearly the great preservative effect of Portland cement upon clean surfaces of steel, but this deals with its effect upon steel in all stages of corrosion. Pieces of scrap were obtained from all sorts of places, and were only cleaned by jarring off the loose scales and brushing off loose particles. Some were encased in crushed rock and others in cinder concrete, while still others were unprotected. The noticeable thing about the trials is that when the covering of concrete was perfect, corrosion ceased. The report indicates the sufficiency of this concrete for protecting steel in all the situations common to building, if we except the electrolysis set up in moist places by fugitive currents. Paints have not thus far received very thorough testing, nor have they succeeded in impressing the experimenters as having more than quite temporary preserving power.

Mr. Atkinson's report of the work of the station for the year comes unfortunately too late for publication in this issue but will appear in our next.

GLIMPSES from the threshold of the new year indicate less turbulent times in the building world than for some time past. This does not of necessity mean less accomplishment—it may mean more. The past year and a half have witnessed enough disturbing causes to form a list, and most of them have stood in the way of efficient production. It is the custom to place what are commonly termed labor troubles at the head of this list, and this department will not attempt a re-arrangement—it has already gone on record with an estimate that during the height of the period of marking up prices, which period covered much change from the ten hour to the eight hour day, the effectiveness of the day's work fell off one-third, more often than less. The exceptions were mainly where the loss was offset by improved methods; but improved methods are quite apt to come in slack times rather than during a rush of orders. Apart from labor troubles, people who have wanted things done have encountered a sort of top-heaviness at every turn.

Old houses who had an established reputation for prompt service were found to be "expanding" or "merging," perhaps, at any rate the old order was succeeded by a sort of hopeless circumlocution—accomplishment by indifference and irresponsibility. Cases might be cited where these changes called for pity as well as indignation—where houses with reputations of the best seemed powerless to prevent insufferable delay and the filling of orders with inferior goods. Prominent in the list, perhaps it should be at the head, is the fact that the period has been prolific in attempts at monopoly in several lines of production, which tendency, if appreciably successful, is enough of itself to derange the course of healthful business. When, for instance, a mammoth concern becomes so well entrenched as to undertake to make its dividends equal its disbursements for salaries and wages, its customers are in luck if they can transfer their trade to others.

Combinations of workmen have generally, during this period, been monopolistic in their nature, their prime objects being a raising of prices and reduction of supply. Unfortunately, workmens' organizations have not impressed the public as tending to improve the character of workmanship. Unionism might stand far better with the public today, had it coupled with its demands for higher wages and shorter hours, a higher standard of skill and promotion of technical schools.

This inflated period has, however, witnessed some combinations not monopolistic and reactionary in character. The Association of Portland Cement Manufacturers, representing some 90 per cent of the output of the country, have been at work along the lines of real progress. Realizing that the future of the Portland cement market depends upon the record it makes in use, they have set about into one of uniformity—establishing a uniform and reasonable standard. Seeing the great market that has been bringing the present chaotic systems of tests or no tests worked up by combining concrete and steel threatened by the enterprise of all manner of quack designers that are rushing into this field—the remarkable mixtures and

combinations of these quacks have already produced great scandal by a long list of failures—they have set themselves resolutely to head off this quackery, by enlisting the co-operation of the Iron and Steel Association, the American Society for Testing Materials, the American Society of Civil Engineers and the American Institute of Architects, with a view of formulating definite information and setting some safe bounds for these concrete steel mixtures. These societies, one of which has a financial interest in common with the cement workers, are responding in a way that gives promise of much definite information for one thing, but what bids fair to be of greater benefit to the public, will be the semi-official setting of proper limits for these combinations, after which nobody will have excuse for taking his chances with the quacks.

The question of cement tests has been taken up by committees of two of the above associations with which the American Railway Engineering and Maintenance of Way Association and the engineering departments of four large railway systems are co-operating.



PRESIDENT PRITCHETT of the Massachusetts Institute of Technology, who, it will be recalled, was the first American to have the distinction of a trip on the experimental fast German railroad, has upon returning home, given his impressions of how the Germans go about things scientific and industrial. Dr. Pritchett's equipment must have enabled him to get a much better insight into the methods employed there, than falls to the lot of most observers, for he readily accounts for modern German progress. Over there, experts or "engineers" of achievement have come to be regarded with the same respect and consideration that is accorded to men of distinction in other professions, and they have a way of attacking a problem in a body, receiving good support from the government and from private interests that are affected. For example, some years ago it occurred to a number of electrical experts that trains might be made to run much faster, so they proceeded to form a typical German organization, the "Studiengesellschaft für Elektrische Schmittbahn," or "Student Association for the Study of High Speed Electrical Transportation." This association readily obtained the financial assistance of two principal German railroad corporations, and received from the government the use of 15 miles of track not far from Berlin. This was not a military road or experiment as has been so often reported. The association set out to accomplish 130 miles an hour, and having succeeded are likely, in Dr. Pritchett's opinion, to be satisfied with that speed. The day of his visit to the road was foggy, and the runs were not allowed to be made at more than 110 miles per hour, as "high speed was considered unsafe."

The German technical schools have been raised to a par with the universities, and the position of the industrial expert in German social life is such as to attract young men who, in England, would think there was nothing for them short of the army, the navy or the church. Dr. Pritchett's account of the relation of the Kaiser to this great industrial movement, will be a surprise to

most Americans who have only had a chance to judge him from his political antics, domestic and international. He has usually impressed foreigners as a belated old testament person, sadly afflicted with what the school mistress called "an elevated self-consciousness." In reality he is greatly interested in German scientific and industrial advancement, bestowing his favors liberally upon the experts who make their mark, and the prominence given to technical education is largely by his favor.



Of the many comments brought out by the discussion in our December issue of the effect upon building interests of the present methods of inspecting cements by city authorities, few have failed to note the absurdity of the situation. One dealer, who is also a large contractor of paving and sidewalks, makes merry over a situation in which cities select the best cements on the market for use in sidewalks and pavement foundations, leaving rejected goods for the structural work of buildings.

Below we publish three of numerous letters received from architects showing a strong sentiment in favor of some action. Mr. Koch says that dealers who have offered cements that failed to stand tests have told him that they would sell the rejected stuff to others less particular. Mr. Gilbert suggests a government inspection, and such a system might have its advantages for it could be done at the mills and would save the cost of shipping rejected goods away from the mills. It would also do a great deal for the reputation of manufacturers whether they valued their good names or not, for if they were not allowed to ship undesirable goods they couldn't help but be of good repute.

Government inspection at the mills might prove to be less costly, also, than city inspection, and would have the further advantage of benefiting all users, while inspection by cities, unless practiced by all, would have the effect of making cities with lax inspection or with no inspection, the dumping ground for rejected and poor cements.

But long before a sufficient sentiment can be worked up to get congress to act in such a matter, it will be possible to induce city councils to provide for adequate cement inspection within the limits of their jurisdiction, and dealers in cement cannot do better than to help in this way to put the business on a sounder basis. The attention of the building world is being turned toward many new uses for cements. Not only are concrete foundations and footings displacing stone, but the manufacture of hollow concrete blocks for superstructures is being undertaken here and there with a determination that indicates a future for the business. Cements are to be had for these that leave nothing to be desired in color, but let the public once lose confidence in the material and the industry will be short-lived. To get a notion of the advantage to a business that comes from public confidence, one has only to look at the enormous expansion of the candy trade in this country since the time that a larger association of makers of confectionery made a standing offer of a very desirable sum of money to anybody who would bring legal proof of the sale of any candies containing

harmful ingredients. Of course this offer, to be effective, had to be backed by pure food laws. So also, local or general laws as to the character of cements will be needed as a preliminary to reforming present conditions.

New York, Jan. 4, 1904.

The Western Architect,
Minneapolis, Minn.

Dear Sirs:—

I strongly favor that rigid cement tests should be made by public authorities, either state or municipal, and if practicable, believe that tests should be made by U. S. Government authorities, so that they might be uniform all over the country.

A system of government inspection obtains in Germany, and as a result German cements have reached a high degree of development and are acceptable in any market.

I believe that cement tests should not only be made in small briquettes, but that they should from time to time be made in fairly large blocks of concrete and brick masonry, and I see no reason why they should not include tests for crushing strength as well as the usual tests of tensile strength.

My experience has been that cement is generally used wastefully, and economy in building operations would ensue if it were understood that the cement used could be relied upon. At the same time a larger market would be made for cement by careful tests thereof which would be authoritative.

Respectfully,

CASS GILBERT.

Milwaukee, Wis., Jan. 2, 1904.

The Western Architect,
Minneapolis, Minn.

Gentlemen:—

It is our opinion that all cements should be thoroughly tested by Public Officials, whether for use of public improvements or used by individuals.

We have had considerable experience with cements on large works. We have used some of the best cements manufactured in the country and even then by a close and careful inspection we were obliged to reject from 20 to 25 per cent of same.

The dealers from whom the cement was purchased did not care whether it was rejected or not, as they informed us that it would be taken to some job where the people were not so particular as we are.

This illustrates the general practice in this city. Those that do not make a careful inspection will get the rejected cement. What is needed, in our opinion, is that the various municipal authorities should enact ordinances and laws that all cements, whether for public or private use, must be thoroughly tested upon strict rules of test that ought to be formulated by expert engineers or architects.

We should be pleased to give this move our hearty support and will make an effort that our city enact the proper ordinances and laws for such testing.

Respectfully yours,

H. C. KOCH & CO.

Minneapolis, Minn., Jan. 8th, 1904.

The Western Architect,
City.

As to the desirability and need of a more thorough inspection and test of cements used in building construction, there can be but one opinion, and that is that it is both needful and desirable.

This department is not equipped with the necessary apparatus to make such tests and depends largely upon the general reports of the City's Inspector of the City Engineer's Department in regard to the results of tests of the different brands used by the city on municipal work. Although said inspector does, upon request, make tests of samples of cement for this department, yet you will readily see that, with the large amount of cement used in building construction and that amount constantly increasing, it is impossible for us to have all cements properly tested that go into the construction of the various buildings without having some competent man whose time can be devoted to that purpose. If your valuable magazine would use its influence by properly presenting this matter to your readers, I have no doubt but that it would result in the adoption, by the proper authorities, of the necessary measures to provide for the thorough testing of all cements used in building construction, and I would gladly do all in my power to bring about such an arrangement.

Yours truly,

JAS. G. HOUGHTON,

Inspector of Buildings.

PHOTOGRAPHING ARCHITECTURE.

In Three Parts—Part First

Whatever ones views of the photograph as a means of illustrating, it has, by reason of its cheapness and accuracy, earned a place that will not admit of its being ignored.

Sympathy for the engravers and draughtsmen whose callings it has ruined is all well enough, but one cannot afford to let it obscure the fact that the photograph shoulders itself in at some stage of nearly all modern illustration and must be reckoned with.

Skill in photography involves taking advantages of several circumstances more or less beyond the control of the operator, beside which there are chances for the display of good taste and considerable ingenuity at many stages of the work. In some of the operations results may be controlled and modified in ways that remind one of the ways of the etcher. The allurements of some of these manipulations have their share in making up the enthusiasm of the amateur.



*GUY'S TOWER, WARWICK CASTLE.

Photographing architecture has its own peculiarities, and one may become skilful at it without acquiring any great skill in other lines. So much is done nowadays to smooth the way of the novice that the time necessary to gain some proficiency in such a branch of the art is usually well repaid by the by-products even; such as the insight one gets into modern ways of illustrating, the studies one gets in lighting, etc.

Photography proves not only a most interesting pastime to many, but its services in making cheap and faithful records are such that the camera has become part of the office equipment of many architects. This is sometimes the case where others are employed to "do the rest."

Notes on photography, to be of value to the novice, must unluckily be so elementary in their nature as to be wearisome to people of some experience, yet the kindergarten may not be ignored.

When one essays to photograph buildings, perhaps the first question that he will have to answer is, "What sized picture will satisfy me?" This question always involves the other question of expense, and when one is to travel, that of portability. A question of simplicity of the camera is also involved in this ques-

tion of size, for the reason that lenses making pictures of 5 inches diameter or less may be operated without focusing for ordinary purposes, thus lessening by one item the things to be taken into account in making exposures.



*GROUP OF HOUSES ON DUKE OF WESTMINSTER'S ESTATE NEAR CHICESTER.

The little pictures shown with this are from views secured by a lady on a trip through England. A film camera of the fixed focus kind was used, the lady was quite without previous experience and although her instinct for the pictorial will hardly be questioned, it may be doubted if she would have brought back so many good exposures had she used a more complicated camera.

However, were an architect to make the same trip with a camera he would wish to bring home larger views with him and might wish those views to give not only a good impression of the objects but to show all the detail possible within the scale of the picture.

Let us suppose his ambitions and his convenience to compromise on the 5x7 inch camera. This will require to be focused for exposures, and although the "finder" and the "snap-shot" will answer his purpose now and then, his really fine work will require the use of the tripod and the ground glass, "stopping down" (using smaller diaphragm) and prolonging his time accordingly. This will give fine definition over the entire negative and more "depth of focus," (better definition to near and distant objects,) both qualities arising from using only the rays passing through the middle of the lens.



*THATCHED COTTAGE—SAID TO BE OLDEST IN ENGLAND—BETWEEN WARWICK AND KENILWORTH.

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FENCE POSTS .. SALEM .. MASS .. 1.
 For Details see Sheet N^o 2.

Scale 0 6 9 12 inches. 1/foot 2/feet



25. Chesnut St.

34. Chesnut St.

Washington Sq

Federal St.

Federal St.

Lafayette St.

Supposed to have been designed by M^cIntire, Archt. early in this Century.

