

THE AMERICAN ARCHITECT

VOLUME CIV

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NUMBER 1961



COTTAGES AT LETCHWORTH

THE FIBRE OF THE NATION. PART III

SOME OBSERVATIONS ON THE HOUSING PROBLEM IN THIS COUNTRY AND IN EUROPE

By WM. H. SCHUCHARDT, A. I. A. Member of the Milwaukee Housing Commission

HENRY GEORGE proved, beyond argument, how tremendous are the burdens carried by society by virtue of individual land-tenure, and the injustice and harm due to "unearned increments" are now appreciated in every part of the civilized world, as are the difficulties surrounding their negation. But why not start afresh? Why carry the burden of centuries, when there is no advantage gained by doing so? This suggestion came about twenty years after the appearance of Progress and Poverty. In 1898 Ebenezer Howard published his

"Peaceful Path to Real Reform," and four years later the third edition appeared under the title of "Garden Cities of Tomorrow." Howard's scheme to overcome the tendency toward unwieldy size in modern cities, and the evils of land speculation, involved the organization of small neighboring cities, limited to 30,000 in population, each surrounded by an agricultural strip of land to ensure a ready food supply without the need of middlemen for distribution, and all bound together by rapid and frequent transit and transportation facilities. The tract of land for each community,



GROUND PLAN, LETCHWORTH

about 6,000 acres, is to be bought with money accumulated by private investors through the sale of shares, (all inhabitants being required to hold shares valued at least \$250). Land is never to be sold but rented on leases of ninety-nine years, with options of renewal, and all revenues so gained are, after proper deductions, credited to the community. Each town is to be carefully planned, so that buildings for similar uses are grouped to the best advantage, with the intention of avoiding the now common damage to neighborhoods by a gradual change in their character. Owing to this lack of zones, as the Germans call it, and careful consideration of the direc-

tions of growth, many residence districts in our own cities have been ruined by the introduction of factories, and new business districts have been developed with but poor shipping facilities. It is Howard's contention that such losses may be avoided by planning the entire town before it is commenced. This only holds good, of course, when the size is sufficiently limited. Space for public parks, playgrounds, municipal buildings, schools, even churches, is to be set aside in the original plan and as the land for such purposes thus never passes into private hands and leases cannot be sold, no exorbitant prices need be paid for real estate alone.

The value of the tract being, in Howard's hypothetical case, \$1,200,000, the fixed charge against it would be, in this country, an interest of six per cent. per year, and three and one-third per cent. for a refunding of capital in thirty years. This amounts to \$112,000, which when the population has reached 30,000, means only about \$3.75 per capita. The increase in value of districts due to occupation naturally raises the rents for new land to be leased, which is the community's gain and which,

with the rentals from the agricultural belt, necessitates but very low taxes for carrying on public improvements. This rental from the agricultural belt must, of course, be far greater than the land originally could bring, owing to the market being close at hand, and is estimated in Howard's example as at least \$50,000 per year. Sites for factories are to be subject to an annual rent of \$10 per person engaged (employee or officer), by a company instead of by the area of land held. By this means every inhabitant is charged with a small rental for his business purposes, be he owner or employee. Of these 30,000 inhabitants, 10,000 are supposedly factory, or store and office em-

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ployees for whom will be paid into the town treasury an income of \$100,000 per year.

Howard also estimates that 30,000 people will require about 5,500 lots for home purposes, which if rented at \$30 per year, will net \$165,000.

Buildings and improvements are not to be taxed, but the community, through its officers, exercises some control as to their appearance, so that a building of poor architectural character will not depreciate the value of the neighborhood.

The total receipts then are to be:

Rental from agricultural strip....	\$50,000
Rental from factory sites.....	100,000
Rental from residential sites.....	165,000
	\$315,000

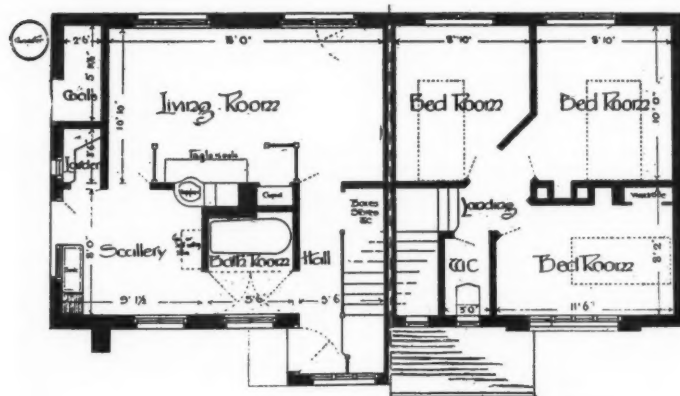
Against this must be charged:	
Interest on the original investment	
of \$1,200,000, and refunding ac-	
count nine and one-third per	
cent.....	\$112,000
	\$112,000

For public improvements.....	\$203,000
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The equivalent to this income of \$203,000 must be paid by an additional tax until the population reaches 30,000, but as roads, sewers, schools, etc., are built as the growth of the town requires and not all at one time, a large initial sum need not be invested for that purpose.

After the publication of the book, and through numerous lectures unusual interest in the scheme was aroused among people of all classes. In 1901 the Garden City Pioneer Company was organized with upwards of 1,300 members and a capital of \$100,000. Careful investigation, lasting a year, resulted in the choice of 3,818 acres of land in Letchworth, about forty miles north of London, which was valued at \$725,000. The initial price paid was but \$257,000 raised on four per cent. mortgages, and the remainder of the land was secured by options. The formation of the First Garden City, Ltd., soon followed, capitalized at \$1,500,000 by an issue of 59,000 shares at \$25 and 5,000 shares at \$5. As the value of the land for town purposes greatly increased (from \$725,000 to \$1,375,000), and will increase still more as the population increases, these shares are amply secured.

After solutions of the many financial problems were found, Messrs. Barry Parker and Raymond Unwin, architects, were selected by competition to plan the new city. The "layout" provides for governmental and municipal buildings in the heart of the city, from which radiate boulevards to the outlying neighborhoods, and the main avenue directly connects this civic center with the railway station. Factory sites are located in reference to the prevailing winds, and also on lower ground, so that smoke will be carried away from the town, and the buildings and shipping yards will be seen as little as possible. Sections are reserved for more expensive residences and others for wage-earners' cottages,



Ground Floor

First Floor Plan

COTTAGE AND FLOOR PLANS, LETCHWORTH



BIRD'S-EYE-VIEW, LETCHWORTH

and in every way is the permanency of value, the growing beauty and practicability safeguarded.

Cottages are being built by tenant societies or by subsidiary companies, which as has been described above, obtains in other "model" towns, so that by coöperation in building and by elimination of land speculation, cheaper living and cheaper manufacturing are possible.

Ownership of the home is a natural desire, and it is generally held that the workman should enjoy that privilege, both for his own good, and for that of the community. But the necessary mobility of labor offers serious objections to this system, as, in most cases, such homes are paid for in installments, and, in the event of removal from the neighborhood, the owner is liable for the purchase money, and may be required to sell at a sacrifice or lose his holdings by foreclosure. By holding shares in a building society he may enjoy all the privileges of ownership under a long term lease (subject to cancellation at removal from the town),

and if a change in his business activities requires his leaving, he may retain his interest in the company in shares equal to the value of his house, and receive the usual interest; or he may withdraw it without loss. The society re-rents such buildings, and, of course, in its own interest, they are so constructed that depreciation will be as low as possible. Although but eleven years old, the population of Letchworth is now over 8,000, and the success of the enterprise is not only assured, but



A STREET IN LETCHWORTH

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it has already served as model in several instances on the continent.

The Garden City idea has been found sound in business principles, and has passed through a fair experimental stage. The dream of cheap but good homes on cheap land, the restriction of the number of houses to be built per acre, and the provision of open spaces for recreation and beauty, has been realized in the various ways described, at Bourneville, Coryndon, Ealing, Earswick, Hampstead, Hull, Leicester, Manchester, Oldham, Port Sunlight, Seven Oaks, Sheffield, Warrington, Wolverhampton, and Letchworth. Surely a splendid beginning! There have naturally been many mistakes made, and there are obstacles still to be overcome, for each problem offers new conflicting conditions. We cannot here dwell on these, however, and as many of the pros and cons are admirably considered by Mr. J. S. Nettlefold in "Practical Housing," and by the Messrs. Cornish in "A Housing Policy," we must suggest to the reader a perusal of them.

The question has often been put: Does this artistic consideration, on which so much stress is laid in Garden Cities, pay? When one considers that the results are

obtained through forethought, largely through the expenditure of brain effort rather than of money, when pecuniary advantages are gained through avoidance of future mistakes, or future embarrassments, town planning cannot be thought expensive. Beauty of surroundings, and beauty of home, like all art, stimulates the imagination of the people who are surrounded by them. Imagination makes the brain more active, more alert, makes the man a better worker and a better citizen. Deadened imagination, produced in the slum and in ugly surroundings, always makes for indifference and inefficiency, and the assertion cannot be made too emphatic, that the beauty striven for pays very handsomely,—directly as well as indirectly. Again, given the opportunity to reform, and after having been shown how to remain clean, the most slovenly tenants in the slums, with few exceptions, yearn for better things, even for the beauty which now the man of means alone can pay for. And if coöperation and cheap land can produce beauty sufficient to attract and benefit the slum dwellers, and bring it within his means, then the greatest effort should be made, and the best talent should be employed to assure it.

THE USE OF VENEERS

VENEERING as generally practiced is the art of facing straight-grained, inexpensive wood with a thin strip or plate of beautiful and costly wood, so that the article, when finished, may present the appearance of having been made of solid boards of the figured and more expensive material. The art is an ancient one, having been known centuries ago to the Romans, and, possibly to the Egyptians, to whom it naturally would be suggested by the plating of wood with gold and silver, in which they were experts. According to all intent and purposes veneering is to deceive—to represent as solid substance what is only surface; but it enables the purchaser to procure what he desires in furniture, panels, casings, and other wood work, at less price than the same work from the solid material would cost. The art has at the same time the

advantages of strengthening, by means of the veneer, the backing, so as to assist materially in preventing it from warping or splitting, and of permitting the cabinet and furniture manufacturer to make perfect matches in parallel panels, or in one design in a single part of his work, by using two faces of the same cut, thus producing exact duplicates, which would be impossible in the solid wood.

