

THE AMERICAN ARCHITECT

VOLUME CIV

WEDNESDAY, NOVEMBER 19, 1913

NUMBER 1978



MONTCLAIR, N. J., STATION, D. L. & W. R. R.

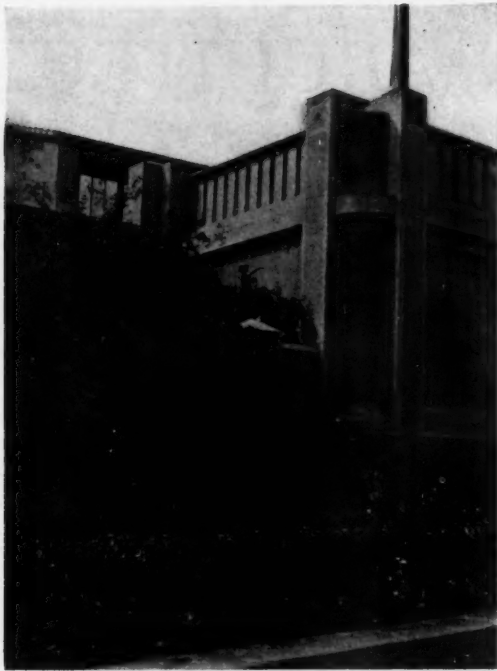
MR. F. J. NIES, ARCHITECT

THE ARCHITECTURAL TREATMENT OF CONCRETE SURFACES

ECONOMIC conditions are, after all, probably the most potent factors in directing our architectural destinies. Arbitrary selection of materials and individuality of technique may for a time ruffle the stream of progress; tradition, like a rock, may reproachfully dam it or divert it from the straight course, but the force of economic circumstances insures its ultimate onward movement. It was the consideration of reduced cost that led the railroads and the other concerns interested in great engineering works to develop the use of concrete in massive construction.

Many of the economic conditions existing today parallel those of the Roman Empire which two thousand years ago led to extensive use of concrete, though in less

variety of purposes than it is now used. Brick or building stone are not always locally available along the lines of railroads and are always expensive to transport. Furthermore, their use requires the services of workmen who in many instances must be brought from a distance, maintained and paid a rate of wage based on supposed, but not always realized, efficiency,—workmen whose “race, color and condition of servitude” are too often subject to the whims of an autocrat, and that autocrat is usually not the employer. The materials for concrete, however, are easily and cheaply available in almost any locality. Aggregate suitable for most kinds of concrete if not taken from the actual excavation for the building may almost always be found near it, and as cement is



DETAIL OF RETAINING WALL, BLOOMFIELD, N. J.

manufactured in many centers and its weight comprises but a small fraction of the total, the cost of transportation is comparatively small. The mixing and putting in place of the conglomerate is efficiently, quickly and easily accomplished by the joint efforts of machinery and a ready supply of cheap labor, under skilled superintendence.

The economic and other advantages having directed attention to concrete, its use was for a long time devoted almost exclusively to the more massive forms of construction,—to foundations, piers and heavy retaining walls. But as economic conditions under certain circumstances became more insistent and some of the inherent virtues of the material become more obvious, the attention of a few architects was perhaps unwillingly drawn to the architectural treatment of a material which clients importuned them to use. Naturally the first tendency to make the surface of concrete simulate that

of building stone, was too strong to resist even by those who most loudly preached the policy of honesty in every day affairs. To mould concrete in blocks so that its face shall have even the mechanical form of stone ashlar, or to simulate joints on the surface of a monolithic wall for the same purpose, is only an obvious and quickly resented attempt at deception. Such treatment not only asserts a quality which is lacking in concrete, but denies the user the advantages of its unique qualities. These are its plasticity, permitting it to be cast or moulded in forms of any size and almost any shape, and its composition of cement and aggregate making possible a great variety in surface treatment.

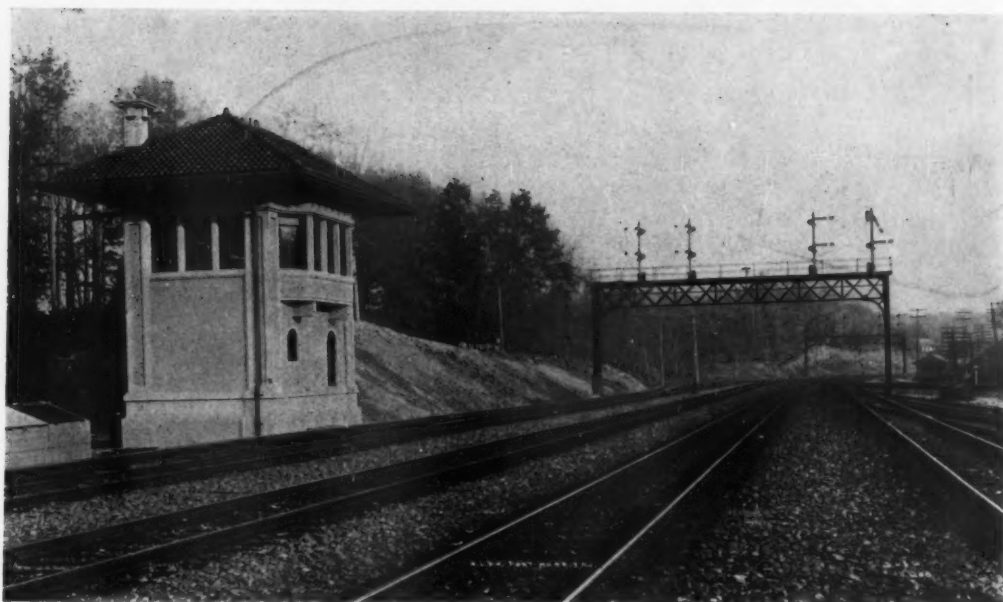
Perhaps the greatest opportunities for the architectural treatment of concrete are in the broad wall surfaces of monolithic construction. For precedents we have been referred to the stuccoed walls of the California missions with their unaffected simplicity and agreeable proportion and spacing of openings. We cannot afford to neglect any suggestions based on tradition when wrestling with a new problem, but the pioneers who have been most successful are those who studied the problem in hand and worked it out on its own merits.

Among the good examples in this recent



BRIDGE OVER STREET, WATSESSING.

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SWITCH TOWER ON D. L. & W. R. R., NEAR PORT MORRIS, N. J.
MR. F. J. NIES, ARCHITECT



SWITCH TOWER ON D. L. & W. R. R., BINGHAMTON, N. Y.
MR. F. J. NIES, ARCHITECT

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MONTCLAIR, N. J., STATION, D. L. & W. R. R.

architectural treatment of concrete, are some stations and bridges on the lines of the Lackawanna Railroad for the design of which their architect, Mr. F. J. Nies, was chiefly responsible. The station at Bloomfield, N. J., is particularly interesting because of the varied elements that enter into its composition. The tracks, elevated above the street level, are reached by ascending a broad ramp of gradual incline; motor car passengers may alight under cover of the arched porte-cochère within a few feet of the train, and baggage and freight are easily handled from the same level. From the street one enters the station by passing under the ornamental iron port-cochère (harmonizing in character with the concrete) and up the interior stairs to the ticket office and track level. The station walls above the upper level are characterized chiefly by strength,

simplicity and dignity. The broad, gray surface is broken only by necessary openings, by simple "notchings" of the end walls and by a broad band of green glazed tile following the lines of the gable. The arches are perfectly semicircular with no suggestion of impost or voussoir,—they are frankly mere openings in a wall of monolithic un-reinforced concrete. The retaining wall is, I believe, unsurpassed in interest by any form of similar construction. It frankly expresses its true character, a massive wall designed to withstand the pressure of the earth and driveway behind it, but it has been moulded in such form and its surface treated in such a way as to give it architectural distinction worthy of a position on a city street. Could the same be said of the usual concrete retaining wall wherever found? The principal vertical divisions are marked by slightly



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WAITING PLATFORM, BLOOMFIELD, N. J.

salient buttresses; the strongest horizontal lines are those that mark the sill level of the station windows, the simple, bold moulding at the driveway level, and the projecting rail of the parapet wall above.

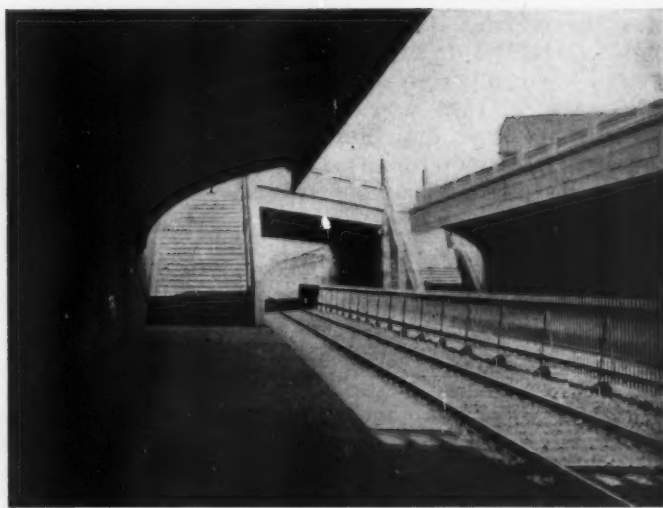
The only color introduced is that of the glazed tile inserts near the top of the buttresses, provision for which was made in forming the moulds. The surface of each buttress and of the sunken panel between is outlined by a light-toned, fine-textured band, two or more inches wide. This was made by hand-rubbing the film of cement, which is always drawn to the surface of well tamped concrete, with a block of similar material. These "rubbing blocks" were cast in the width of the desired band and of a size to be conveniently held in the hand. The rubbing process was carried just far enough to secure a uniform texture in the cement surface but not so as to expose the aggregate beneath. The "ground" of the panels and of the buttresses was then bull-pointed. The roughened surface contrasts strongly in texture with that of the borders, and the varied grays of the aggregate—mostly native trap rock and bank sand—give a lively, yet har-

monious and natural color interest to the whole.

Similar treatment was given the lamp standards on the station grounds at Montclair. In form of design the plastic nature of the material is given simple, elegant expression and full advantage of its composition is taken in the surface treatment.

It will be noticed in all this work that the conventional mouldings have been entirely eliminated or reduced to a minimum. Such as have been retained are simple and bold in outline, yet never actually crude. All were cast in the wooden moulds as a monolith, therefore delicate profiles, sharp arrisses, undercuttings, and acute, reëntrant angles were avoided. Even reëntrant right angles were frequently avoided by placing strips of triangular section in the corners of the mould. Thus neither in general design nor in the details is there any attempt at deception as to identity of material.

A significant deviation from the conventional capital detail is to be seen in the concrete example at Ampere. The usual shrinkage of concrete produces a crack at the least diameter of isolated portions, such as balusters or columns. To conceal



WAITING PLATFORMS, WATSESSING, N. J.



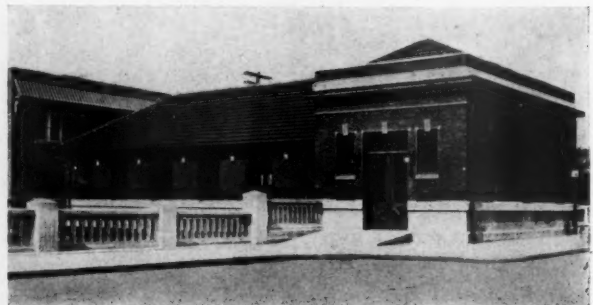
WAITING PLATFORM, GLEN RIDGE, N. J.

this disfigurement and to prevent the entrance of disintegrating rain and frost, the conventional astragal moulding has been omitted and a reëntrant bevel substituted for it. The resulting line of shadow gives an effect similar to that of the modified classic column, but the detail is eminently more suitable for execution in concrete. It has been found that in casting balusters the unsightly crack may be avoided by filling the mould about two-thirds of its height, that is, to about the level of its least diameter, and allowing the concrete to settle for an hour before completing the mould.

Possibly even more interesting examples of the use of concrete in conventional forms are illustrated in the station at Montclair, N. J. The walls are of brick; the "trimmings" are not stone as one might guess at first glance, but concrete blocks. Yet there is no intended or ultimate deception, for a closer inspection reveals a surface that in no way resembles any generally used building stone but is appro-

priate to the nature of concrete. The mason having the care of this part of the work was formerly a worker in ornamental plaster. For all of this work, therefore, he followed the methods of that craft, and at the shop cast his ornamental concrete blocks in gelatine moulds. This made it possible to obtain greater delicacy and accuracy of detail than would be feasible with less plastic moulds of wood. After the concrete had set but was yet green it was taken from the mould and the surface film of cement removed by brushing with a wet broom. Thus the aggregate, consisting of yellow bank sand and varicolored marbles of specified size, was exposed, revealing a surface of rich warm color somewhat resembling a terrazzo floor. Experimenters in this country and abroad have used various pigments for coloring concrete but many of them fade and are unsatisfactory. By introducing color through the medium of carefully selected aggregate, however, permanency is assured and the ultimate effect is not entirely a matter of accident or good fortune.