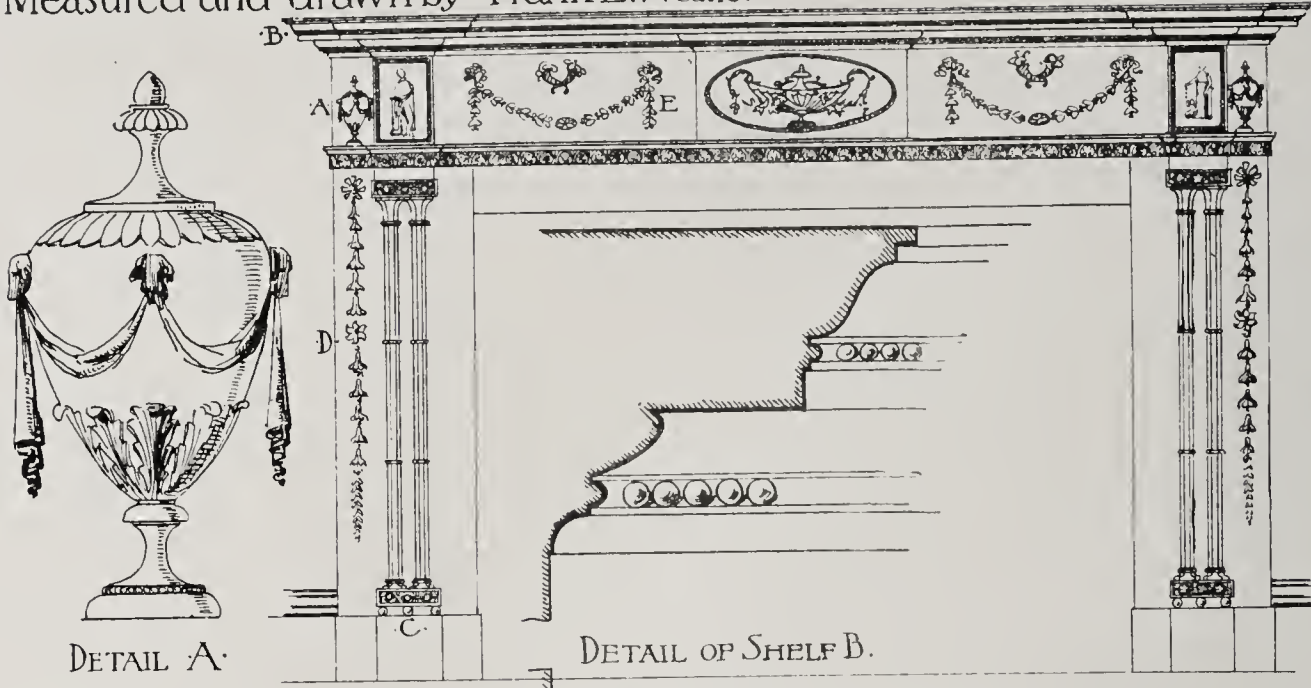
Measured and drawn by Frank E. Wallis

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MANTEL IN OFFICE OF "ESSEX HOUSE"

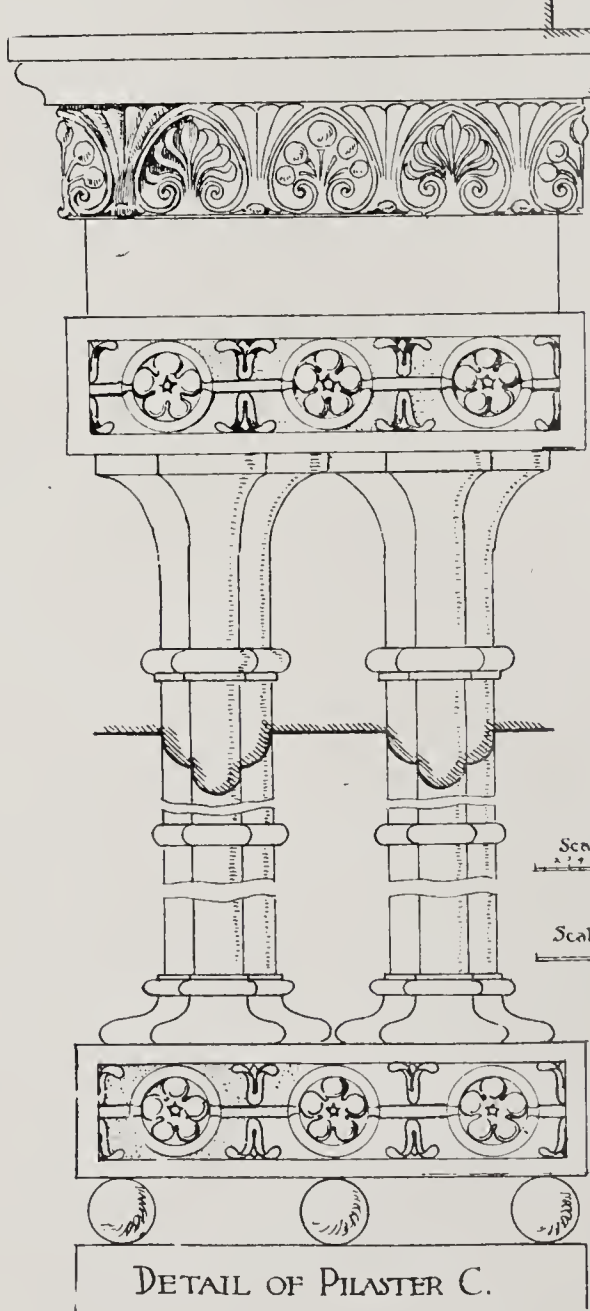
SALEM MASS. DATE 1801.

Measured and drawn by Frank E. Wallis.

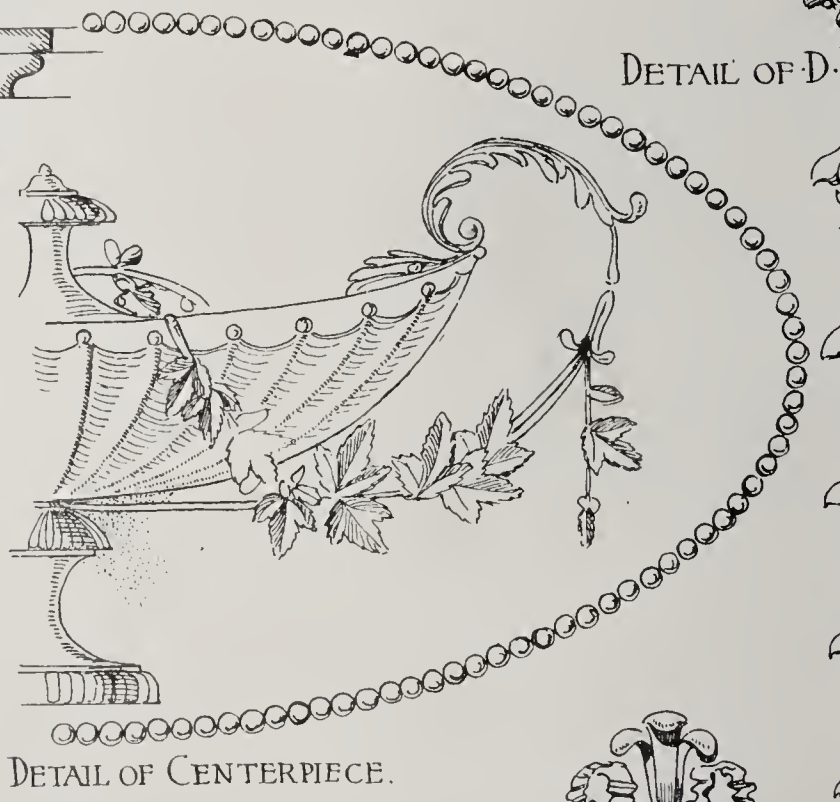


DETAIL A.

DETAIL OF SHELF B.



DETAIL OF PILASTER C.

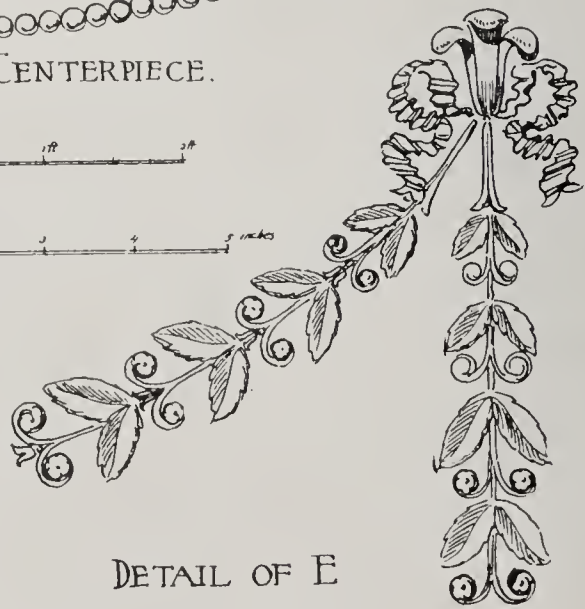


DETAIL OF D.

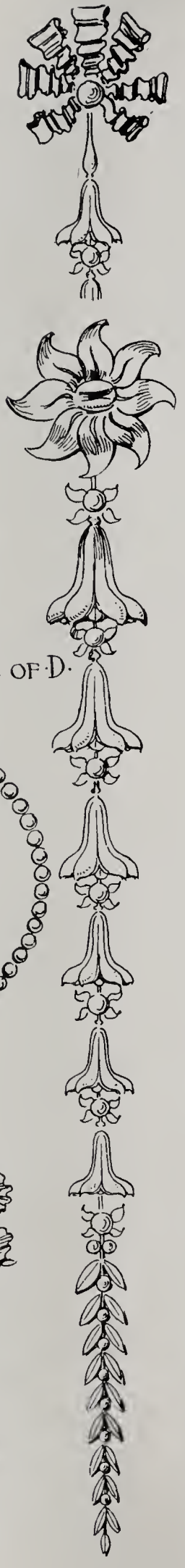
DETAIL OF CENTERPIECE.

Scale
A 2 1/2 B 2 1/2 C 2 1/2 D 2 1/2 E 2 1/2 inches

Scale of Details
1 2 3 4 5 inches



DETAIL OF E





Supplement to
The Western Architect.

PERSPECTIVE SKETCH
By Albert
from
A. L. DORR, Architect



FOR RESIDENCE,
evering,
fe of
Minneapolis, Minn.

January, 1904.

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THE NORTHWESTERN MILLER BUILDING, MINNEAPOLIS, MINN.
Wm. Channing Whitney, Architect, Minneapolis.

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Supplement to
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RESIDENCE OF L. B. NEWELL, MINNEAPOLIS, MINN.
Chas. R. Aldrich, Architect, Minneapolis.

January, 1904.

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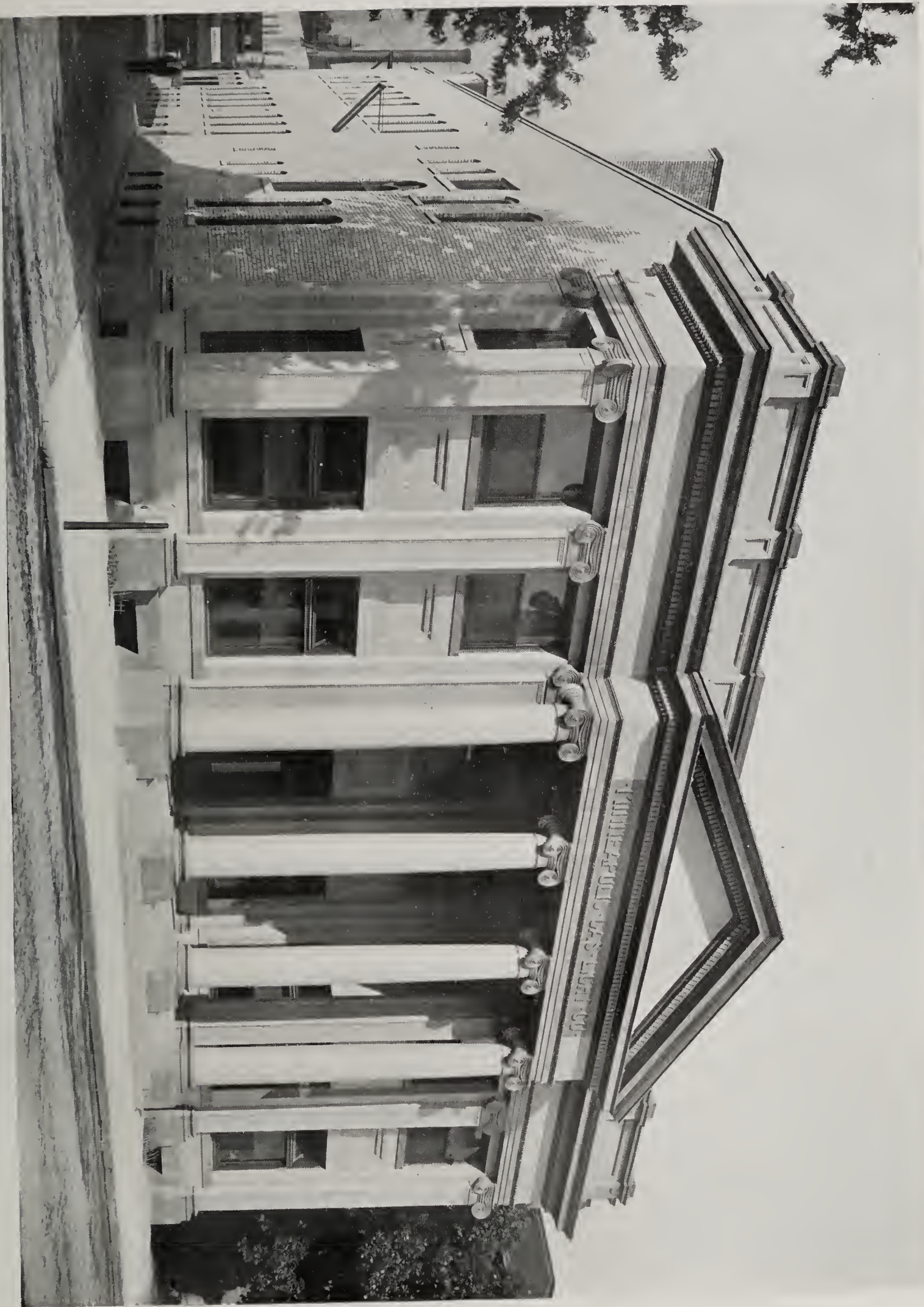


Supplement to
The Western Architect.

