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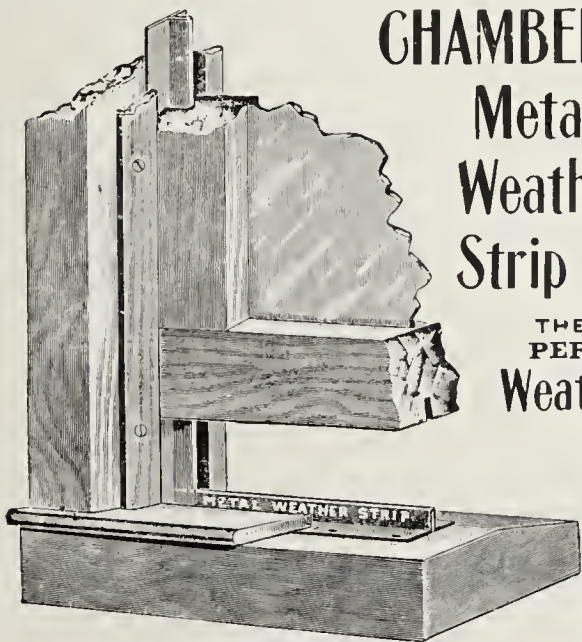
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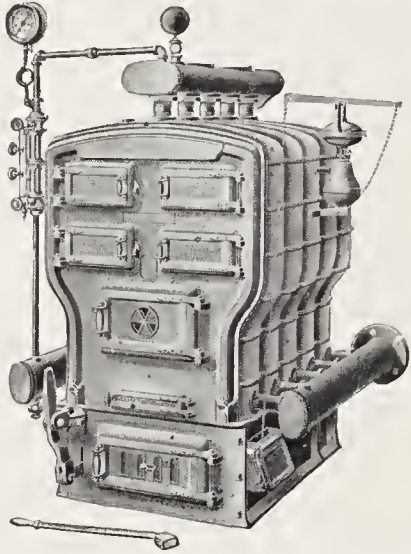
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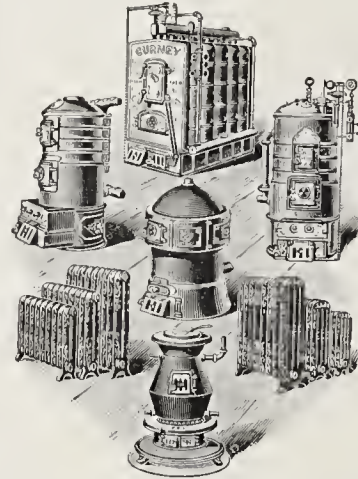
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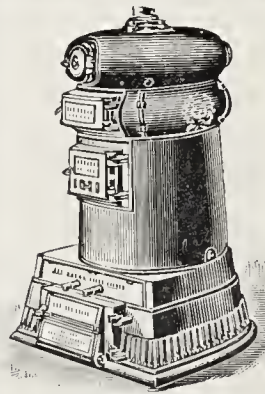
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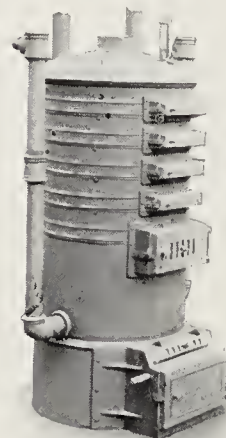
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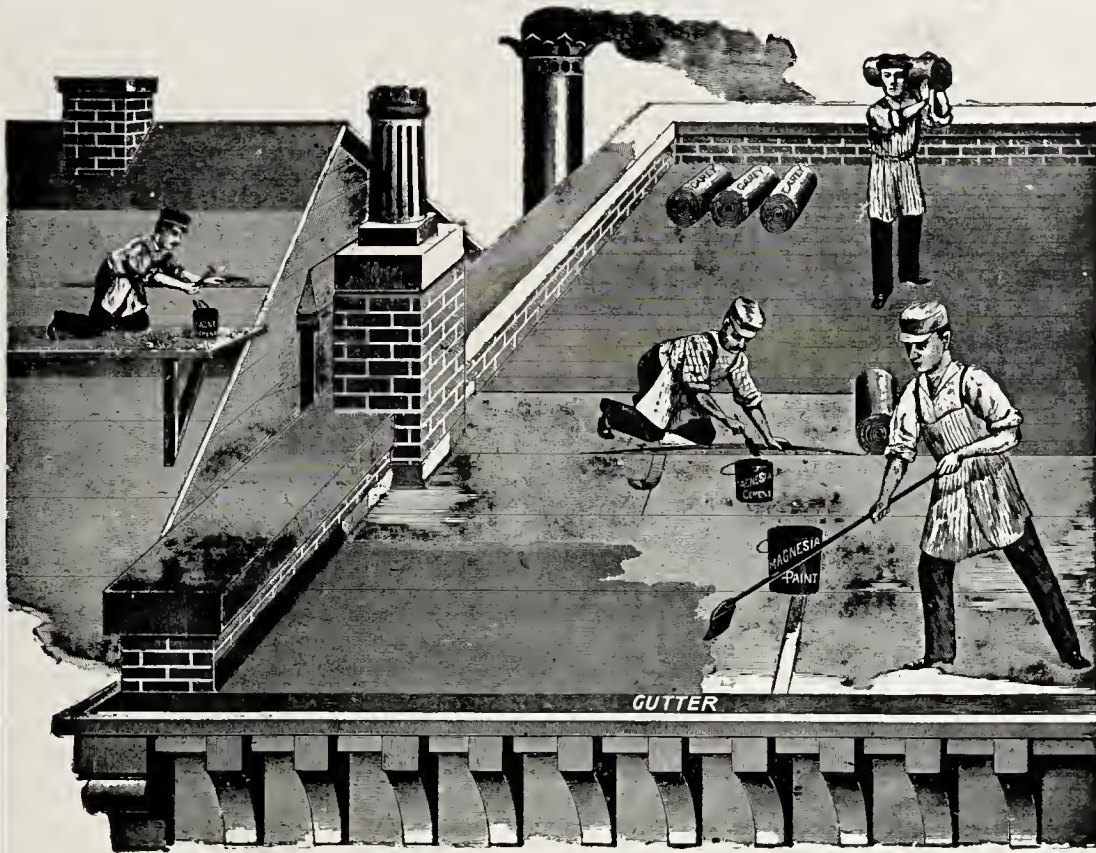
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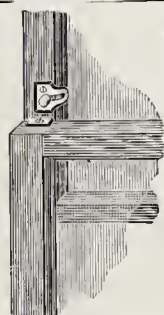
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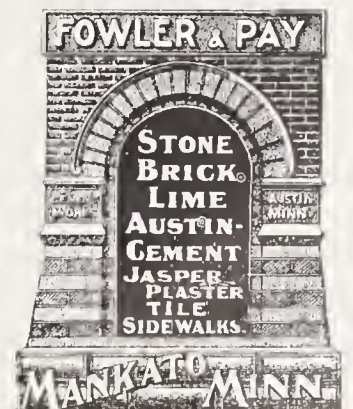
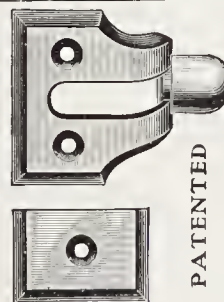
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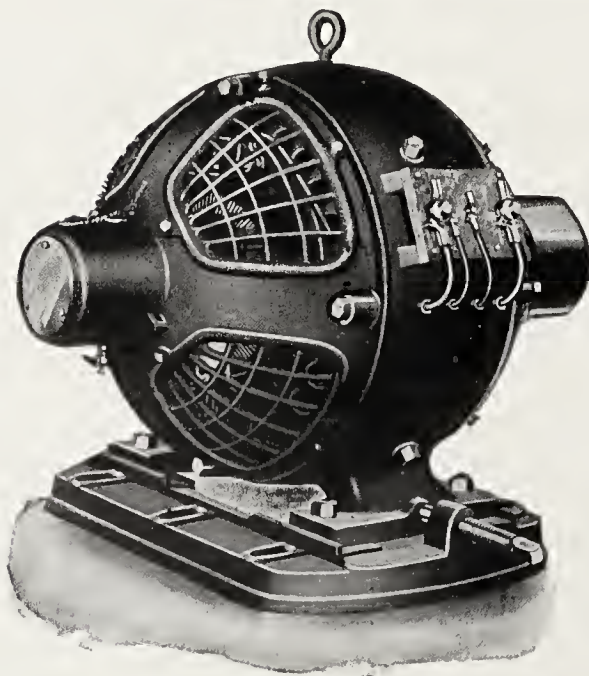
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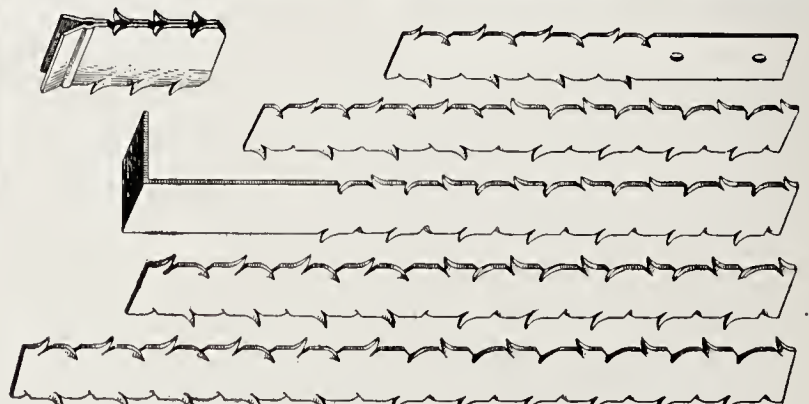
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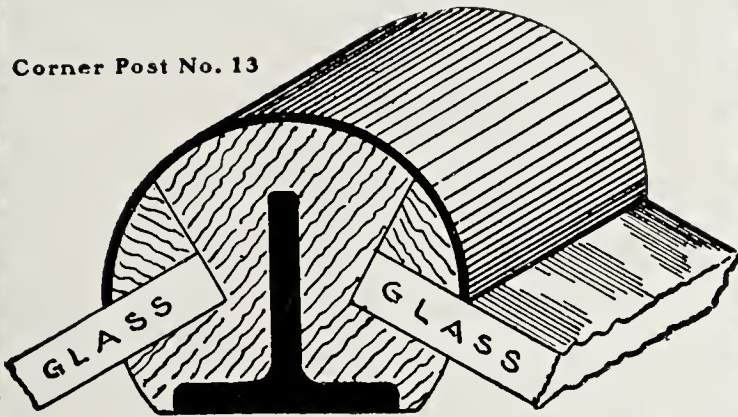
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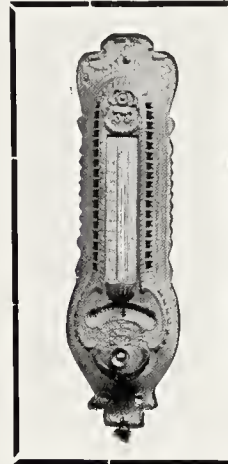
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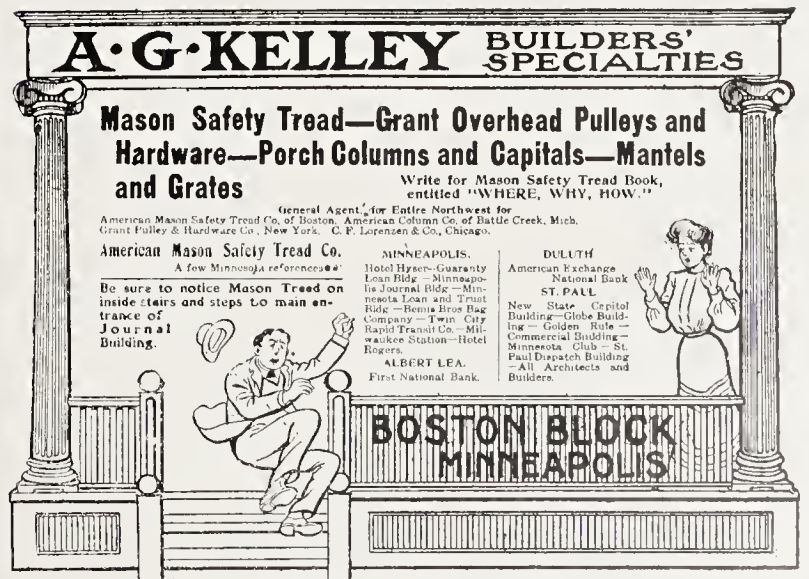
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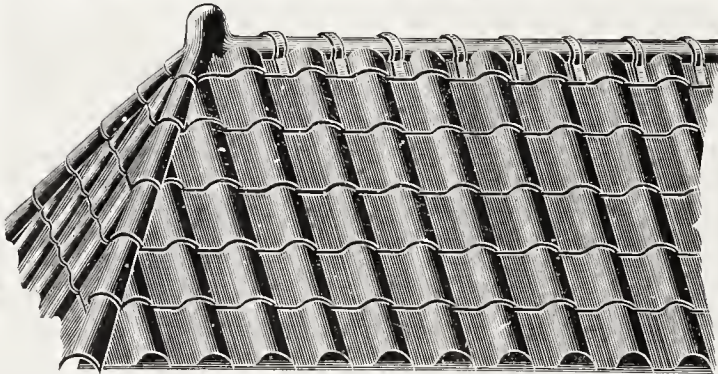
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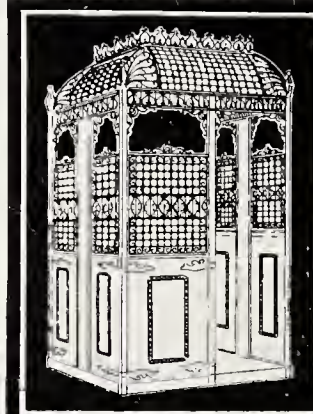
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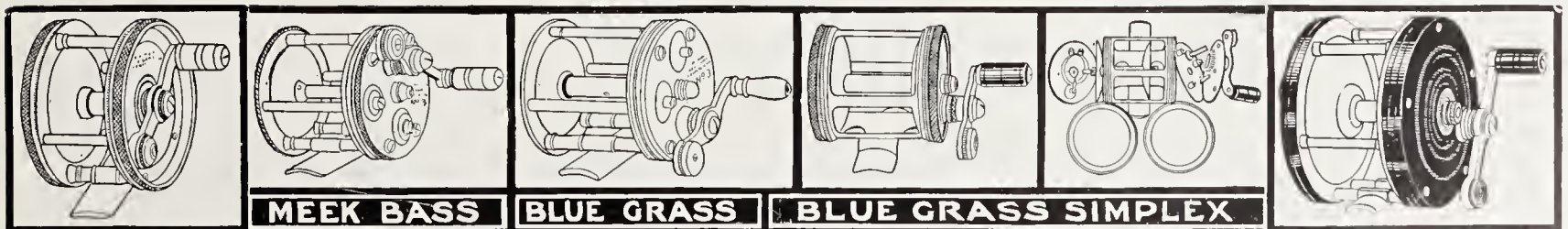
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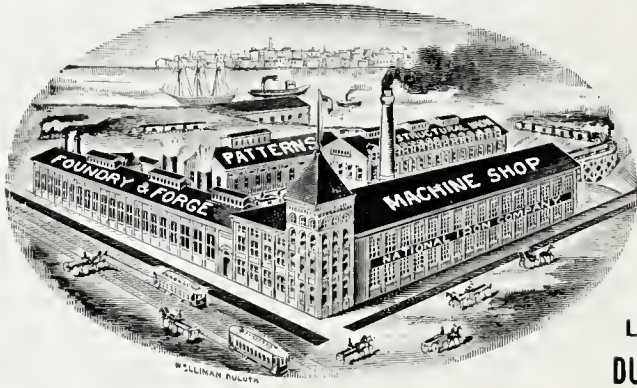
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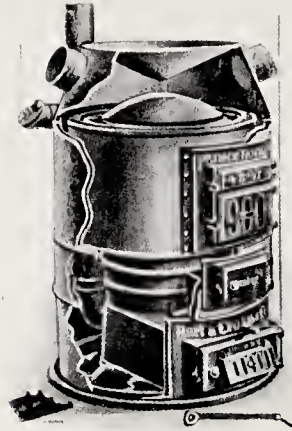
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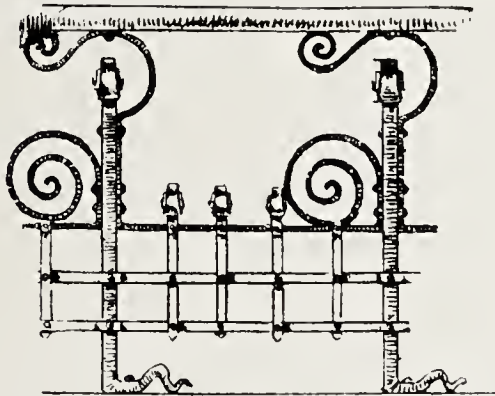
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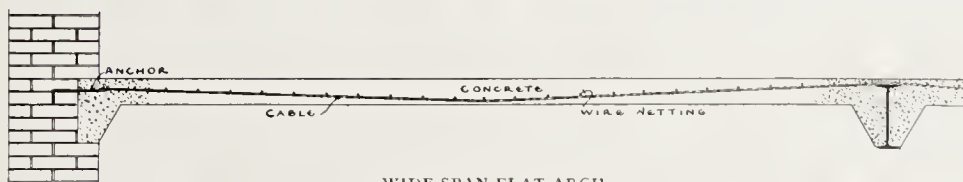
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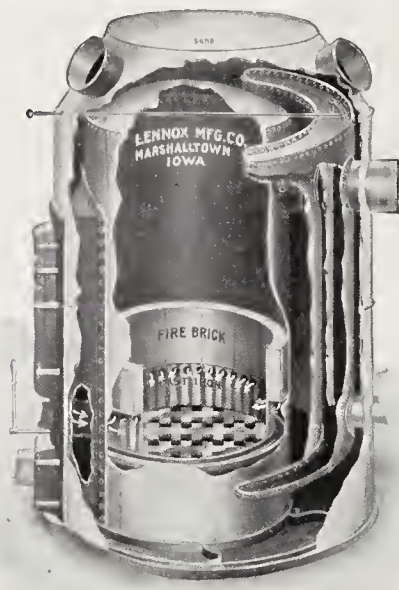