The principal woods used for veneering are our native bird's-eye maple, ebony, mahogany, including its numerous substitutes, rosewood, kingwood, sandalwood, sycamore, amboyna, zebrawood, tulip-wood and a number of others. From these woods sections can be selected which present knots, burls, or other excrescences, which, when sawn into strips, exhibit surfaces showing beautiful figures. In parts of the trunk where limbs have branched off, the veneers will give elliptical figures,

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sometimes two or three feet in length, by from four to six inches in width. In such parts of the tree the fibers not only assume a vast variety of twists and texture, but the wood becomes dense and more compact. Other parts of the same wood exhibit a wavy and grotesque appearance, or that mottled surface seen in the bird's-eye maple, and the similar, though far more beautiful and costly, amboyna. The knots and excrescences turned into veneers furnish the endless and pleasing varieties of shapes seen in finished furniture and cabinet work, and what in nature is in reality a deformity becomes beauty of a high order in art.

THE LINCOLN MEMORIAL

IT is so gratifying to note in the daily press keen appreciation of the good in architecture and a clear vision as to what it means in the artistic development of the country, that we are constrained to print in full a recent editorial in the *New York Times*, with reference to the appointment of Mr. Henry Bacon as architect of the memorial. It reads as follows:

By the choice of Henry Bacon as supervising constructor of the \$2,000,000 Lincoln memorial in Potomac Park, Washington, the earlier acceptance of Mr. Bacon's design is formally sealed. The good plans that slowly have been taking form for three years, at times put in peril by Philistines, as in the threatening effort to spend the appropriation on a needless road to Gettysburg, can now be pushed with vigor and with no fear of further disturbance.

Through pictures in the press and through display of drawings and models in the National Museum, Mr. Bacon's design is already widely known. It employs the Greek elements of platform, column and architrave on a scale so large, in proportions so fine yet severe, with a landscape setting in which natural and formal beauties are so pleasingly blended, that without apparent effort it achieves the dignity demanded by its purpose. In one of the House debates Representative Sherwood declared it absurd to erect a Greek temple to a man that never knew the Greek alphabet. But if ever an American deserved a memorial in Greek restraint and strength, Lincoln was the man. There is more of Grecian simplicity and spirit in the brief Gettysburg address, or in his letter to the bereaved Massachusetts mother, than in a hundred college presidents' reports. Mr. Bacon's design will approve itself to all that not only know Abraham Lincoln but that also feel the spell of good architecture.

Placed at the river end of the great mall, and filling the cityward vista of the projected Arlington bridge,

the memorial will mean much in the future planning of the city. The structure will reinforce and extend all that lately has been done to return equivocally to the axial arrangement first laid out by Maj. L'Enfant with President Washington's approval, more recently developed in the so-called Burnham plan, and already marked by the impressive grouping of the Capitol, the monument, and the newer structure between. Though first and last the nation's tribute to the greatest of its three great leaders, the Lincoln memorial will also be a signal means of enhancing the beauty and establishing the ground plan of our federal metropolis.

RECENT LEGAL DECISIONS

ASSIGNMENT OF FUNDS

An order by a contractor to the supervising architect of a school building, upon whose certificate estimates under the contract were to be paid, to pay a materialman and charge to the contractor's "account" was held to be good as between the contractor and the school trustees as an equitable assignment of a part of the fund then in the trustees' hands. It was clear what account was referred to and immaterial to whom the order was addressed.

A. A. Fielder Lumber Co. v. Smith, Texas Civil Appeals, 151 S. W. 605.

ARCHITECT'S COMPENSATION

An architect sued for the reasonable value of his services in making plans and specifications and superintending the erection of a building on Market Street, San Francisco, and for damages for causeless termination of his employment under a contract to pay him five per cent. of the cost of a building to be erected on Larkin Street, the plans and specifications of which he was to prepare, and the erection of which he was to superintend. It was held that testimony as to the reasonable value of the services performed by the plaintiff upon the Market Street building was admissible. There was evidence that the defendant agreed to employ the plaintiff as architect for the construction of the entire Market Street building at five per cent. of the cost, and that the premature discharge was without good cause. The plaintiff was therefore entitled to regard the contract as rescinded and sue upon a *quantum meruit* and recover the reasonable value of his services. The defendant's

(Continued on page 40)

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CAPITOL COMPETITIONS AND NATIONAL TALENT

NEW PARLIAMENT BUILDINGS FOR CANADA

IT is related that an eminent lexicographer, when asked why he seldom travelled beyond the limits of his nation's capital replied, "Sir, when I have seen London I have seen the world." Is it this same spirit of self-satisfaction that has led the Canadian Government to limit the competition for its new Parliament buildings at Ottawa, to the architects of the British Empire?

Presumably a vast and enlightened nation of such splendid resources wants her Government buildings to be most expressive of her greatness,—a monument worthy of Great Britain's past and of Canada's future. It is a *result* they want. Where can be found the architect equal to the task? The limiting of the competition to architects of the British Empire is a tacit admission that architects of equal, or greater, talent may be discovered working under another flag. Would Canada's future glory be dimmed if she employed the most skilled talent obtainable on her Parliament buildings even though that talent chanced to be exercised by one of another nationality?

America is not less proud of her capital city because it was laid out by Major L'Enfant and we have none of the regrets that might, that probably would, have followed the arbitrary limitation of choice to one of our own nationality. Nor did we refuse Bartholdi's "Liberty" a place at the gateway of our nation, to enlighten and welcome for us the nations of the world.

England's history boasts of able architects, her Empire today has many such. It is conceded that under the plan proposed several designs may be submitted which will admirably fulfil the requirements of the programme. Whether the accepted design will be the best that could be obtained, Canada refuses to ascertain.

RESIDENCES IN THE NEW DELHI

AN interesting question is raised by the attitude of the Governor-General, Lord Hardinge, with regard to the building of India's new capitol at Delhi. The governor and his advisors, are, it is reported, "steadily adhering to the policy of encouraging indigenous talent."

That indigenous talent exists, or has existed, is shown by Mr. E. B. Havell's recently published work on "Indian Architecture." The ornate character and peculiar charm of royal palaces and Mohammedan mosques are witnesses to the untrammelled skill of India's craftsmen, but we believe neither Lord Hardinge nor his successor wants a Mohammedan mosque or a Hindoo palace for a residence. The problem is to adapt Indian craftsmanship to the needs of modern Europeans residing in India, a problem which, if ever solved, will result in a new architectural dialect. If the result in architecture shall prove as interesting as its counterpart in literature,—the expression of Indian life in Kipling's English verse—we shall be content to await its fulfillment, even though deferred to the distant future.

The general layout of the city has been fixed by Mr. Lutyens, the English architect appointed to the commission, and the location of its chief features determined,—including the Viceregal residence, the Durbar Hall, the legislative chamber, the principal secretariats, the church or cathedral, the residence of the commander-in-

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chief, the military lines, the club, the new railway station and the race course.

The results of the recent competition for designs of residences at the capital are said to have been so disappointing that prizes were withheld. If this be true, how long will it take to instruct the Indian craftsmen in European ideals, and who will be the instructor, especially if models be lacking? Would it not be to the mutual advantage of the English governors and

of the Indian craftsmen to have the residences designed for their purpose by whoever can do it best, logically Mr. Lutyens? If they are executed by native workers, "indigenous talent" will then be most effectively trained and encouraged. The resulting buildings thus erected at the national capital, if not a model for future work in India, should at least be a definite basis from which she may shape her architectural future.

RECENT LEGAL DECISIONS

(Continued from page 38)

counterclaim and evidence showed defective workmanship by the contractor, at variance with the contract, and that the plaintiff had issued certificates stating that the work was according to the contract, and that the defendant had thereupon paid the full contract price. It was held to be error to refuse to instruct the jury that if the work was defective and not according to specifications, and the plaintiff failed to properly inspect the work and carelessly certified that it was done properly, and if the defendant was damaged thereby, such damages should be deducted from the value of the plaintiff's services. If no part of the work was done in conformity with the contract, and the architect certified that it was all done in accordance therewith, the jury might reasonably infer, either that he did not inspect it at all, or that he was negligent in so doing. Judgment for the plaintiff was reversed and a new trial ordered.

Hart v. Buckley, California Supreme Court, 128 Pac. 29.

LIMITATION OF ARCHITECT'S DUTY

A building contract provided that the builder should erect and finish a house in a good workmanlike and substantial manner, to be testified by a writing or certificate under the hand of the architect, and should provide good, proper and sufficient materials for completing all the work; that the last payment should be made when the work was completed according to the plans and

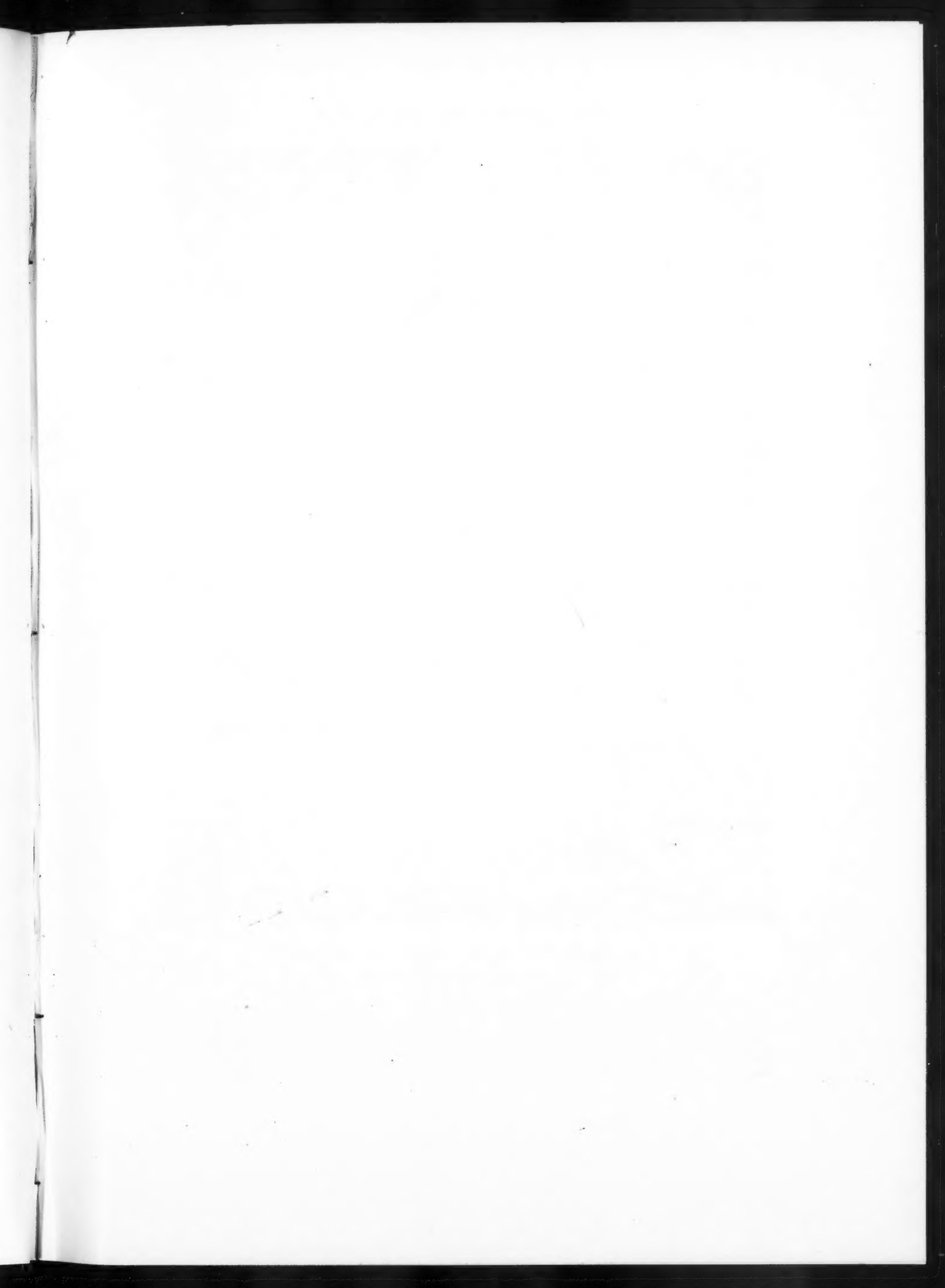
specifications to the satisfaction of the owner or his representative; that, should any dispute arise respecting the true construction or meaning of the drawings or specifications, it should be decided by the architect, and his decision should be final and conclusive. In an action for the last payment it was held (1) that it was incumbent upon the builder to prove that the building was completed to the satisfaction of the owner or his representative; (2) that under the terms of the contract, the architect was not the representative of the owner; (3) that the architect's duty was limited to certifying (a) whether the house was finished in a good workmanlike and substantial manner and did not extend to the goodness, propriety and sufficiency of the materials, and (b) to deciding upon the true construction or meaning of the drawings and specifications; and that his certificate that the plaintiff was entitled to the final payment was not conclusive upon the owner.