RESIDENCE OF D. L. BARTLETT, JR., ST. JOSEPH, MO.
Eckel & Mann, Architects, St. Joe.

January, 1904.

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MINNEAPOLIS GAS LIGHT CO.'S BUILDING, MINNEAPOLIS, MINN.
F. B. and L. L. Long, Architects, Minneapolis.

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INTERIOR OF MINNEAPOLIS GAS LIGHT CO.'S BUILDING, MINNEAPOLIS, MINN.
F. B. and L. L. Long, Architects, Minneapolis

Supplement to
The Western Architect.

January, 1904.

L. IV
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RESIDENCE OF DAVID R. FRANCES, PRESIDENT ST. LOUIS WORLD'S FAIR, ST. LOUIS, MO.
W. S. Eames Architect, St. Louis.

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PARLOR IN RESIDENCE OF HAROLD JOHNSON, MINNEAPOLIS, MINN.
F. D. Orff, Architect, Minneapolis.

Compo Ceilings Capitals, etc.,
by the Decorators' Supply Co.



DETAIL OF FRONT PORCH TO RESIDENCE OF HAROLD JOHNSON, MINNEAPOLIS, MINN.
F. D. Orff, Architect, Minneapolis.

Compo Capitals and Ornaments
by the Decorators' Supply Co.

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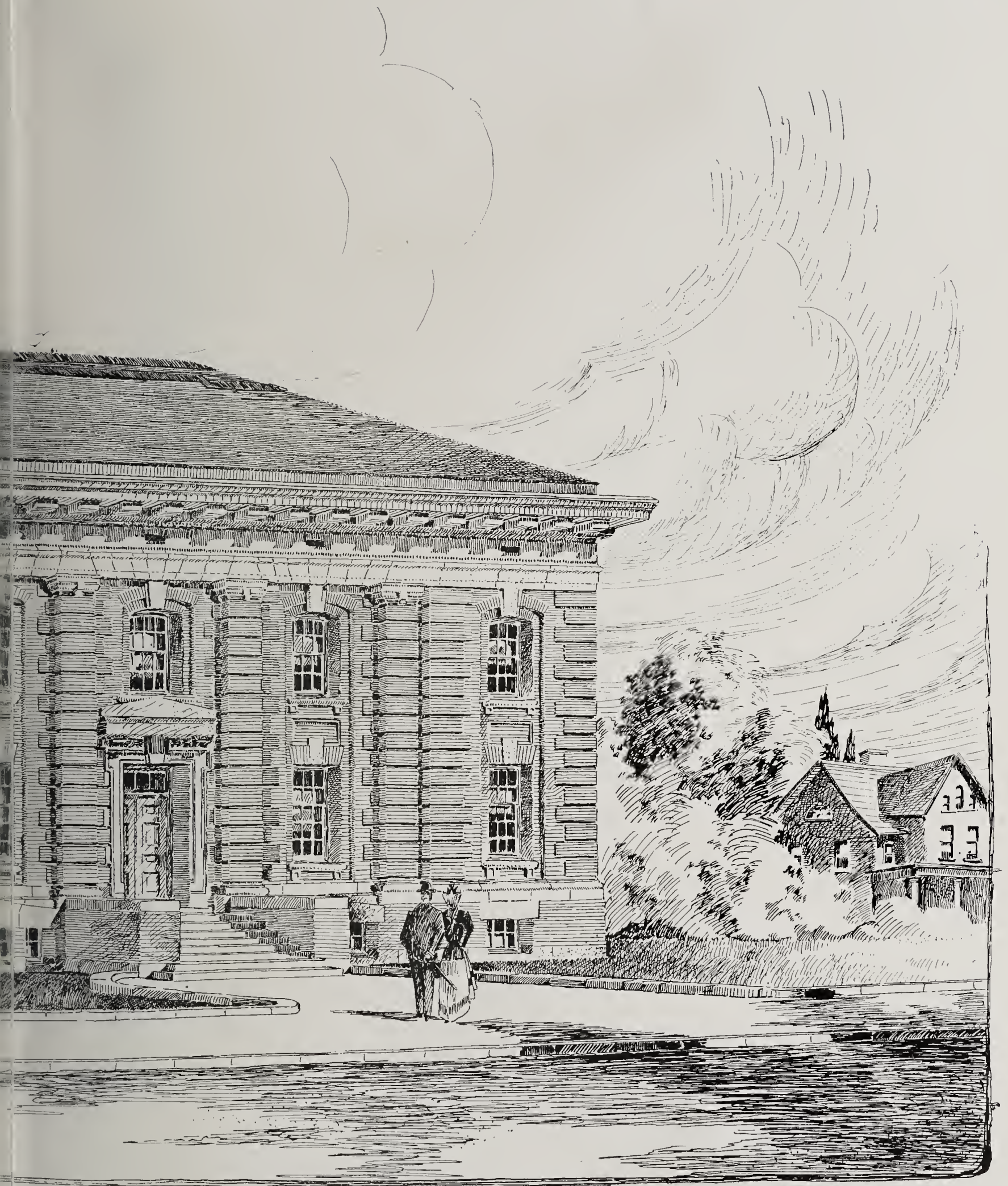
RESIDENCE OF HAROLD JOHNSON, MINNEAPOLIS MINN.
F. D. Orff, Architect, Minneapolis.

Basement and first story built of
Hollow Concrete Blocks.
January, 1904.

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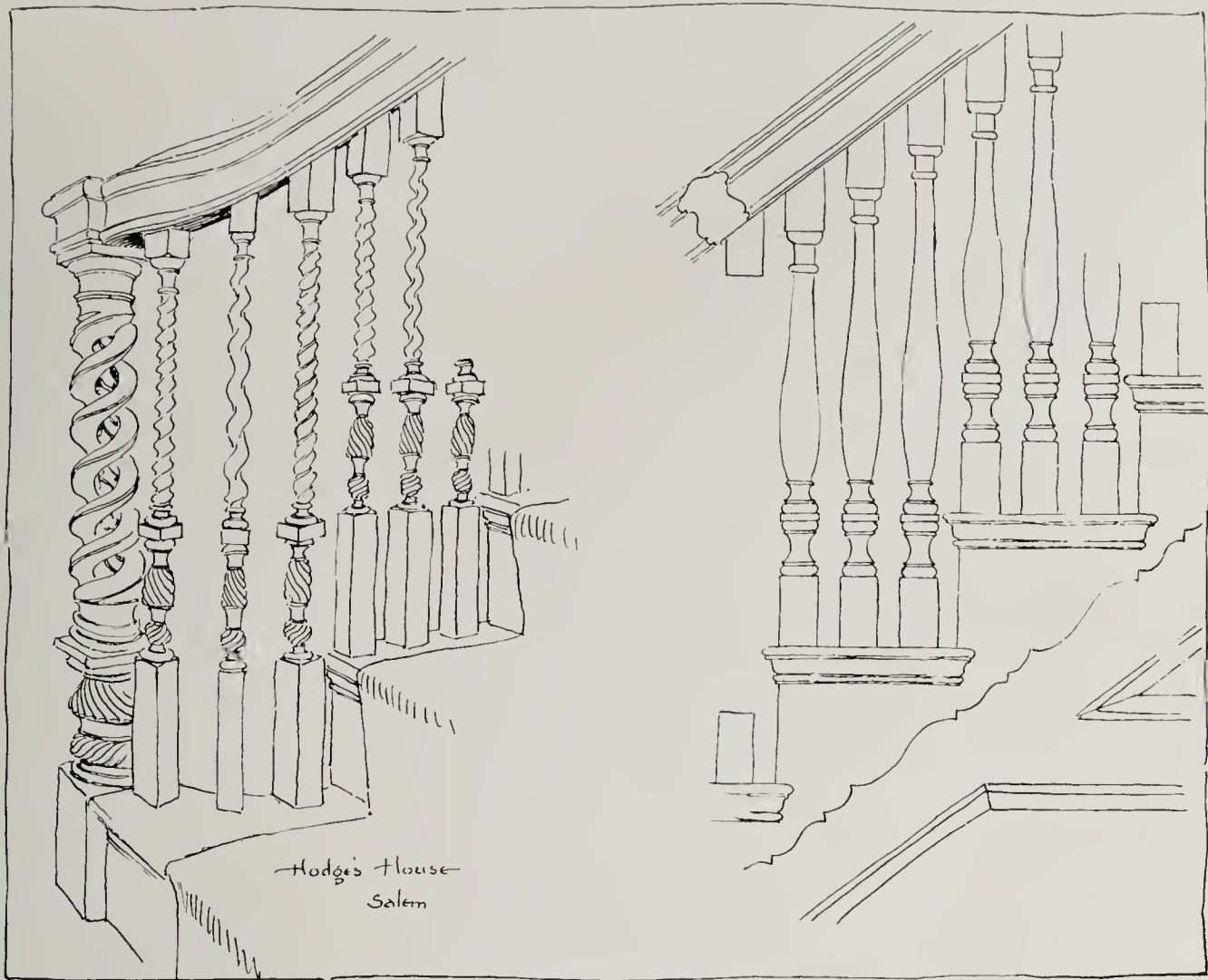


PERSPECTIVE OF NEW POST EXC
W. R.

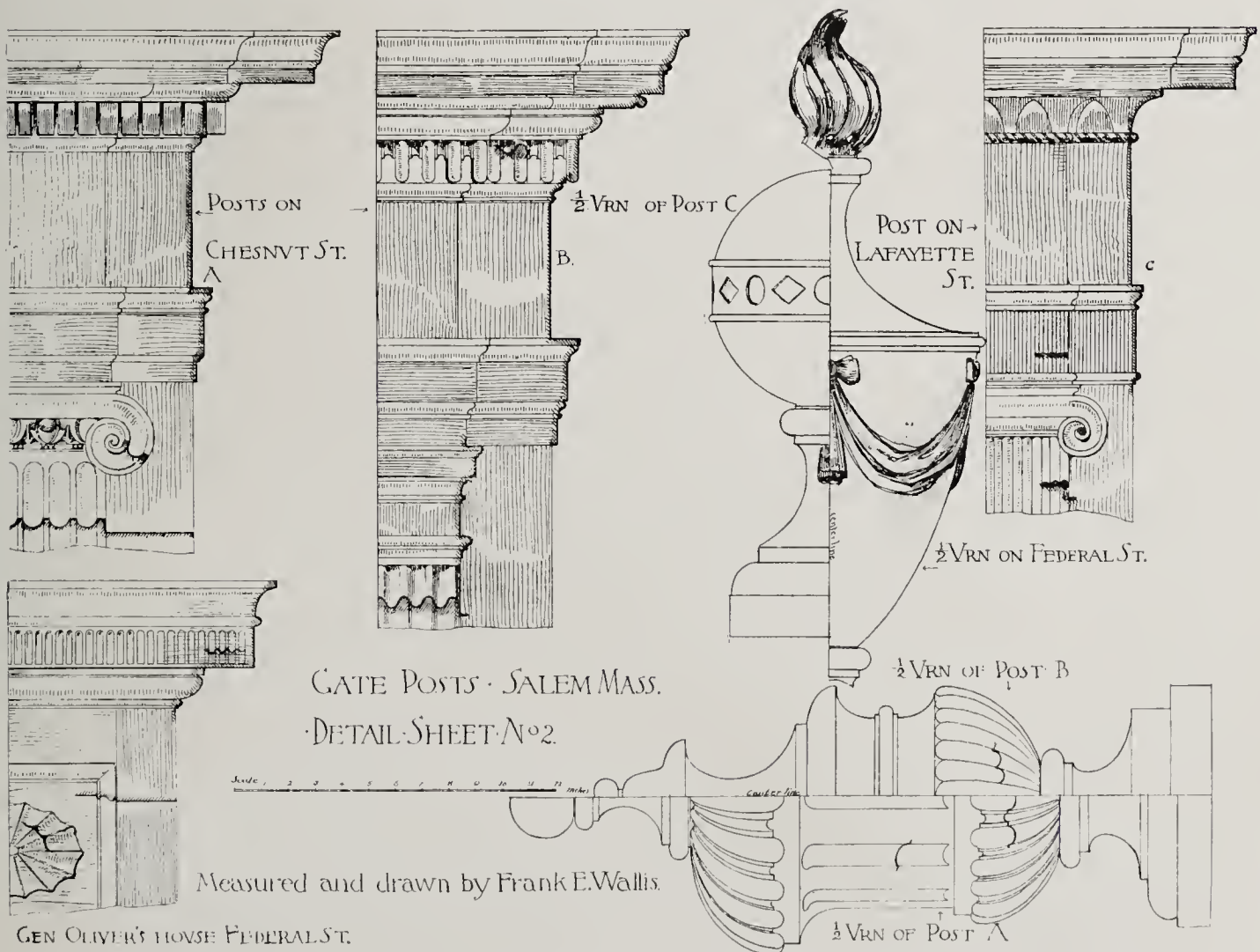


GRAND GYMNASIUM, FORT SNELLING, MINN.
Artist, St. Paul.