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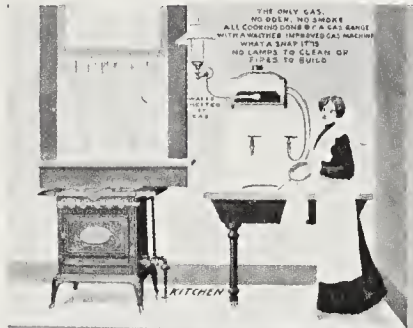
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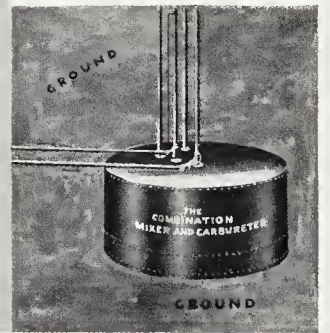
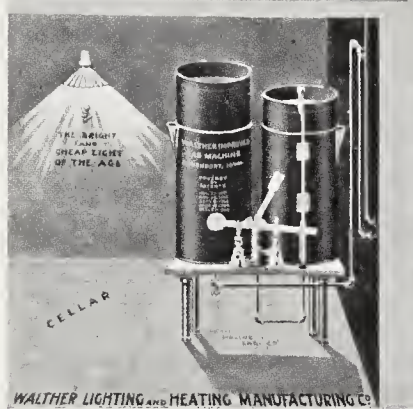
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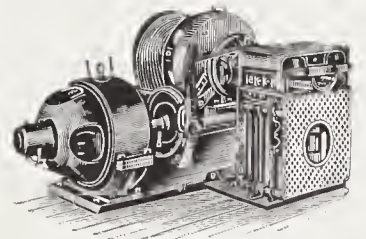