A similar method for treating large expanses of monolithic construction consists in removing the cement film, before it has set, with a stream of water. The difficulty is that the surface should be treated at the end of a day's work, as it would become too hard over night,—and, as a wall of considerable height cannot be com-



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pleted in a day, there would have to be much troublesome shifting and rearranging of forms in order to allow the hose-man to do his work at the right time. For this reason, the exposure of the aggregate

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WAITING PLATFORM, BLOOMFIELD, N. J.

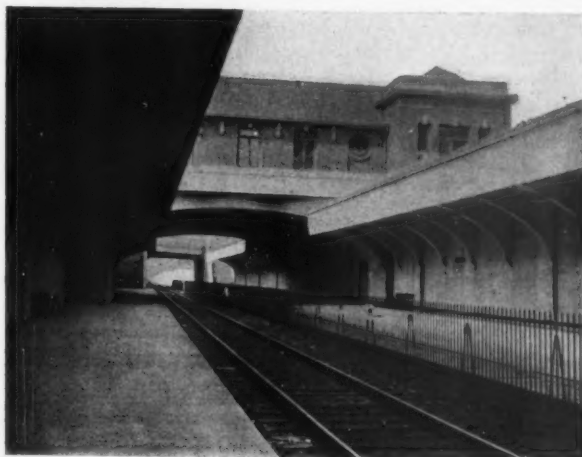
by the bull-pointer, after the completion of the work and removal of forms, seems to be the more practical and satisfactory method.

The Lackawanna Railroad believes that concrete is no better than the cement of which it is made and has very definite standards which that cement must meet. Their chemist claims that efflorescence and surface deterioration are frequently due to the presence of inadequately seasoned lime in the manufactured cement. When concrete made of such material is used in damp places a slaking process ensues, often with very serious injury to the concrete. For this reason samples of all cement intended for the use of the railroad company must stand the so-called "autoclave" test which consists simply in boiling briquettes of neat cement in water. If there is any appreciable expansion or cracking of the sample the cement is considered unfit for use.

The experience of the Lackawanna in the waterproofing of concrete will doubtless be of interest to present and future users of this material. Large retaining walls have usually been protected on the earth

side by the membrane method of waterproofing. This membrane, however, must be protected against "creeping" and consequent injury caused by the settling of the dirt fill. This may be prevented by lining the coated wall with brick or a thin shell of concrete. The blocks used in the Station at Montclair are protected from the absorption of water, in excess of six per cent. of their weight, by mixing into the plastic concrete a special waterproofing preparation.

Concrete can no longer be regarded as a gross material suited only for heavy, massive construction; it is a plastic material and is composed of an aggregate which, when properly selected, makes possible an infinite variety of effects in an infinite number of forms. As the illustrations indicate, there has been recently a con-



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siderable appreciation of its possibilities, but the future architect will undoubtedly develop these possibilities even more broadly.

QUANTITY SURVEYING, A NECESSITY FOR BETTER ESTIMATING METHODS

By G. ALEXANDER WRIGHT,* Member San Francisco Chapter A.I.A.
Hon. Member Quantity Surveyors' Association, London, Eng.; Licentiate R.I.B.A.

BLACKSTONE'S Commentaries, Vol. II, page 442, defines a contract as "an agreement upon sufficient consideration to do or not to do a particular thing." Building contracts which leave discretionary power to a third party, and fail to fully disclose the particular things to be done, are open to criticism if Blackstone's definition is worth anything. Our contract documents do not usually, by reason of our estimating practices, fully disclose to bidders everything possessing a money value which he must do, or might later be "directed to do." There remains a constant indefinite risk which the contractor improperly assumes, and for which he is entitled to make some allowance in estimating. This risk or chance costs the owner something, directly or indirectly. Should the expected risk not materialize later, then the owner has paid for something for which he has not received any value.

The contractor in adding something to his figures to cover things not disclosed, or for any reason impossible of ascertainment, for want of time or otherwise, acts entirely within his rights. The practice of including a sum of money on moderate sized contracts to cover these issues, is certainly not decreasing, as the complexity of construction increases, and covering clauses become more and more apparent. Nor is it to be expected under existing estimating conditions which force the bidder to figure upon taking all the risks, seen or unseen, ascertainable and not ascertainable. This is very little short of actual dishonesty, and architects who are unconscious, silently indifferent, or who assert that the bidders' problem of arriving at the amount of a contract is none of their business, and yet act as arbiters of the contract, are sidetracking a moral issue. If owing to our estimating custom it is not reasonably possible for a bidder, in the very limited time allowed him, to as-

certain everything which he will be expected to and must do, (and the writer maintains that this represents the true conditions in a great majority of the contracts let), then the fairness, if not the legality, of our contracts as a whole, may be fairly questioned.

But because the contractor has been obliged to shoulder all risks, custom, and bad custom at that, has imposed upon him the further risk and responsibility of figuring out, for the owner's benefit, mark you, all the particular things, to use Blackstone's words, which the owner wishes to include in a contract. How often does it happen that a contract after execution, or a specification or drawing forming part of such contract, is capable of a double, or doubtful interpretation? It happens constantly, and it is safe to add that the subsequent interpretation hurts the contractor more frequently than it does the owner. In case the architect's decision should be in favor of the contractor, then his co-bidders will at once declare that he has received a favor at the architect's hands, and that they figured to do the particular item of work in a better and more expensive manner! The writer maintains that all interpretations should be made before the contract is awarded and not afterwards, at least as far as the human mind can determine. Organizations of, as well as individual, architects and contractors are now seriously considering the equity side of present day practices in estimating. It is indeed a live question affecting not only the individual owner and contractor, but the entire architectural and building community of the country. Let us then summarize briefly wherein our present estimating practice is faulty in competition work, so called! because in reality it is not legitimate competition at all, but a species of gambling with the owners, who oftener than not, are in a position to say "Heads I win, tails you lose." But to proceed:—

First. Most owners, although it may have taken them months, even years,

*Other articles upon this subject will be found in The American Architect of January 23, 1897, page 27, "Estimating Upon Bills of Quantities"; also issue of May 28, 1898, "Quantity Surveying." Mr. Wright is the founder of the present movement in aid of better estimating methods, which is attracting consideration of architects all over the country.

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to make up their minds to build, no sooner decide to do so, than they begin to rush the architects, the bidders, and all concerned until the scramble to get the work is finally over, and the bids (including mistakes) are all in. But the accepted bid is not a proposal for a fixed quantity of particular things. Far from it. It is a blanket proposition covering everything almost which a third party may rule is intended to be covered. Here then we have an every day condition, eminently calculated to create subsequent controversy, trouble, hard feeling, delays, arbitration, even suits at law.

Second. Bidders now begin estimating by hurriedly competing against their brother contractors, as to the "quantity" of materials and labor which, in their respective opinions, a building should take. Many bidders may figure, no two may agree, and it is possible, that not one may be really accurate, although obviously a structure can only take a certain fixed quantity in each trade, no more, and no less. Here then is a proven absurdity, for it is well known that the greatest differences in bids arise from "incorrect quantities," and not incorrect unit prices. The former is a fixed quantity, a certain ascertainable mathematical fact, the other more or less of an uncertainty, yet the average bidder will more often be correct on the latter, than upon the former. It cannot be otherwise whilst our so called competitive, but in reality demoralizing, methods continue. There is something radically wrong when careful, competent, and responsible bidders are beaten daily by others who forget to include certain things in their lists of items.

Third. Taking the bidders and sub-bidders upon a fairly good sized job, scores of men are engaged upon this one job alone figuring out their lists of items, often under great pressure, late at night probably, many going over the same ground, some guessing, some shading the figures of others, some adopting other methods. It is a gamble from start to finish. With some the prevailing thought seems to be to get the job first, then play for changes, trust to luck, bulldosing, anything, to come out ahead. Apart from the questionable aspect of such tactics, the main

point is the enormous waste of useful forces, time, and money, which all this involves! It is appalling! And all for what purpose? To arrive at some figure, under pressure before a certain fixed time, nearly always too limited, and the resulting estimate is little better than a guess. A correct estimate under such conditions, becomes a physical impossibility. It seems inconceivable that such folly can be perpetuated in the twentieth century.

Fourth. It has been recently stated by an experienced contractor of excellent standing, that if bidders figured to do work exactly as called for by the drawings and specification, the best men in the business could not get one job in fifty, which they figure. Under our present conditions this is probably true. But it should not be so. The same conditions account for nearly all the architects' troubles in the office, and in supervising work. Happily the interest of some architects has been aroused, and doubtless some concerted action will be taken in the near future, to afford a much needed relief.

Fifth. There is no recognized standard or method of estimating, nothing to determine the right from the wrong way. It is a scramble. Everyone for himself. Many a contractor can and would do better work than the average architect ever gets. The truth is, that in most cases it is not possible to get a price that will justify a decent job, and live. There are too many incompetents, too many shoe-string bidders in the business, and they are with us because present conditions of estimating makes it easy, and encourages them, to the detriment of the better type of contractor. A word about sub-bidders who are often the real estimators. Their prices to contractors for a piece of work will vary according to a contractor's financial rating, his reputation, etc., and naturally so. Such variations among a number of sub-bidders on the same work, will seriously affect a contractor's proposal. Most architects, and contractors too, know something of the trouble of satisfactorily adjusting a long bill of extras and omissions, but which would not occur except for the want of some recognized uniform system.

Sixth. In general practice bidders will discover inconsistencies, ambiguities, dis-

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crepancies, etc., in the drawings and specifications. Unfortunately these cannot be avoided under the rushing, senseless craze, which seems to take possession of certain owners, the moment they are about to spend money in building. Other bidders may find different inconsistencies, etc., but it is doubtful whether the one who is awarded the contract has discovered them all until after the work has commenced. The reverse is the logical probability. Even with those comparatively few contractors who employ experienced estimators, these differences will sometimes escape notice in the hurry of estimating.

Such then are some of the disadvantages briefly stated which we endure through not employing some systematic, uniform method of estimating adapted to modern requirements. Concerted action however either by architects, or by contractors, but preferably jointly and in unison, may in time safely be relied upon to speedily remove the injurious and objectionable features of our present estimating methods.

Having touched upon some of the disadvantages of our estimating practice, let us review in somewhat similar order, the benefits accruing in other communities where the quantity system of estimating was tried many years ago with success, and where it is now so firmly established that the best contractors refuse to bid in competition unless quantities are supplied at the owner's expense.

It may be worthy of remark that in no case, where once adopted, has the system been discarded by contractors in favor of the primitive methods they formerly employed, and which are those we use in the United States today. There are many practising architects, and a number of contractors in business among us, who received their early training where the system of measure and value is in vogue, and are therefore familiar with both methods. These men know from practical experience what a benefit such a system is, and how it would facilitate the correction, and abolition of existing evils and abuses in the building business, and with which most of us have become familiar.

First. With the quantity system the professional surveyor whilst acting impartially between owner and contractor

as to the actual quantity of materials and labor required, co-operates, and works in perfect harmony with the architect, to the end that every requirement under a contract may be placed fairly and squarely before each bidder in the form of a detailed bill of quantities, containing detail sketches also of such parts of the work, as cannot be properly covered by a written description. Not with a minute theoretical accuracy meaning little or nothing to a bidder, but a straightforward sensible, accuracy, like that of one practical man explaining to another exactly what is required.

No one of course can properly measure, and describe builders' work intelligently, without practical experience, and the knowledge of how work is put together, and how building operations in the field are conducted. Men of this class are much needed today. Their services and suggestions would also be invaluable in the preparation of specifications. A trained quantity surveyor is well qualified, when invited to do so, to confer and consult with the architect in all matters tending to elucidate the latter's intentions.