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STAIR RAILING IN HODGE'S HOUSE, SALEM, MASS.

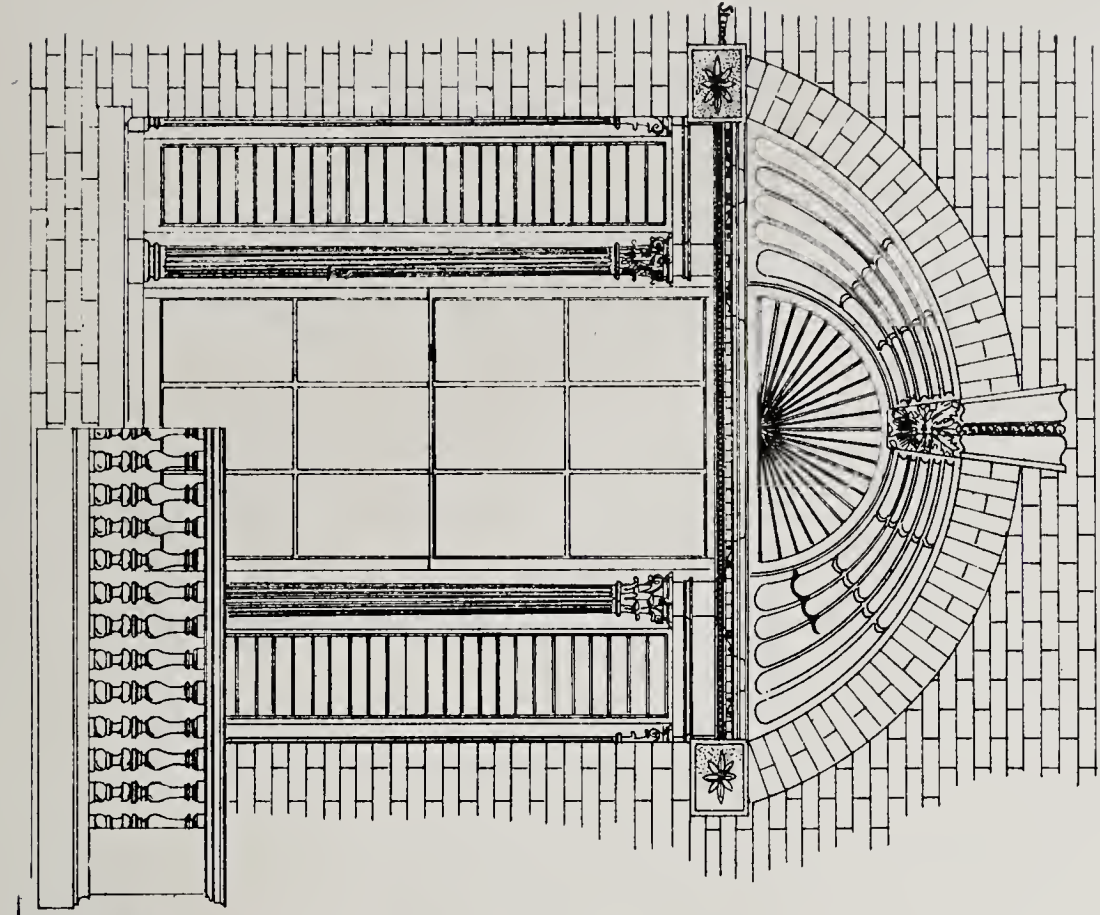


DETAILS IN OLD COLONIAL HOUSES, SALEM, MASS.

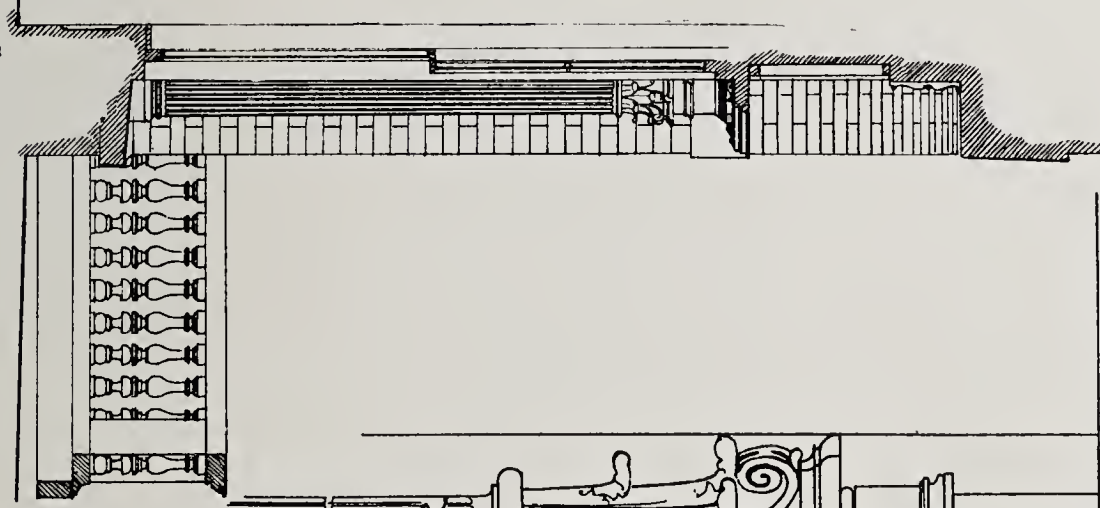
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FRONT WINDOW PHILIPS HOUSE
 CHESNUT ST. SALEM DATE ABOUT 1800.

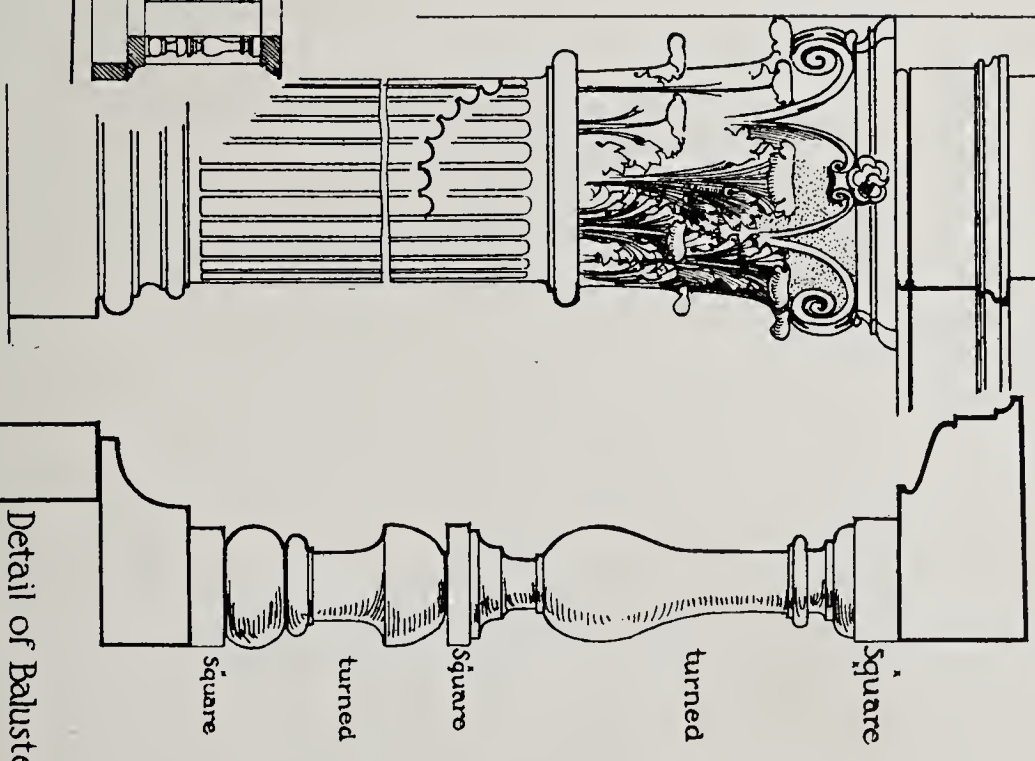
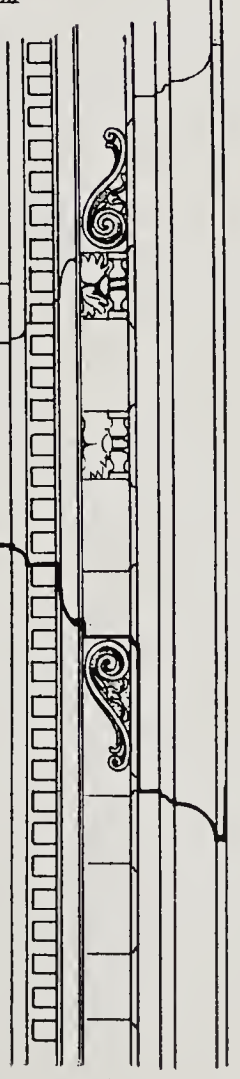
Scale
 1 2 3 4 5 6 7 8 9 10 11 12 inches
 3 ft
 Scale of Details



Elevation.



Section.



Column. detail

Detail of Baluster and Rail.

Square
 turned
 Square
 turned
 Square

Measured and drawn by Frank E. Wallis.

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This camera should be a "reversible back" and may be a glass plate camera with an attachment for the use of the film cartridges. The weight of plates and holders will prohibit their use for long trips, but plates will be found much more convenient for use about home, while if considerable printing is to be done from the negatives the curling of the films often becomes very annoying. Plates are not only cheaper and more convenient when they can be used, but the percentage of loss through bad emulsions is much smaller.

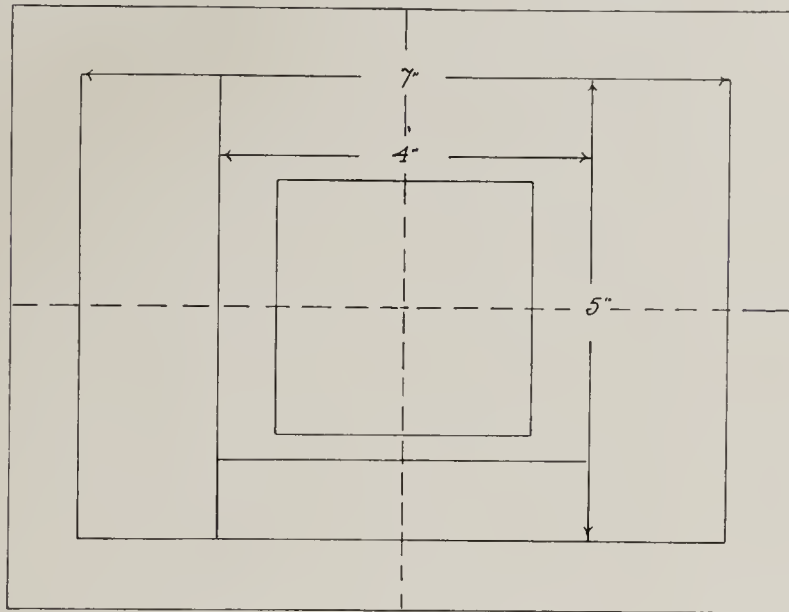
Film makers claim their goods to be free from "halation"—a blurring of parts of pictures from too much local lighting during the exposure, and supposed to be due to reflection from the back side of the dryplate, but this claim is to be taken with a grain of salt. Special "non-halation" plates are made to overcome this, but they cost as much as films. They are often a necessity for interior views, and are superior for some other purposes where too brilliant lights are encountered.



*VIRGIN'S PORCH—ENTRANCE TO ST. MARY'S CH., HIGH ST., OXFORD.

Avoid too complex and expensive cameras. After filling the few simple requirements of a good camera, the maker likes to add a varied line of vanities and to charge roundly for them. All such lessen one's percentage of good pictures. The publishers of this journal have much of its photographing done under the direction of a member of its editorial staff, who selected for this work a camera made by the Century Camera Co. having a bellows extension of about twice the diagonal of the negative, folding up like the hand camera models. The "swing," about which so much fuss is made in most cameras, is here accomplished by simple adjustable braces which admit of fixing the bed of the camera at any desired angle from the plate. There is a large school who contend that the plate must "swing" on its axis, but there is nothing in the con-

vention, and this simple strong device for setting the axis of the lens a little off the perpendicular to the plate can be operated just as quickly and successfully as with all the toggling put into other cameras for the purpose.



A few fine ink lines on the ground glass will be found to be of great help in photographing buildings. The $6\frac{1}{2} \times 8\frac{1}{2}$ ground glass of the camera referred to is marked as above, the smaller square showing the limit of lantern slide pictures.

Lenses furnished with 4x5 or larger cameras are usually of the double symmetrical rectilinear type, not "wide angle" enough for all around architectural work. They are of many grades, few of them covering the plate sharply except with small diaphragms, and some not even then. This difficulty increases with the size of the lens. Some of these lenses are made "convertible," the singles being made of different focal lengths, so that from a given point one may get pictures of three different sizes,—the double lens would make the smallest picture and have great speed, while either of the single lenses composing it may be used in the back end of the barrel to make larger pictures at less speed and with some loss of rectilinear qualities. Thus a convertible lens may have the focal length of 9 inches when used as a double while the singles may focus at 16 inches and 20 inches respectively, and pictures of three sizes could be taken from one standpoint, objects in which would appear with relative measurements of 9, 16 and 20.

Some photographers supplement the ordinary lens with another of wider angle.

Where not necessary to use a lens of less focal length than the diagonal of the picture to be made, more pleasing results are obtained; but for much building work wider angles are needed. With 5x7 plates, on interior work, a lens focusing at $5\frac{1}{2}$ inches on distant objects may be used without greatly distorting the extremes of the picture. Much wider angled lenses than this are made, but the effect of their work is displeasing.

