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AN APPRECIATION of the RENDERINGS of OTTO R. EGGERS, ARCHITECT

BY SAMUEL CHAMBERLAIN

Illustrated by reproductions of original drawings by Mr. Eggers

PRESENTATION has long been recognized as a most important factor in competition drawings. The winning architect of the New York State Roosevelt Memorial, John Russell Pope, felt that the rendering was of particular importance. Happily enough he has in association with him as fine a renderer as we have in America, Otto R. Eggers. As a result, when one wanders into the room where the different solutions are exposed, not only does the winning design impress itself upon the room, but it becomes immediately apparent that the renderings are things of soft and surpassing beauty.

The set limitations of the competition forced it to be a straightforward rendering. There is not a suspicion of trickery, never a trace of pencil, charcoal, gouache or other foreign matter. The pen work is a delight, done with minute care, yet never tight. Every wrinkle in the elephant's stomach gets a fair chance. The marble is painstakingly veined, the foliage has been studied assiduously, inked quite completely and rendered in

a spirit almost poetic. One is instantly reminded of Maxfield Parrish. Eggers has seized upon an opportunity which is not always afforded in a competition program and has made the trees an important part of the composition. He has also refrained from indulging in the conventional ruled border, a soft mat of light wash admirably assuming this function.

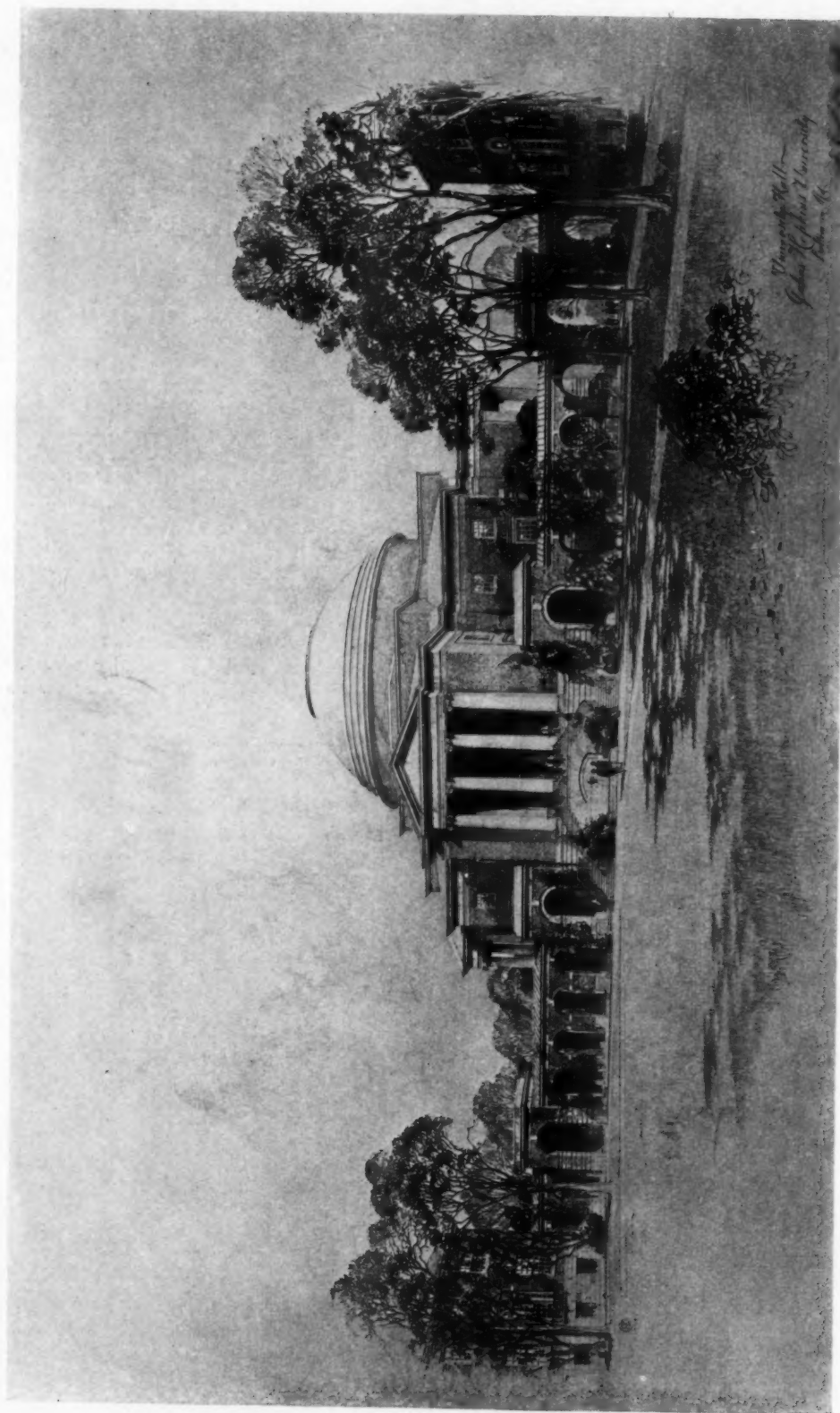
The elevation is almost symphonic in its loveliness. The planes are defined with a most subtle expressiveness, and the few bits of detail are drawn with the sinuous sensitiveness of a Beardsley. His bronze has a lustre, his trees a vibrant, yet restrained warmth. To render adequately a dull sandstone is no facile feat. Eggers has accomplished it perfectly by a careful stipple which gives a soft and convincing texture. Monotone could not be more colorful than in this delightful drawing.