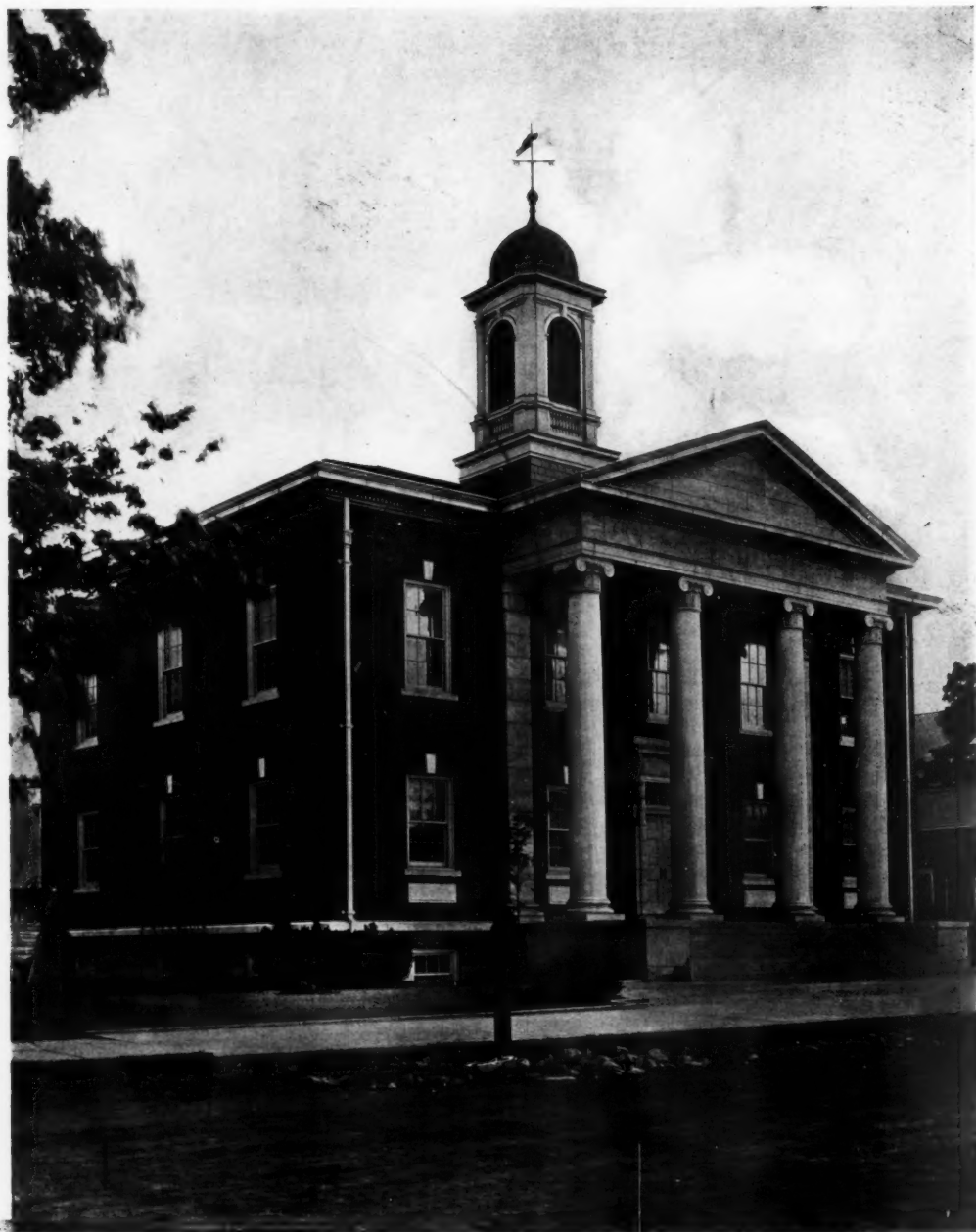
Gerisch v. Herold, New Jersey Court of Errors and Appeals, 83 Atl. 892.

MECHANICS' LIENS—OWNER'S LIABILITY

In an action to foreclose a mechanic's lien it was held that where lessees of a property, with the owner's consent, employed a contractor to make alterations in the leased premises at their own expense, according to specifications furnished by the owner's architect, a person performing work and furnishing materials for the alterations could not enforce a lien against the owner.

Gorman v. Birrell, Utah Supreme Court, 125 Pac. 685.

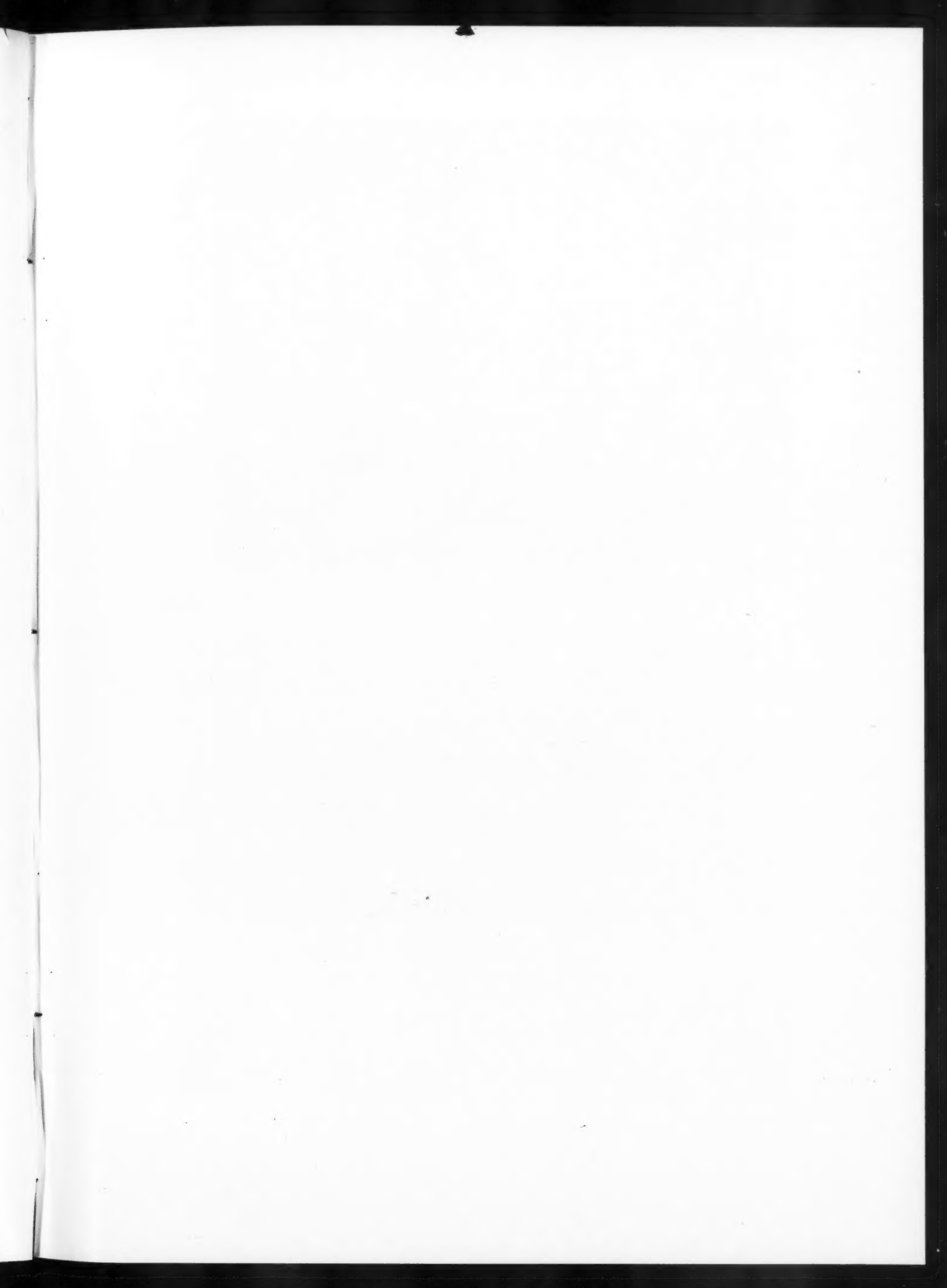




TRACY MEMORIAL VILLAGE HALL, CHATHAM, N. Y.