The great work of some German experimenters resulting in the new optical glasses which have come to be known as the Jena glasses has revolutionized lens-making for photographic as well as other purposes. Mr. Caryl Coleman, told the writer that a collection of glasses from

ancient ruins, which he and his brother had been making could match nearly every modern kind except these new German optical glasses.



*CLOCK TOWER AND ENTRANCE TO COURTYARD OF WARWICK CASTLE.

Many photographic lenses have been made from these, widely varying in merit, which have come to be known generally as "anastigmatic" but makers are now applying trade names of their own to their special makes. Skilled makers now produce lenses from these that cover large plates sharply at full stop. They are moderately wide angled and some are made convertible, sometimes three or more lenses being used singly or in combination.

The lens selected for the use of this journal, after the most careful tests is made by Carl Zeiss, and has three singles, which may be so used as to give 6 focal lengths, with images respectively about as 14, 15, 17, 22, 27 and 32. The beautiful definition and illumination of this lens at large openings not only renders focusing much easier and more certain but saves time in exposing on slow interiors and in copying. It will make moderately wide angled pictures, and in its convertible features it appears to have no rival.

The speed of lenses as rated by makers is not always a true indication of their practical rapidity for photographing architecture. If a lens is rated at $F:8$, the largest practical light opening is supposed to be $1:8$ the distance from diaphragm to dry-plate. But suppose that of 2 lenses claiming to work at $F:8$ on a plate of a given size, one will do good work at $F:8$ while the other requires to be stopped down to $F:11.4$, to do equally good work, the latter will be really but $\frac{1}{2}$ as rapid as the former for the purpose intended, although it might be opened to $F:8$ and make as good a snap-shot on a smaller plate. The above expresses the difference between the better lenses of the new Jena glasses and the better rectilinear lenses.

Each single lens, whether made to use in a doublet or not, is composed of 2 or more glasses. In some lenses these are separated in the mounting. Such constructions multiply reflecting surfaces, and doubtless reduce speed. When these component lenses are mounted close together they are often cemented with balsam and discoloration of

the balsam sometimes occurs, reducing the speed of the lens. Cleaning and remounting will restore.

Minute bubbles are sometimes found in the very finest of the Jena glasses and sometimes a lens may get small scratches on the surfaces from careless handling. These do not necessarily interfere with the definition of the lens, but reduce speed in proportion to the space occupied.

The practical speed of lenses may be easily tested, if worth while. In a large room without too much light place some sharply defined object like large letters on a white ground. Place the camera so that this will appear near the corner of the plate and with a known good lens expose, withdrawing the slide but half way. Change the dryplate end for end in the darkroom, substitute the other lens, focus and expose on the unexposed half of the plate. Care must be taken to focus sharply, to have the light openings relatively of the same size and to expose the same length of time. The light should be such that at least 10 seconds may be used in exposing. The plate may then be developed and both speed and definition judged by the results.

The many kinds of shutters placed in the lens and usually having a scale indicating the speeds of exposures, may work at the speeds indicated, but they so often do not that they should always be tried at slow speeds before the slide is drawn for exposing the plate. If one of these shutters is working about right on say 1 sec. and $\frac{1}{4}$ sec.—the operator can judge fairly well of this—the presumption is that it will not be very far out of the way on the shorter exposures indicated, but this is somewhat a matter of faith.



**"WARWICK VASE"—IN FERNERY AT WARWICK CASTLE.

The photographer of architectural subjects cannot, of course, control his light except for interiors, and for outside work he must take such lights as he can get or wait for better. The subjects are so distant also, that the tricks of focusing practised in some branches of the art have little value to him. The value of local development has been alluded to above.

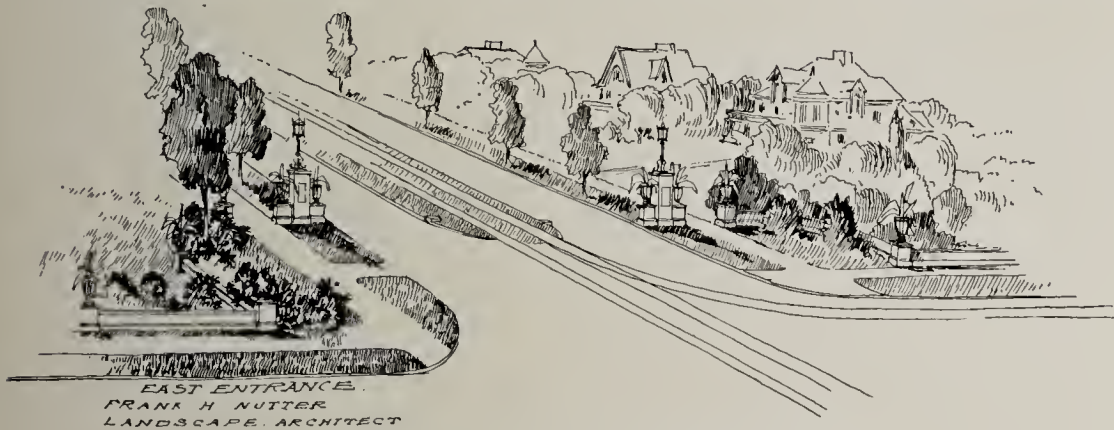
ENTRANCES AND GATEWAYS.

BY FRANK H. NUTTER, LANDSCAPE ARCHITECT.

In the fresh enthusiasm which marked the early years of village and city improvement associations, walls, fences and all that might serve to mark a boundary line were entirely tabooed. As a protest against untidy and dilapidated fences which offended all rules of neatness, or against high walls and impenetrable hedges which selfishly shut out the public from scenes which it might and should enjoy, this action was a commendable one.

A good thing may, however, be overdone and now many home-builders are turning their thoughts toward securing that privacy which is necessary to the full enjoyment of their properties, and while the front lawns of the home grounds may still lie open to the passer-by, the garden side of the house, with its screened porches and sheltered lawns becomes the center of family life.

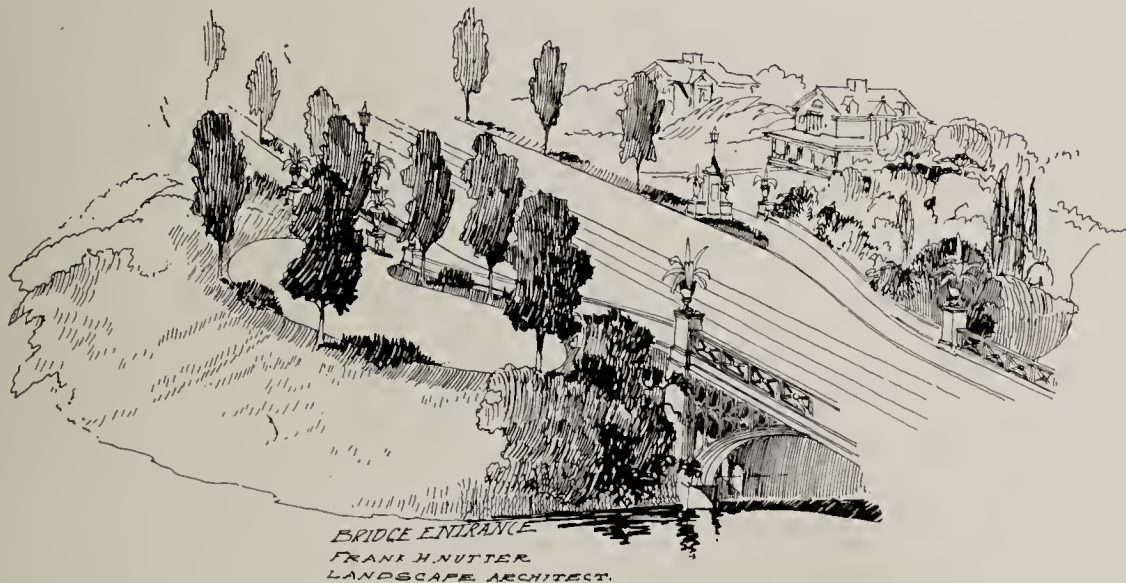
Another loss resulting from the banishment of all



Beach Entrance, Lafayette Residence Park, Norfolk, Va.

walls and fences is that of the opportunity of making a fitting and appropriate entrance to an otherwise attractive and complete home and grounds, and often the architect has sighed for permission to design a harmonious introduction to the building which stands beyond the gateway.

Where conditions preclude the owners of small



Bridge Entrance, Lafayette Residence Park, Norfolk, Va.

properties and single lots from doing much, if anything, in this direction, a community of interests may enable them to concentrate their efforts and accomplish something well worth while.

In designing a residence park in the suburbs of a southern seaboard city the want was felt of something to emphasize the approaches to the property. The tract of about two hundred and twenty-five acres is mostly surrounded by the waters of the bay, and is nearly bisected by a curving boulevard, one hundred feet in width, with electric car lines in the center. These car lines approach from the city over an old bridge which must soon be replaced, and on leaving the park they divide on their way to the beach resorts beyond. For these two points the entrances shown in the accompanying drawings have been designed: at the bridge entrance to be in harmony with the new structure, while at the farther end of the boulevard the entrance will be flanked on either side by a wall and hedge reaching from water to water along a turnpike which forms the only dry land boundary of the property.

It may be said that through an oversight of the artist who drew the perspectives the posts at bridge abutments are carrying vases rather than the lanterns it is proposed to place upon them.

At the left of the bridge is a small park, and a terraced concourse, with seats which will overlook the tidal basin adjacent to the property.

This plan of a formal entrance to a parkway or street could easily be adapted to a block or more of a street in the strictly residence portion of a city, if the

owners of the various properties would combine and work in harmony. By narrowing the roadway room could be secured for ornamental planting between the sidewalks and curb line; properly designed posts, with lanterns, and vases would mark the entrance at either end of the block; all fences and indication of division

lines should be kept back of the houses, and uniformity in grading the front lawns, and in the planting and caring for the same would give to the whole the effect of a private park.

NEW ART HARDWARE.

BY F. L. LIVELY.

The scholarly architect who plans the best arrangement of the rooms, and gives a truly modern spirit in the style of the exterior and who makes the interior ornaments on the useful construction, will design the mantels, consols, sideboard, stairs, doors and window trim, including the hardware and drawer-pulls all to harmonize with variety and true relation. This harmony and relationship, by using the costly patterns made for the capital decoration in the hardware of all the interior work, produce unity, and unity is the high artistic quality of an architectural masterpiece. When the separate parts of the ornaments are highly pleasing because of their correct lines of beauty, their unity combines the many various parts into one harmonious whole. Ugly parts are repulsive, and can never produce pleasure. The ignorant egotist can perpetrate an abomination in design and be pleased with it, for it is the best he knows; he is not aware of its badness.



Bronze Hardware.
Designed Aug. 9, 1899.



In the last ten years the American manufacturers executed, and have gone to great expense to patriotically illustrate in the highest style of printing, new designs that are a credit to the century.

The new catalogues are eagerly grasped by all the bright students, and are the purest and safest art instructors. Many of them are almost inspiring; for they show the grand forward movement of the Americans. Why should we design or plagiarize in the style of Nero and Herod? Is the spirit of Herod to be used in the twentieth century design? Does it do justice to the scholarship, energy, and Christianity of the twentieth century? Shall our wives and children be holocausted in more of the geist of Herod designs? Who shall dare to use such a Philistine style and palm it off as frozen music crystallization, representative of the times and glorious progress of our beneficent government? Shame on the plagiarist faker. The times are worthy of the very best art. Let us rouse up to our whole duty. Indolence and carelessness must be thrown overboard, and skill, study, and an honest sense of brave duty take us up and inspire courage, zeal, and diligence.

The Parthenon is the greatest gem of all architecture because of the pure patriotism, optical corrections, and the vast amount of full-sized details that were made. It cost the architects twenty-five per cent to complete this masterpiece; it could not be done for less.

There is a big white marble club-house on Fifth Avenue, New York City, where an ornate frieze is carved all around the building, near the eyes' vision, and the full-sized design could be made on a sheet of letter paper, and even the design is not new. It is 2500 years old, hence it could not have cost the architect more than \$5.00, while the owners must have paid the sculptor not less than \$500. This makes the architect's commission on the face of the building evident to a hundred thousand experts, as one per cent.

New art costs ten times as much as fake patterns. A new composition in music is costly of time, talent, and cash, while old rag-time music can be bought for five cents per copy. Yet, the art of the Parthenon has brought back to Athens the biggest interest return of any honest investment patriotism ever made.

The art capital invested in Paris brings to that city more cash each decade than it all cost. Hence again we urge "New Art" "Zeit Geist" Art,—pure, patriotic, scholarly, and liberal, whether it be in hardware, decoration, painting, sculpturing, or construction.



GREAT MEN.

Generation after generation passes away.

Magazine architecture has become more and more prevalent, until now the cot of the humblest peasant reproduces the inside of at least one hundred homes, with open plumbing. But suddenly the people bethink themselves.

"Where are great men to be born?" they exclaim, apprehensively.

Some suggest that lowly habitations be provided, after ancient models; others maintain that great men are only a luxury, after all; but the majority, as is usual, know not what to do or think.—From Life.

HUMOR OF A STRIKE.

Two strikers were picketing the entrance of an alley during the strike at the factory of the Kellogg Switchboard and Supply Company in Chicago last May. A non-union man came out of the factory and started across the street. One of the strikers picked up a brick. As he looked at it an expression of disgust came over his face and he threw it down.

"Why didn't you throw it at that scab?" asked the other striker.

"Because it is a non-union-brick."—World's Work.