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Entered November 24th, 1902, at Minneapolis, Minn., as second-class matter, under act of Congress, March 3, 1879.

VOL. 3.

AUGUST 1904

No. 8.

THE WESTERN ARCHITECT

IS PUBLISHED ON THE 15TH OF EACH MONTH

BY

THE WESTERN ARCHITECT PUBLISHING CO.
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ADVERTISING appeals to the candidate for office under the new Minnesota election laws as the first of his needs. Long before the primaries even, telephone poles and old fences begin to be decorated with portraits. An empty barrel standing on a vacant downtown corner in Minneapolis is completely girded with such portraits, mainly of candidates for judicial honors. It is to be hoped that the disappointment in store for some nine-tenths of these aspirants will turn into an attempt to get revenge by supporting a reform of the bill board nuisance.

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Mr. HOWARD PYLE is made to appear by the newspapers as having excluded women from his classes, giving as his reason, "The pursuit of art interferes with a girl's social life and destroys her chances of getting married. Girls are, after all, only qualified for sentimental work," and then the paragrapher gravely gives a list of a half dozen noted illustrators who owe their success to Mr. Pyle's help and training, five of whom are women. In truth, this list might be extended in the same direction, and if the master is fearful that his teachings, with the ambitions which they gender, have displaced all affairs of the heart, he is not fully informed.

BUILDERS of the Baltic, the latest leviathan of the White Star Line, claim to have exceeded the Great Eastern in length by 35 feet, in speed by 5 knots or more, and in capacity by 1500 tons. With engines of no greater weight, they developed twice the power of the older ship, using 250 tons of coal a day instead of 400. The new ship can carry 3000 passengers; her net tonnage is 24,000, her speed 17 knots, and her crew 350. If the greater mechanical efficiency of the Baltic fairly represents the progress made during this period, there is much cause for congratulation. Perhaps it is fair to note that the testimony of the builders of the Great Eastern does not appear in this statement.

✻ ✻

ONE result of Baltimore's tests of fireproofing was the bringing out of some sturdy advocates for every system on trial there, whose labors are not abating to any great extent. All parties are confident that the evidence they have is sufficient to prove their own cases and to crush the other fellows. This evidence is much of it so biased as to lead close students of the reports to ignore it in the main and to lay the failure of leading systems to inferior details and workmanship. So seldom does the fireproofing of a large modern building have a real test, that little surprise is called for if many failures went on record at Baltimore. When one thinks of the many tests and failures recorded in bringing about any considerable change for the better in other departments, congratulations are due to the people who have devised so good fireproofing within so short a period. Down to the Baltimore tests, it is probably that designers of fireproofing had really obtained more of their knowledge from small tests purposely made, than from fires in real buildings. As a result, a good fireproof building was more the product of the good judgment of the individual designer, than an affair of proven good standard—a condition sure to let in many designers of not absolutely good judgment. All of this only argues for better fireproofing of whatever sort used, and the experiences at Baltimore will tend to compel it.

As to leading ways of fireproofing, architects are probably more influenced by "The Brick Builder," than by any other publication. While a strictly judicial position would scarcely be looked for from that journal, yet its advocacy of terra-cotta seems to be fair and temperate, as does the claim that terra-cotta took the brunt of the fire in nearly all cases.

ONE use to which the St. Louis show will be put will be an attempt to popularize the planting of the more Western variety of the catalpa tree (*c. speciosa*) as a source of supply for railroad ties, fence-posts and the like. The press is making the most of the stories about the rapid growth of the wood and its great power of endurance against decay when placed in the ground. This is not the first attempt of the kind by any means, one southwestern railway having done considerable planting of catalpas as long ago as 1879. Everybody has noticed the wonderfully rapid, if somewhat erratic growth of the tree, but the area over which it may be depended upon to flourish is considerably over-stated, unless our observation of individual trees is exceptional. Great elasticity and transverse strength are attributed to the wood—as much as shown by fair samples of ash or oak, and a coach finished inside with the wood in the natural grain will be one of the exhibits at St. Louis. One account has it that the wood is almost valueless for firewood, which, if true, greatly enhances its value for building purposes. We hope that half that is told about the wood is true, for the accounts of its wonderful growth, its straightness, strength, endurance and immunity from insect pests might be discounted a good deal and still leave the tree a degree of desirability that would make its cultivation valuable for some purposes.



INTERVIEWS with marine builders and others whose position gives weight to their opinions develops a very general leaning to a view of the excursion steamship question which may have been arrived at quite as much by reason of the Iroquois theater horror as by the General Slocum experience. While a minority think the substitution of steel for wood in the construction of such craft feasible, nearly all look to discipline of the crew and proper safeguards in the way of fire apparatus as the essentials after all. Reasoning from the theater fire, one might easily sustain the position that a fireproof building for the purpose is a disadvantage as giving a sense of security leading to complete abandonment of all discipline or observance of common precautions afterwards. When we come to the fire on the General Slocum, however, this reasoning will not apply, for here we have not only an extremely combustible boat, but the extreme of criminal negligence in its care and management. Taking both tragedies as a basis, the conclusions reached by the majority of those acquainted with the construction and management of the excursion boats is unavoidable. The management cannot shift the responsibility upon the builders of such craft as the General Slocum: first, because if any fatal defects existed in the boat itself, the management was under no compulsion to run the boat for its purpose; and second, because there is no evidence to show that the management was prepared in any real sense to meet an emergency of the sort. Meanwhile the government inspector who passed favorably upon the conditions

existing on the ship would appear to be escaping with the mere loss of his official head. Such an inspector will without question look upon himself as next to a martyr until his "pull" provides him with another job "equally as good."

This department has before commented on the laxity and inefficiency of some forms of official inspection. We all know what glaring infractions of building laws are often to be seen in our cities, yet one may well look for better service from an inspector in the employ of a municipality, than from a government official. The ways of securing place and the infinitely greater number of hiding places open to the latter, render him practically immune from public comment. And public comment with the possible loss of place are the only punishments which lax officials have to fear. Division of or lack of definiteness in responsibility are also powerful pleas for the defense in case things go wrong. Where hundreds of lives are at stake, it might be well to secure from official inspectors something more than a pretense of service by placing them under heavy bonds, forfeitable when official laxity is disclosed.