The sections are bathed in luminosity; perhaps they are the most spontaneous bits of all. The plan is irreproachably simple, reposing in a beauti-

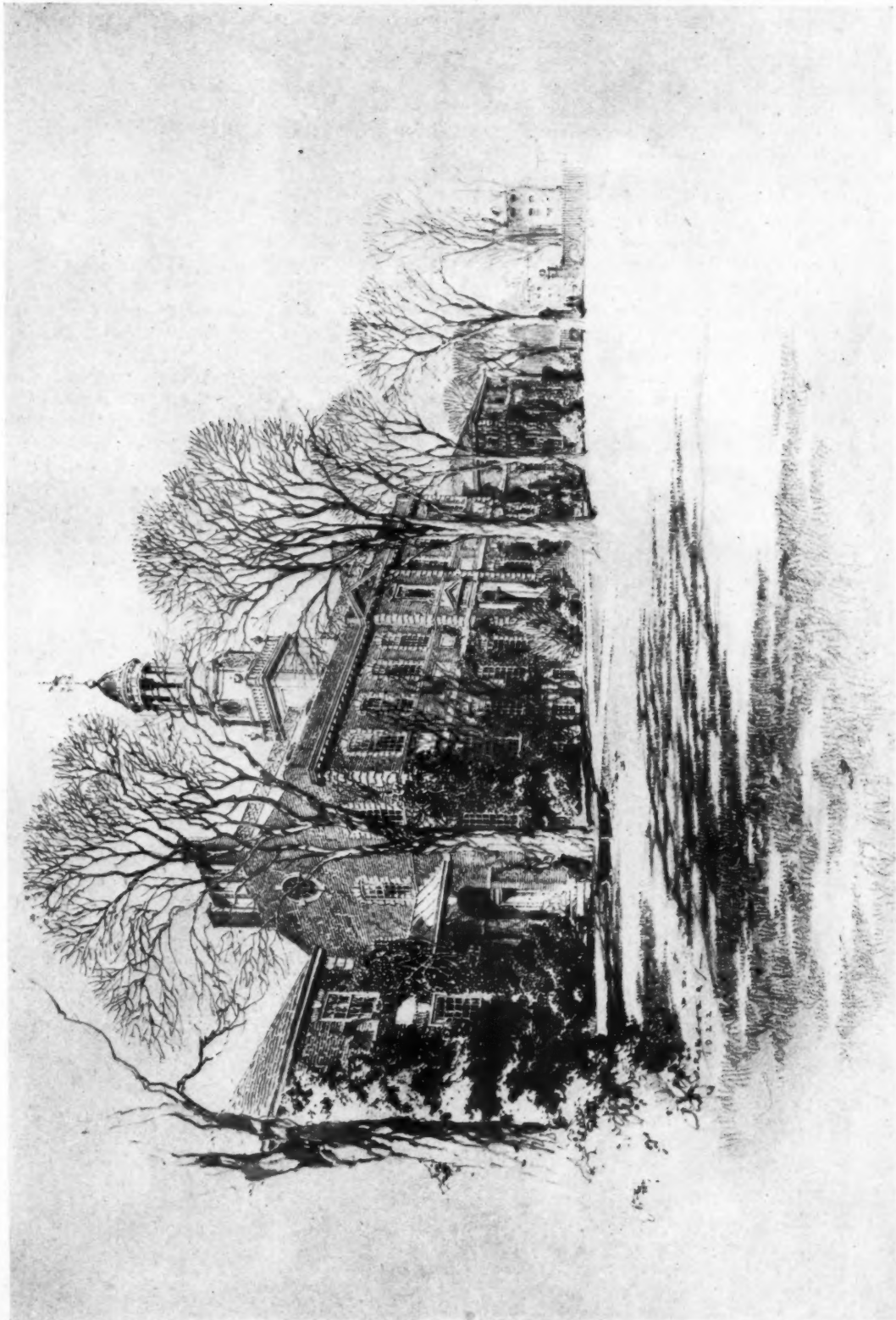


HOUSE OF WAYNE JOHNSON, LONG ISLAND

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UNIVERSITY HALL, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MD.



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fully calculated modulation of wash. One has the usual regret that halftone reproductions, however good, always do an injustice to renderings as subtly calculated as are these.

Throughout an intense concentration on the part of the artist is evident. It is not surprising to learn that for weeks he thought of nothing else, that many a midnight reverie took place in his mind.

I have not had the privilege of seeing all of the large competition drawings of recent years, but I must assert without hesitation that these are the finest and most graceful renderings I have ever seen. None of the recent renderings exposed in Paris compare with it, although in justice it must be stated that the French place less emphasis on finished renderings than we do in America. Incidentally, if Janin's renderings are considered fit museum pieces in France, it doesn't seem a far-fetched thought that a masterpiece in monotone such as this should merit an equal honor in this country.

Mr. Eggers personally is enshrouded in the re-

tiring modesty which is so often the only defensive weapon of a gifted person. As a consequence it does not seem considerate to include any character close-ups such as one finds in the movie weeklies. One cannot speak of his work, however, without giving some mention to his pencil drawings, in which medium he is probably best known. In some hands pencil resolves itself into a fine line medium, in others it becomes almost a wash. Somewhere in between these extremes of handling there is an enchanted point on the scale where *values* are recorded with the maximum of truth and simplicity. Eggers' pencil seems to be poised at this precise spot. It is a sympathetic and pliable pencil, but it is uncompromising on the question of relative values.

His pen-and-inks and the careful wash drawings which he did a few years ago are no less appealing. But it is Eggers and not his medium that accomplishes so much. One feels certain that he could do a ripping thing with burnt match sticks, if called upon.



HOUSE ON LONG ISLAND

DER WOLKENKRATZER

BY DR. EDMUND SCHUELER, Berlin

Translated by Arthur Woltersdorf, F. A. I. A.

SOMEWHERE along the Anhalter Railroad lies Jueterbog. It's in flat country. To avoid noise the fathers provided that the station be located a half hour's distance from the town. Fifteen thousand dwellers find quarters in closely adjoining houses of much the same altitude. From the center rise the two high towers of St. Nikolai. On high, where the last offset occurs and where springs a free-flung arch tying the two towers together, the set-back is considerable. From the surrounding terrace at this level resounds at break of day the choral by the town trumpeters.