STATUE REPRESENTING INDIAN
TERRITORY

For St. Louis Wor'd's Fair.



NEBRASKA.

The statue representing Nebraska to be placed in the Terrace of States at the St. Louis World's Fair. It is very simple in composition and was modeled by F. H. Packer.



LABOR AND CARE.

Tympanums for Machinery Building, for St. Louis World's Fair.

This piece of sculpture, 36 feet long, represents a man of athletic form holding a hammer and seated at rest, symbolizing the Labor, and a woman holding a compass and at rest, symbolizing the Care. In the center is the Coat of Arms of Missouri on a shield and surrounded by branches of oak leaves. This work is done by Fernando Miranda, sculptor.

INSPECTED THEATERS ABROAD.

The Chicago Daily News has the following from its London correspondent in an interview with W. C. Zimmerman, the well-known Chicago architect, who has been making a tour through Europe inspecting the theaters of Vienna, Paris and London:

"My work in London," he said, "was interfered with by the appalling news from Chicago. I had seen only a few theaters here when I heard of the Iroquois fire. After that I had no heart to make further investigation. My observation leads me to think the Vienna theaters the safest in Europe. Many of them are quite detached from other buildings. They are splendidly furnished with exits and fire-fighting appliances. The theaters of Paris, except the best ones, are extremely dangerous. From what I saw in London I judge that fire in many theaters here would result in great loss of life. The passages are often so narrow that two people can scarcely pass. The managers naturally put a rosy face on the matter. They pretend that the Chicago fire has not reduced their bookings, but intelligent observers know better. Immense improvements are certain to be effected in London theaters in the immediate future. Every theater should be isolated from other structures. It should have exits all around and these should be used regularly. There should be no emergency exits whatever. The fireproof curtain should be used constantly in place of the ordinary drop curtain. All passages should be straight and wide and all scenery non-combustible. Lastly, professional fire-fighters should be properly posted throughout the performance. Europe recognizes that amateur firemen are useless in a crisis.



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CORRESPONDENCE.

Minneapolis, Minn., Jan. 11, 1904.

Dear Editor:—

In reply to your request to say something on the Iroquois calamity, I will say that there must be a radical change in laws governing theater construction and operation before the public can be assured of safety.

The typical theater must be planned, constructed and operated perfectly. All three things must be done. From the imperfect information obtainable it would appear that none of these things were done in this unfortunate case. But safety requires that architect, builder and theater manager work in unison. The architect might make his plans and specifications ever so good; if the builder avoided his duty disaster might follow. If the architect and builder did their part and the manager neglected his, still all might be lost.

Here then is a chance for one, two, or all three of those concerned to make mistakes, neglect precautions or willfully disobey law, and cause such a disaster as the Iroquois fire.

Ignorantly or not, willfully or not, some of those concerned in theater planning and running are likely to omit some part of their duties and make trouble.

To obtain concert and certainty of action where several people are employed calls for an authority higher than any of them, whose function is to see that every thing is done that ought to be done, and that nothing important is omitted. At first sight we might look for such an official in the Inspector of Buildings. Were it not for the arduous nature of the work that this would entail, and the large force of assistants it would require, the building inspector might discharge the duty; but no city of which I have knowledge has expressed a willingness to pay for such labor.

In order to warrant against these awful calamities by fire it is necessary to have a careful inspection and supervision of the building from the inception of the plans to finish of the structure; and the same careful supervision is necessary during the term of its operation as a theater.

We know that the best planned theater would be faulty if ill constructed; the best built building, if poorly planned; and the best planned and constructed building, if poorly operated.

To evolve a perfect theater, it is a part of our business to find out what constitutes the best kind of planning, constructing and operation. This is a hard task. Few realize its magnitude. The Iroquois horror, though so terrible an agent, nevertheless will be an agent in solving this problem. The architectural world, the building world and the whole world will study details, draw conclusions, and devise means to prevent a recurrence of such a thing anywhere.

Until now custom too largely has dictated what a theater should be. It is well to follow custom in some things. It preserves continuity and gives a steadiness to undertakings; but in the field of mechanical invention and the scientific field generally, custom should have no place.

What it suggests should have the very best reasons for being approved. Unfortunately custom has too great an influence in all we do, never so original as we think ourselves to be, and when even our best professional men attack a problem they accept much information as correct simply because custom lends weight to it.

The architectural professional is beginning to weigh things professional; is laying aside custom and is now adopting things on merit. Especially is this true in the line of construction. There has been good work done in the planning of theaters and there are many good ones throughout the country.

With what does the theater designer have to contend? Aside from scores of needful things now being enumerated in the public press something very much like a dilemma confronts him to start with. In the perfect theater the audience will be protected from fire and be given certain and equable heat and ventilation.

The dilemma is this: efficient protection of the audience from fire means interference with the ventilation. Proper ventilation is hard to be secured without liability to fire.

If the auditorium is to be protected from the entrance of deadly gases and flames it is needful among other things that the ceiling be made gas tight and fireproof; but if the ceiling is made tight, the foul air cannot escape. The upper balcony or gallery would be an unbearable hole—an unsalable proposition. It may be advanced that a ventilator could be placed in the ceiling to be closed in time of fire; but this is an uncertain device not to be thought of in our perfect theater. Also it may be advanced that a ventilator may be placed in the auditorium ceiling with a larger and higher one over the stage. I believe that too is uncertain. The perfect auditorium must be a box; fireproof, with no openings in the ceiling and with the upper exit hallways slanting downward for a considerable distance, fireproof throughout and non-heat-conducting, in order to insure that no draft of air or other gases, or flames can pass to the top of the auditorium.

The chief opening would be at the stage. If there is sufficient height above the stage to create the proper draft the audience will be safe.

Safe it would be, but not comfortable. The galleries would smother in foul air from the people below, and just there is the trouble. How shall we ventilate such a box? The schoolhouse down draft principle of ventilation will not work, for the foul air of the gallery would contaminate the main floor, and cause drafts over the balcony rails.

On the other hand the architect meets trouble when he tries to adopt the updraft principle of ventilation by bringing fresh air to the occupant of each seat from the floor below. The main floor occupants do not want it! They call it draft; complain of catching cold so effectively that managers using such a system of ventilation often discard it and get on without any.

In this case the architect would have to put a ventilator in the auditorium ceiling, provided, we will hope, with emergency doors. He introduces fresh air at sundry floor registers from whence finally it reaches the balconies and

the ceiling ventilators. This allows the people to freeze or swelter according to location and temperature.

There are ways of overcoming this vexing problem, but the people must be educated to see the need of it before they will pay the bills and put up with some personal inconvenience for the general good. After the architect has done his share the people must realize that much of safety and of comfort in a theater depends upon them. They must be educated to understand what the theater question demands in order to arrive at a satisfactory solution and be willing to acquiesce in the requirements.

A theater audience is divided into three parts, the high payers, the medium and the low. The first class should not disregard the interest of the other two. They should not be satisfied with the blessings of fresh air and comparative safety from fire on the main floor, while their balcony neighbors are breathing foul air and running the risk of cremation by having a ventilator in the auditorium ceiling.

I believe the theater can be planned, heated, and operated so as to insure safety and health to all its occupants. Instead of a few high priced seats, a large number of medium, and many worthless ones, all seats in the house can be made desirable.

Some parts of the question have been carefully studied. No architect of theaters would think of making a seat that was not in full view of the stage. They should plan for the other requirements as well: a full and free exit in time of panic, a full protection in time of fire, a full supply of fresh air and a comfortable degree of heat.

After the study incident to the investigation of the Iroquois fire has been crystallized into results, upon which we can base the requirements of a perfect theater, let us put our knowledge into simple shape and make laws to govern the whole question for the whole country. Let this information and these laws be accessible and applicable everywhere.

Of prime importance would be the appointment of officials or a commission having arbitrary powers, to see that the laws were enforced; first as to the plans and specifications; secondly as to the construction, and lastly as to the operation of each theater and public hall.

It takes arbitrary power to enforce such requirements yet they must be enforced. It would appear from press reports of the Iroquois accident that what was everybody's business was nobody's business. Hardly any one man had authority to demand all the things that were lacking at the crucial moment. The building inspector could hardly have done it to all the theaters in Chicago without an army of assistants. He might have criticised the plans and the construction, but as to supervising the operation of the theaters so as to insure safety, it would have been beyond his power to accomplish.

In this case every man seems to have had his reasons for doing something wrong or neglecting to do something right, and every one placed too much confidence in the "fireproof" reputation of the building. To quote from evidence, it is reported that the engineer of the theater testified that "the possibility of a fire or panic was so un-

thought-of-a-thing, that the management had never even considered such a contingency or taken any precautions to avoid it."

It should be the duty of the proposed officer or commission to know whether a building was fireproof in fact or by reputation only. There should be no dependence placed upon anything but facts.

To sum up the matter as above outlined we should know in the first place what constitutes a perfect theater. This knowledge should be put into the form of a universal law. This law should govern the planning, construction, and operation of theaters. Special officials or a commission should be appointed to see that the law is enforced.

The investigation now in progress may prove that the architect, builder and manager of the Iroquois theater were to blame for the catastrophe; but the people themselves must realize sometime, and the sooner they do it the better, that a duty lies upon them of making it impossible for one man, several, or any number of men to work in such a way as to plan, build and operate a faulty theater.

It is true there are drawbacks to the plan of appointing special officers or a commission. Corruption may influence their actions. Paramount is the preservation of human life, and certainly it would be well to make this a federal affair. The United States government should be back of this; should control all there is to do about theaters. The office of the government architect should be the center of information for theater planning, building and running. The penalties for violation of the law should be so severe as to make it suicidal to attempt violation. Free rein should be allowed individual architects to make improvements, to elaborate designs, to impress their individuality upon their work; but the whole should be subject to the approval of the federal authorities at last.

If anything has need of being under governmental control it seems to me this has. The United States government has time and means to conduct experiments, and decide on what is best. It has power to enforce its decisions.

Whatever course we adopt, now is the time to adopt it. The public will endorse legislation that will prevent forever calamities so needless as the Iroquois theater fire.

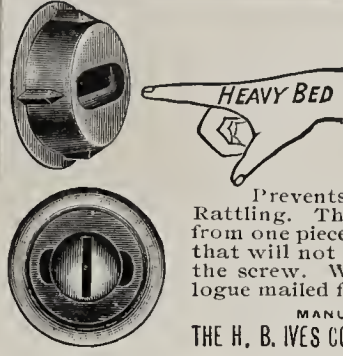
Yours truly,
WALTER S. PARDEE,
Architect.

Profit-sharing, as a remedy for labor troubles has had small vogue of late, if we except the much-lauded attempt of a year or so ago to reach the savings of employes of the U. S. Steel Corporation. The success of that attempt—from the standpoint of the managers—will do more to make profit-sharing unpopular than can be undone in a decade. By-the-by, if the Standard Oil crowd have captured the management of the Steel Trust, what sort of steel and prices are to be expected?

There are two arts that the most progressive people of the globe should wish to cultivate in particular. One of the arts is courtesy, the other is architecture.



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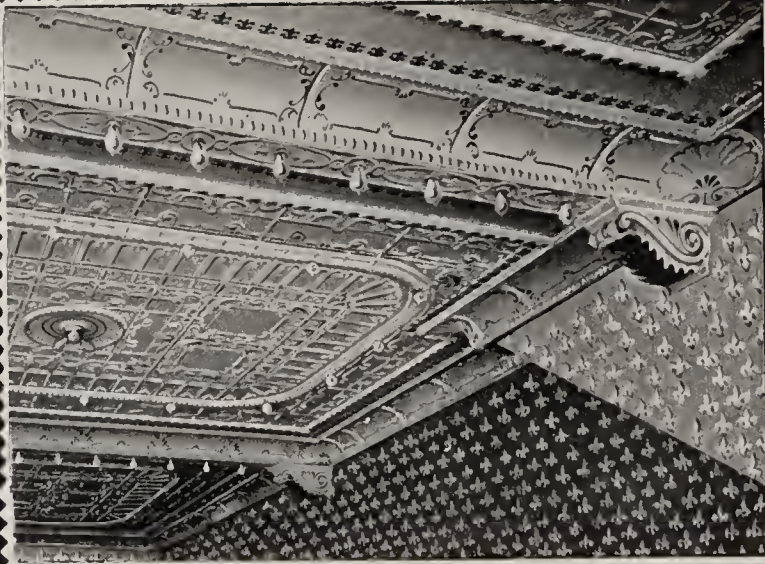
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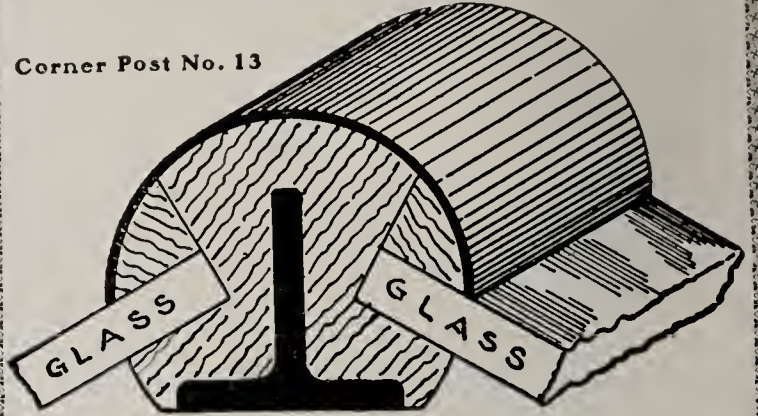
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Eastern Warehouse and Office,
 125 Broad St., Boston.

COLUMBUS, OHIO.

U. S. Patent, February 13, 1900. U. S. Patent, November 19, 1901.
 Canada Patent, March 19, 1900. U. S. Patent, April 15, 1902.
 Other Patents Pending.