MR. HORACE W. PEASLEE, ARCHITECT

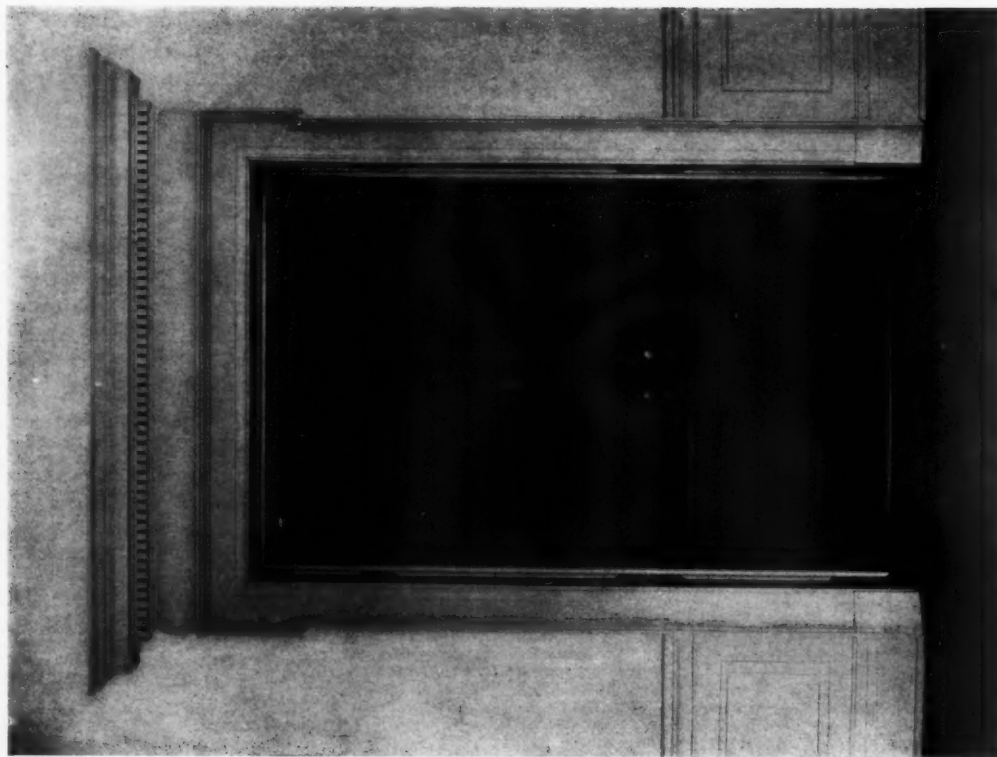
This building is of hollow tile construction, faced with repressed Colonial brick of small size showing a considerable variation in color with dark reds predominating. Marble is from Vermont, columns monolithic, base stone is granite. Interior trim is poplar, painted white, with doors of birch stained in imitation of mahogany. Stair treads and rail of cherry. The large assembly hall has been featured in the door and window trim, panelled wainscoting, plaster cornice and coved ceiling. A special feature of the work is the landscape development by Mr. Burnap which determined the location of the building, and in the planting the future effect rather than the immediate present is considered. The building is the first prominent feature belonging to a proposed village center at present projected. The architect was selected by competition.



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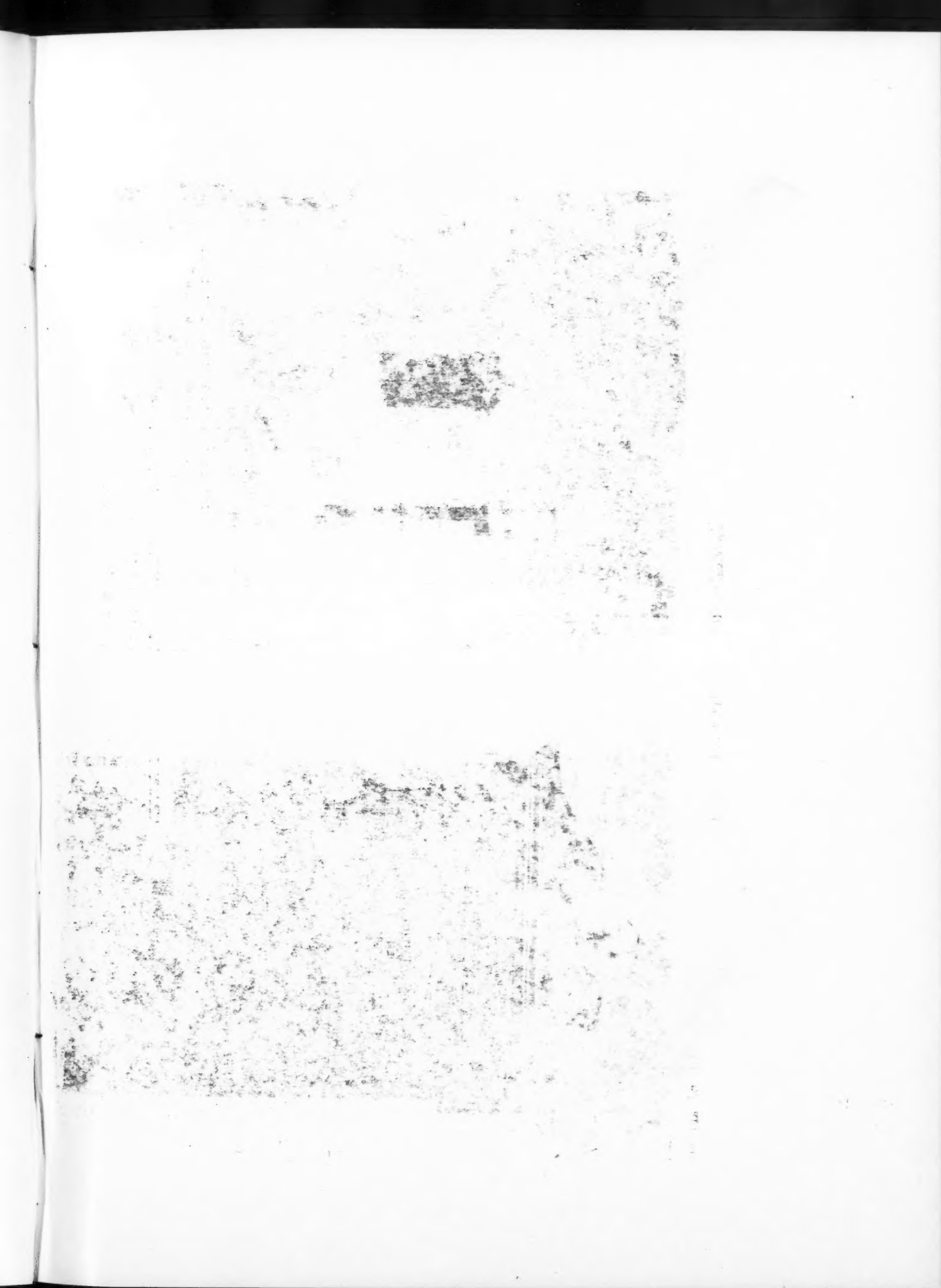
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ABOVE, DETAIL OF STAIRWAY; AT LEFT, MAIN DOORWAY, ASSEMBLY HALL

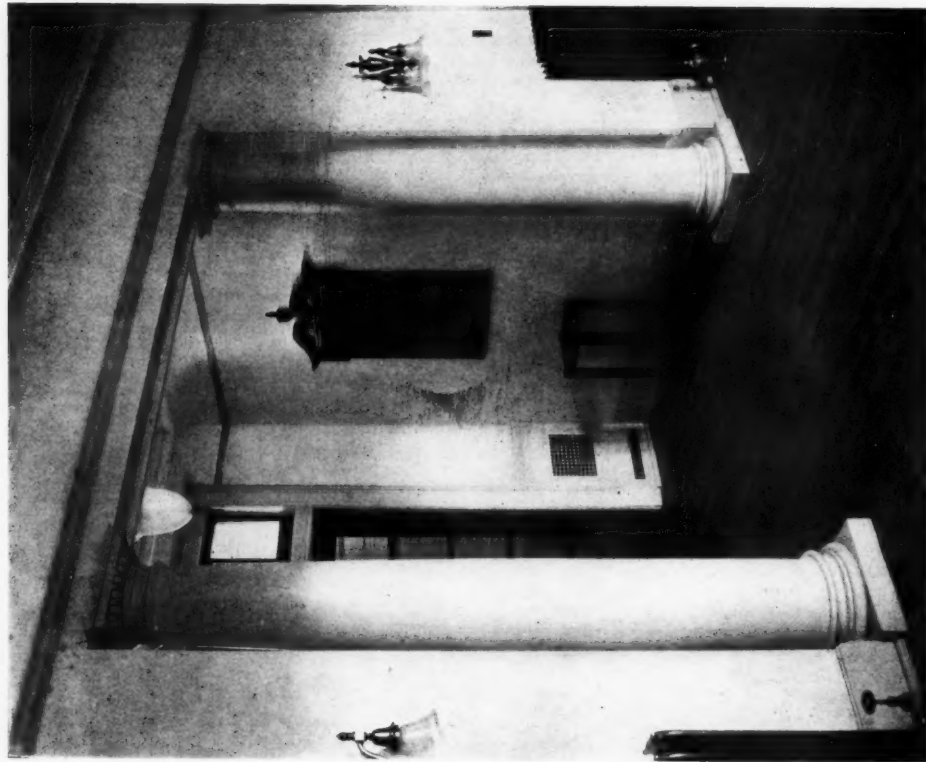
TRACY MEMORIAL VILLAGE HALL, CHATHAM, N. Y.