And up in these heights dwells the keeper of the tower. He and his forefathers together with their families have lived in their skyscraper for five hundred years and the world was not amazed. The wide arch offers a fire escape; they can, in case of need, use the other tower as an exit. A happier solution, this, than that so commonly applied even today in new and old buildings in America where horrible skeletons of iron stairs crawl unashamed over the facades.

St. Nikolai can boast of no elevator; but the keeper's wife raises the market basket comfortably by means of rope and pulley to a slot high up in the wall, even though it is forbidden to carry children too young to walk in this basket. In America, walking up stairs belongs to the exceptional occurrences.

Beyond Jueterbog an air-line skirts the terrain. From here the town looks for all the world like an assemblage of chicks seeking shelter under the spreading wings of St. Nikolai. From here, too, one sees building in the outskirts, two new three or four story houses. Unprepossessing they are, with bald gable ends and flat roofs.

And why unprepossessing? They do not come within cover of St. Nikolai. You feel cold with them. A feeling of resentment toward an intrusion upon the ensemble is perceptible. Their manners are improper, almost bold. They come from New-Berlin.

More intimacy than with any other art, has ethics with architecture. Man is in no sense merely an individual, he is equally a member of society. Whether he will or no, he must give heed to society. Society in architectonics is the environment of the building, the town plan, the stadtbild. A house is but a member. And so in order to reach a decision regarding skyscrapers in Jueterbog or in the United States, a view of the town as a whole is the first essential.

In America there are no Jueterbogs. That is quite natural. There towns had not their beginning with a church or a strong castle. We comprehend even today many cities in their castle or cathedral—Strassburg, Athens, Freiburg, Rome, Regensburg—and Heine said:

Im Rhein, im schoenen Strome,
Da spiegelt sich in den Well'n
Mit seinem grossen Dome
Das grosse heilige Koeln.

Jueterbog expresses the same European ideal in homelier terms.

Yet in Berlin, London, Essen or any other modern or modernized European city this trace is erased. The nineteenth century has erected its tents. The battalions of labor have moved forward to new efforts. Their point of departure was not that of private protection from an enemy world, they were not dominated by the thought of one salvation—bringing church. They had from the start the protection of a mighty empire. They came as organized workers from near and far to sell what they had produced. They dwelt in communities, not as citizens in small groups. Architecturally conceived the thought of a dominating focal point was dissipated, practically and idealistically. To divide the masses, create broad arteries, consider traffic and hygiene,—these were the things that counted. Cities spread out, asphalt streets, steam and electric roads, automobiles! Each wave of enthusiasm for progress that cried one day for electrification and traffic control the next was followed by reaction. One is the result of the other. The new spirit develops rapidly. Extended experience suddenly takes form. The first expression of transition is often half-baked, inartistic, repellent.

So, too, American cities have grown. Men prate of differences between America and Europe. These differences apply more to earlier history. The development of the nineteenth century in these continents has more parallels than differences. The controlling impulses of our day, development of great manufacturing plants, capital, big business, division of labor, labor population, living conditions in big cities,—these are similar on both sides of the Atlantic. Finally, except for those of color, Americans are all Europeans, the good and the bad.

Why, then, has the skyscraper grown only in American states? The question would be reasonable were it not false. St. Nikolai was a sky-

scraper. Much earlier, even, in old Rome there existed many storied tenements, and those commercial cities of the Middle Age in Italy and Germany had secular buildings of height, in design all their own. In Germany, industrial development in the nineteenth century has demanded doubling and tripling the earlier building norm. As in the United States, Germany built a steel industry offering possibilities for huge structures. Europe had but one advantage, — the protecting police power of the law. More accustomed than in America to fill the role of public guardian, European law restricted the altitude of buildings. It is the social question in the European mind that prevented a violent altitudenizing of buildings. Light and air must be conserved for the working masses and the property owner restrained in his effort of over-exploitation of property. Fire departments likewise had their say.

In the United States legal restraint surrendered. The public, the common good, public rights, played and still play a surprisingly small part. There the individual considers self paramount with small thought for the body politic. Euphonically this is called Democracy. Undoubtedly, the skyscraper was given the opportunity to grow and shyness was not in him. The owner squeezed the last dollar out of building and ground. Adjoining a modest low building a colossus plants himself regardless and considerate of nothing. The effect is not unlike that of the two new houses in Jueterbog. And since such instances move observers unpleasantly, the wise ones are shocked and they deplore the skyscraper as they deplore sudden and unexpected modern creations. The public is usually late in recognizing its mistake; it observed the skyscraper grow higher and higher, and daylight scarcer. Years of indiscretion were natural in high building development. The designer naively thought in place of setting buildings adjoining they might as well set one on top of another to achieve a skyscraper.

Instances of three superimposed building designs surmounted by a complete Gothic church are not unknown. This is disturbing not only to the European spirit. That each building is a member of society as well as an individual possessed of a physiognomy was overlooked.

So, much has been contributed to support the skyscraper's objector. But why, it may be asked, should two stories be more beautiful than twenty? A high building is as little beautiful because it is high as is an unlovely one unlovely because it is still higher. It was not observed that the Americans had erected their skyscrapers on a false premise. This sounds elemental and yet the fact remains. In New York and elsewhere in America the building lot established by the forefathers was maintained for the new order. Thus the restricted lot area and par-

ticularly the meager street width became artistically and otherwise impossible for the high building. Or, let us say, for the present day with its urge for hugeness the plans of New York and of other cities have become as impossible as for the skyscraper that is but the exponent of our time.

In the winter of 1923 Mr. Raymond Unwin of London showed us in Berlin lucidly how with a different subdivision New York might gain much more space. And he was right! Manhattan is not so confined that a most beautiful plan could not be laid out including skyscraper space. It is not true that Manhattan's narrowness caused the tall building to be born, as is claimed. The tall building appeared just as early in other American cities. Skyscrapers evolved from a new Zeitgeist, not from restricted space in cities. Lack of development in city plans providing for tall buildings must be charged to the property owner, not to the architect. The property owner, unready or faint, subject to varying influences, the undemocratic or unsocial city father in the United States and inadequate or unfit building ordinances are responsible for what happens. Blame the property owner for the darkness of American streets, for the lack of light in workshops and offices. He it was who failed to teach the public that it and not the individual is allimportant in the concept of the community. A little less building regulation in Europe and a stronger dose of it in America would have been wholesome.