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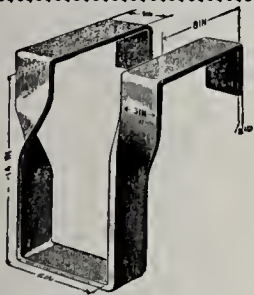
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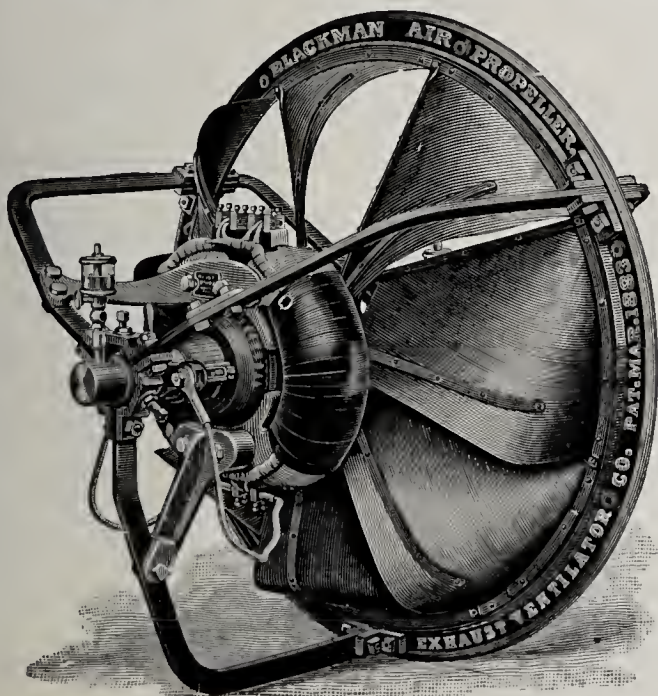
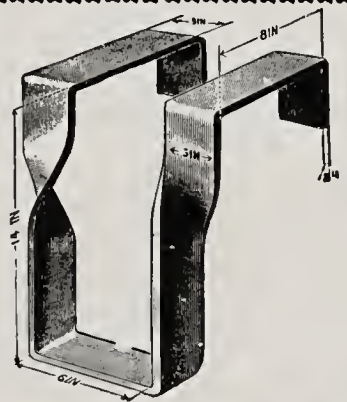
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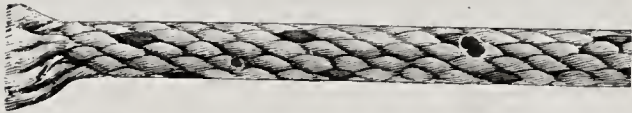
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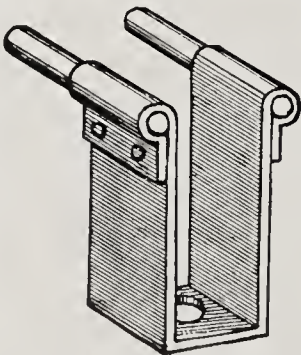
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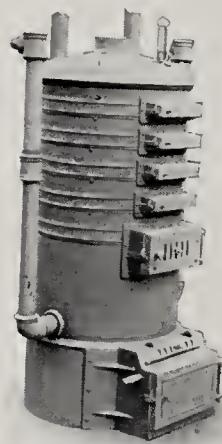
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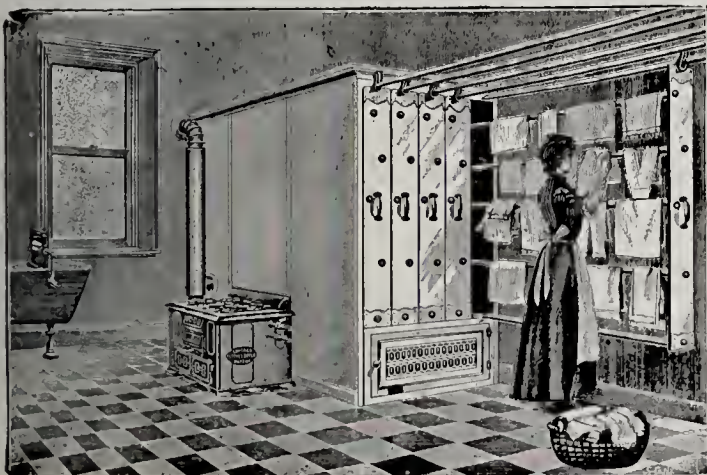
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THIS IS ACCOMPLISHED BY THE USE OF THE

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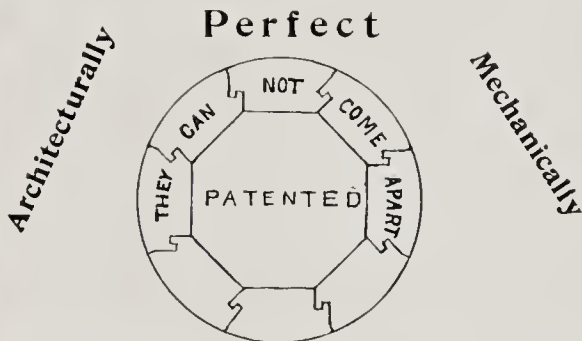
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Manufacturers of Archi-
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Construction for Modern
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Stevens Cast Stone Is recognized by the
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a plant with, on sixty day's trial; if not satisfactory
will refund the money.

WAREHOUSE AND FREIGHT HOUSE DOORS.

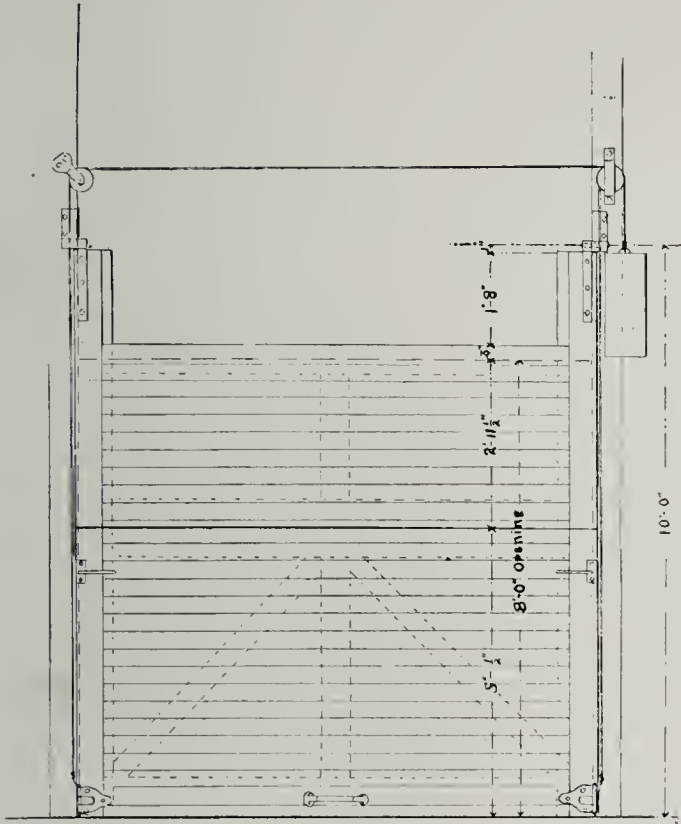
An important feature of every large warehouse and freight house and one which should be thoroughly looked into by all engineers and architects is the manner in which the loading and unloading or shipping platform should be enclosed.

The Cross Horizontal Folding door, which has only been on the market about three years, appeals to us as the most common sense door for this purpose. It is simple, easy to operate, durable, warm; occupies no valuable space, when either opened or closed. And, last but not least, it is the only

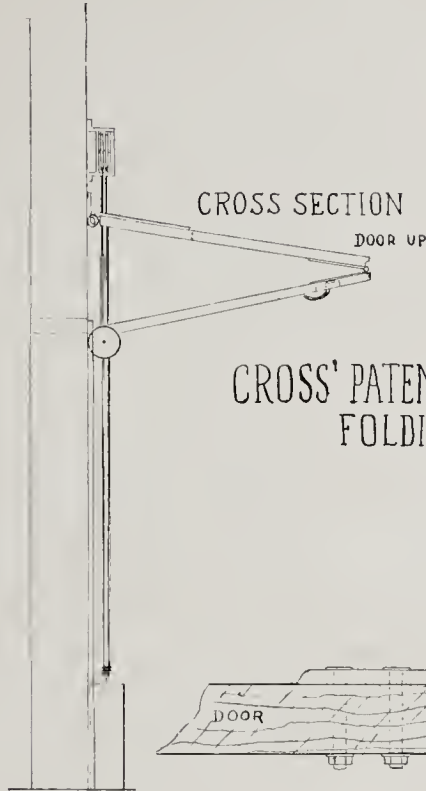
door on the market in which glass can be used, thus admitting light into the building, which is very important, especially on a rainy day, or in a building which is naturally dark; when all the doors are closed, this feature proves invaluable.

Ten of these doors are installed in the Deere & Webber Co.'s new warehouse in Minneapolis, the contractors having used wired glass in the upper half of the door, as shown in adjoining cuts, and the users, Deere & Webber Co., are very much pleased with them.

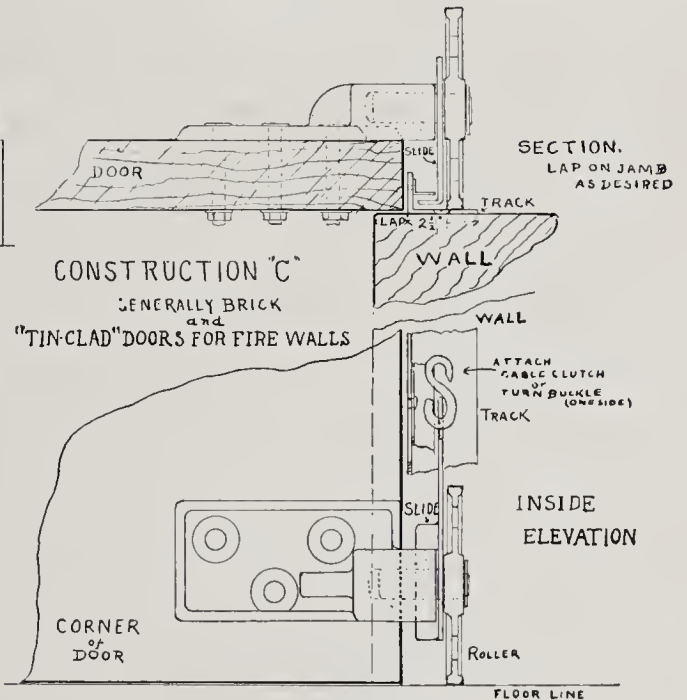
Some time ago the C. M. & St. P. Ry. put a number of these doors in their fruit station, made entirely of wood, and these also have proved very satisfactory.



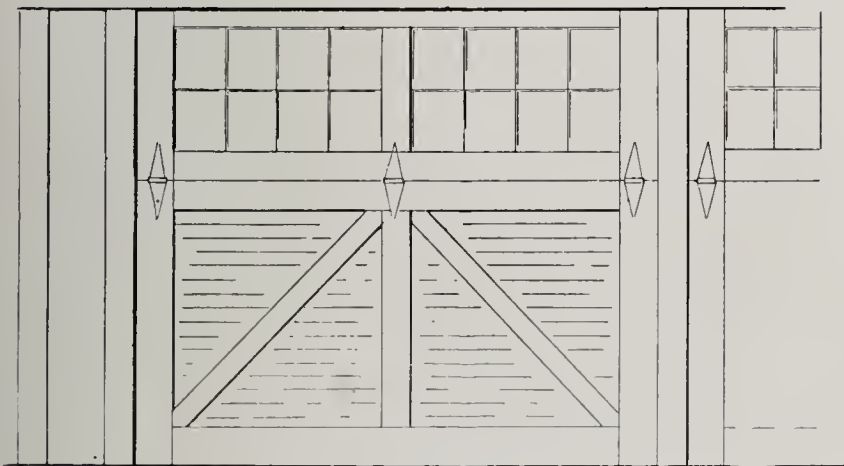
INSIDE ELEVATION
WITHOUT SASH



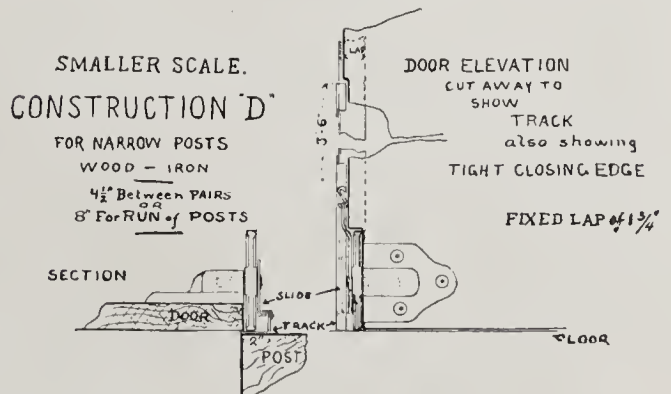
CROSS' PATENT HORIZONTAL
FOLDING DOOR



CONSTRUCTION "C"
GENERALLY BRICK
and
"TIN-CLAD" DOORS FOR FIRE WALLS



OUT SIDE ELEVATION
WITH SASH



SECTIONAL VIEW OF THE CROSS HORIZONTAL FOLDING DOOR.

Manufactured by the Variety Mfg. Co., Chicago, Ill.