EFFORTS to monopolize the steel business of the country continue by the great steel corporations, but meanwhile the balance sheets do not satisfy the owners, net earnings for the first quarter of the current year having dropped to thirteen millions, and of the second quarter to nineteen millions, being in each case just about one-half of what they were in the corresponding quarters of 1902. The purchase of new properties being made by bonds, has no effect upon this statement. There must be something about "business" curiously destructive of all sense of humor, for, when a few months since, it came to be noised abroad that this tender tariff infant of ours was selling steel to our neighbors to the North and South at about one-third off, Canadian statesmen began immediately to agitate for some "compensating" legislation which should add, at the border, as much to the cost to the Canadian consumer as our steel makers on this side the border had proposed to favor him over home consumers. It is not learned, however, that the officials of a Mexican railway, having a few miles of road also in Texas, were so greatly vexed at the arrangement whereby they bought of American makers the steel rails for their main line at some eight dollars the ton less than they were obliged to pay for those used on the stub reaching over into Texas. One can imagine a Mexican so untaught in economics as to chuckle at the situation. And without Carnegie libraries it is possible that he will remain untaught for some time to come, while our more advanced neighbor to the north of the great lakes may evolve a state of enlightenment that will lead to a refusal to even let us give him steel. Meanwhile the price of steel beams in this country remains at a level highly encouraging to promoters of reinforced concrete and other would-be substitutes.

JUST now, for obvious reasons, statisticians are very busy with comparisons of the present wages and cost of living with those of certain former times. This is a field in which judicious laborers may glean facts to suit any theory whatever, and in which an honest one would find it difficult not to lose his way. There is a quotation from Disraeli running something like "lies—blank lies, and statistics." Speaking of wages, a humorist has put it, "Ten dollars a week is salary, and four dollars a day is wages." If such salaried men in cities are bunched with such wage-earners, we might find a very different showing from that deduced from either class. This department not long since referred to some large increases in pay per hour secured by some of the unions connected with the building trades. It will be difficult to show that any other equally large body of men have secured so large an advance in wages per hour within the past five or six years as those belonging to the building trades. When, however, it is remembered that this increase has been generally attended by a reduction in hours, the conviction will come to one that unless employment has become more steady, the increased earnings can hardly have kept pace with expenses. If a painter, for instance, receives 50 per cent more wages per hour than formerly, but works only eight hours in place of ten, he really earns only 20 per cent more, unless he manages to work more days. Salaried men and those with "steady jobs" indoors have not as a rule in Western cities secured an advance of 20 per cent during the period. An Eastern insurance company having large buildings in several Western cities in which numbers of elevator men and janitors are employed continues to get young, faithful and active men at an advance of 12½ per cent over wages paid in '97. Mechanics employed by large railroads in the Northwest have secured no larger advance, while "salaries" in some of the offices of some of the roads are scandalously low. Civil engineers cover divisions of 500 miles or more on the Great Northern, doing all manner of work at all times of the day or week for eighty or ninety dollars per month, and are laid off for a good part of the winter. The pay of draughtsmen in these offices appears to be generally better, if more fluctuating, while they escape the hardships and responsibility of the division engineers. There is probably more shifting about among employes of this road than on others, but their pay does not appear to be notably less.

Living expenses, apart from rents, vary curiously in Western localities not far apart. It is probable that generally in the West they have not advanced as in the East. Dunn's estimate of an advance of more than 40 per cent would probably be excessive unless the comparison were made with the year '95, which was exceptional in many ways through the West. But the entire subject of both wages and cost of living has so much that is exceptional that inquiries for the purpose of really showing the prosperity of different localities or callings—inquiries made in an "off year"

even—would be likely to lead to many errors of deduction.

The effect upon building interests of the exceptional advance in wages paid in building trades is variously interpreted according to the point of view. If one is looking only to the effect on the cost of building, two facts stand prominently in the foreground; first, that at a given wage per hour, the labor bill will generally be greater with an eight-hour than a ten-hour day—the ten-hour day in most building operations is not excessively exhausting, and there is less waste in starting and stopping than in the shorter day—and second, high cost of either work or materials is a constant inducement to designers to devise economies. Improvements in building within a decade or so in the direction of simplicity and economy have very noticeably reduced cost in the hands of skilled designers. Not to mention the possibilities of new constructive methods and new glazing, take house plumbing as an illustration. Here both workmen and material men are assumed to have things their own way as much as in any branch of building. For all that, one can get a much better job of plumbing for a given price than ten or twelve years ago.



CORRESPONDENCE of the Building News from Copenhagen tells how Mr. Hansen, architect of the Church of Our Lady, so celebrated for its sculptures by Thorwaldsen, had prepared niches for the colossal statues of the twelve apostles, standing six on either side of the nave, "on massive square bases, immediately in front of the broad square piers that support the bays." How the sculptor escaped having his work partially hidden by being backed into these niches was told by himself:

"Architects are obstinate people," he wrote, "and one must know how to manage them. When the church of Our Lady was built Hansen left six niches on either side of the interior, and these were to contain my Twelve Apostles. In vain I represented to him that statues were meant to be looked at from all sides, and that nobody could see through a stone wall. I implored. I coaxed, but it was all in vain! Then I thought to myself, 'He is best served who serves himself'—and, thereupon, I made the statues a good half foot higher than the niches. You should have seen the length of that poor architect's face when he found this out! But he could not possibly help himself, so the infernal sentry-boxes had to be bricked up, and my Apostles stand out on their pedestals as they are now seen in the church."



THE British Consul General at Berlin reports that the efforts to form a combination of the cement manufacturers throughout Germany for the purpose of improving the conditions of the cement manufacturing industry, have thus far not succeeded.



A LARGE number of members of the Institute of Civil Engineers of Great Britain are to visit the United States and the St. Louis Exhibition in October as the guests of the American Society of Civil Engineers.

RECOLLECTIONS OF BOSTON.

By E. P. OVERMIRE.

Commonwealth Avenue.

The streets in the business portion of Boston have a national reputation as a hopeless tangle, crossing and recrossing without rule or reason, and well deserving their reputed origin as cow-paths.

Beginning at the Public Garden, and extending about one and one-half miles in a southerly direction, is the famous Back Bay District, the fashionable West End of Boston. Here the streets are as prim and regular as the most sedate could wish for. The main axis of this district is Commonwealth avenue, an imposing thoroughfare, 200 feet wide, with a "mall," or park, running through its center, which is set out with trees and shrubbery, statuary, walks, and seats for the wayfarer when in need of rest during his sight-seeing, and forming a rendezvous for numerous nurse-maids and children in pleasant weather.



COMMONWEALTH AVE FROM WEST CHESTER PARK

Commonwealth avenue is flanked on the south by Newbury street, on the north by Marlboro and Beacon streets, while running east and west are Arlington (which marks its beginning), Berkeley, Clarendon, Dartmouth, Exeter, Fairchild, Gloucester, Hereford and West Chester Park, where the Black Bay Park system commences, continuing out through Brookline. It will be noticed that these cross streets run alphabetically and alternate in two and three syllable names.

As in the case of Boston Common, the buildings which line this avenue form the largest item in its attraction to the tourist. On the north side one first encounters sombre, dignified old brownstone fronts, which were the "whole thing" thirty or forty years ago. A



J. F. ANDREW HOUSE

pleasing and growing variety is marked as one passes along the avenue, many of the best of which are illustrated herewith: the Nathaniel Thayer house at Fairfield street, the C. F. Adams house at Gloucester street, the Beebe house and the J. F. Andrew house at Hereford street, and the Governor Ames house at West Chester Park. The latter is a large, somewhat forbidding brownstone affair, impressive and dignified by its scale and treatment. It was the subject of one of the Boston Architectural Club's rambles, which the writer was unable to attend. With the genial architect, Carl Fehmer for a pilot, and the good governor for a host, the trip was one to be remembered, the interior of the house delightful.

At this point stands the bronze statue of Leif Erickson, by Miss Anne Whitney, which was unveiled during the writer's residence in Boston.

On the south side are fewer notable residences, but more of a tendency to "blocks," owing probably to its northerly frontage. There are more buildings of a mon-



WHITTIER RESIDENCE

umental character on this side, including Richardson's Brattle Square Church, with its fine tower, a landmark and dominating feature of the skyline, as is Trinity, and the Vendome, one of Boston's most exclusive hostelrys.



LEIF ERICKSON STATUE

The Algonquin Club is situated on the north side of this avenue (of which more anon). The St. Botolph Club is on Newbury near Arlington. The Boston Art Club is two blocks further out at Dartmouth street, with which the writer was closely associated during enlargement and alterations. The fine old fireplace in the reading room could never be used because of some defect in its construction, which proved to be due to the throat being clogged with bricks dropped carelessly by masons. This we remedied, and at the same time another fireplace was built "back to back" in the new building, more than doubling the size of the room. Spiritual Temple stands a block farther out at Exeter street, which also has some interesting history. At Marlboro and Exeter streets is an interesting house by W. Whitney Lewis, showing a pleasing use of roman brick. On Beacon street is an interesting pair of houses by Richardson and McKim, contrasting most effectively the styles of the two. On Westland avenue, near West Chester Park, is an interesting house by H. Langford Warren, for an artist named Page, which shows a unique handling of brickwork.