The thought that the skyscraper is a new necessary form, that a new era with a new building conception is rising, that we require as individuals and as cities new art forms, is not distinctive of our day. When, at the end of the last century a new art trail, a striving for new "ideals" and forms of expression began with us, something very similar occurred in the United States. Louis Sullivan, born 1856 in Boston, was an architect in Chicago. To him belongs credit not alone for the first real skyscraper, the first attempt to solve artistically the high building problem—Wainwright Building, St. Louis—he raised his voice in admonition also, that "form follows function," that "a new day, a new form." This American master fared no better than did ours. For if Messel was recognized only shortly before his death, and Behrens up to now has but one government commission, the fact is that Sullivan died in poverty in Chicago in April, 1924, though American architecture is deeply indebted to him. Today American newspapers and magazines sing his praise. It has taken three decades for his voice and his example to gain attention. In the western world as with us time passes while merit waits and talent receives recognition as slowly as with us. But is it not better so? The skyscraper has had time to reflect upon itself. Not alone its

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growth, its appearance, but also its inner organization has in the meantime developed more fully. Today there are experience tests for high buildings. Steel is nearly universal for the skeleton, seldom concrete. The designer has learned to conserve, particularly in the lower stories, the maximum frontage surface for openings. The skeleton carries the masonry. Generally the upper storied walls are built first. Plumbing, heating, and ventilating pipes precede the walls. So also the elevator machinery. Standardized parts in many trades are kept ready for universal application. Huge structures are begun and completed in a few months.

What is here said of construction applies as well to the ground plan and building management. The quality, noiselessness, speed and serviceability of elevators are noteworthy. Local, express, change cars for the thirtieth story. Building directories in entrance halls giving names of the dwellers within by thousands,—letter drops serving all stories,—numerous and superb lavatories,—splendid equipment and finish of elevator cars, for instance in the Standard Oil Building,—all this is made possible by reason of a new tradition.

Tardily (during the last decade) building codes have passed from darkness to dawn. From two directions,—one, town beautification arousing local pride. Everyone knows the comprehensive plan of Chicago for whose realization a special commission exists. The city has quarters now in process of dissolution, parks extending an interminable length along the lake shore, with playgrounds and museums in the formative state.

New York's new building code (zoning ordinance) considers building height with relation to street width. The results are by no means adequate. The property owner's interest may be responsible for this. But a beginning has been made and a measurable success is discernible. Joining into larger units is on the way. Masses appear where before were strips. Soon Park Avenue from Grand Central Station north will put neighboring and renowned Fifth Avenue, which is narrow, in the shade. The law requiring offsets to buildings at given heights has created distinctive steppings in the perspective of New York's newer structures, suggesting a local type. The ordinance is happier than before; the masses are more imposing and appear to advantage.

And in this development art has not been overlooked. Sullivan considered himself a pioneer and he was that. It was impossible for him to solve the artistic problem in the beginning. His first skyscraper appears obsolete today. As Messel created for new purposes (his department store, for instance) new spaces with strong resemblance to traditional forms, making use of traditional ornament, so, much of Sullivan's work remained but

a noble effort. The difficulties of decoration, however, he recognized fully. Sullivan published a work on new ornament which is intellectual in conception but certainly only an attempt at a lesson reflecting earlier periods. The majority of American architects, many of whom devoted a period of study at L'Ecole des Beaux-Arts in Paris, have for the last thirty years been influenced by the imported French forms. They built and build today banks as Greek temples, churches Gothic, office buildings Renaissance. Even the stronger of the young men cannot desist applying to the fronts of huge structures, to the roofs, to cornices and to doorways here and there some superfluous, foreign, and purposeless filigree. From force of habit? Out of consideration for the prejudices of the public? In this wise P. H. Ogden uses on his Allerton Houses, which houses are fine in mass, composition and development, still a residuum of copied ornament, which in the latest of these houses ascends to the topmost story. Perhaps it will next take to the ether completely. Arthur Loomis Harmon has freed himself more from this obsession. In 1924 Harmon built a structure for a like purpose, The Shelton in New York, which, notwithstanding its mistaken ornament, aroused public enthusiasm. In the Fisk Building by Carrere & Hastings and R. H. Shreve, an office building with stores, ornament is conspicuously absent, and the massive block of brickwork impresses through mass and form alone. It would be easy to multiply these examples of a unified, newer art whose direction points to the big and the simple. It cannot escape the attentive observer that the seed sown by Sullivan is sprouting. Its growth will not now be retarded. As the unfolding appears, general interest is aroused. Not alone architectural journals, but the daily press also enters the discussion. "No more cornices," "Away with the everlasting columns" have become well known slogans,—and in the papers appear from time to time imaginative conceptions of buildings and streets of the future, showing clearly the trend toward the monumental, the gigantic, the all-comprising in the architecture, with elimination of nonessentials.

"It is for us to seek the essence of the highest democracy and give it expression in its own proper terms."

"Architecture is . . . an expression in building . . . of that idealism which may find, in terms of structural force a deep symbolism of its own true essence."

These words are taken at random from an excellent book by I. K. Pond, one of the most serious and sensitive architects in the United States. Who can fail to recognize the rooted power reflected in these words and words? What is founded on true ideals, built up on innate desire and conscien-

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tiously carried out, always becomes beautiful.