The door is of a Jack knife principle, being made of two halves, which are hinged together in the center, the top half being hinged at the top of the opening, a counter balance, which is placed in a box at the side of the door, is fastened to the bottom of the door by chains which run over pulleys at the top of the door, and are securely fastened to weights. The door is pulled out in the center and rolls up on rollers which run on guides at either side, and the door stands out over the top of the opening when open. If it is placed on

the outside of a building, it forms a sort of an awning when in this position. When closed, the door fits snug and tight to the guides and can be made to lock or unlock on either side, or both if desired. It is warm as well as burglar proof.

The Variety Mfg. Co., Chicago, Ill., who are sole manufacturers and owners of patents, have opened an office at 415 Sixth Ave. South, Minneapolis, of which Mr. W. M. McGillicuddy is in charge and who will be pleased to call with models, cuts, etc., and solicits your inquiries.



LAKE SHORE & MICHIGAN SOUTHERN RY. CHICAGO, ILL.
129 DOORS. 9' X 10'

VIEW OF THE CROSS HORIZONTAL FOLDING DOORS
In the Lake Shore & Michigan Southern Freight House, Chicago, Ill.
Manufactured by the Variety Mfg. Co., Chicago.

CONVENIENT AND ECONOMICAL—THE UNIVERSAL OIL BURNER.

Since the recent discovery of the vast Texas oil fields, and new wells opened up daily in nearly every state in the Union, attention has been directed to oil as fuel with the result that many inventions have been made to utilize oil for the household needs.

There are several so-called oil-burners on the market, but the great trouble with them is the expense in operation. Now, however, this great obstacle to their adoption has been entirely done away with through the patents owned and controlled by the Universal Oil Burner Co., of St. Louis, Mo., with branch offices at Room 9, Corn Exchange, Minneapolis, Minn., on the apparatus known as the Universal Oil Burner.

This is demonstrated in many different ways, but especially so from the fact of their having more of their burners in actual use at the present time, than all other companies combined, and one of the principal things which has made the above company leaders in this special line of today, is the fact that they supply the oil to all purchasers of their burners themselves, so that the consumer of the fuel does not in any case have to pay as high a price as is generally

charged for oils for this purpose.

Oil at its present high price can be delivered (even if purchased from the Oil Trust) to the consumer any place in the United States at 3 1-2 cents per gallon, and in many sections of the country at a much lower price and pay well for handling.

The Universal Oil Burners make a dry gas that is unlike natural gas and with a mixing arrangement attached, consumes 80 per cent of oxygen of the air. With this two gallons of oil is more than equal to a bushel of coal, making a clear, blue, smokeless and odorless flame.

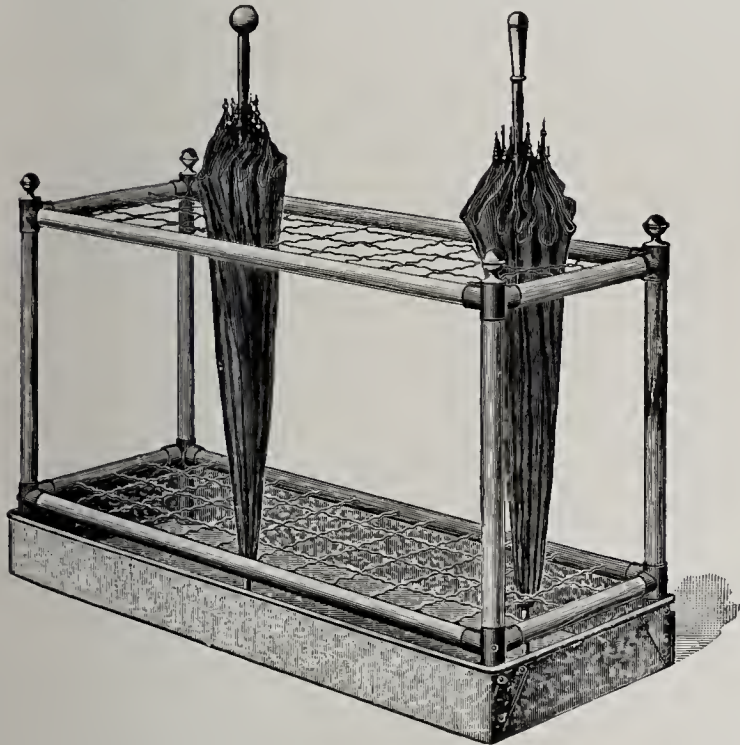
The concern proposes to make all kinds of Oil Ranges, Heaters and Furnaces, Heat Radiators, Gas Stoves, Plumbers' and Tinnors' Furnaces, Hot Water Heaters and Oil Gas Lighting System.

The company is incorporated under the Missouri State laws, and their stock which but a short time ago sold for 20 cents a share, is now selling at 60 cents. Parties desiring to invest in industrial stock could perhaps do no better than to communicate with the authorized fiscal agents, Messrs. McLean & Huges, of Lake Crystal, Minn., who will be pleased to furnish all other necessary information.

THE IDEAL UMBRELLA HOLDER.

A rack outside for your wheel, or a holder for your streaming umbrella, is a mute invitation none the less effective as argument for further care of his patron on the part of Mine Host. What do people want? is the question everyone must ask himself if he wishes to prosper.

Everyone wants an umbrella when it rains, and a place to drain it the moment he comes under shelter.



We illustrate a rack made in various sizes by the W. J. Clark Co., of Salem, Ohio, that is at once light and strong, with capacity for forty-eight umbrellas in the size usually chosen.

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Prof. P. A. Carciofini, manager and director of the Minneapolis Athletic Club, has in the past two years established one of the finest and best equipped gymnasiums and schools of physical culture in the West, which is strictly up to date and now has a total membership of 300, composed of the most prominent business men in the city of Minneapolis.



PROF. P. A. CARCIOFINI.

Prof. P. A. Carciofini was born in Italy and raised in England. Coming to this country fifteen years ago, he has met some of the best men in his class, among them being Kid Carter. Having defeated him he was induced by his wife to give up pugilism. Since then he has been instructor at the following places: Richmond, Va., Petersburg Athletic Club,

Petersburg, Va., Lynchburg Athletic Club, Lynchburg, Va., Atlantic City, N. J., Reading, Pa., Y. M. C., Camden, N. J., Providence, R. I., Potomac Athletic Club, Washington, D. C., and West Point U. S. M. A., N. Y. For five years he also taught boxing and fencing at Princeton and Columbia Universities; also at Lake Wood, N. Y., besides teaching at Dr. W. G. Savage's Institute of Physical Culture, New York City; the University of Minnesota, and at Saratoga Springs, N. Y. While there he treated John D. Rockefeller and Gov. B. B. Odell of New York.

Besides being one of the cleverest boxing instructors in the country, he has the finest system of physical culture in the United States which he has brought to a state of perfection during the past fifteen years of his experience in that line. He has been associated with the best men in the country in his profession and stands second to none in the United States in his class of work, including boxing, fencing and body building. In addition to the above he is a professional masseur. His wife has also received special training as a masseuse, and assists Prof. Carciofini in all of the ladies' classes.

He has three assistants who can hardly be equalled in their line. Mr. A. H. Felkey, the wrestling instructor, is champion light weight wrestler of the West, while Mr. A. B. Mallett, the fencing instructor is champion of the Northwest. Mr. Jeff Thorne, the noted English pugilist, is a boxing instructor and all around gymnast. He was middle and heavy weight champion of England for five years. He has fought Bob Fitzsimmons, Tommy Ryan, and Kid McCoy, and later trained Fitzsimmons for his fights with Sharkey, Ruhlin and Dunkkorst, besides being his sparring partner. For one year Mr. Thorne also assisted Prof. Sandow at his physical culture institute at London, Eng. He has won third medal for proficiency at Piccadilly Hall, London, Eng. in the International Gymnastic Competition.

Anyone in need of the benefits to be derived from the above work will save time and money by consulting Prof. P. A. Carciofini, either by mail or in person at 241-3 Nicollet, Minneapolis.

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Rumors are afloat that the price of end-matched flooring will soon be advanced two or three dollars a thousand. We wish to say that there is no foundation for any such rumor, and in this connection we ask you to

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FIRST. That the United States Circuit Court has fully sustained our Patent.

SECOND. That we not only consented but joined in the request to reopen the case to permit further evidence to be submitted.

THIRD. That this action does not indicate any change in the **opinion of the Court,** as it was by consent of both parties.

FOURTH. **That end-matched flooring has not been advanced in price and will not be at any time, any more than is warranted by the usual conditions governing the lumber trade.**

FIFTH. That there is not an **inch of waste** in laying end-matched flooring, and besides this there is a **great reduction in the cost** of laying it.

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SECRETARY

Aurora, Ill. Aug. 25, 1903.

Mr. F. A. Greenlaw,
C/o The Western Architect,
Minneapolis, Minn.

Dear Sir:-

We write to acknowledge the receipt of the Western Architect of August in which you very kindly print on page 11 a copy of a letter which we wrote July 24th, simply stating facts as they seem to us. The Western Architect should have a great boom. It is a high toned, clean cut publication and as manufacturers of hardware specialties, we are glad to appear before the public in such good company. Had we supposed for a moment that anything we said was to appear in print, we should have tried to put it in better shape.

Yours respectfully,

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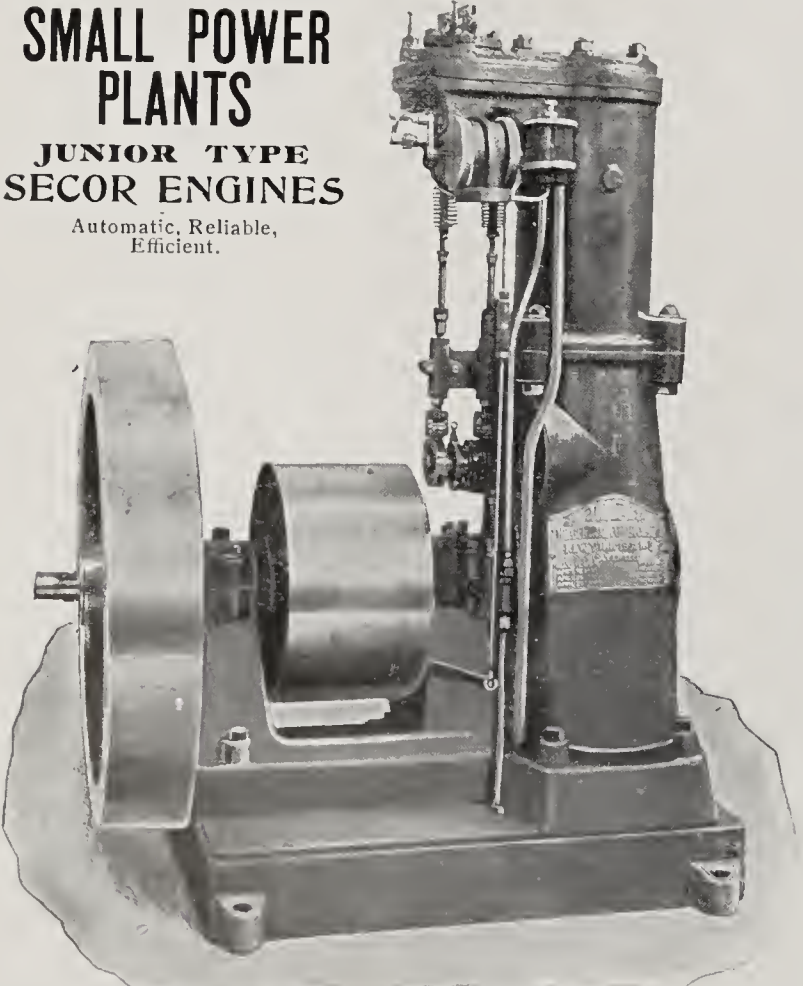
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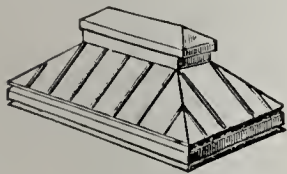
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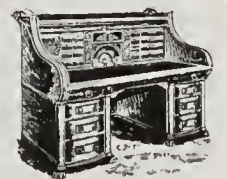
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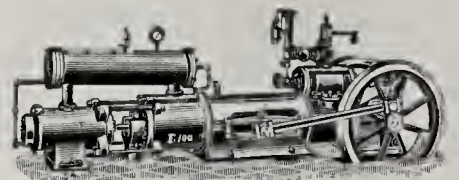
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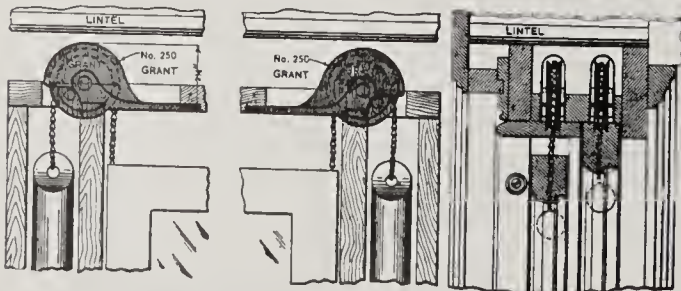


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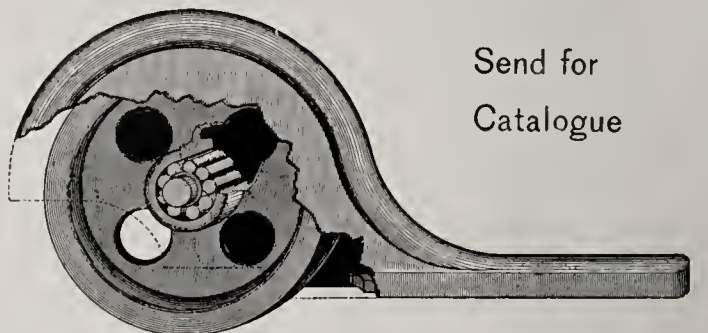
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