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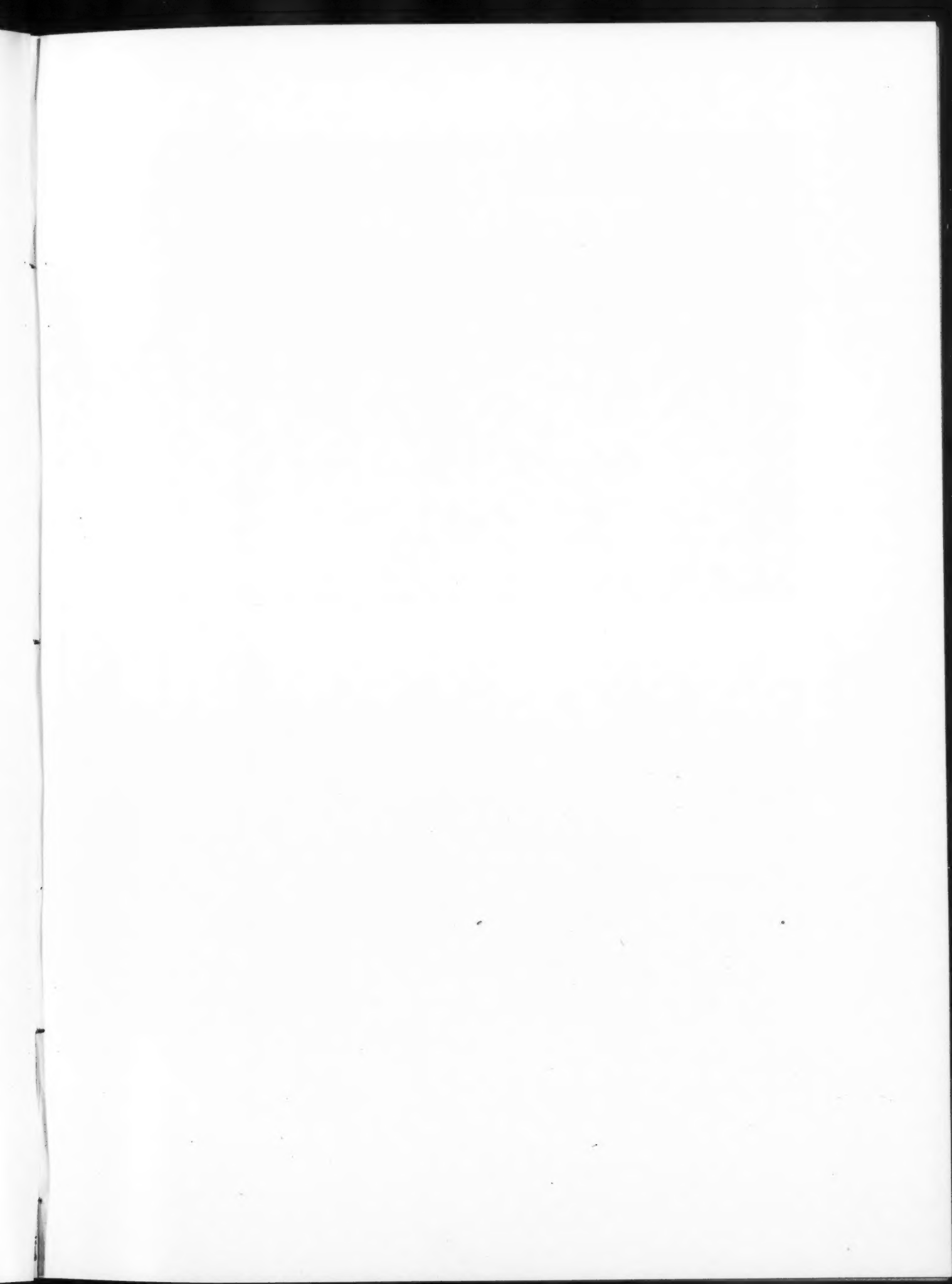
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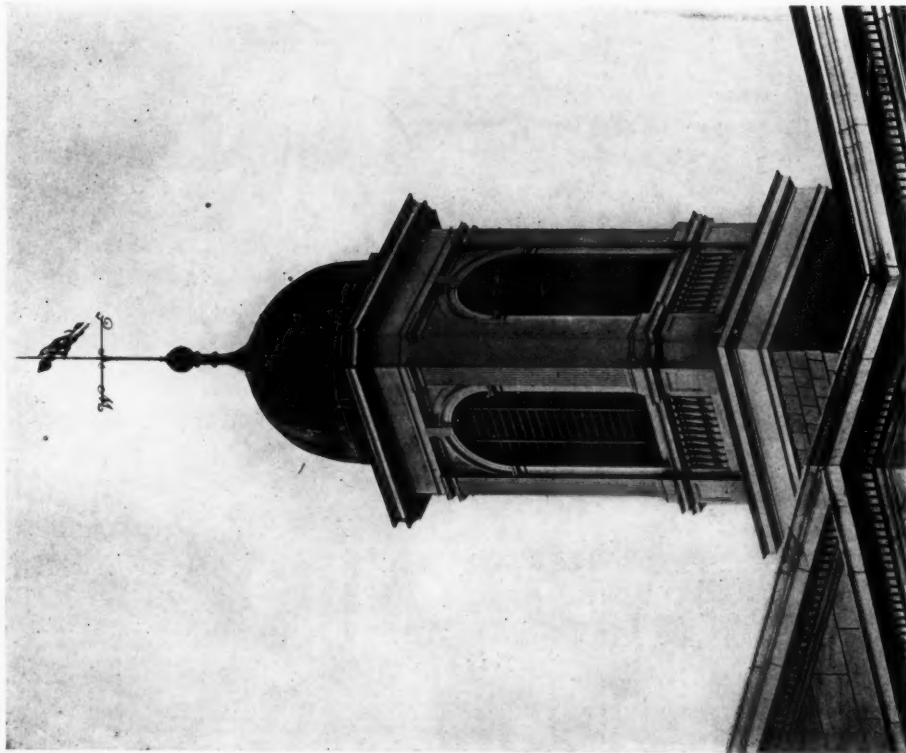


LOOKING TOWARDS ENTRANCE FROM LOBBY
AT LEFT, BRONZE MEMORIAL TABLET

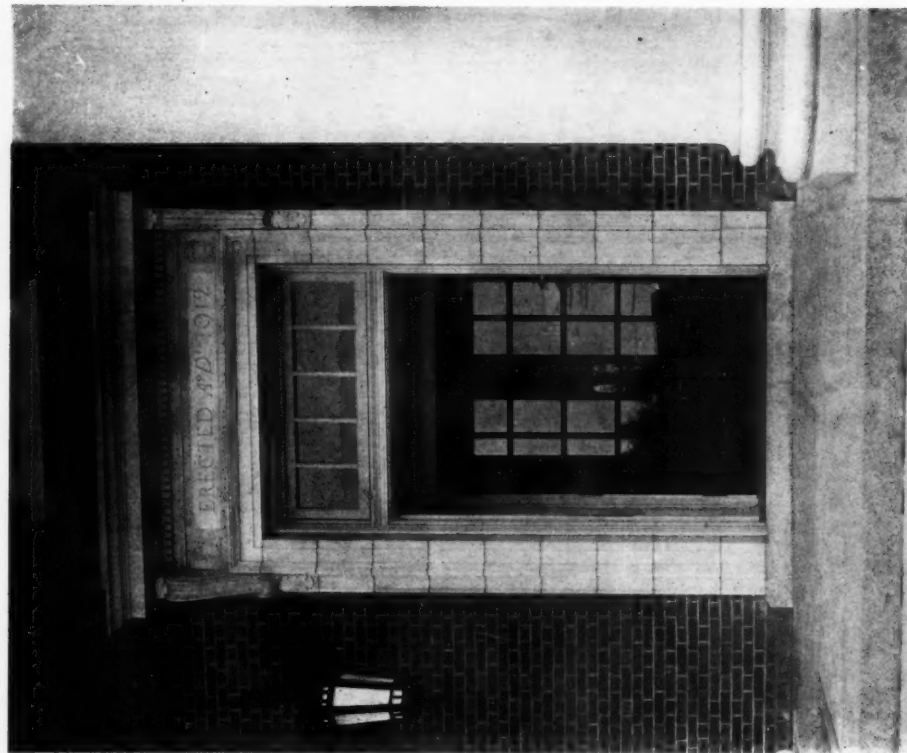
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MR. HORACE W. PEASLEE, ARCHITECT