It may be said that nothing is "near enough" for the surveyor, he must ascertain definitely what is expected, in order that he may make it clear in his quantities, and for which he alone is responsible. He will call the architect's attention to any ambiguity or uncertainty in the drawings or specifications. These will be adjusted upon the original tracings, and in the draft specifications, before the final copies of each are prepared, and of course before they are seen by the bidders. These and the quantities will agree, and may be issued with the absolute knowledge that they are as correct as the skilled human mind can make them, and no longer would the contractor and his foreman be perplexed by conflicting differences, necessitating explanations from the architect. Apart from properly authorized changes, there will be but little, requiring explanations, but should anything arise affecting the cost or value of any work, such matters can be referred to the quantity surveyor, whose detailed calculations are at all times available for the information of the parties to the contract, and of course to the architect.

(To be continued)

THE AMERICAN ARCHITECT

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Founded 1876

PUBLISHED EVERY WEDNESDAY BY

THE AMERICAN ARCHITECT (INC.)

No. 50 Union Square, New York

(Fourth Avenue and 17th Street)

G. E. SLY, PRESIDENT

E. J. ROSENCRANS, SECRETARY AND TREASURER

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TEN DOLLARS PER YEAR, POSTAGE PAID
ALL OTHER COUNTRIES . . . \$12.00 PER YEAR
SINGLE COPIES (Regular Issues), 25 CENTS

CHICAGO OFFICE, Hearst Building
Page A. Robinson, *Western Manager*

Entered at the Post-office, New York, as Second-class Matter

VOL. CIV NOVEMBER 19, 1913 No. 1978

DEFINITE SPECIFICATIONS

IT is doubtful if there has ever been a single practice among architects that has at once resulted in such far-reaching and deleterious effects on building generally, and been so difficult to eradicate as that of specifying a certain article or material and then adding the clause "or equal." This practice, which is classified by some as rather a habit than any action upon which thought is regularly bestowed, has unquestionably had the effect of depriving owners of equipment to which they were entitled under the specification, and of costing the profession dearly in the loss of prestige.

The suspicion is frequently aroused in owners' minds that failure to write a definite specification indicates lack of definite knowledge, and it cannot be easily overcome. Subsequent efforts of material and equipment men to secure the order, efforts that frequently extend to the contractor, —and often without the authority of the architect—are even carried to the owner,

if perchance he is accessible, certainly do not tend to allay that suspicion. An impression that is firmly fixed in the average lay-mind is that a man of ability is also a man of decision. One who has thoroughly investigated the subject in hand and arrived at a definite conclusion as a result of that investigation. Such a man would not be expected to permit substitutions.

There would seem to be no question but that the place for the manufacturer to fight his battle for recognition of his product is before the architect. If he can convince the architect of the superior qualities of his material or equipment, his case should be won. And it is the architect's duty, in justice to his client, to investigate building materials and building equipment. How, otherwise, can he know of the relative merits of competing goods? Presumably the architect is better fitted to decide just what materials and equipment should enter into the construction of his building than any one else. He is or should be the Supreme Court. The manufacturer of high grade goods is ordinarily willing to abide by his decision. But, if after the case has been tried and a verdict won by the submission of irrefutable and overwhelming evidence of merit, and as a consequence the architect has specified the goods that have qualified but has then added to his specification the vitiating clause "or equal," the fight has practically been in vain. In all probability the entire case will have to be retried. Moreover, the architect will not be permitted to consider the matter alone and undisturbed, after the contract is awarded. The various contractors will then demand to be heard, and whether their interests are those of the architect and owner or not (a matter upon which there can be little difference of opinion), they are certainly not trained professional investigators, and therefore results are uncertain.

Viewed from any angle the practice of writing "or equal" into a specification seems to be a mischievous one. It would be almost as sensible, and but little more demoralizing, to make decisions of the Supreme Court subject to review and modification by persons who are properly only charged with their enforcement.

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COMPETITIONS THAT ARE NOT COMPETITIVE

IT augurs well for the future when a member of the profession refuses an alleged chance to secure a commission when he believes the method of awarding it is unintelligent and unjust. The majority of practicing architects have at one time or another, no doubt, felt themselves to be the actual or potential victims of ignorance, or worse, on the part of juries, composed of the laity, charged with awarding building commissions. Those who have had this unhappy experience will heartily commend the position recently taken by an architect who declined an invitation to enter a competition which he believed was being improperly conducted.

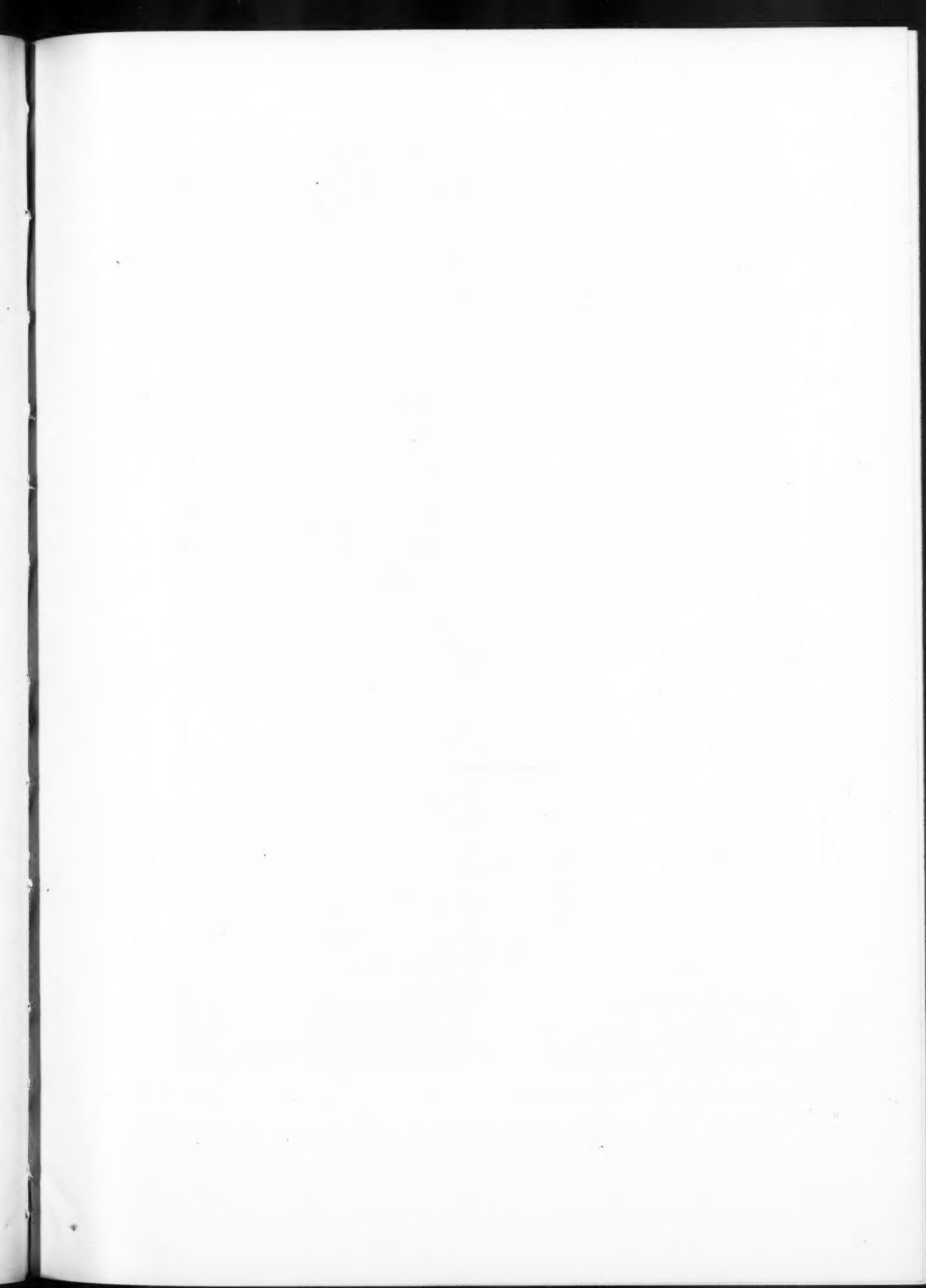
As the conditions were typical of those unfortunately prevalent in cities of the second class and below, they may be briefly stated. A competition for the award of a school-building commission was instituted by a loosely-drawn programme, under the terms of which the members of the school-board were to be the sole judges of the merits of the designs submitted. It is reported that these gentlemen had previously conducted a series of competitions and in each instance the commission was awarded to the same individual. Such a result is cited by the protestant as being without a parallel under properly conducted competitions and he therefore declined to submit designs for the proposed building.

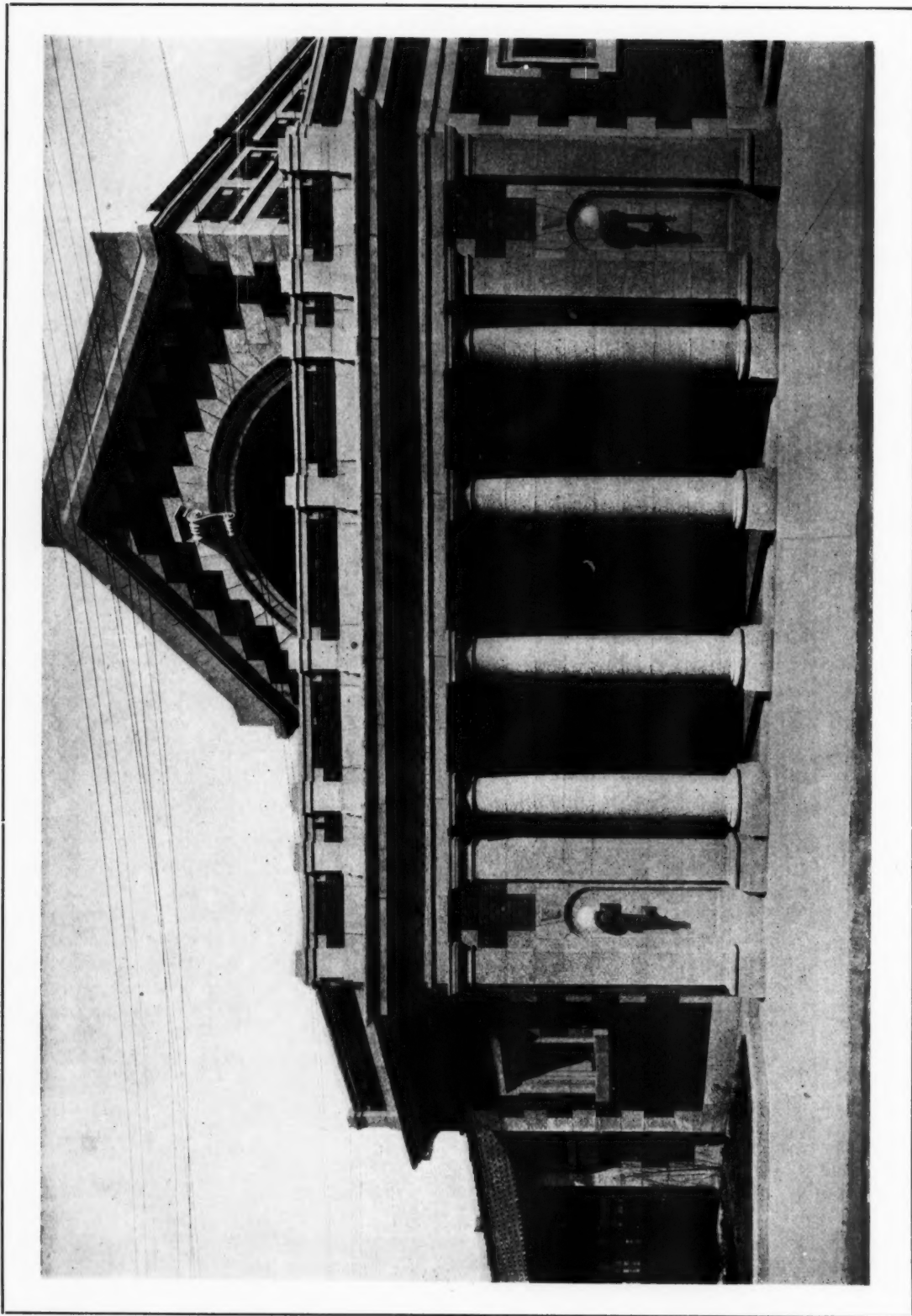
It is conceivable that in a city of moderate size, there may be an architect of sufficient ability to fairly and obviously outlive his competitors even in many repeated tests. When such is the case, however, it would seem that better results

might be obtained by inviting contestants of equal abilities from other cities, or, if such a course were not feasible, probably it would be more satisfactory to all concerned if the commission were awarded outright to a man known to be superlatively competent.