ALGONQUIN CLUB

As already intimated hereinbefore, the Algonquin Club has some history very interesting to an architect. Those who recall the original design will remember the fact that it showed the lines of the entrance portico and the flanking bays carried straight up from the ground, the front wall of the building being in line with adjoining buildings. My illustration shows how the architect and owners built a wall straight across connecting the bays and portico, extending the rooms several feet and forming balconies above. Now, the deeds to all property in this avenue have a clause restricting the projection of



BRATTLE SQUARE CHURCH



BRATTLE SQUARE TOWER

bay windows, steps, etc. The change in this front raised a great rumpus on the part of adjoining owners, who contended that this was a violation of the aforesaid restriction and brought the front wall of the building beyond the line designated, notwithstanding the real wall was in line, as shown by the photo. The owners contended that their building was in accord with the law, the main front wall clearly being that which extended up five stories, while the short walls in question were but one story high, and merely filled the space between the bays and entrance and made no difference whatever in their effect upon abutters. The matter was fought through the courts, the owners being determined not to alter the building after its completion, and the architect acted with them. When the owners finally decided to yield, the architect carried it on at his own expense, but in the end was obliged to yield, and the building was altered to the original plan and so stands today.

A similar battle was fought over the side portico to the Spiritual Temple, which seemed a little more justifiable, as this porch really interfered with the sunlight in the principal room of the adjoining house, but a compromise was effected which left the porch as built. It is a noteworthy fact that able architects were found to testify on both sides in these controversies, thus emphasizing the differences of opinion which exist upon such questions.

These are days in which things are done in a hurry. Big enterprises, while much thought may have been given to the details and a long time may have elapsed between the birth of the thought and its final development, conclusions are now reached in short order. A prominent architect stated a few days ago, with a remarkable degree of satisfaction, that when it came to open the bids and let a contract for a building, the cost of which was estimated at \$500,000, not twenty minutes elapsed between opening the bids and the notifying of the lowest bidder to call and sign the contract. There was no overhauling of the plans and no cutting down, no beating down of the contractor. They were business men and meant business. Taking this as an indication it is safe to predict that the building will go ahead rapidly without needless extras and any friction on the part of anyone, with a result that when it is completed it will probably be as perfect as it is possible to make it.—Construction News.

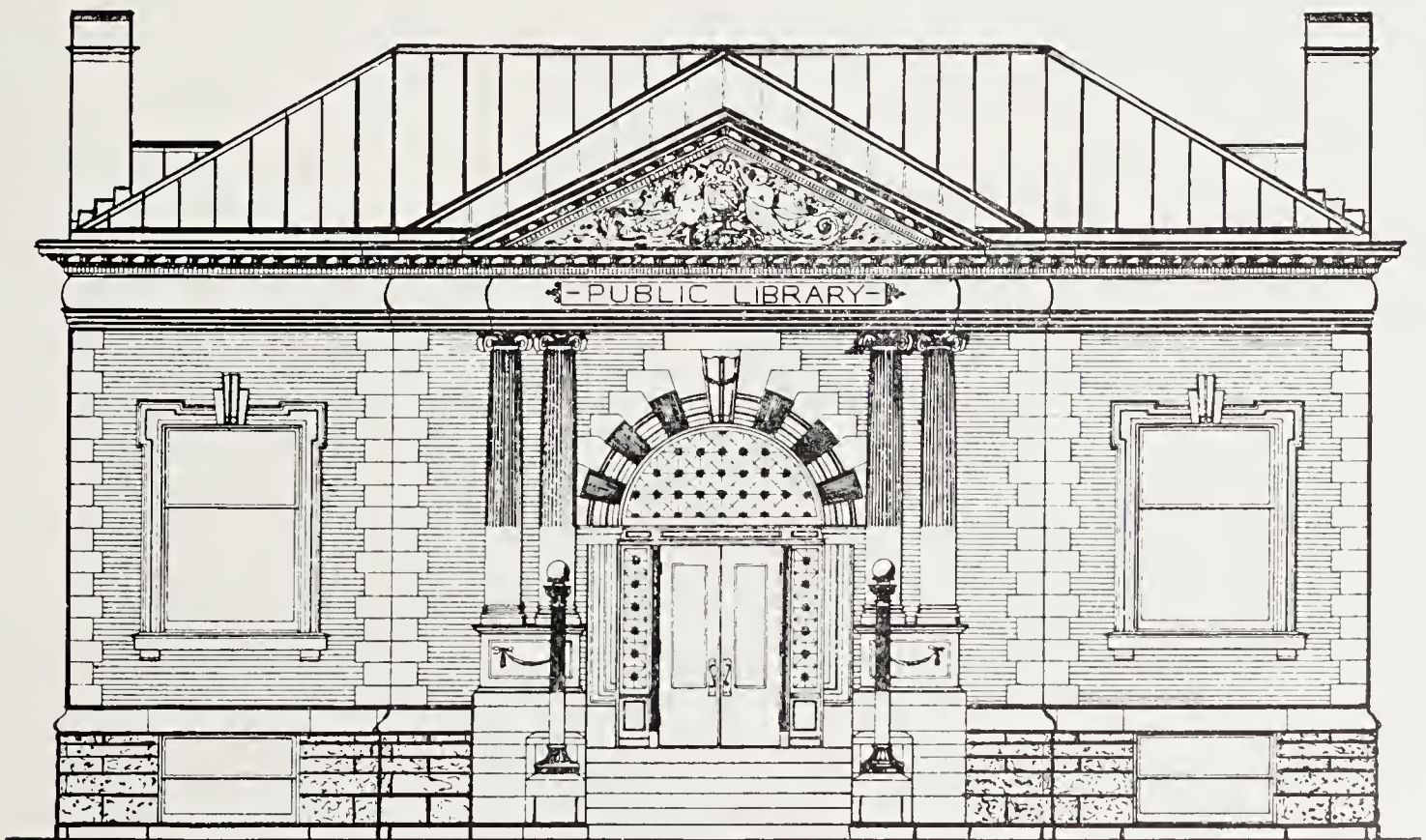
In the much that is being said about technical education in Massachusetts, apropos the discussion over whether the Massachusetts institute of technology and Harvard university shall join hands in a large and wise promotion of it, it is worth remembering that the Worcester polytechnic institute long ago grew out of the localism which was its beginning. Its president, Dr. E. A. Engler, like President Pritchett of the Boston institution, was formerly connected with the faculty of Washington university in St. Louis. Of late years more and more students from the four western counties have been going to the Worcester institute, while the Massachusetts institute of technology has always drawn largely from this section. These technical schools have come to hold a larger place in their appeal to young men, than most graduates of the literary colleges have come to appreciate. At the recent commencement of the Worcester polytechnic institute the alumni decided to build a memorial hall. The purchase of a tract of land fronting on West street, 605 by 420 feet, was authorized, and money will be raised to put the proposed building on it.—Springfield (Mass.) Republican.

The Boston Board of Appeals, which is the body empowered to decide matters of controversy between owners or architects and the building department, has recently made an interesting decision as to what constitutes a building. The question was brought before the board by Spofford & Eastman, architects, on an appeal from the building commissioner's refusal to permit the erection of a block 228 feet long and 56 feet deep, divided into nine separate and individual sections, three stories high and covered with a flat roof. Each section had six separate apartments, two on each floor. The basement in length and width was entirely open, affording free communication to all parts of it. The architects claimed that this structure, with its four external walls, was a single house and not a block, and that, therefore, the section of the building law with regard to brick party walls did not apply. This contention was sustained by the board of appeals, who ordered the permit for the structure as a single building to be issued.



BROWN COUNTY COURT HOUSE, ABERDEEN, S. D.
Kinney & Detweiler, Architects, Minneapolis

E. Miller, Contractor



ACCEPTED DESIGN FOR PUBLIC LIBRARY, GRAFTON, N. D.
Joseph Bell DeRemer, Architect, Grand Forks, N. D.

ECCLESIASTICAL AND MEMORIAL WINDOWS.

By E. B. NORTHROP.

The readers of *THE WESTERN ARCHITECT* will appreciate the illustrations here given of memorial and ecclesiastical windows which are the result of local artistic conception and constructive skill.



THE JUDD MEMORIAL WINDOW, GETHSEMANE CHURCH
MINNEAPOLIS, MINN.