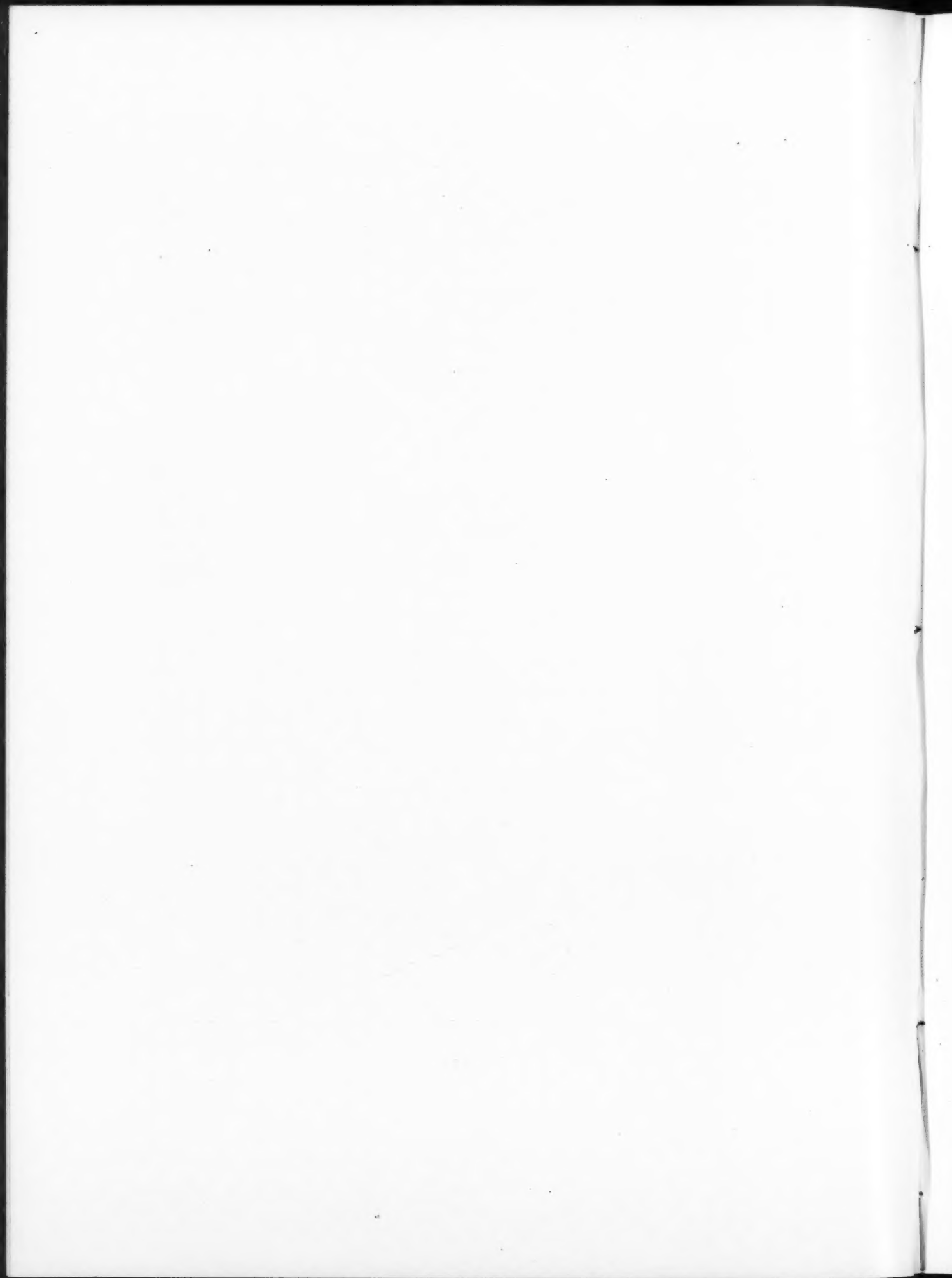
DETAIL OF TOWER

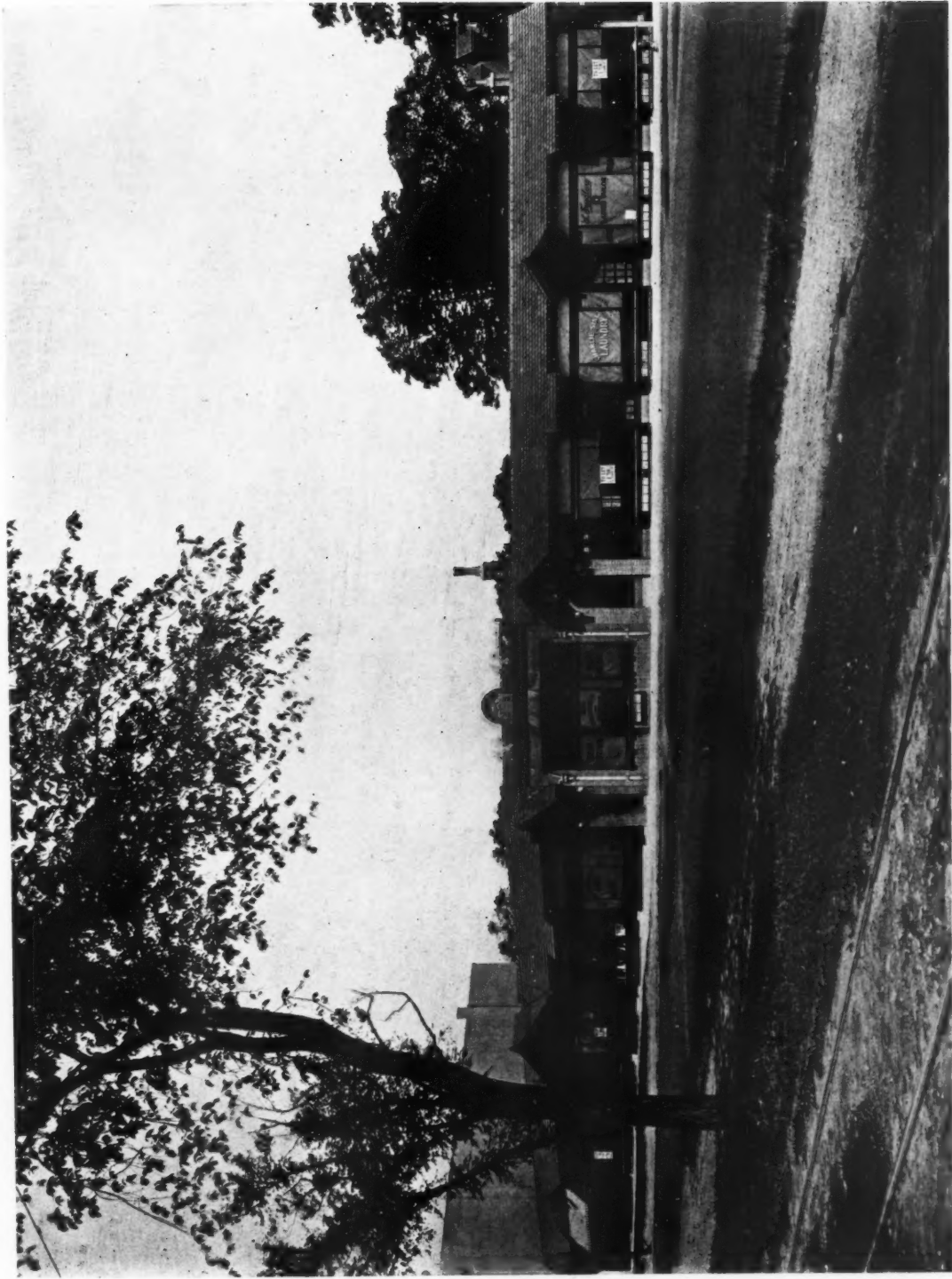


MAIN ENTRANCE

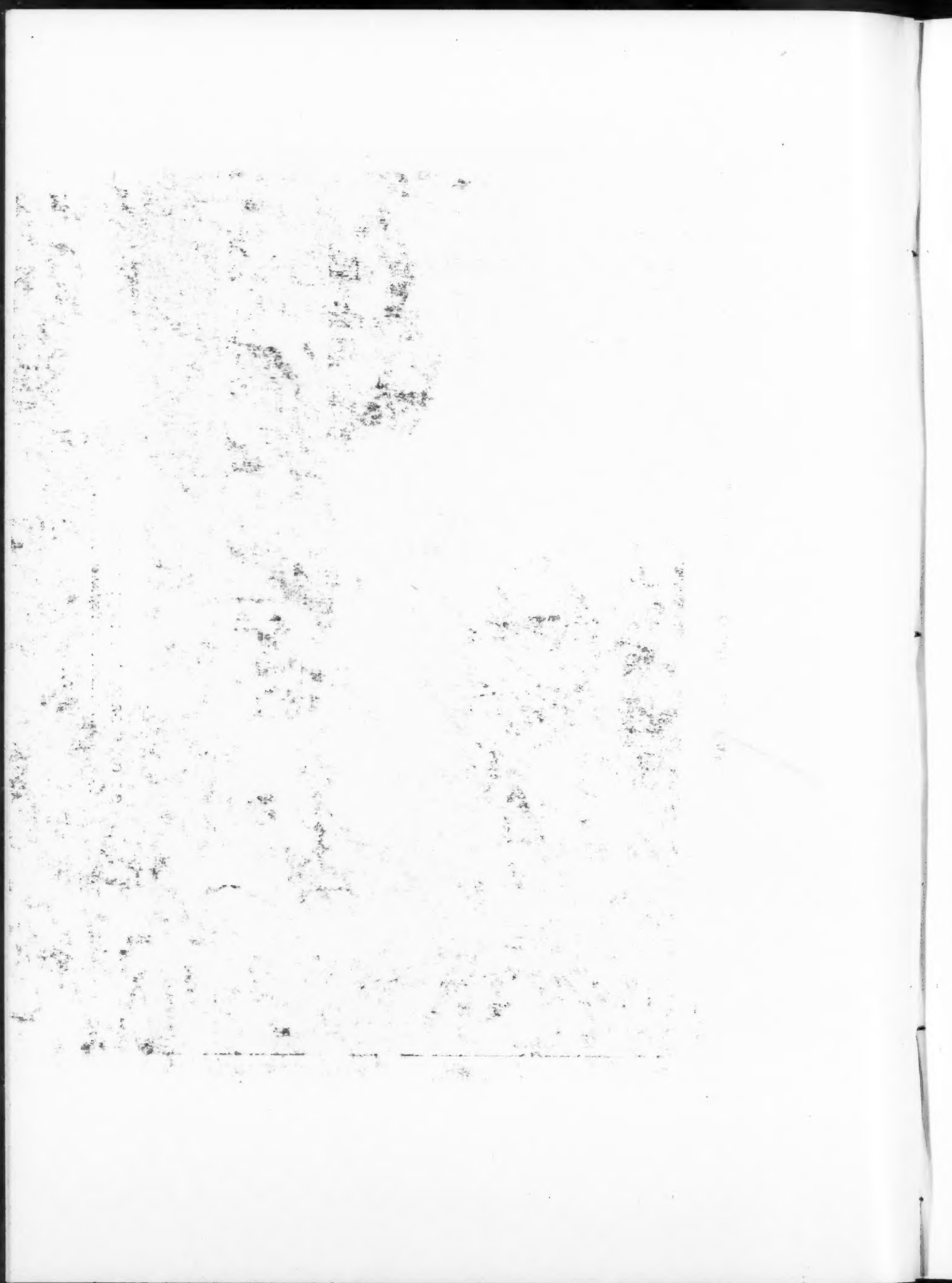
TRACY MEMORIAL VILLAGE HALL, CHATHAM, N. Y.

MR. HORACE W. PEASLEE ARCHITECT





BLOCK OF STORES, COOLIDGE CORNER, BROOKLINE, MASS.
MR. ARTHUR H. BOWDITCH, ARCHITECT



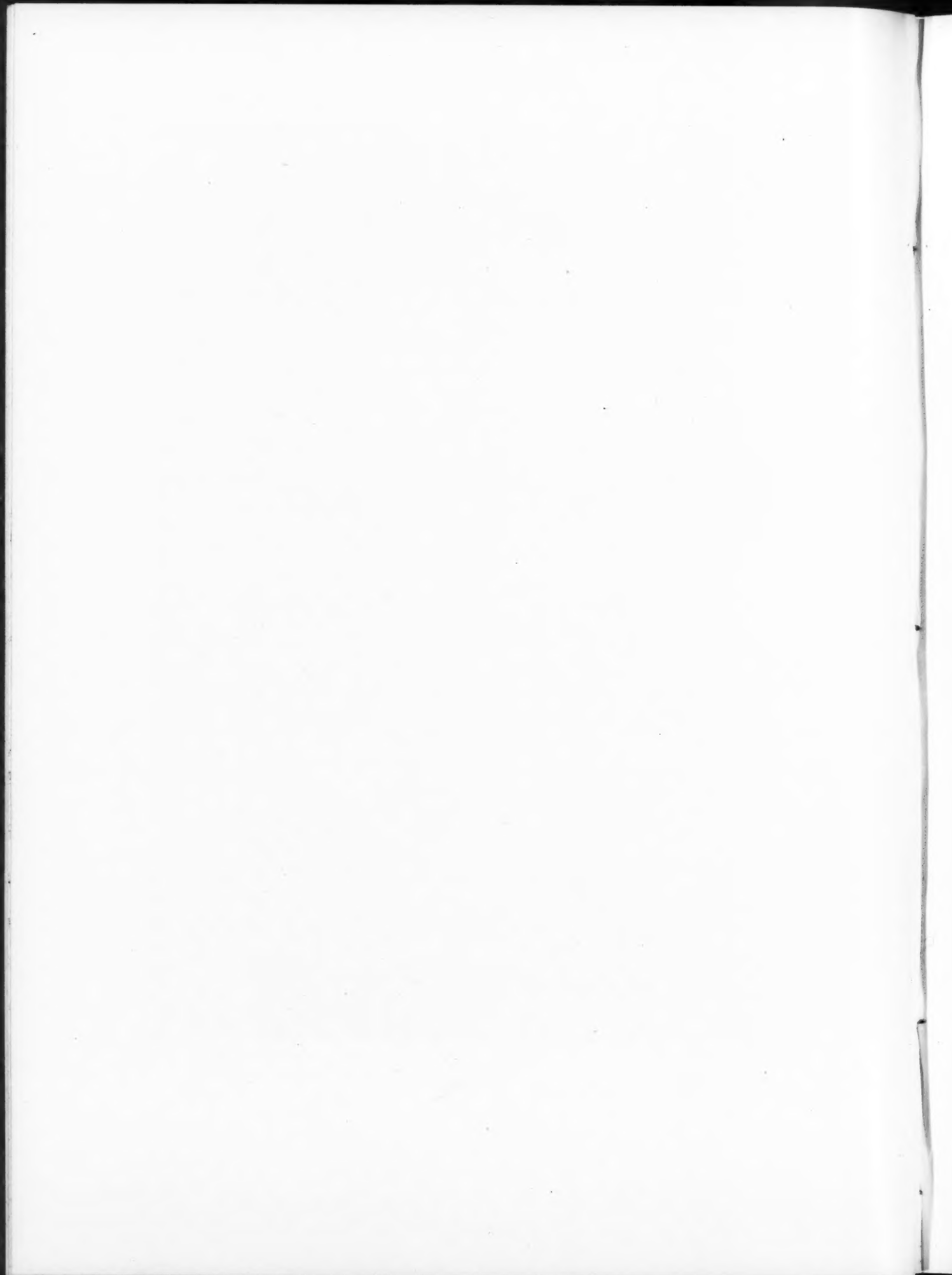
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DETAIL OF ONE OF A BLOCK OF STORES, COOLIDGE CORNER, BROOKLINE, MASS.
MR. ARTHUR H. BOWDITCH, ARCHITECT