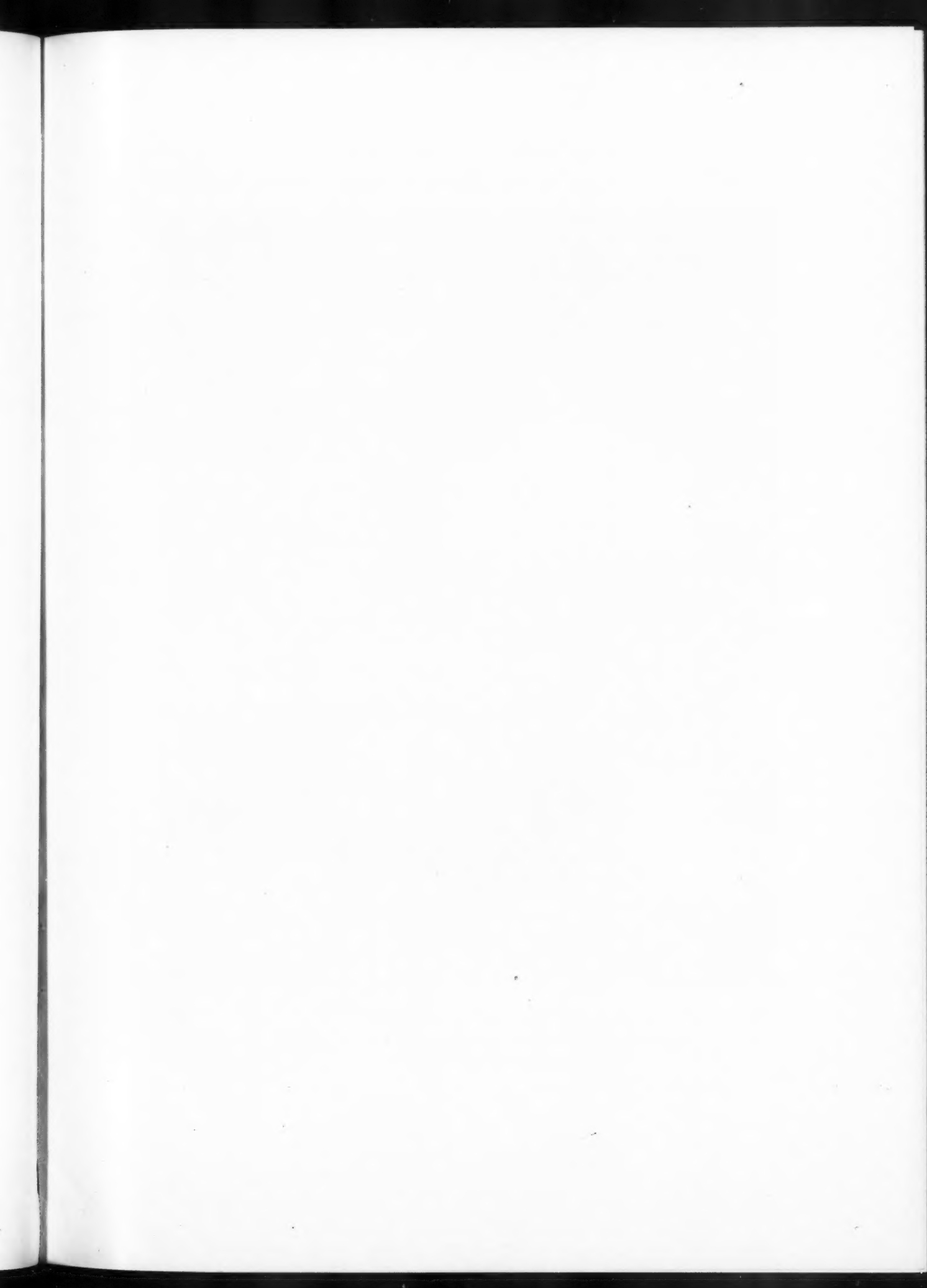
When competitions are intended to be conducted in good faith there is at present no better formulated procedure than that advised by the Institute,—the programme to be drawn by a professional adviser, and the jury composed of architects qualified by education and experience to judge the merits of the designs submitted. If a school building is projected, the directors of the board should indicate the extent and general nature of its equipment but obviously should not be the dictators or judges of its architectural qualities. Competitions awarded by such juries are not competitive from a professional standpoint, and the architect who takes part in them is ordinarily the victim not only of the jury's incompetence but of his own indiscretion.

Certainly it would be unjust to many intelligent, public-spirited and well-intentioned citizens to charge them with being consciously the agents of injustice to the profession. Frequently, we must assume, they feel it entirely within their right and duty to pass upon designs submitted by, let us say, misguided competitors. If architects generally would take a position in accord with their convictions on this subject and refuse to enter competitions not conducted according to their professed standards of justice, and publicly state the reasons for their action, the needed lesson to building committees would be taught and, ultimately, they as well as the profession would welcome the new régime.





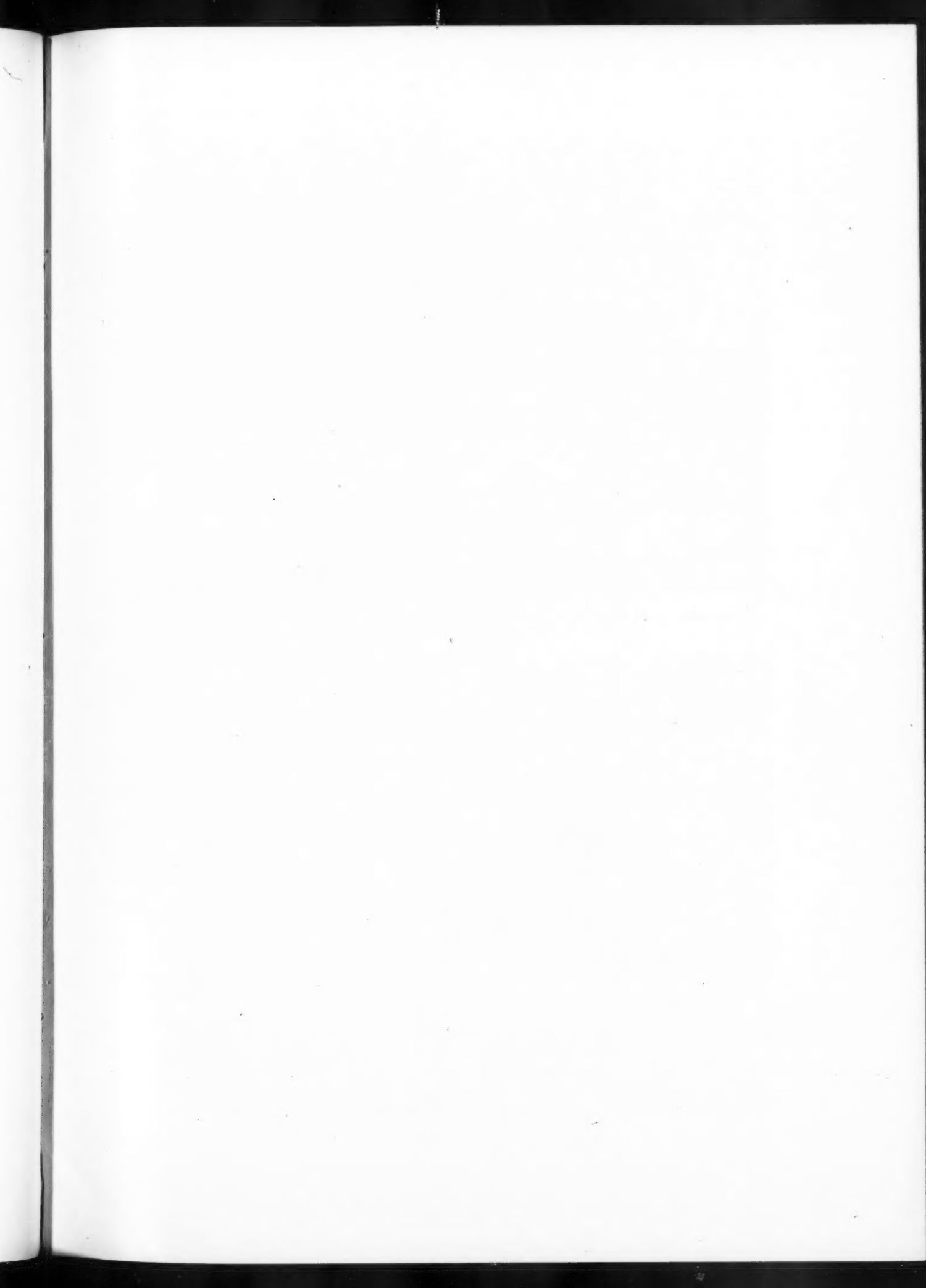
DETAIL OF D. L. & W. R. R. STATION, MONTCLAIR, N. J.
MR. F. J. NIES, ARCHITECT





WAITING ROOM, MONTCLAIR STATION, D., L. & W. R. R.

MR. F. J. NIES, ARCHITECT





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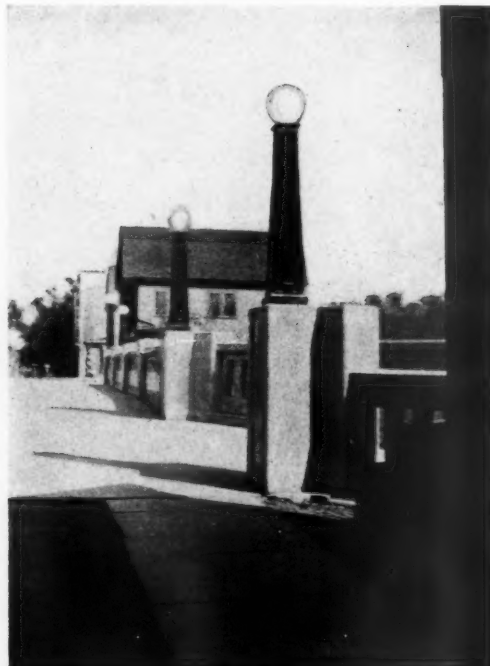