The early Americans including Washington also wore the pigtailed and periwigs. It is needless to bemoan the passing of these adornments. The modern Americans possess subways and elevators, hot water circulation, ventilating systems, electric power stations. Our time has something of still greater importance,—in Europe as in the United States it functions silently and moves us all—: the exchange of ideas and contact with vast numbers of people, labor and aims in common with ever increasing communities. These require wide streets and high buildings, flatter and more telling forms, condensation. The technical development

of our time provides means of satisfying the new demands of society. The fuller, clearer and more direct these demands are met, the more complete and beautiful will blossom the artistic expression that is hidden in this chrysalis. Nothing powerful has ever appeared in the world which would not eventually have found its final manifestation in its one artistic deed, without having so-willed. The skyscraper is, of course, not the only one, and certainly not one having reached its final expression, but surely one of the most important and conspicuous bearers of the vigorously growing habit of living in modern cities, one of the first born of a new style.



COURT, DENISON UNIVERSITY, GRANVILLE, OHIO
FROM THE ORIGINAL SKETCH BY THE LATE ARNOLD W. BRUNNER



At left: One of the destroyed portions of the Alexandria Hotel illustrating the freak nature of the damage. At right: The structural damage to the Public Library consisted principally of the displacement of the cornices, and facing of the exterior walls, leaving windows intact



THE SANTA BARBARA, CALIFORNIA, EARTHQUAKE

(Photos by Underwood & Underwood)

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At left: First National Bank Building. Capital, entablature and pediment with a portion of the stone ashlar, displaced because of insufficient anchorages. Windows are intact.



Below: Looking north on State Street. Shows the spotted character of the results of the earthquake shock. Portions of walls destroyed and adjacent windows undamaged.



THE SANTA BARBARA, CALIFORNIA, EARTHQUAKE

(Photos by Underwood & Underwood)

SOME RECENT SCHOOLHOUSE WORK by KILHAM, HOPKINS & GREELEY, ARCHITECTS

THESE schoolhouses are all designed to meet a rather clearly expressed wish of the well known Mr. George W. Taxpayer to provide suitable, convenient and attractive school accommodations for his children rather than buildings intended primarily as monumental architectural adornments for the cities where they are built. As most of them are located in busy and well developed cities and towns, "community" features, except in connection with the use of the auditoriums in one or two cases, were not desired, but especially in the case of the Junior High School at Elizabeth, N. J., the problem was to design a compact, businesslike building for the school plant, leaving the taxpayers a little cash to use in beautifying their own homes and raising their own standards of living, which is perhaps just as much needed generally as the present expansion of community projects.

According to a recent article in the *Atlantic Monthly*, a Japanese student said that American universities were only "Luxurious athletic clubs with study privileges for the physically unfit." High schools are showing a marked tendency to follow collegiate lines in this respect,—but the reaction in favor of developing common-sense fundamentals to the limit and paring off the

non-essentials is setting in and coming strong.

So these buildings were all built of good red brick, plain and solid, with simple exterior treatment and much care paid to a type of interior finish which is not susceptible to damage and wear and requires only a minimum cost of upkeep.

While the exterior facades are simply treated, as just stated, the architects have succeeded to some extent in putting over, especially in the case of the Brookline High School, one of their pet theories, which is that it is far better to concentrate the expense of external adornment in a little genuinely good sculpture than in an agglomeration of architectural details, mostly copied (with "modifications") by the office draftsmen from books of plates; therefore instead of much pilastering and "egg-and-dart-ing" three notable carved allegorical tablets each about 6 x 11 feet were done in place in the natural limestone on the auditorium wall of this building by John Wilson, the sculptor, with masterly drawing and flat, almost primitive relief.

The plans of the Elizabeth and Brookline Schools also show another development of this firm's ideas in general arrangement. The conventional way of working out a high school plan is to begin by placing the auditorium in the cen-



THE NATHANIEL P. BANKS SCHOOL, WALTHAM, MASS.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

A 16 room elementary school with auditorium. The materials are water struck brick with Indiana limestone trim. Cost was 29c per cubic foot

ter and then arranging the various rooms around it in a neat pattern, something like a rectangular cross-word puzzle. The result looks beautifully on paper, sells well with building committees and requires a minimum of effort in laying out. The auditorium may be windowless, or at best it may have windows opening into wells, euphemistically or optimistically designated as "light courts." In the bowels of the structure, beneath the auditorium, safe from any ray of sunlight or breath of fresh air there is automatically formed a sort of architectural No-man's-land, ordinarily christened either "gymnasium" or "lunch room," though why pupils who are ostensibly being taught the arts of "home making" should begin by eating and exercising in the cellar, is one of the marvels of present day high school design.

In the case of Brookline this type of plan was given careful study, but its unsuitability as well as its greater cost quickly became apparent to the architects, as did the superiority of the quadrangle type, which was first suggested by them and met with instant favor from the school authorities. This plan, while perfectly conserving the light of the existing building provides an interior sheltered quadrangle of 150 x 200 feet, suitable for pageants and exercises and which allows unobstructed light to reach all parts of the building, while the auditorium and lunch room, being placed in a wing have actual sunlight all around.

In the Junior High School at Elizabeth, N. J. the same remarks apply, although the plot was constricted in size and not well shaped. The two gymnasiums in this plan are particularly well lighted and a maximum of the available land is concentrated in sheltered play courts.

At Waltham, Mass., (The South Junior High School, see our issue of July 30, 1924) a requirement existed for an auditorium convenient for general use, which had a bearing on the type of plan adopted, and a branch Public Library was also established in the building, but the same standard of outside air and light was rigidly adhered to.

In all the buildings the corridors are finished in glazed or salt glazed brick which requires no painting, with corridor floors of noiseless battleship linoleum and all plaster corners carefully protected. Stairs are of North River stone or battleship linoleum inset, and all dust-collecting surfaces are eliminated as far as practicable. All wood finish is usually of oak, with class room floors of maple.

Plenum fan ventilation systems are installed in most cases, but a few have local units in each room.