STAINED GLASS WINDOW FOR WEST END COLLEGIATE CHURCH, NEW YORK
DESIGNED BY C. M. BURD

CURRENT NEWS AND COMMENT

IN FAVOR OF FREE ART

AMERICAN FEDERATION OF ARTS TO TAKE ACTION AGAINST THE SENATE AMENDMENT TO THE TARIFF BILL

The president, secretary and treasurer of the American Federation of Arts have issued a circular letter addressed to the chapters and officers of chapters of the Federation, requesting them to take official action in opposition to the Senate amendment to the new tariff bill whereby the duty on paintings and statuary not more than fifty years old is fixed at twenty-five per cent. The chapters are urged to indicate their attitude in favor of free art, that is, placing paintings and statuary on the free list, as proposed by the House of Representatives, by sending letters to that effect to Hon. F. McL. Simmons, chairman Finance Committee, United States Senate, to Hon. Oscar W. Underwood, chairman Ways and Means Committee, House of Representatives, the senators of the respective States, and the congressmen of the respective districts.

"Your letter," continues the circular, "should state that you are in favor of Sections 654 and 658 of the new tariff law as passed by the House, and that you are opposed to the amendment proposed by the Senate committee, now under consideration in the Senate, whereby a tax is placed on all paintings and statuary less than fifty years old, and should preferably briefly state your reasons therefor. A copy of your letter should at the same time be sent to Robert W. De Forest, president, No. 30 Broad Street, New York, so that such an expression of your opinion can be collectively presented. No reasons have been publicly stated by any one, so far as we are aware, which would justify the retention of the present duty on paintings and statuary, much less raise by thirty years the barrier imposed by the present twenty-year limitation."

ARCHITECTURAL YEAR BOOK. UNIVERSITY OF ILLINOIS

The Year Book of the Department of Architecture of the University of Illinois, Urbana, has been received and constitutes a very creditable showing of the student work in this important architectural school. The designs reproduced indicate that the course of instruction is not only thorough but is conducted in such a way as to develop latent talent of the students.

Accompanying the year book is a pamphlet describing the Department of Agriculture at the University of Illinois, its development, its present condition and its ideals. It will be found an interesting work.

COMPETITION

An architect for Wilmington City Hall and New Castle County Court House, to be built jointly at a cost of approximately \$1,000,000, will be selected through a competition conducted in accordance with the principles approved by the American Institute of Architects and under the advice of Professor Warren P. Laird of the University of Pennsylvania. Program will be issued in August. Address Thos. F. Gormley, Secretary, Church Building, Wilmington, Delaware, for blank application forms.

NATURE COMPLETES THE PANAMA CANAL

The closing of the sluice gates at the Gatun Spillway on July 1st may be regarded as the final step taken by our engineers in the great work of providing an artificial deep-draught waterway between the Atlantic and the Pacific. It is for nature to do the rest. During the next four months the turbulent Chagres River and the lesser streams of the Panama district will pour their waters into a wide-spread valley from which there is no outlet. Shut in by the Gatun Dam at the north and the upper lock gates of Pedro Miguel to the south, the surface of Gatun Lake will rise inch by inch and foot by foot. Its ever-widening area will creep silently up the converging valleys until the lake has risen to its working level of eighty-five feet above the mean tide level of both oceans, at which time a vast artificial inland sea of fresh water will have been formed with a total surface area of nearly one hundred and seventy square miles.

There is a certain flavor of poetry and romance in the greater works of engineering, especially in those of a civil character—as every visitor to the Canal during its construction must have realized before he had gone very far over the work. There is something that appeals to the imagination and even to our sense of the dramatic in contemplating the thought that the fierce Chagres River which at the outset of operations was regarded as the most serious problem confronting the canal builder, the most stubborn enemy to his progress, is to-day his best friend, and under his guiding hand is putting the finishing touch to this stupendous work.—*Scientific American*.

A NEW FORM OF BELLS

An interesting and successful demonstration of a new system of bell construction and bell management was given at Selfridge's, Oxford Street, London, W., on Thursday, the 19th inst., by the Church and Carillon Bell Co., Ltd.

The bells are of cylindrical form, solid, com-

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posed of a particular alloy of steel, and are made of two and three inches diameter. They possess the essential qualities of the old form of expensive church bells, but are very much lighter, and require only a small space for setting up. Their cost is low, not only in comparison with the heavy charge for ordinary bells, but also in respect of various substitutes which from time to time have been placed upon the market. They do not set up strong vibrations dangerous to the towers, nor do they need a belfry. Where no convenient place exists they have been suspended on the outside walls of churches. They can be rung or chimed with ropes or by electricity any distance from their hanging frame.

The display opened with a large peal on the roof being melodiously chimed for five minutes by one man. Next, Sir J. Frederick Bridge, the chairman, drew attention to the pure sustained tone of these solid steel bar bells, the small space they occupy, ease of transport, simplicity of ringing, and structural harmlessness.

As proof of their adaptability, Sir Frederick Bridge used them as a Carillon stop on the concert organ in the Palm Court. Later a hand-played set accompanied the choir in two carols (with bells obligato), to show their use for concert and theatre purposes.

It would certainly seem as if a future awaits this new type of bell, and that a delightful accessory is now available for architects to use in churches, town halls, and memorial towers.—*Architect and Contract Reporter*.

CLEVELAND ARCHITECTURAL CLUB

At a recent meeting of the Cleveland Architectural Club the following officers were elected for the ensuing year:

President, H. D. Hughes; Vice President, W. R. Powell; Secretary, L. Fewsmith, Jr.; Treasurer, Wm. A. Bohnard; Librarian, W. A. Hudson; Chairman Current Work Committee, E. Heyd, and Chairman Entertainment Committee, R. M. Wright.

NEW FINE ARTS DIRECTOR AT YALE

Sergeant Kendall, of New York, well-known artist, has been elected director of the School of Fine Arts at Yale University. He succeeds John Ferguson Weir, who retired this spring after 44 years of continuous service.

NATIONAL CONSERVATION EXHIBITION

Rapid progress is being made in the erection of buildings in the big park at Knoxville, Tenn., for the National Conservation Exposition, which will be held in that city in September. The exposition grounds are three miles from the centre of Knoxville, reached by electricity or steam, and situated

in a park of great natural beauty, nestled among the Smoky Mountains. The usual commercial and industrial features of large expositions will be shown in buildings especially designed, but it is to the higher educational features that this exposition of conservation will appeal and drew the largest attendance.

GERMANY'S WASHINGTON, D. C., EMBASSY BUILDING

Designs for the new German embassy to be built at Washington, D. C., have been solicited from architects of German nationality, and four prizes amounting to \$6,250 are offered. The prize jury consists of six prominent architects: the Minister of Foreign Affairs, Herr von Jagow, and the German Ambassador at Washington, Count Bernstorff.

This open competition for the Washington embassy is a direct result of the criticism of the new buildings built by Germany without competition and which have not been successful architecturally.

NEW ORLEANS SELECTED AS CONVENTION CITY OF THE A. I. A.

At a meeting of the Executive Committee of the American Institute of Architects, held at the Century Club in New York, June 16, it was voted to hold the next convention of the Institute in New Orleans, and the date fixed is December 2, 3 and 4, 1913.

PAYMENT OF UNSUCCESSFUL COMPETITORS

The question as to the payment of the competitors in a limited competition having been by many construed as obligatory, under the Code, was debated at the recent meeting of the Executive Committee of the Institute, and it was decided that while the payment of unsuccessful contributors might be classed with other things that are desirable, it is not mandatory.

A. L. BROCKWAY ELECTED PRESIDENT OF NEW YORK STATE ASSOCIATION

Albert L. Brockway of Syracuse, N. Y., was on July 11, elected president of the New York State Association of The American Institute of Architects. Delegates from the four New York State Chapters met and organized this association, the purpose of which is to secure uniform action on public questions affecting architecture.

At the meeting the new state housing law for second class cities was strongly indorsed.

PERSONAL

Mr. R. B. Whitten and Mr. George A. Oman, Architects, Calgary, Alta., have formed a partnership under the firm name of Whitten & Oman, with offices in the Loughheed Building, Calgary, Canada.

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.

KAHN SYSTEM STANDARDS

A HANDBOOK OF REINFORCED CONCRETE

The fifth edition of Kahn System Standard, a handbook of reinforced concrete construction, has been issued by the Trussed Concrete Steel Co., Detroit, Mich. The value of this work has become generally recognized, and has, it is learned, caused its adoption as an auxiliary text book by many technical schools.

The new edition contains the following new features, which appear for the first time:

Photographic views of various types of reinforced concrete structures; interior views of various types of reinforced concrete floor construction; complete specifications for reinforced concrete; illustrated discussion of the advantages of reinforced concrete construction; tables of comparative cost of reinforced concrete, wood mill construction and structural steel; floredome and floretyle construction; many new tables, including those for beams and also a complete revision of the text matter.

"Kahn System Standards," is divided into sections covering completely the following matter: Advantage of rigid connection of shear members; properties of Kahn building products; advantages of reinforced concrete construction; specifications for reinforced concrete; theory of reinforced concrete; typical installations; illustrations of various floor constructions; complete tables covering solid concrete slabs, reinforced with Kahn trussed bars, rib metal and hy-rib; tables for floredomes, floretyles and terra cotta fire floors; tables for reinforced concrete beams, square columns and hooped columns; tables for reinforced concrete footings; materials in concrete and mortar and estimating table.

This publication may be had by architects, engineers and contractors on request. To others the price is 50 cents per copy.