BATH STATION, D., L. & W. R. R., MR. F. J. NIES, *ARCHITECT*





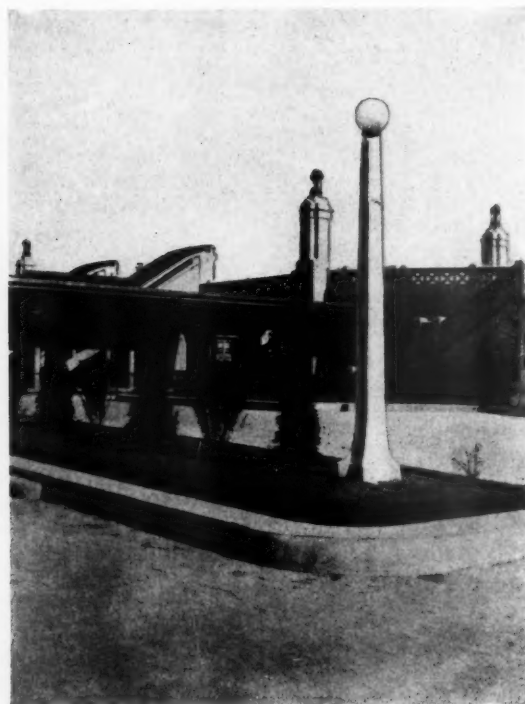
DRINKING FOUNTAIN, MONTCLAIR
STATION



ELECTRIC LIGHT POSTS, WATSESSING
STATION

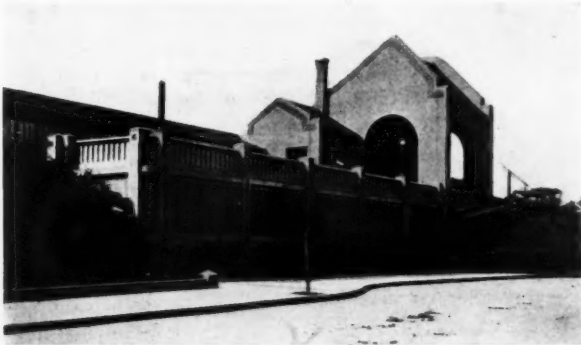


DETAIL, SHOWING SURFACE TEXTURE,
MONTCLAIR STATION



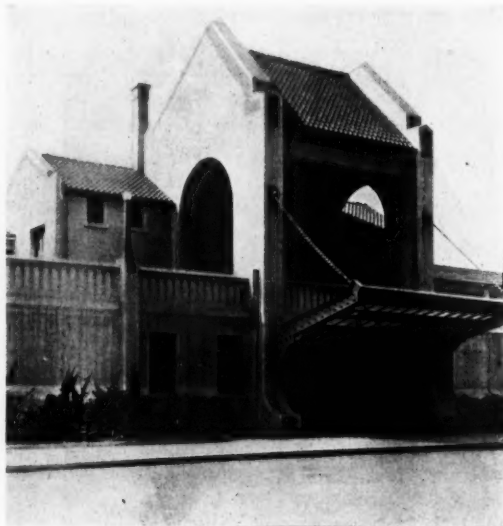
ELECTRIC LIGHT POSTS, MONTCLAIR
STATION





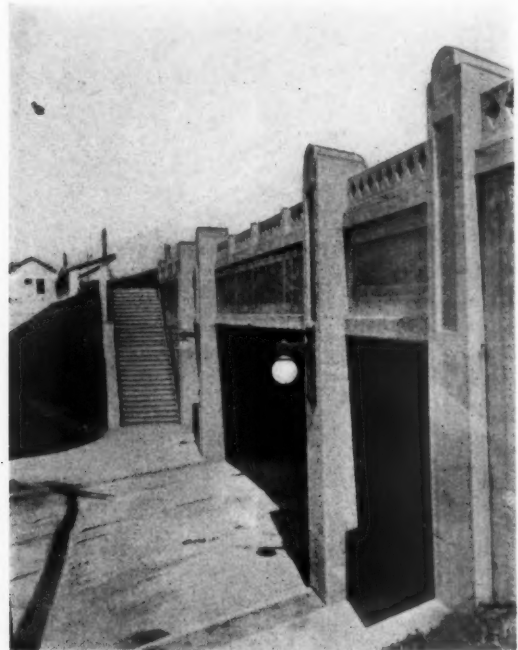
GENERAL VIEW FROM STREET

BLOOMFIELD, N. J., STATION,
D., L. & W. R. R.



ENTRANCE TO STATION

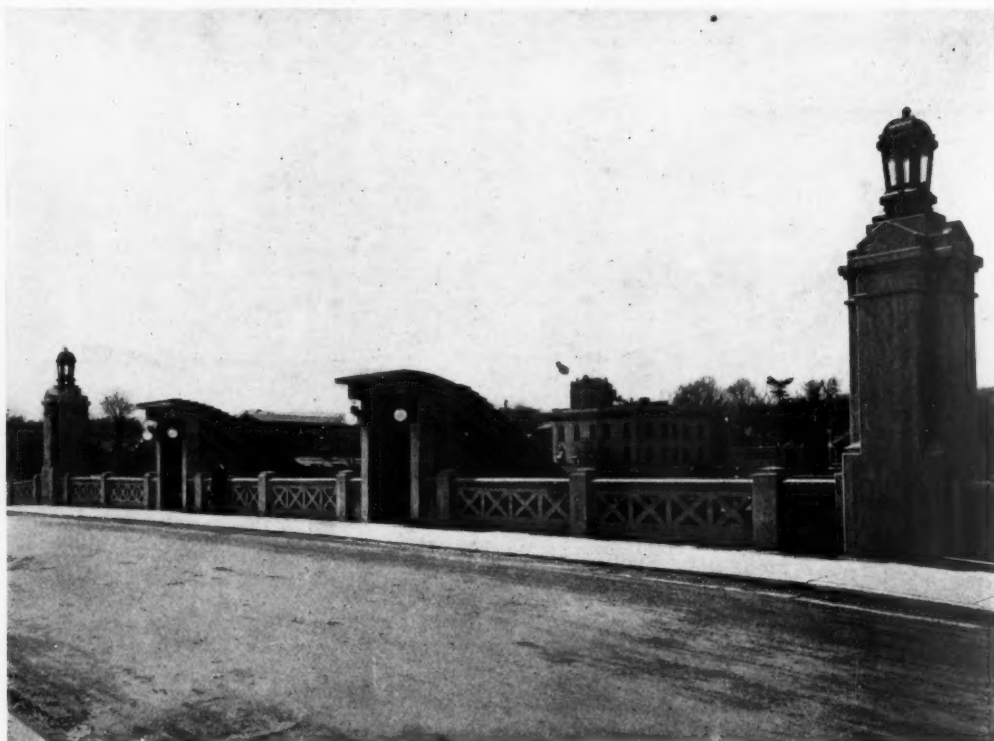
MR. F. J. NIES, *ARCHITECT*



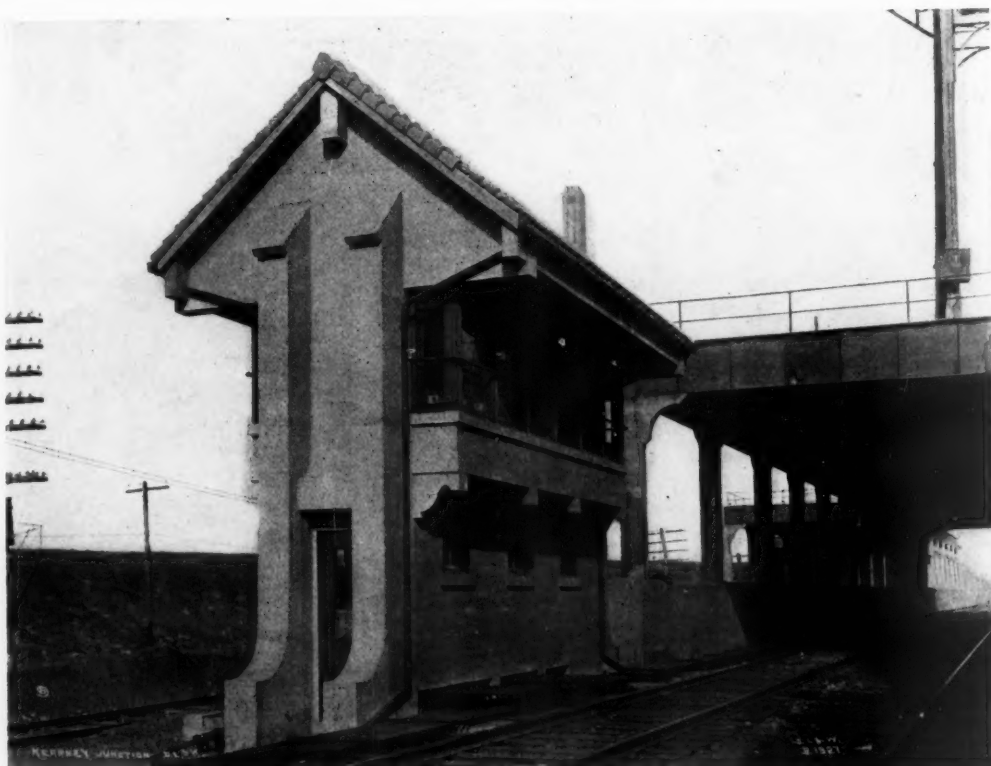
BRIDGE OVER STREET



THE RAMP



BRIDGE ACROSS RAILROAD, MONTCLAIR, N. J., STATION, D., L. & W. R. R.
SHOWING STAIRWAY ENTRANCES TO PLATFORMS



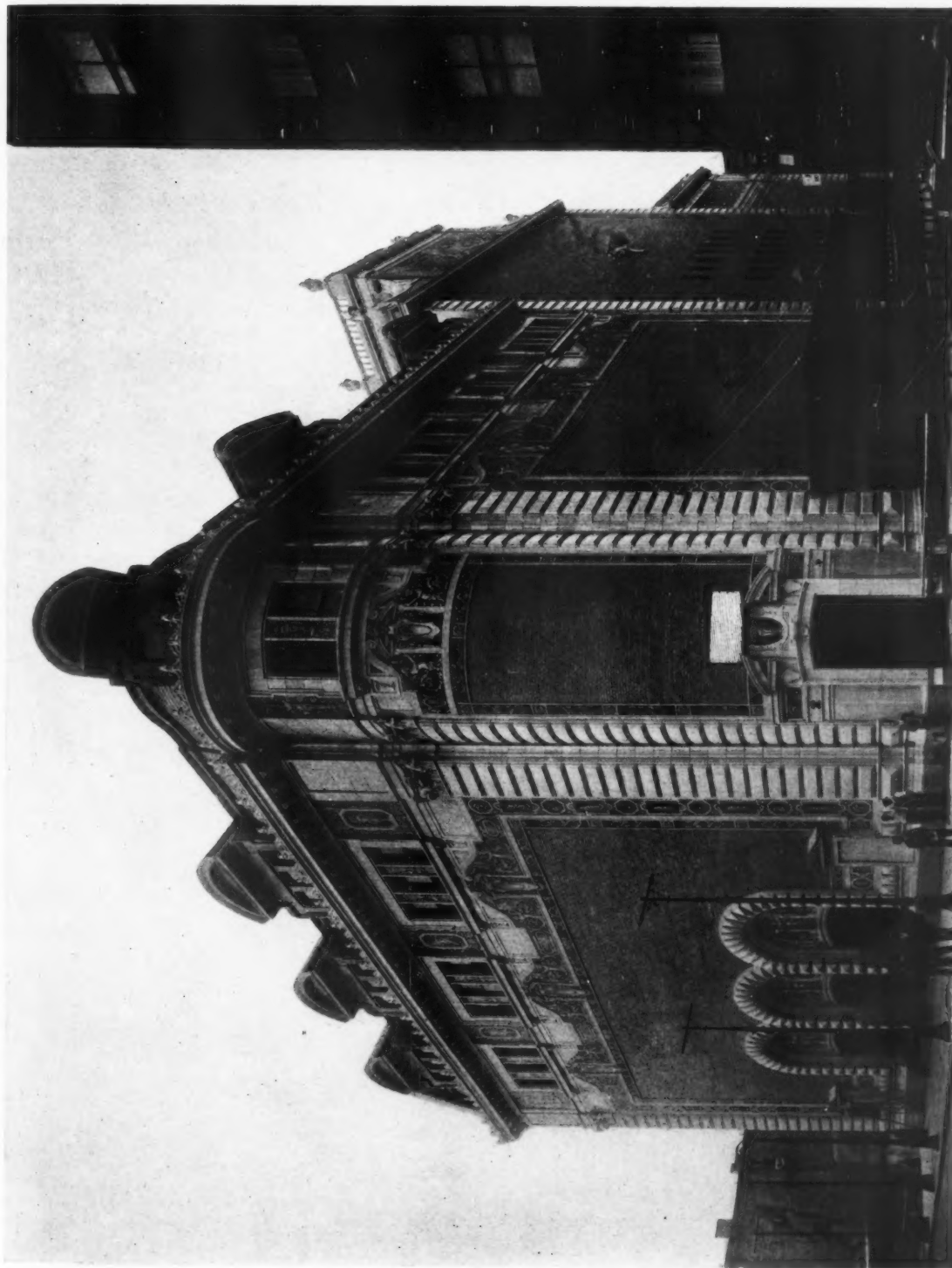
SWITCH TOWER, KEARNEY JUNCTION, D., L. & W. R. R.



MARATHON STATION, D., L. & W. R. R.