The rising cost of building as well as the President's wise advice regarding economy are causing many building committees to favor more careful

planning and specifying in schoolhouse building than has hitherto been the case, and these same committees are showing a desire to eliminate unnecessary features and meretricious ornament without reducing the high educational standards which have been attained. To accomplish these savings duplicate use may be made of various parts of the school plan, even if some long cherished theories have to be given up. Some of these minor space-saving devices occur in the accompanying plans. In the Waltham School illustrated in our issue of July 30, 1924, the back of the stage is removable so that the corridor space can be thrown in, deepening it by twelve feet, and in the same building windows are introduced in the partition wall so that the corridor may serve as a balcony for the gymnasium. In the Brookline plan the Commercial Department being arranged near the auditorium, the "bank" is made to face on the corridor so it may be utilized as a ticket office, while in another school the lunch room is frankly utilized as a corridor to the gymnasiums. And why not save the cost of all this corridor? No one is inconvenienced, even if an old custom is scrapped.

The Art Gallery corridor at Brookline is perhaps the best illustration of this matter of duplicate usage. It is on the top floor, paralleling the rooms devoted to drawing, making overhead light possible. The walls are lined with tack boards covered with monk's cloth. No art museum has a better exhibition gallery and the additional cost was absolutely nothing!

While it is all very well to preach economy, there are still a few amenities to be observed and a public school ought at least to be humanized as much as possible within the appropriation. In the Brookline High School a large bay with built-in seat is shown at each end of the main central corridor, which not only serve to light the corridor but form convenient resting places for the pupils and teachers for friendly talks in the recess periods; indeed one teacher likes to gather a small section informally in one of these sunny bays for recitation and instruction.

THE ALEXANDER HAMILTON JUNIOR HIGH SCHOOL No. 2, AT ELIZABETH, N. J.

This building contains 38 room units each 22 x 29, a number of which are arranged to throw together, a library 60 x 22, a lunch room equipped with 60 feet of cafeteria counter, two gymnasiums, and an auditorium for 750. The auditorium has a sloping floor, motion picture booth, acoustically treated ceiling and its stage is integrated with the floor of the girls' gymnasium. Lockers, showers, and Physical Directors' rooms are arranged in four tiers, adjoining the gymnasiums. The pupils' clothing is provided for mostly by the

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"Chicago" ventilated wardrobes, though a few old style dressing rooms are introduced.

Under the modern system the school is operated for 1500 pupils. The cost was \$496,000., or at the rate of \$351.00 per pupil. The unusual shape and small size of the lot made certain features in the plan necessary, but the result is very workable and unusually economical, while the absence of long flights of stairs makes it a most comfortable building to operate. Following the practice now prevalent in many large cities, the cost of an enormous and generally idle auditorium capable of accommodating the entire school is eliminated and a smaller one is substituted.

The administration offices are conveniently arranged with the clinic and office of the Dean of Girls in close touch with the Principal. A considerable number of

nasium and Swimming Pool across the street is available during school hours.

The building is planned for 1500 pupils in home stations and at that rate will cost in all

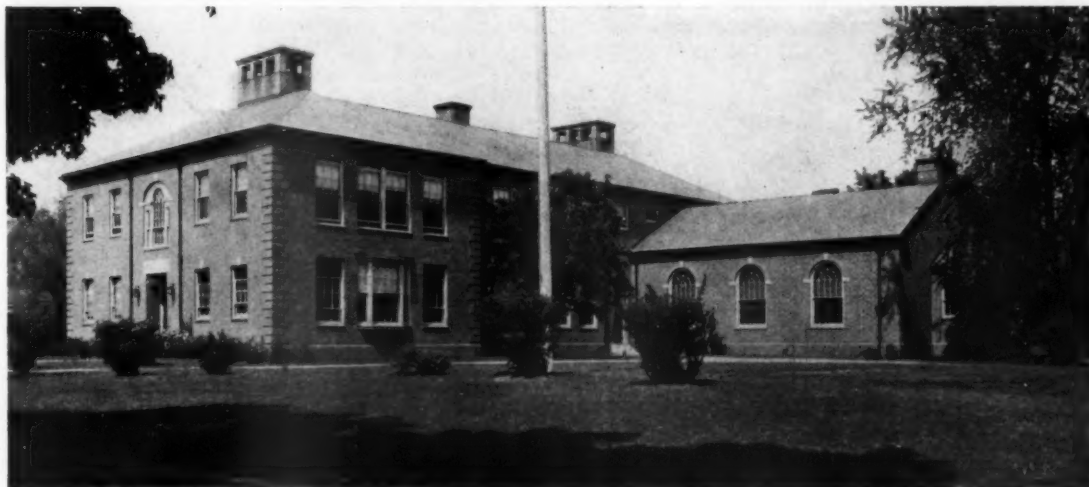
museum cases with glass doors and shelves are provided in the corridors for the display of trophies and natural history specimens. Interior trim is oak. Exterior terra cotta, with symbolic panels in pastel colors.

THE BROOKLINE HIGH SCHOOL ADDITION, BROOKLINE, MASS.

This plant when completed will contain the equivalent of fifty-seven room units (including laboratories), a library 22 x 85, a lunch room seating 600 at tables with seventy-five feet of cafeteria counter, and an auditorium seating 1200 on the floor and balcony and 300 on the stage. No gymnasium was included as the Municipal Gym-



PUBLIC ENTRANCE
WYMAN SCHOOL, WINCHESTER, MASS.



WYMAN SCHOOL, WINCHESTER, MASS.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

A 9 room school in one of the best Boston suburbs. The projecting wing is the auditorium which is designed to be used by the community when desired, without disturbing the school itself. This building cost 34c per cu. ft. in 1923

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about \$800,000.00, or \$533.00 per pupil, or on the platoon system about 2000 pupils at \$400.00 per pupil. The portion already built, which includes the auditorium wing, cost about \$500,000.00, a saving of over \$25,000.00 from the appropriation.