A SPECIAL PAINT FOR A SPECIAL PURPOSE

The Hydrex Felt & Engineering Company, of 120 Liberty Street, New York, have added "Hydrex Preservative Paint" to the list of Hydrex products. In a booklet recently issued, devoted principally to a description of this new product and its uses, attention is called to the tendency of the times which has produced specialists and special products in every field. It is stated that the best advice today is expert advice, and the best materials are special materials made for use under special con-

ditions. Following this line of reasoning, the best paint for any given purpose is one that is made to serve perfectly the precise purposes and conditions for which it has been prepared and not one intended for general use.

It is claimed that "Hydrex Preservative Paint" is such a paint, designed for damp-proofing concrete, stone and brick, as well as preserving metal, and for use in battery rooms. Technically, it is recommended for resisting the action of water, brine, alkali, sulphuric acid solutions and gas, sulphur and acid fumes.

The pamphlet referred to discusses the properties and uses of this new paint at considerable length, and will well repay reading. To those interested, it will be sent upon application to the manufacturers.

HARDWARE SPECIALTIES

The Allith-Prouty Co., Danville, Ill., are manufacturers of hardware specialties, many of which are illustrated and described in a pamphlet recently issued for free distribution.

The pamphlet deals more particularly with special designs in doorhangers, floor hinges, store ladders, merchandise carriers and fire door hardware. The makers state that every line made by them has received careful scientific study and experiment and all are covered by a broad guarantee as to absolute reliability.

BLAUGAS

A difficult problem to the architect of country houses located outside the range of supply of gas and electric lighting companies is the selection of an efficient and easily controlled system of interior illumination.

The Blaugas Company of America, whose executive offices are in the Madison Avenue Building, Madison Avenue and Twenty-fifth Street, New York, have recently prepared for free distribution a pamphlet wherein is illustrated and described a system of isolated gas supply for which they claim many advantages, including those of economy and efficiency.

The Blaugas equipment consists of a steel cabinet about three by five feet, sixteen inches deep, containing two batteries of gas and an expansion tank through which the gas flows through a regulator to the point of consumption. This apparatus it is stated is entirely automatic and delivers the gas at the burner at a uniform pressure. This

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cabinet is located outside the house where the necessary changing of containers can be conveniently effected.

The gas is supplied in steel cylinders, easily and cheaply shipped to any point. One cylinder of the gas, will, it is stated, maintain one 60 candle power light for seventeen hours.

The light, the makers claim, is of unusual brilliancy, approximating sunlight, and the gas is non-poisonous and cannot asphyxiate.

Subsidiary companies which cover all states make it easy and inexpensive to secure the bottled gas.

Further information desired by architects will be sent on request.

RUBBER INSULATED WIRE

To meet a growing demand for public security, and to provide an efficient electric cable, the Habirshaw Wire Co., Metropolitan Tower, New York, have perfected a form of cable called Habirshaw Park and Suburban cables, for which they claim unusual advantages, particularly along the lines of economy of installation and long wearing qualities. These conductors are first insulated with high quality rubber compound, then covered with a jacket of lead to repel moisture and preserve the insulation. On this is an armor of tarred jute, two steel tapes and a final covering of tarred jute. This method the makers state admits of the roughest handling without danger of damage. Pamphlets and full particulars may be had on application.

HARDWARE SPECIALTIES

An illustrated pamphlet recently issued, shows an extensive line of overhead sash pulleys and hardware specialties made by the Grant Pulley & Hardware Co., 3 West Twenty-ninth Street, New York.

A feature claimed for the type of overhead sash pulleys made by this company, is that a two-inch mullion may be used, thus facilitating good window design and affording more light area. Ball bearings and economy of space contribute to a minimum of friction and compactness. These features and others are shown in the illustrations and specifications on the pamphlet, which may be had on request.

GAS COOKING APPLIANCES

The extended use of gas as a fuel has resulted in the perfection of a number of important appliances, and some of these are interestingly shown in a recent catalogue prepared for free distribution by the Meed Oven Company, whose main office and fac-

tory is at Newburyport, Mass. This company states that they are prepared to supply entire equipments in connection with gas appliances for the bakery or hotel kitchen. They will furnish estimates and any other information as to gas appliances desired by architects upon request.

ASBESTOS PROTECTED METAL

Bulletin No. 16, issued by the Asbestos Protected Metal Company, whose principal offices and works are at Beaver Falls, N. Y., with sales branches in New York, Pittsburgh and Chicago, illustrates and describes a protected metal roofing and siding for which the makers claim many unusual advantages. This roofing and siding, it is stated, is a sheet of metal, corrosion-proofed, coated and hermetically sealed at a high temperature in an envelope of long-fibred, specially waterproofed and hardened asbestos rockfelt. The makers claim that it is permanent without paint under the most severe conditions of service, incurs practically no maintenance cost and can be used on the lightest type of structures.

Many other interesting features of this form of siding, together with instructions as to its application, are to be found in the pamphlet referred to, which will be sent to architects on request.

EXPANSION BOLTS

Many methods employed to firmly anchor or secure objects to cement, marble, stone or tile have been devised. A type that would seem to present a most efficient means of accomplishing this purpose is the Paine Expansion Shell, made by the Paine Company, Corn Exchange Bank Building, Chicago, Ill.

The makers have not endeavored to perfect a single shell that would answer all the various purposes, but manufacture three distinct types—one for cement, another for marble or stone and a third for tile work. These expansion bolts are made of steel cut from sheets with dies that are said to leave the lips of cups square and sharp so that they form a cut-in surface which, when embedded in the material, makes a positive grip instantly and permanently.

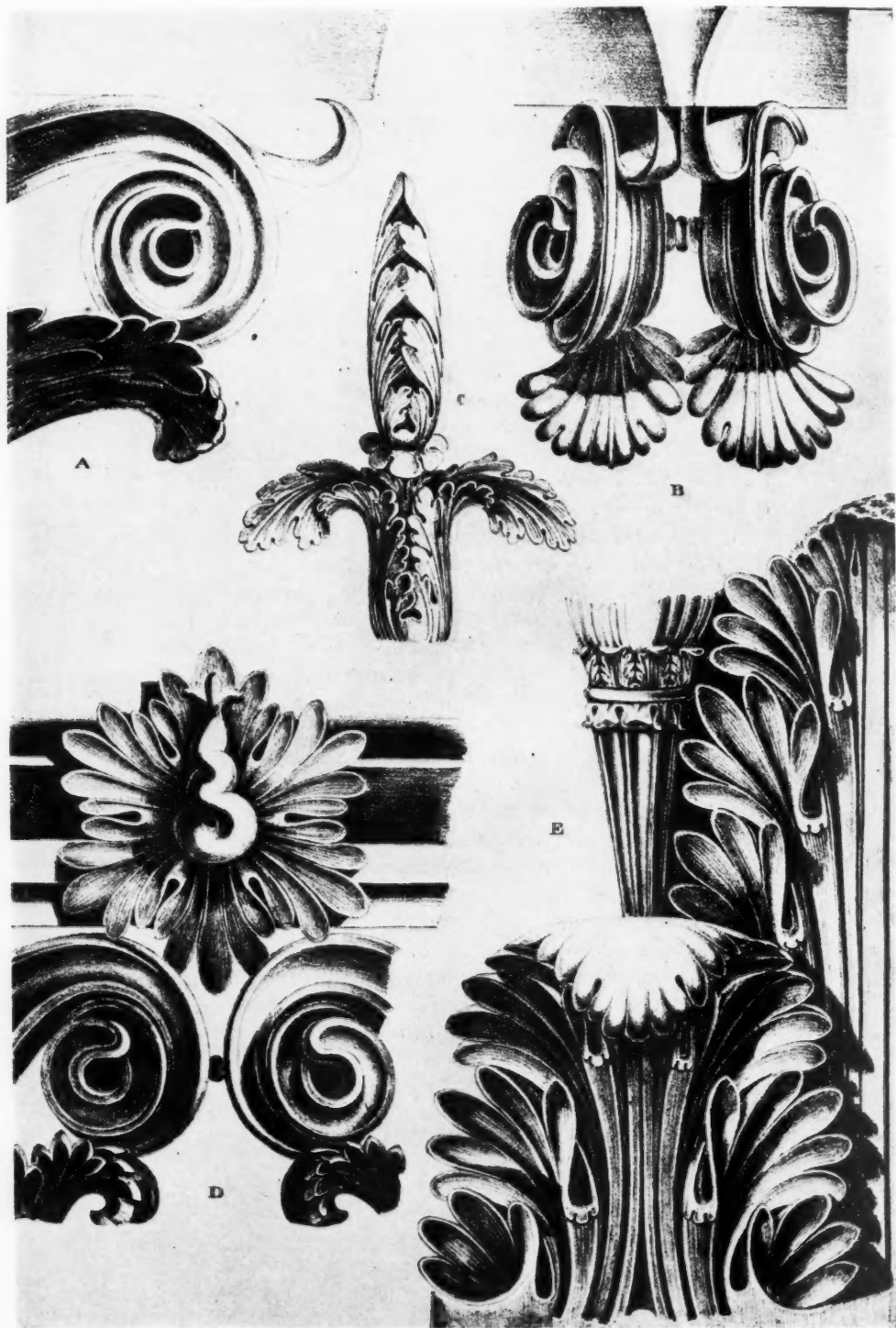
Among the features claimed by the makers for these shells are that they will not crack or injure marble, slate or tile, will hold firmly in polished steel, that they can be successfully used to assemble fine furniture and can be installed efficiently and quickly.

The makers will be glad to send samples and illustrated catalogue to architects on request.

THE PANTHEON AT ROME

The capital of the Portico

WHILE the evidence seems to indicate that this temple was built by Hadrian about 120-124 A.D., the character of detail of the Portico leads to the assumption that it probably formed a part of a temple of the Augustan Age. The Portico consists of a pediment supported by sixteen columns forty-six feet five inches in height, the shafts being five feet in diameter of a single block of polished granite. The capitals, of which the details appear on this plate, are of white marble and of exceptionally fine design and workmanship. In the upper portion of this plate are given a direct side elevation (A) and front elevation (B) of the large or angle volutes and the bud (C) which occurs between the small or centre volutes and acts as a support for the rosette on the abacus. In the lower portion of the plate are given the rosette and small volutes (D) of the capital and also the foliage (E) including both the large and the small leaves which are copied from the olive. These leaves are beautifully modeled and carved in high relief, the stems are plain except for a deep sinkage in those of the small leaves. The details of the entire capital are of the very highest order, displaying a beauty of design and delicacy of execution which make it a standard of the Roman Corinthian style.



CAPITAL OF THE PORTICO
PANTHEON, ROME, ITALY
(For description, see preceding page)