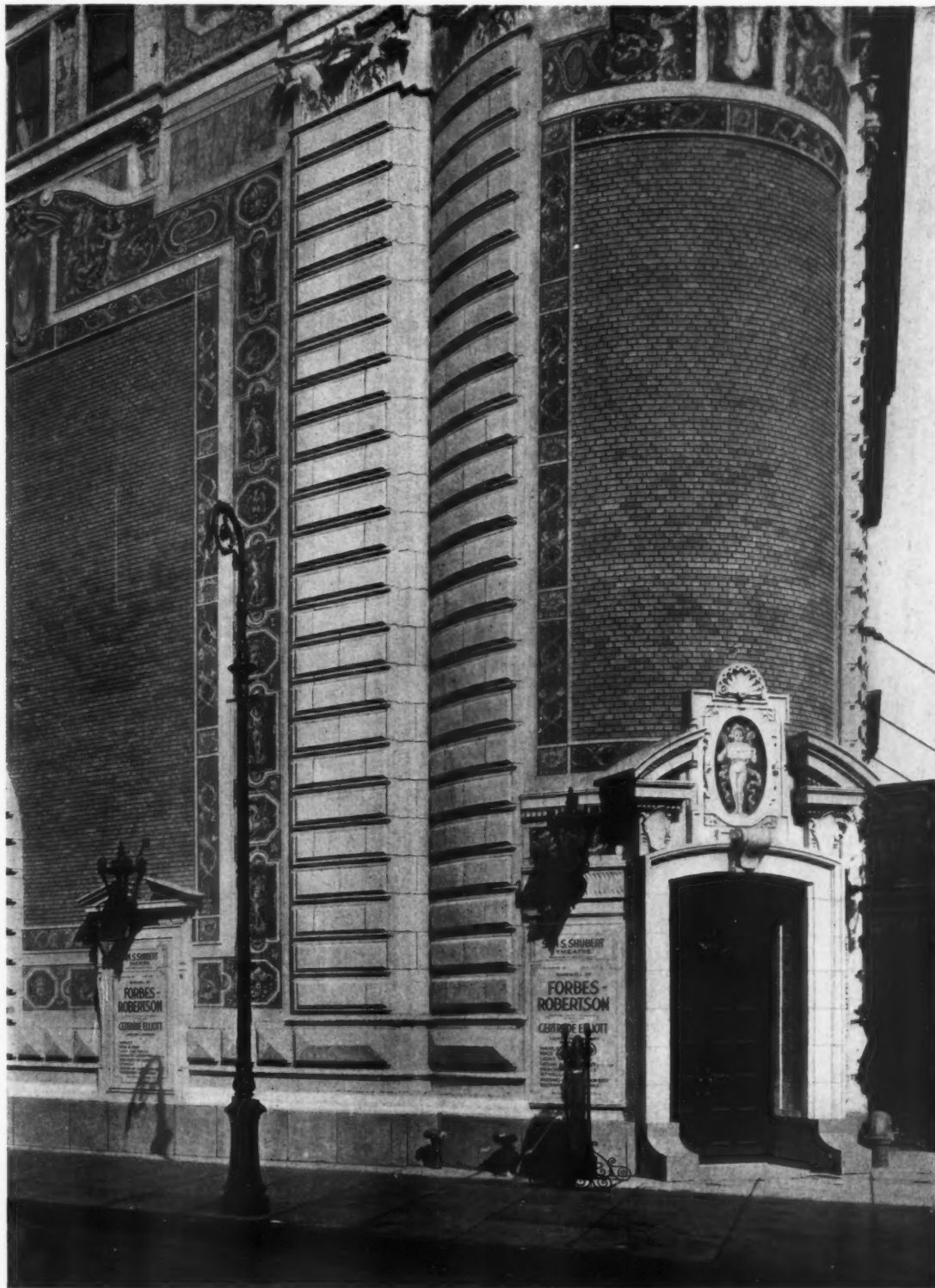


WHITNEY POINT STATION, D., L. & W. R. R.



The walls are of buff colored brick with oak joints and the trimmings are of gray terra cotta. As the building laws prohibit the projection of any part of a structure beyond the building line, the use of sgraffito has been resorted to for decoration since it gives a very elaborate effect in relief. The general character is that of the Venetian Renaissance with modern adaptations.

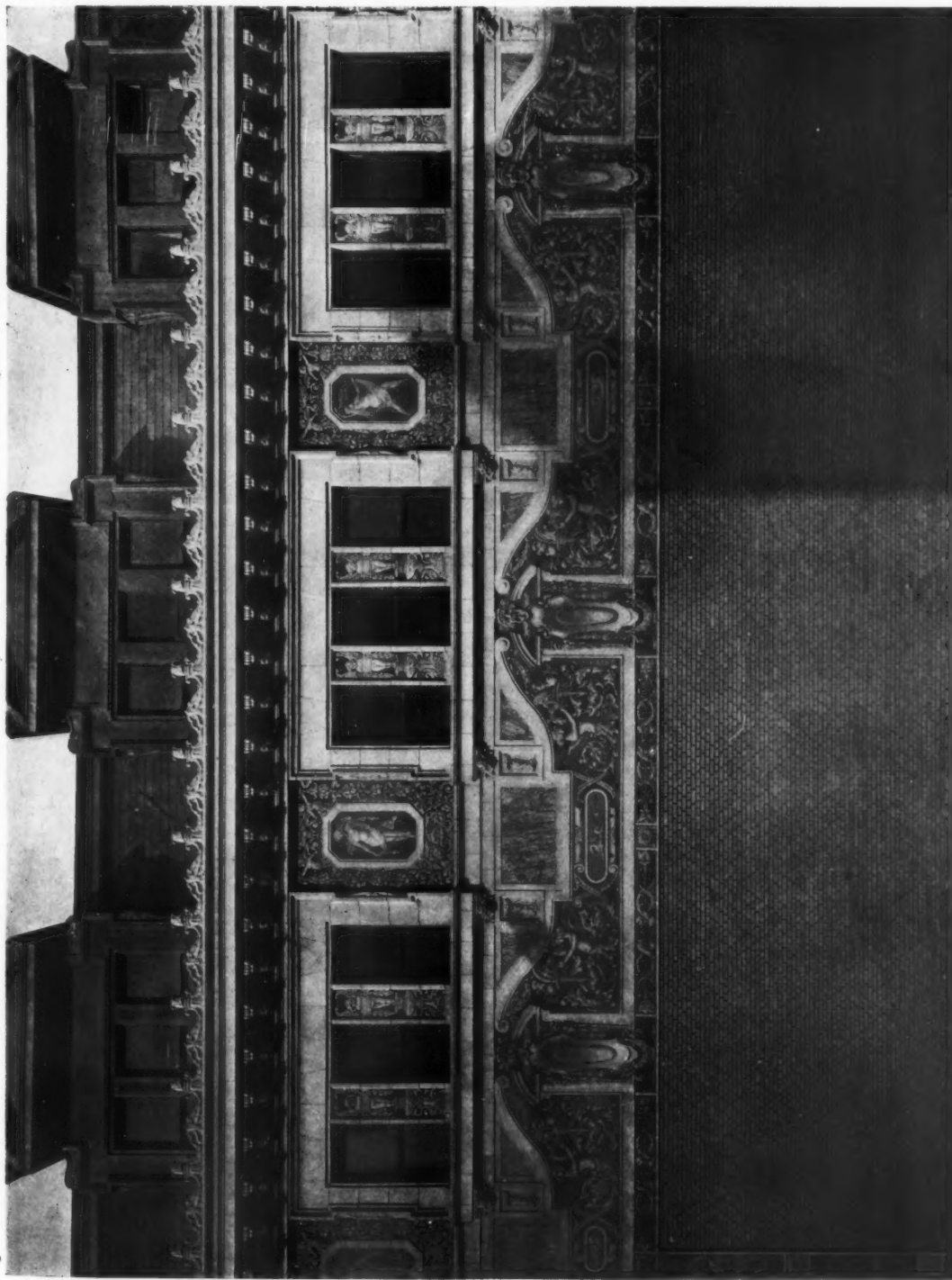
SHUBERT THEATRE, WEST 44TH STREET, NEW YORK, MR. HENRY B. HERTS, ARCHITECT



FACADE DETAIL OF LOWER STORY

The doorways of terra cotta recall in their design the spirit of the Venetian Renaissance. The oval panel within the broken pediment above the entrance doorway is sgraffito work. A similar form of decoration is employed in the tympana above the triple exit.