The courses in Art and English are both strong in this school and are here "integrated," to use a word dear to schoolhouse experts, by making the corridor foyer of the auditorium balcony into a true top lighted art gallery, through which the students and public must pass whether they wish to or not. This can be used for loan exhibitions if desired, and being a necessary part of the building, it involves no extra construction cost whatever. The English course with its corollary, Dramatics, is still further encouraged by the genuine theatrical stage 35 x 65 feet complete with grid, drops, fire curtain, spot and border lights and three tiers of mezzanine dressing rooms. Demountable bleachers for 300 are also provided, and the equipment is complete enough to put on "Aida" one night and an oratorio the next, with a motion picture show or travelogue in between if desired. The hall is treated acoustically, with perfect results. A feature is an entrance so adjusted to grade that elderly persons can reach the hall without ascending steps.

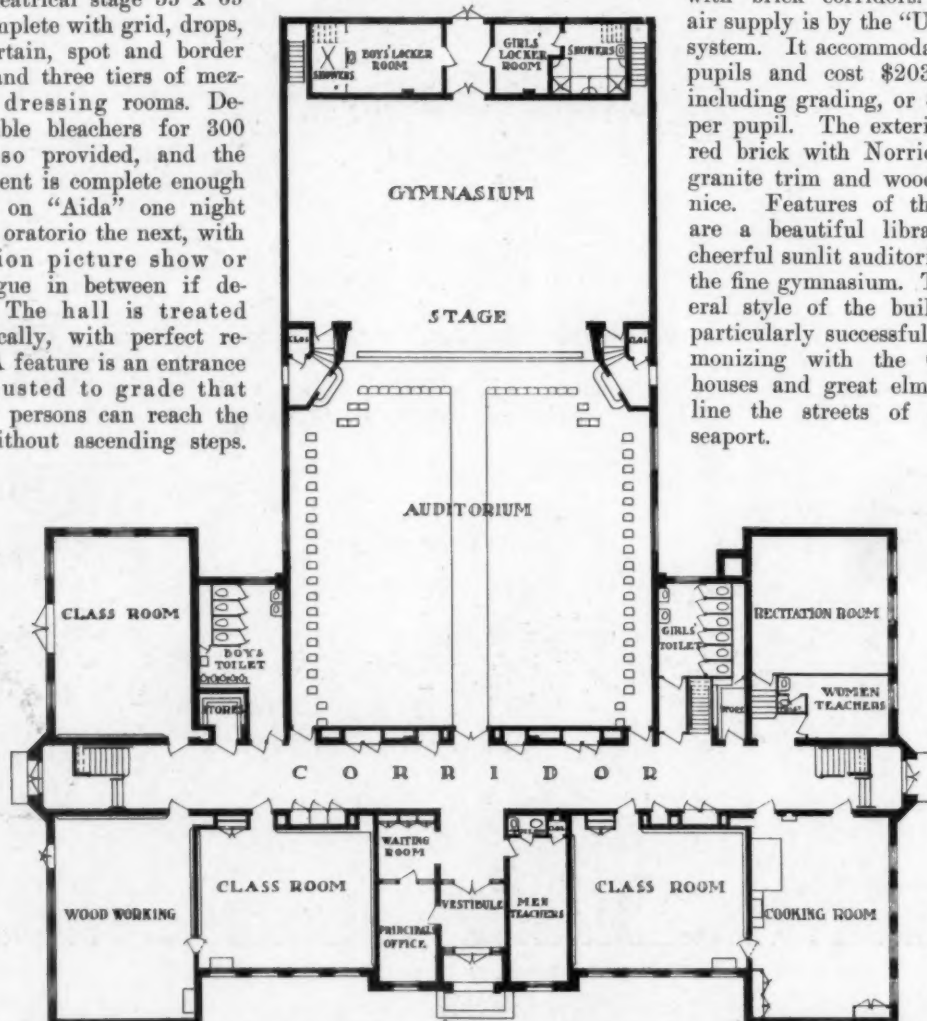
Color decoration of the hall is by Robert Chase of Boston. On either side of the proscenium arch is an oval medallion, representing respectively "Education" and "History" while the proscenium itself is brilliantly emblazoned in gold and colors.

A pleasant and much appreciated feature of this school is the provision of a private office for each department head, something which apparently is often omitted. Interior trim is of oak, and exterior trim is natural limestone.

THE WILLIAM G. CROSBY HIGH SCHOOL, BELFAST, MAINE

This is a Junior-Senior building containing twenty-two room units, library 24 x 30, auditorium for 700 integrated with a gymnasium 35 x 58. It is handsomely finished throughout in oak,

with brick corridors. Fresh air supply is by the "Univent" system. It accommodates 585 pupils and cost \$203,478.00 including grading, or \$348.00 per pupil. The exterior is of red brick with Norridgework granite trim and wooden cornice. Features of the plant are a beautiful library, the cheerful sunlit auditorium and the fine gymnasium. The general style of the building is particularly successful in harmonizing with the Colonial houses and great elms which line the streets of the old seaport.