Designed and Executed by R. T. Giles & Co., Minneapolis

The window recently placed in Gethsemane church, Minneapolis, by Mr. William G. Judd in memory of his father and mother, S. Corning Judd, LL. D., and Lavinia James Judd, was unveiled and blessed by Bishop Edsall, Thursday, July 21, last. The beautiful memorial is representative of the Annunciation, and is a fitting tribute to the life and work of two of the most prominent members of Gethsemane parish. The design presents the Virgin and St. John returning from Calvary, which is depicted by the three crosses in the distance. While the figures and faces represent the highest types of human purity, the artist has most forcibly presented the lesson taught that day upon the Mount by some of the accessories to the representations of the Virgin and St. John, Over the former is the crown of thorns to intensify the inscription upon the lower part of the panel, "In the world ye shall have tribulation," while above St. John is

emblazoned the crown of gold accompanied by the declaration below, "Be of good cheer! I have overcome the world!" The window is made entirely of antique glass. The colors predominating in the garments of the Virgin are blue and amber; and in those of St. John, ruby and gold, with olive green effects to soften the pronounced colors. The landscape is beautiful and appropriate in delicate pinks, ambers and blues. The artistic and constructive work upon this window is of the highest order. Its beauty of coloring will certainly be appreciated by every lover of art who visits the Church of Gethsemane.

In the window recently placed in the First Christian Church, St. Paul, by Mr. Charles E. Dickerman in memory of his wife, who was long prominent in the work of that society, the subject of the Resurrection is treated in a manner which conveys the story in its most beautiful conception; and the correctness of detail and the richness of coloring entitles the work to take place amongst the best of its class in this country. The story of the Easter morn is exquisitely told. Christ appears to Mary Magdalene in a pastoral scene which, of itself, is elevating to every moral sense. The attitude of the Magdalen is not one of surprise at the appearance of the Lord, but rather of an expectancy born of an unquestioned faith in the great promise, together with confidence that the Divine blessing will be conferred. Far more than a mere proof of the resurrection of the body is given in this beautiful work. It is the beginning of the era of universal love and kindness and justice—the qualities idealized in the face and manner of the Christ. The lilies tell of purity restored to the pleading penitent. Over all are emblazoned the Star, the Cross, the Crown—the emblems of the great achievement of penitence, love and faith.

It is to be regretted that the illustration cannot present the beauty of coloring in this window. It is executed in opalescent and imported antique glasses. Rich amber greens prevail, while the general effect is relieved or intensified by the ruby-colored garment of the Magdalen.

The third illustration, "Elijah," is one of a series of six memorial windows in the Jewish Temple, at the corner of Holly avenue and Avon street, St. Paul, each representing one of the prophets. These windows were donated to the Temple by prominent members of the congregation, as follows:

- Elijah—By Mrs. J. Rittenberg.
- Jeremiah—By Mr. Ben Baer.
- Isaiah—By Mr. Charles Beckhoefer.
- Moses—By Mr. D. Bergman.
- Abraham—By Mrs. Rosa Rothschild.
- Deborah—By Mr. W. H. Elsinger.

As noteworthy, appropriate and beautiful decorations, these windows in the St. Paul Temple are unsurpassed in the West. They are executed in opalescent and imported antique glasses, and are especially rich in coloring, while the landscape effects are superb in their austere simplicity. Mr. R. T. Giles, of the firm of R. T. Giles & Co., of Minneapolis, St. Paul and Chicago, has in these windows, as in the other illustrations given, demonstrated



MEMORIAL WINDOW, FIRST CHRISTIAN CHURCH, ST. PAUL, MINN.
"THE RESURRECTION"

Presented by Mr. Charles E. Dickerman, St. Paul

Designed and Executed by R. T. Giles & Co., Minneapolis



MEMORIAL WINDOW, JEWISH TEMPLE, ST. PAUL, MINN.

Designed and Executed by R. T. Giles & Co., Minneapolis

an artistic conception and treatment of subjects and figures that is exceptional; and it compels recognition of a permanent place among the best designers in America. Young, devoted to his art, and possessed of required technical skill in construction, Mr. Giles is certain to add largely to the artistic development of interior decorations in the United States.

It is by no means most important, however, in the interests of architectural advancement that the work of the artist should be confined to churches and public buildings. It is in the homes where the best results of educational influences should obtain, and it is in the private residences where the designer has greatest opportunity for varied and original work. It is, indeed, a matter for serious regret that any palatial home should be constructed without appropriate use of the art-glass features which add

so greatly to pleasing and harmonious interior effects. It is equally regrettable that costly business edifices, especially such as are designed for specific purposes—like bank or insurance buildings, for instance—should often present so little understanding of the general public benefit which is rendered by presentation of the artistic and beautiful, as well as that which is wholly utilitarian.

It is the duty of the American architect to advise, and even to insist upon when necessary, such advancement of imaginative art in this country as will eventually render less necessary the study of the beautiful in foreign lands. The present opportunity for the architect to influence and develop the future ideality of the American people is equal to that which was accepted by the supreme artists of early Rome.

So much was said in Massachusetts about the increase in intemperance as a result of the law requiring weekly payment of wages that the state bureau of labor statistics made inquiries covering some 40,000 employes in more than 400 establishments, and learned that only a trifle over one per cent of these employes failed to report on the Monday succeeding a Saturday pay day because of drunkenness. The percentage varied greatly in different places, being highest in Quincy, which is no compliment to the granite cutters. Inquiries of this character are apt to develop so much that is unusual that deductions from them are not safe. One might as well claim that less frequent payments, withholding money until large amounts were paid, placed too much temptation in the way of the earner—that more frequent payments and smaller amounts of money would bring the sums down to within the safety line, etc., etc. The fact is, that the drink habit among workmen and others, is more a question of the standard a community sets for itself than anything else. If excessive drinking is regarded as bad form among any class in any community, there will be little of it, and if abstinence should come to be regarded as the proper thing among the granite cutters of Quincy, they would speedily become as sober as any other class. Some credit is to be given to the rules obtaining in certain large employments where drunkenness is not tolerated, but apart from this, it is as much a question of public opinion in a given community as whether a man may have one wife or half a dozen. In Minnesota or Iowa, the farmer who should fail to provide food and shelter for his live stock in winter would fall shortly into the clutches of the law, but he might move a few hundred miles west and own thousands of cattle, allowing them to "rustle" in the worst of winters without raising the question of cruelty to animals, it would be only a question of profit or loss. If drinking to excess were to be regarded by the members of a social club as bad form, there would soon be as little of it among the members as among some communities of workmen. Depriving a man, by process of law, of both wages and liberty for long periods may prevent the drink habit for a time, but it does not cure it.

MINNESOTA AT THE WORLD'S FAIR.

 BY EMILY GRANT HUTCHINGS.

In the entire World's Fair no state, with the exception of Missouri, has participated with greater variety and abundance of display than Minnesota. Five of the great exhibit palaces show the results of her industry and her manifold resources, and the Minnesota state house ranks among the most beautiful and artistic of the buildings on the Plateau.

This structure, that is Byzantine in character, is not of wood and staff, to be torn down at the expiration of the Exposition, like most of the fair buildings. It is composed of concrete blocks, with all its parts so adjusted that it can be taken back to its native state and erected as a permanent memento to the great Exposition. The ground floor is in one large reception hall, where all the daily papers of the state are kept on file. There is also a postoffice and a check room here. Opening from the reception room are two alcoves that serve as music rooms for ladies and gentlemen. The furniture is all hand-made and is the work of the manual training department of the Minneapolis and St. Paul public schools. The windows are enriched by very beautiful stained glass which bears the names of all the Minnesota counties.

Another exhibit of Minnesota manual training work is to be found in the Palace of Education. There are displays of carving, turned wood, furniture of artistic pattern, and forged metal, all done by the boys of the Mechanic Arts High School of St. Paul and the Manual High School of Minneapolis. The hand work of the girls is shown in sewing, painting and exquisite embroidery.

Minnesota is one of the few states represented in the Palace of Forestry, Fish and Game. The exhibit includes all that the name of the building suggests. There is a double row of glass tanks containing fresh water fish, and there is a realistic forest scene, composed of real trees that blend admirably with a painted background. Among the trees are taxidermized specimens of wolves and other northern animals.

The exhibit in the Palace of Agriculture is both extensive and interesting. It is a tangible presentation of Minnesota's time-honored nickname, "the bread and butter state." In the great glass-walled refrigerator, the most imposing piece of butter sculpture is the reproduction of the Falls of St. Anthony, with a canoe in which stands Father Hennepin. His companions are an Indian and a white man. The figures, about life size, the canoe and the water are all made of butter. Across the aisle from the refrigerator is the Bread and Butter pavilion of Minnesota. In the center is another cold-storage glass case containing a butter statue of a mother giving her two boys bread and butter. The pavilion is beautifully decorated with grains and grasses, most important among which is wheat, the leading product of the state. On the walls

are two paintings, showing typical farm scenes. There are also exhibits of the great flouring mills for which Minnesota is famous.

The Minnesota display in the Palace of Mines and Metallurgy is so arranged as to attract universal attention. It is enclosed on two sides by a low balustrade of cut and polished stone from the extensive quarries of the state. There is a splendid granite column, three feet in diameter and twenty feet high, from the state capitol. Pressed brick and marble are included in the stone display.