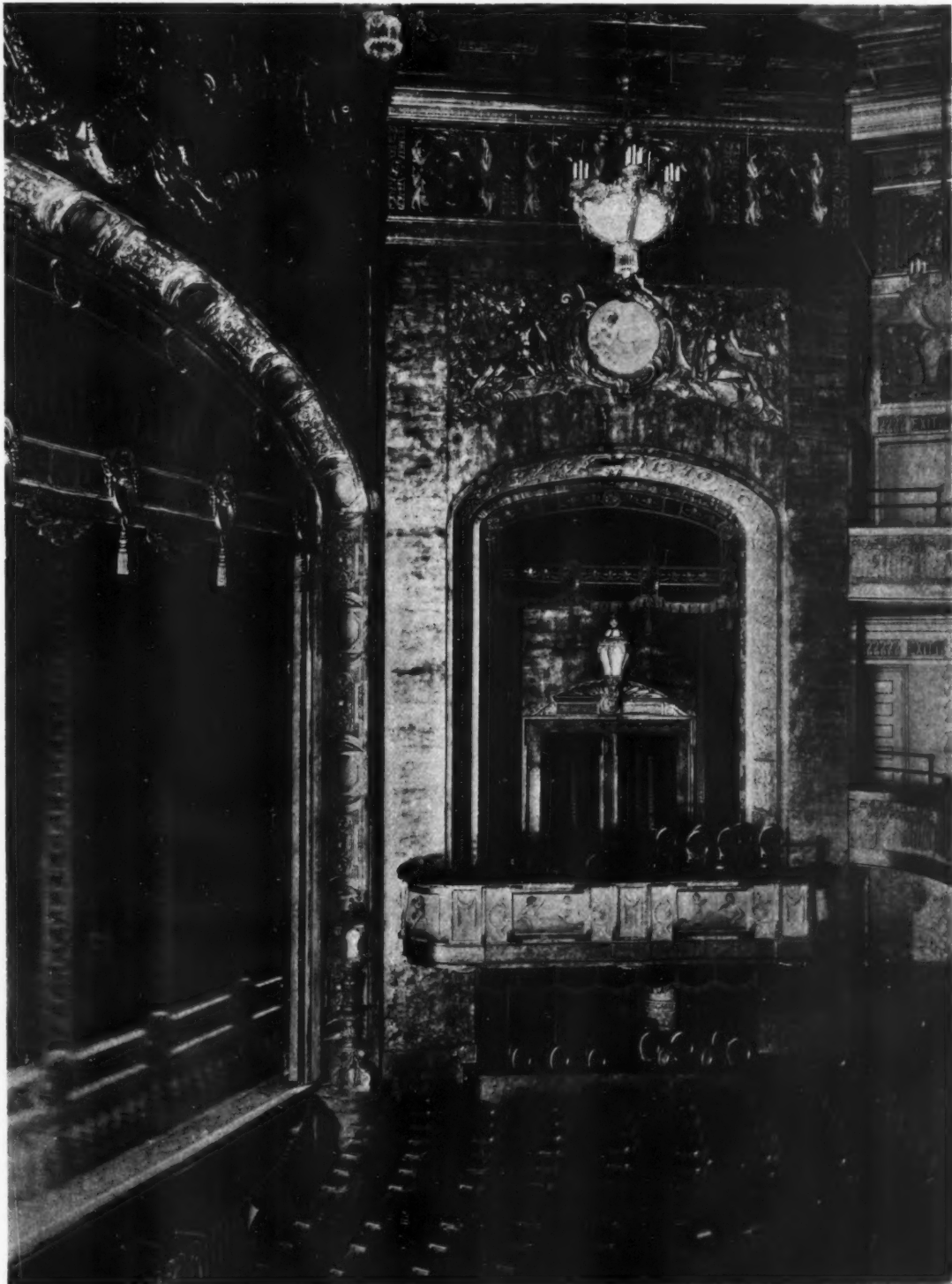
SHUBERT THEATRE, WEST 44TH STREET, NEW YORK, MR. HENRY B. HERTS, ARCHITECT



FACADE DETAIL OF UPPER STORIES

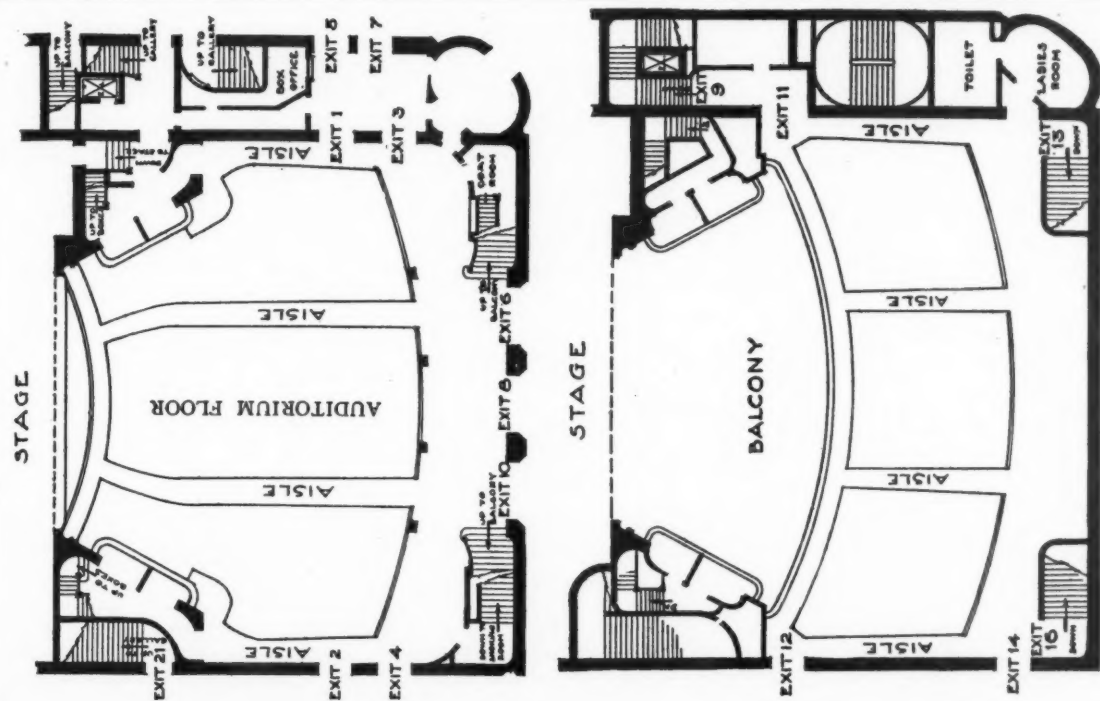
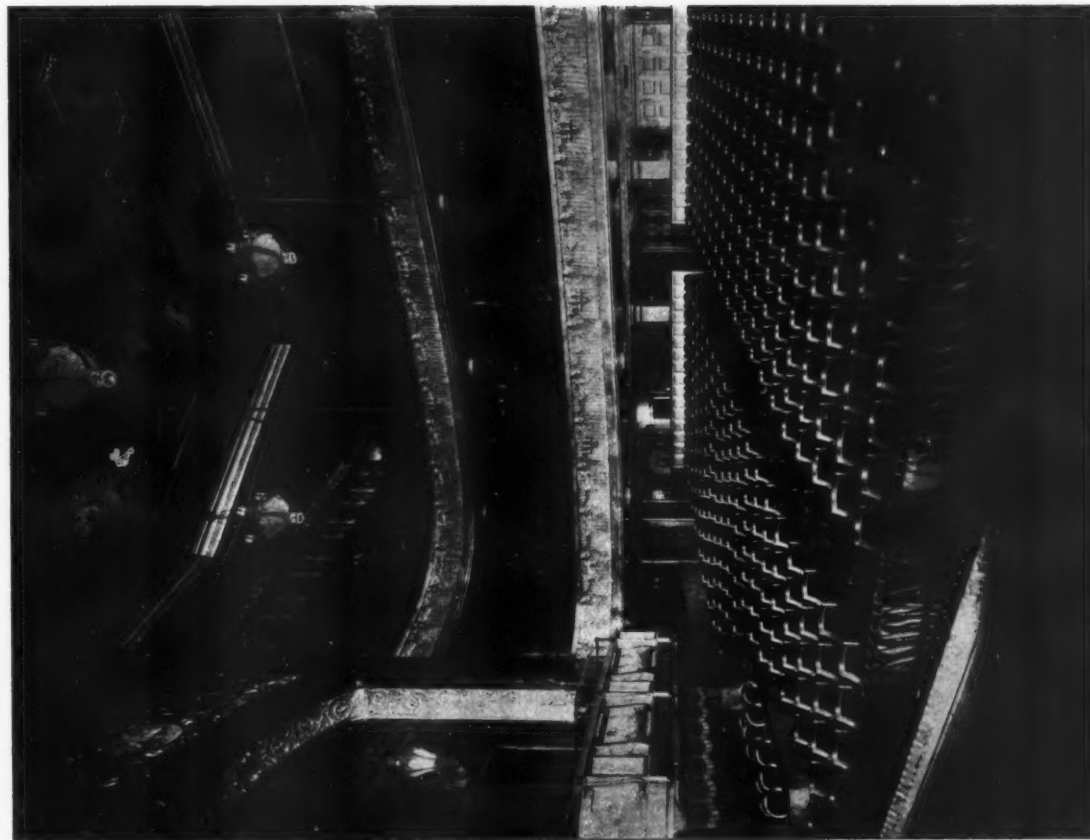
The sgraffito panels have Renaissance ornament in light gray tone, executed on a background of purple gray. The trimmings, including the cornice, are of light terra cotta; the walls are buff-colored, and the bricks are laid in alternate courses of headers and stretchers. The upper stories are used for studios.

SHUBERT THEATRE, WEST 44TH STREET, NEW YORK, MR. HENRY B. HERTS, ARCHITECT



The decoration of the boxes is old Venetian gold with paintings in which absinthe green and amethyst predominate. The very heavy velour curtain is of the prevailing green tone, and is panelled in amethyst and gold. The utmost fire protection is afforded in all parts of the building, and the broad promenades are provided with numerous exits.

SHUBERT THEATRE, WEST 44TH STREET, NEW YORK, MR. HENRY B. HERTS, *ARCHITECT*



The general scheme of interior decoration is old Venetian gold, abstinthe green and amethyst. The seating capacity is about 1400,—624 orchestra seats, 413 balcony seats, 363 gallery seats and four boxes. The heating is of the plenum system supplemented by direct radiation.

SHUBERT THEATRE, WEST 44TH STREET, NEW YORK, MR. HENRY B. HERTS, ARCHITECT

CURRENT NEWS AND COMMENT

A CORRECTION

Owing to an error in printing the titles on the series of measured drawings by Mr. John W. English, appearing as frontispieces in *THE AMERICAN ARCHITECT*, it is stated that "Mr. Glover's drawings were placed second." As will no doubt be apparent this should read "Mr. English's drawings were placed second."

REPORT OF PHILADELPHIA'S ART JURY

That buildings properly grouped present a greater attractiveness than the sum of their individual parts is strongly urged in the annual report, recently published, of the Art Jury of Philadelphia.

Civic centres in Europe, whose appearance is of the most satisfactory character did not, it is pointed out in this report, just grow, but are the result of careful thought combined with skillful planning.

Recommendations contained in the report are in part as follows:

"The attention of your administration is requested to the following suggestions: The location, not only of works of art, but of buildings of all kinds, is frequently of as much importance as the design of the buildings themselves. We refer not only to the location of a particular building upon the individual plot acquired for it, but the selection of the plot itself before its acquisition.

"Public buildings ought to be located, if possible, in juxtaposition to each other or grouped around a plaza or park. We refer to the buildings continually being erected by the city, state and nation. Their site is often, indeed, generally selected without any reference to the neighborhood of other public buildings. This is a waste of opportunity. A school building erected one block away from a park when it might have been erected fronting upon the park; a public library located within 400 or 500 feet of a school or park instead of next to the one and facing the other; a public bathhouse placed one or two

blocks away from other buildings, such as those named—are examples of what is meant by this suggestion.

"We urge upon all public officials whether under your authority or outside of it, that before governmental action is taken to acquire the sites of buildings to be erected hereafter in the city, the opinion of the jury as to the locations suggested be obtained. This will ultimately bring about that appropriate grouping of buildings which is being sought more and more intelligently by every city in the United States, an which has been sought and already secured by many European cities. Any one familiar with the public squares and plazas of European cities, surrounded partly or wholly by public and semi-public buildings, will readily realize that the location of those buildings was not haphazard, but was determined after careful study by some authority."

HOMES OF THE CAESARS ARE UNEARTHED IN ROME

Dispatches from Rome state that Professor Beni, who is superintending the excavations on the Palatine Hill, has located the imperial palace of Nero and Caligula—Caius Caesar—and also that of Domitian, the foundation of the imperial throne being uncovered.

The excavators have come upon seven houses of the republican epoch, a complicated network of pipes and drains and several circular rooms cut in the Tufa stone and lined with plaster to protect from dampness.

CENTRAL NEW YORK CHAPTER A.I.A.

The annual election and banquet of the Central New York Chapter, A.I.A., was held on November 2nd at the College of Architecture, Cornell University, Ithaca.

The officers elected were: President, Samuel Hilger, Auburn; Vice-President, Edwin S. Gordon, Rochester; Secretary,

THE AMERICAN ARCHITECT

H. L. Gaglin, Syracuse; Treasurer, Howard W. Cutler, Rochester; member Executive Committee, H. L. Brockway, Syracuse.

A STATE ART COMMISSION FOR MICHIGAN FEDERATION OF ARTS URGES FORMATION

Among the more important measures discussed at the recent convention of the Michigan State Federation of Art was one looking towards the formation of a State Art Commission to be created under a special act of legislature.

This, and similar action of other states and municipalities, is believed to be the direct results of the conference held in New York City this fall by the various art commissions throughout the United States.

ANNUAL REPORT OF THE ART COMMISSION OF NEW YORK CITY

As in previous years the report of the Art Commission of New York City is a record of efficiency in the conduct of this important department. A valuable part of this document is the record of a session of the First National Conference of Art Commissions held in New York City in May, 1913. The subject under discussion was "City Art Commissions, Their Organization, Functions and Method of Procedure." The remarks of the various speakers, all of them men who have taken an active part in Art Commission work, will be found authoritative. The report contains information that will be of the greatest value to every city in the country contemplating the organization of an Art Commission.

PHILADELPHIA TO RECEIVE BEQUEST FOR PARK STATUES

FAIRMOUNT PARK TO HAVE SCULPTURE EMBLEMATIC OF HISTORY OF AMERICA

Under a legacy in the will of the late Mrs. Ellen Phillips Samuel of Philadelphia, that city will soon receive a bequest of \$500,000 to provide for the erection of statuary on the banks of Schuylkill River, in Fairmount Park. According to

the provisions of the will, the statues are to symbolize the history of America from its earliest date to the present time.

A bequest of this nature affords Philadelphia an opportunity to set an object lesson to other cities throughout the country. It appears, however, that some difficulty may be experienced at the outset in securing the best results, as under a provision contained in the bequest, notices to sculptors are to be inserted in the leading newspapers of the world inviting them to submit designs. This method will not, it is believed secure the best results, as the ethics of the sculptors' art would prevent the best men in this or any other country, from submitting sketches under such conditions. As it was undoubtedly the intention of this generous donor to secure the best possible results, it is thought that some better method will be devised than the one set forth,—and one that will insure the selection of worthy examples of the sculptors' art.

PERSONAL

Mr. C. Howard Walker, architect, Boston, Mass., announces the removal of his offices to 71 Kilby Street.

Messrs. Frank T. Shea and John O. Lofquist, architects, San Francisco, Cal., announce their removal to the Bankers' Investment Building, that city.

Messrs. Robinson and Thomas, architects, Portland, Ore., announce that they have opened offices in the Chamber of Commerce Building, where they will practice their profession. They desire to receive manufacturers' samples and catalogues.

Mr. R. Maury Browne and Mr. Robert Lehman, architects, Norfolk, Va., announce that they have formed a copartnership for the practice of their profession under the firm name of Browne & Lehman. Their offices will be in the Bank of Commerce Building.

INDUSTRIAL INFORMATION

In this section will be found information concerning late catalogues issued by manufacturers of building materials, fixtures or equipment. Also under this head will be printed, from time to time, certain data relative to new devices or methods of construction considered to be of interest to architects. Architects are invited to make use of THE AMERICAN ARCHITECT'S Catalogue Files and Information Department whenever they can do so to advantage. Any assistance we can render or information we can furnish in this connection will be freely given.

ATLANTIC TERRA COTTA JOURNAL

The first number of a new monthly magazine, issued by The Atlantic Terra Cotta Company, 1170 Broadway, New York City, has just been received.

The object and purpose of this new publication is stated to be the giving of authoritative information on the subject of Atlantic Terra Cotta, to architects, members of architects' organizations and architectural students. Only indirectly, it is asserted, will the magazine be considered as an advertising medium, for the contents of future issues will consist of plates describing various details of constructions, and illustrations of modelled details. It is proposed to make the magazine specific in character by devoting it entirely to the subject of architectural terra cotta, with no irrelevant matter whatsoever. Text will be limited to necessary descriptions of illustrations.

The appearance of the initial number of this publication indicates that it will be of the highest class, typographically. Illustrations shown are of the Woolworth Building, the Union Central Life Insurance Building of Cincinnati, and reproductions of some exceptionally well modelled capitals.

The text is written in concise language that shows appreciative understanding of the subjects treated. The entire issue of the publication indicates a serious purpose on the part of the manufacturers, and a knowledge of both the needs and traditions of the profession which it is intended to serve. We believe it will be gladly received in every architect's office as furnishing practical assistance of a kind that while highly valuable, is not often obtainable.

The magazine may, upon application, be received regularly by those for whom it is published.

VACUUM CLEANERS

The Richmond Radiator Company, 1480 Broadway, New York City, manufactures the Richmond Vacuum Cleaning machine in different types and designs to meet the varying conditions of vacuum cleaner usage. These types range from systems built into the house for heavy duty to the small or medium sizes of portable or suction cleaner types which, the maker claims, are as easily handled as the ordinary house broom. These various kinds and sizes of vacuum cleaners are interestingly described in a series of pamphlets which will be mailed to architects upon application.

FIRE PROTECTION

The October issue of the *Quarterly of the National Fire Protection Association*, is a publication of particular interest.

The work of this Association is among the most valuable in conservation going forward today. It is not necessary to refer to the enormous fire loss. Its toll in life and money is known to every one in the profession. Efforts seeking to surround modern construction with safeguards that are conceded, as a result of actual experience, to be founded on the best known methods, deserve encouragement and appreciative comment.

The Department of Public Education, a feature of each issue of the *Quarterly*, seeks to present by well written and carefully illustrated articles object lessons, based on actual fires, and the conclusions that have been reached as to their origin, extent and damage.

Information of this character will, it is believed, contribute largely to prevent faulty construction, educate the masses in an appreciation of better methods of building and act in a large measure to diminish each year the fire loss throughout the United States.

THE AMERICAN ARCHITECT

ECONOMY IN STEAM PRODUCTION

G. L. Simonds & Company, 115 South LaSalle Street, Chicago, Ill., have issued a pamphlet illustrating and describing the Vulcan Soot Cleaner. This device, it is claimed by the makers, when properly installed, results in high boiler efficiency and effects a saving of labor as well. The pamphlet referred to is illustrated and treats in detail the uses of these cleaners and the scientific principles upon which they are founded. Any device that will result in economy of steam production and will prevent the escape into the outer air of soot and noxious gases, is of interest to every architect and steam user. The pamphlet will be mailed upon request.

ELECTRIC FIXTURES

Illustrated Catalogue No. 22, issued by Faries Manufacturing Company, of Decatur, Ill., illustrates and describes a line of patented, adjustable electric brackets, portables and shades, of which this company is the manufacturer. The great benefits that have accrued since the introduction of electricity as a lighting medium have been greatly enhanced by the various methods employed to make it available and convenient. These various utilities in electric lighting are all interestingly shown in the catalogue referred to, which may be had upon application.

CEMENT SPECIFICATIONS

A pamphlet, recently issued by Best Brothers Keene's Cement Company, of Medicine Lodge, Kan., with branch offices at 103 Park Avenue, New York City, and First National Bank Building, Chicago, Ill., presents specifications and directions for use of the cement manufactured by this company. The pamphlet not only contains revision of the information given in a former booklet, but also new facts and figures gained by experience in latest practice.

A feature of this book is a set of cement specifications, which, it is stated, are so worded as to make it possible to include them in the architect's own specifications for work. The pamphlet referred to may be had upon application.

ARCHITECTURAL FINISHES

A catalogue issued by the F. W. Thurston Company, 259 Elston Avenue, Chicago, Ill., describes a line of architectural finishes manufactured by that company.

The claim is made that finishing materials manufactured by this company are thoroughly practical and embody the results of an experience covering a quarter of a century. This company desires to correspond with architects who are anxious to secure new effects in interior decorative treatment of buildings.

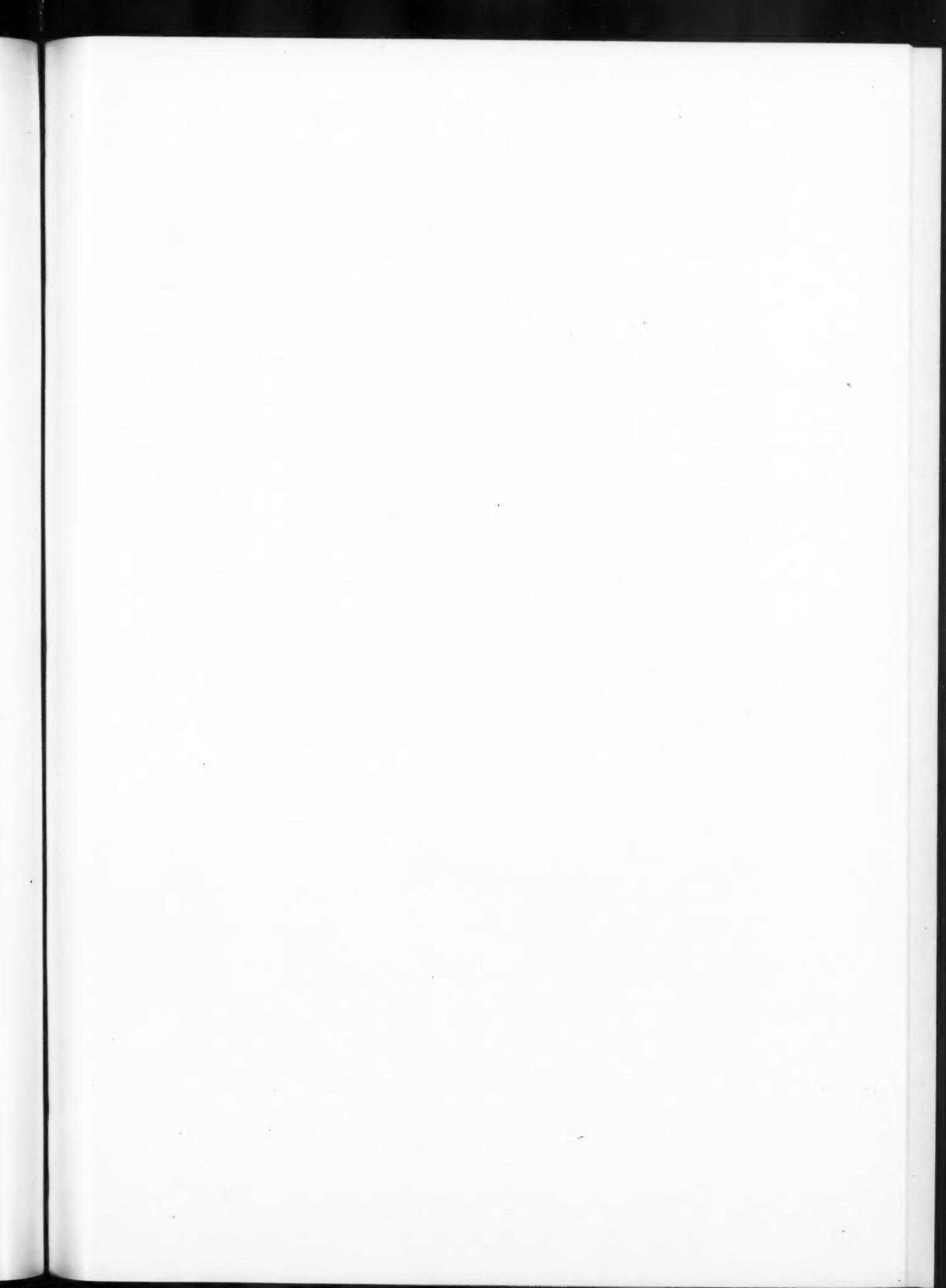
WEATHERSTRIPS

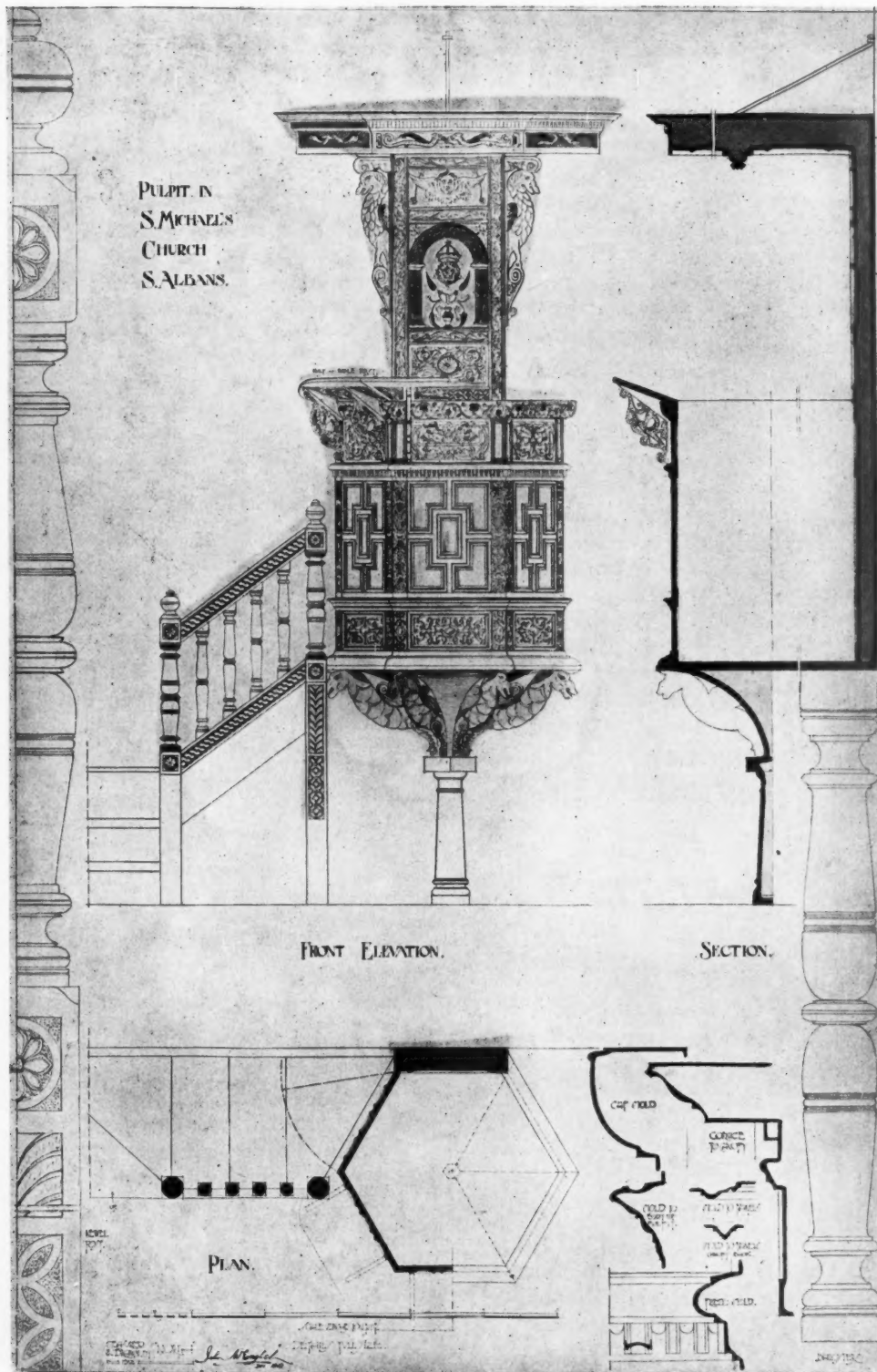
The Durametal Weatherstrip Company, 817 West Washington Boulevard, Chicago, Ill., are the manufacturers of various improved forms of weather-strips for doors and windows, all of which are illustrated and described in a pamphlet that has been recently issued, and which may be had upon application.

The makers state that these weatherstrips are made entirely of zinc, bronze or copper, and that they are warranted not to rust, and that when fitted in the openings they will last practically as long as the window itself. They further guarantee that Dufametal weather-strips will not swell, shrink, crack, decay or disfigure the woodwork, and that they offer every protection for the purposes for which they are intended. The catalogue referred to may be had upon application.

DOOR HOLDERS

C. E. L. Hatch, 672 Bullitt Building, Philadelphia, Pa., is the manufacturer of the Ruppman Door Holder, a device for holding doors in any desired position. The makers state that these holders are thoroughly well made, neat in appearance and can be quickly and easily attached, and that they are but five and three-quarters by two inches in size. Scoring of the floor, it is claimed, is prevented by the use of these holders, and they are guaranteed to hold doors with the strongest spring, in any position. The pamphlet referred to may be had upon application.





NO. 4 OF A SERIES OF MEASURED DRAWINGS BY MR. JOHN W. ENGLISH, ENTERED IN THE GLOVER GOLD MEDAL STUDENTSHIP COMPETITION. MR. GLOVER'S DRAWINGS WERE PLACED SECOND