The part of the exhibit that attracts most attention is the two large models, by S. H. Stevens, of the Messabi iron range and city of Duluth, from whose port twenty million tons of iron ore were shipped last year. The relief map or model of Duluth shows every house and every street, as well as a large area of the harbor with more than a hundred vessels all engaged in carrying the ore.

The other model shows the famous Fayal mine from which over seven million tons of ore already have been taken, with an abundance yet in sight. The model shows the homes of the miners, and even the stumps of the trees that were left by the lumbermen who were the first to derive a fortune from this wonderful tract of land. The finished product of the mine is shown in a high pressure engine, made by the pupils of the Mechanic Arts High School of St. Paul. There are also specimens of the pictograph stones and the famous pipe stone mantle, lent by the ladies of the state. The Minnesota commission consists of Conde Hamlin, president; J. M. Underwood, vice-president; T. L. Hays, secretary; and C. S. Mitchell, general superintendent.

While the various concessionaries at previous exhibitions have endeavored to reproduce, as a midway attraction, the wonderful mysteries of the Oriental, Eastern countries, it has remained for that typical ethnological artist, Mr. Gaston Akoun, to bring before the visitors at the Louisiana Purchase Exposition an aggregation of the magnificent splendors of Oriental life in the East, which for brilliancy, magnitude and active natural portrayal by means of real life exhibits has, undoubtedly, eclipsed anything in this line ever before attempted.

Mr. Akoun, who is a Parisian by birth, has the advantage of former experiences at no less than twelve previous exhibitions, where his marvelous successes were continuously repeated, and as a successful caterer to an amusement loving public his fame spread far and wide.

The general plan embraces a most interesting representation of Asiatic countries, including faithful reproductions of the most historic and educational buildings of India, the Mahal Temple of Agra, the Rain Sipri of Almiadabad, street reproductions from historical Delhi, Calcutta with its picturesque bungalows, and decorated buildings, grill workers, with their actual material, such as mosaic and ceramic panels, carved in inlaid wood.

MACHINERY WASTED.

The effect of the moist atmosphere on iron and steel is one of the marvels on the Isthmus of Panama. Rust appears on the unprotected metal within a few hours after exposure, and rapidly eats its way in. Scattered all about the canal at Colon and Emperador are huge quantities of machinery so badly corroded that a knife can be thrust into the metal as if it were cheese. Huge anchors, steel rails and dredging apparatus lie in the soil half buried, which, when unearthed, are as rotten as decaying vegetation. All along the line of the proposed canal, machinery is found in a more or less decayed condition. Its waste is a huge monument to the extravagant methods of the early company.

There has been little attempt to carry away or rescue any of this discarded apparatus. Probably \$50,000,000 worth of old machinery was thus wasted, which might have been saved through proper care in storage and protection. Several years ago this machinery was piled in huge heaps. It is now over 25 years old and is practically worthless. It is doubtful if it could ever be used again on the work for which it was intended.

The equipment included miles of steel rails piled up in the open air; thousands of dump cars are likewise collected in different places awaiting the coming of the next canal company. Scores of locomotives are wasting away along the line of the work. Many of these engines never saw any kind of service, but were simply landed and left to go to ruin.

There are scores of machine shops along the route of the canal, buildings for laborers and contractors, storage houses, hospitals—houses for all conceivable purposes. They are built of wood, stone and metal. Some of them are sectional metal houses that were intended to be taken apart and moved from one part of the canal to another as occasion demanded. There are, all told, nearly 2,500 such houses. The hospitals, too, are extensive in numbers and size, and they represent an investment of a huge sum of money.

In the harbors and at the entrance to the canal steam craft of all kinds are also rotting in the warm, moist atmosphere. These include costly steam dredges, tugs, floats, mud scows, pontoons and many minor craft. Little attempt was made to preserve any of these vessels from decay. The steam dredges have their buckets in the mud of the canal; in many instances the cables have rusted and broken apart. Decay is apparent on all sides.—George E. Walsh in *Cassier's Magazine*.

The most notable masonry arch bridges of the world which excel in span and rise are: The Luxembourg, in the Grand Duchy of Luxembourg, is 275 feet span and 54 feet rise; the Morbegno, in Italy, is 230 feet span and 33 feet rise; the Cabin John, United States, is 220 feet span and 57 feet rise; the Jaremeze, Hungary, is 213 feet span and 59 feet rise, and the Grosvenor, England, 200 feet span and 42 feet rise.

CAUSES OF CRACKS IN THE WALL.

One of the most unsightly and annoying defects in house building are the fractures in plastered walls and ceilings; they are always in sight; paint and cover all you like, the crack still shows itself and defies your efforts to hide it. Is it possible to produce conditions under which this defect will disappear, surrounded as we are with the necessity for rushed construction which compels the use of timber before it has had time to become half seasoned? Then the extremes of temperature which prevail in this country, must affect the walls of the smaller structures. A temperature of some fifty or sixty degrees inside and that of forty below outside, together with the variations are conditions that are pretty sure to have some effect upon even a brick or stone wall, and is calculated to disturb the smooth, unpliant surface of the plaster, be it ever so thoroughly applied. Metal lath, it is claimed, is a great improvement over the wooden kind, which are subject to shrinking, swelling and warping, but of course the cost is greater.

In England, plaster walls are to be seen as sound to-day as when they were finished a hundred years ago, the plastering being applied on split lath. The writer in the "Northwest Contractor" does not remember ever having seen a sawn lath used in England.

No doubt some fault may be found with the foundations of heavy buildings, but it is a hard matter to improve the manner of foundations, especially in the Northwest, without going to the enormous expense of reaching the bedrock; the mixing of materials for plastering admits of some improvement, it being found hard to spare time enough for the perfect slacking and souring of the lime particles—this being a necessary condition if thorough incorporation is to be obtained.

The dry atmosphere is another factor which tells considerably against the attainment of a perfect wall; so, that with all these adverse conditions, it is hard for the plasterer to finish a wall that will retain a perfect surface. In the smaller frame dwelling houses, too little attention is paid to interior support, the running beam under the lower floor in most cases being no larger than six by six, supported upon one or two posts. This is faulty construction and occurs principally where no regular architect is employed. To get the best results the interior support should be entirely rigid, for it must be remembered that it has to carry the heavy partitions, and floors with the contents, as well as the wind pressure on the roof and heavy chimneys. This weak point in construction tells its tale, not only in injured plaster, but in sprung doors and loosened woodwork.

The supreme court of New Jersey recently directed the State Board of that state to issue an architect's license to an applicant who had been rejected upon the grounds that he was not a practicing architect, but was merely a builder. It seems that the builder was able to present thirty-seven accepted plans and specifications for consideration by the court.



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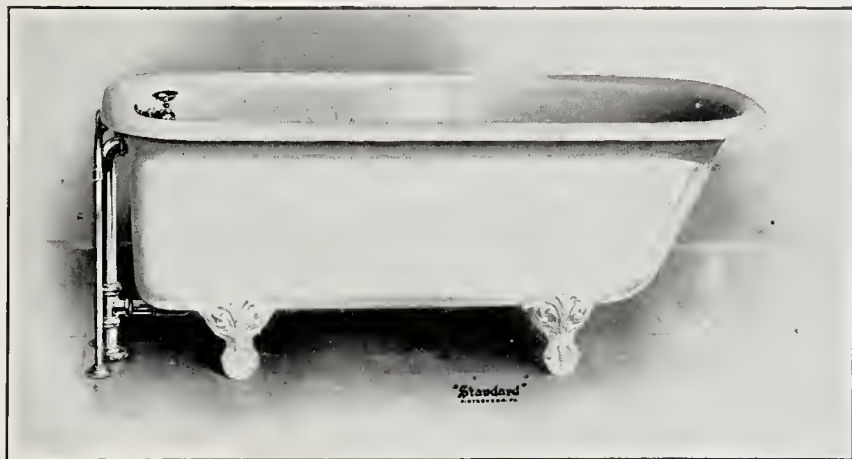


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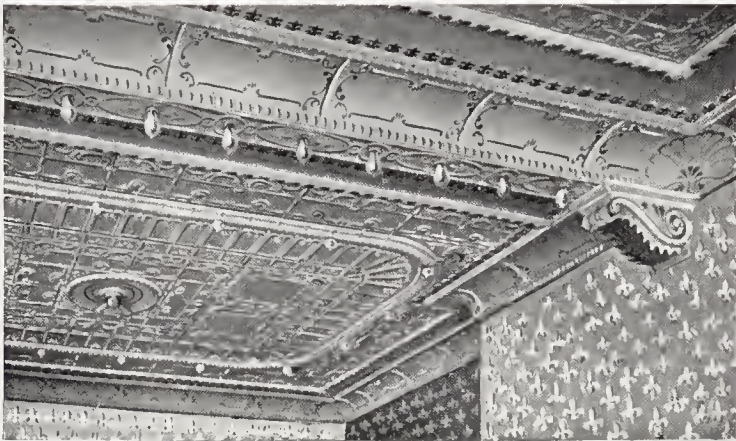
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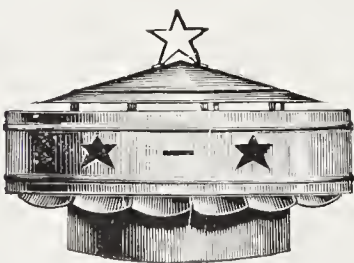
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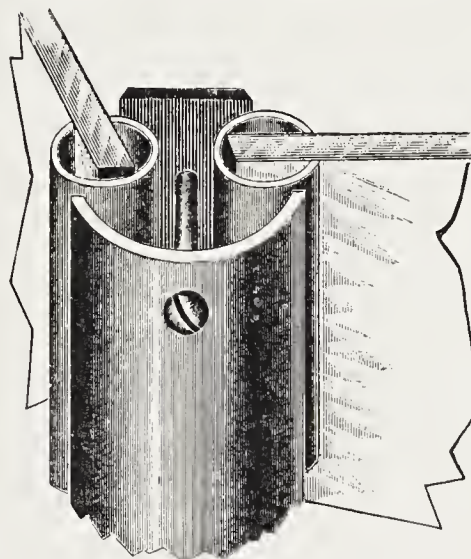
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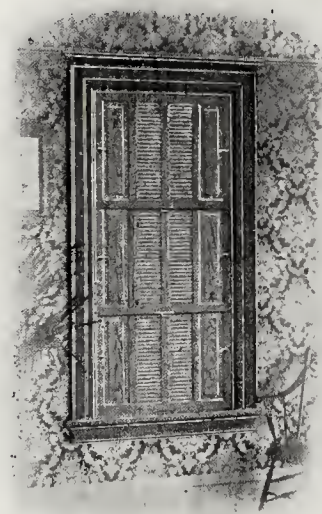
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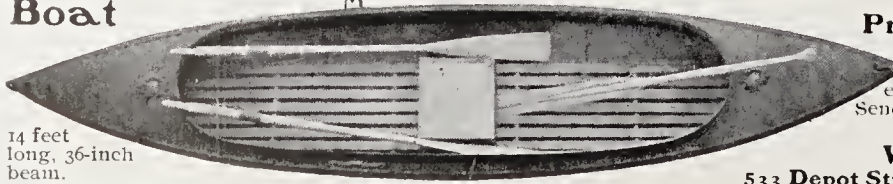
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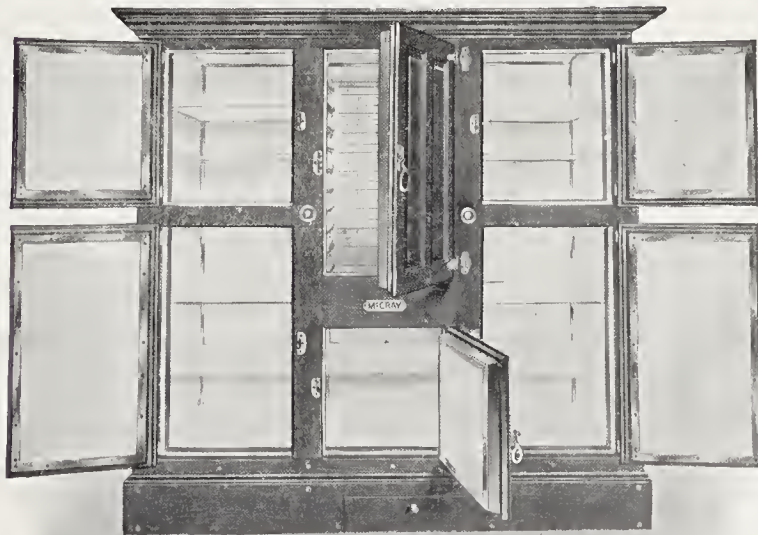
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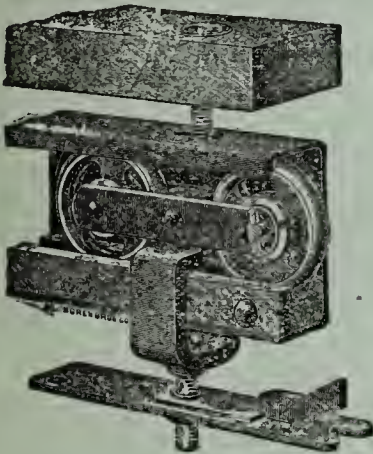


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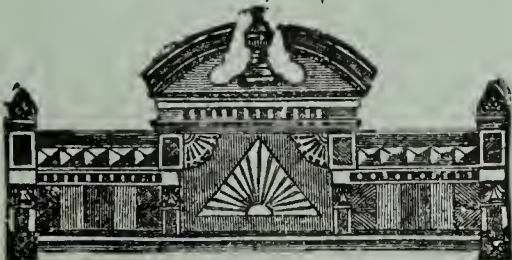
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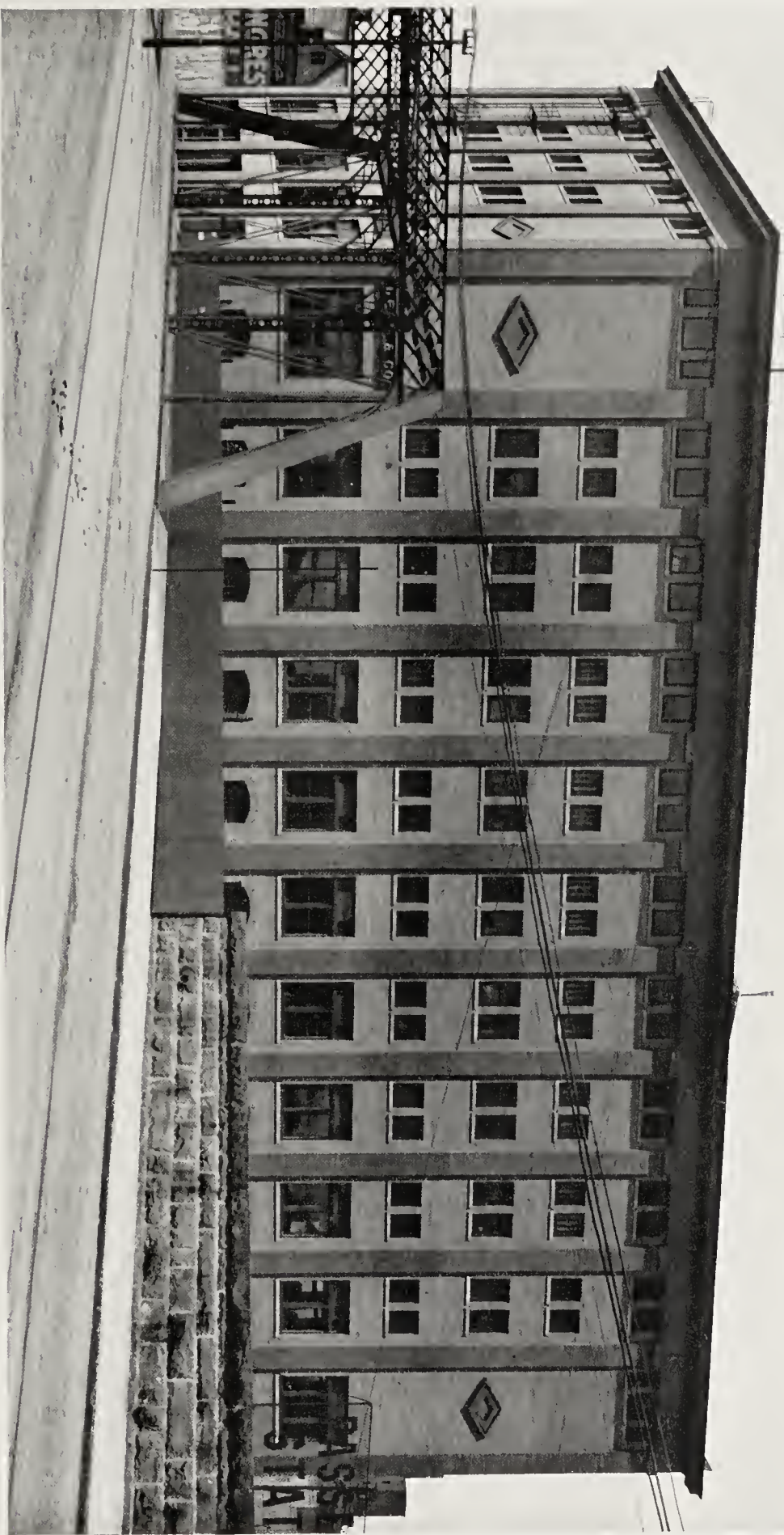
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