FIRST FLOOR PLAN

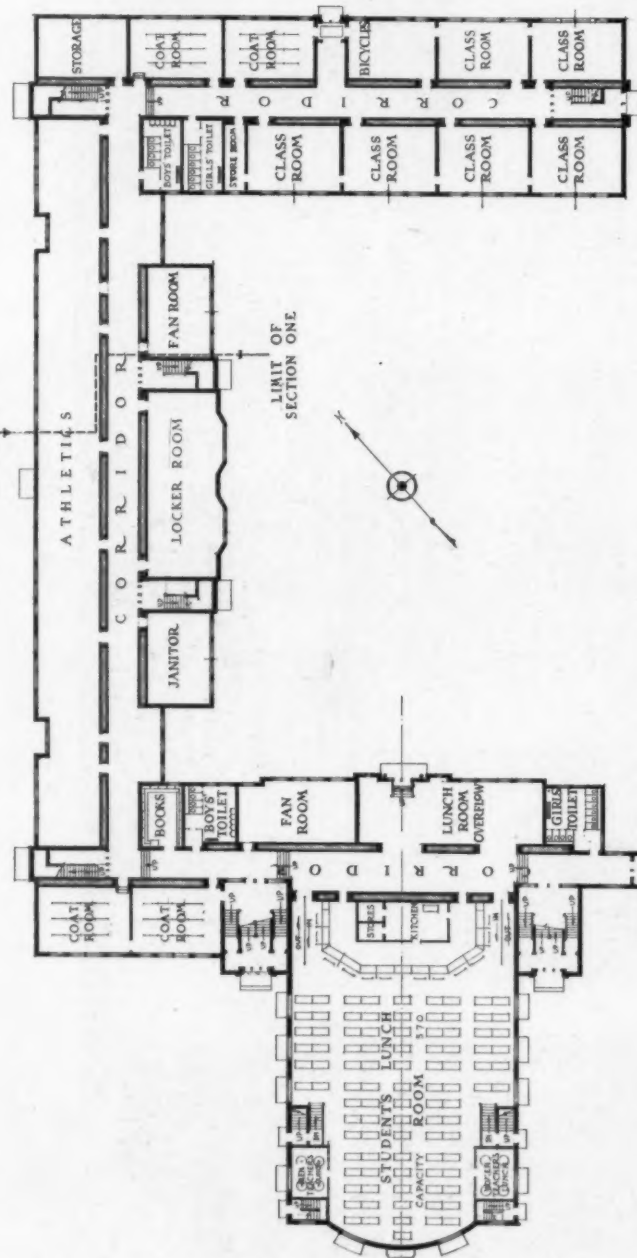
WILLIAM G. CROSBY HIGH SCHOOL, BELFAST, MAINE



DETAIL OF ADMINISTRATION WING
 BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.
 KILHAM, HOPKINS & GREELEY, ARCHITECTS

(See plan on back)

LIMIT OF
SECTION ONE



BROOKLINE HIGH SCHOOL

KILHAM, HOPKINS & GREELEY, ARCHT'S

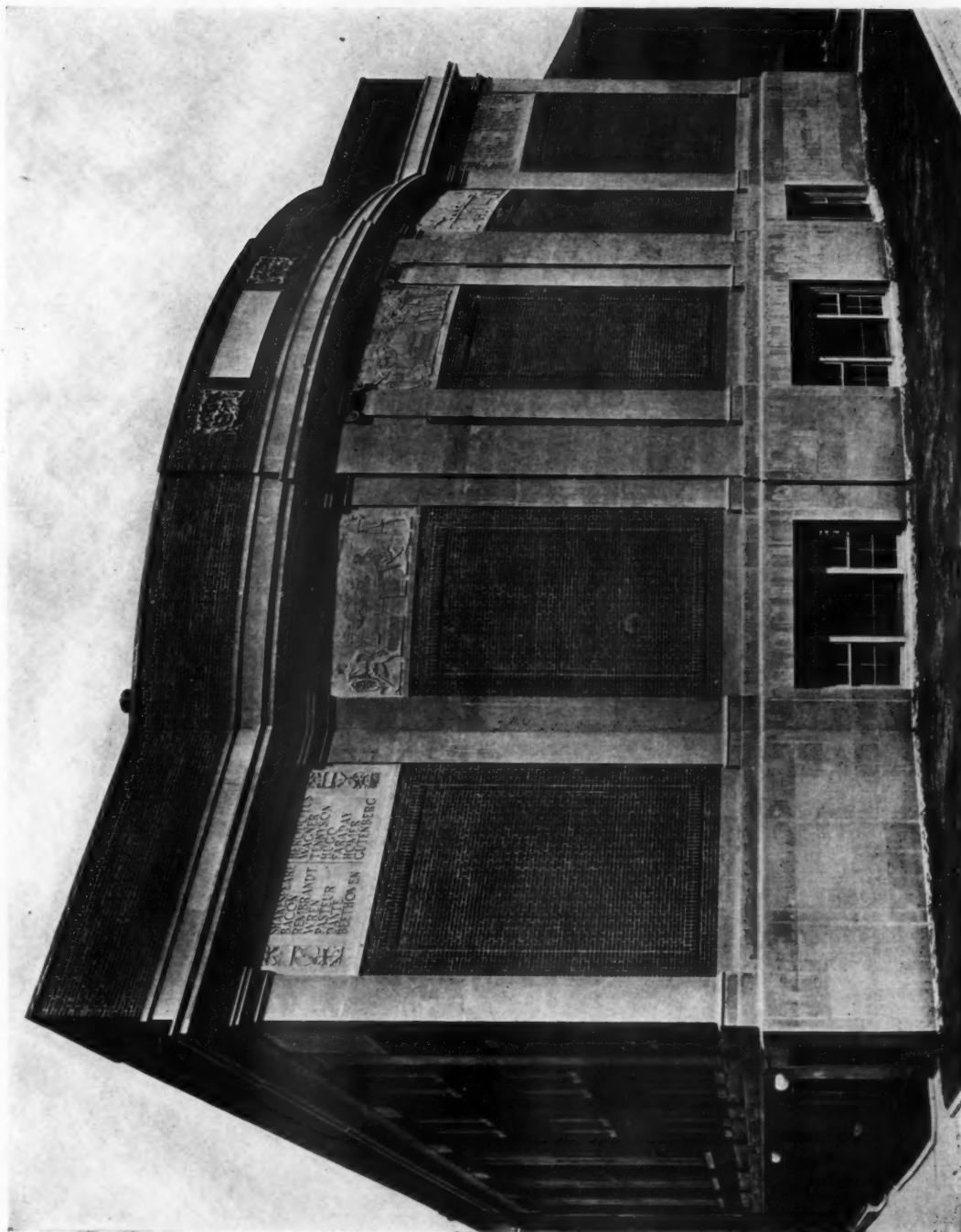
BASEMENT PLAN

GRAPHIC SCALE



PRESENT HIGH SCHOOL BUILDING

KILHAM, HOPKINS & GREELEY, ARCHITECTS

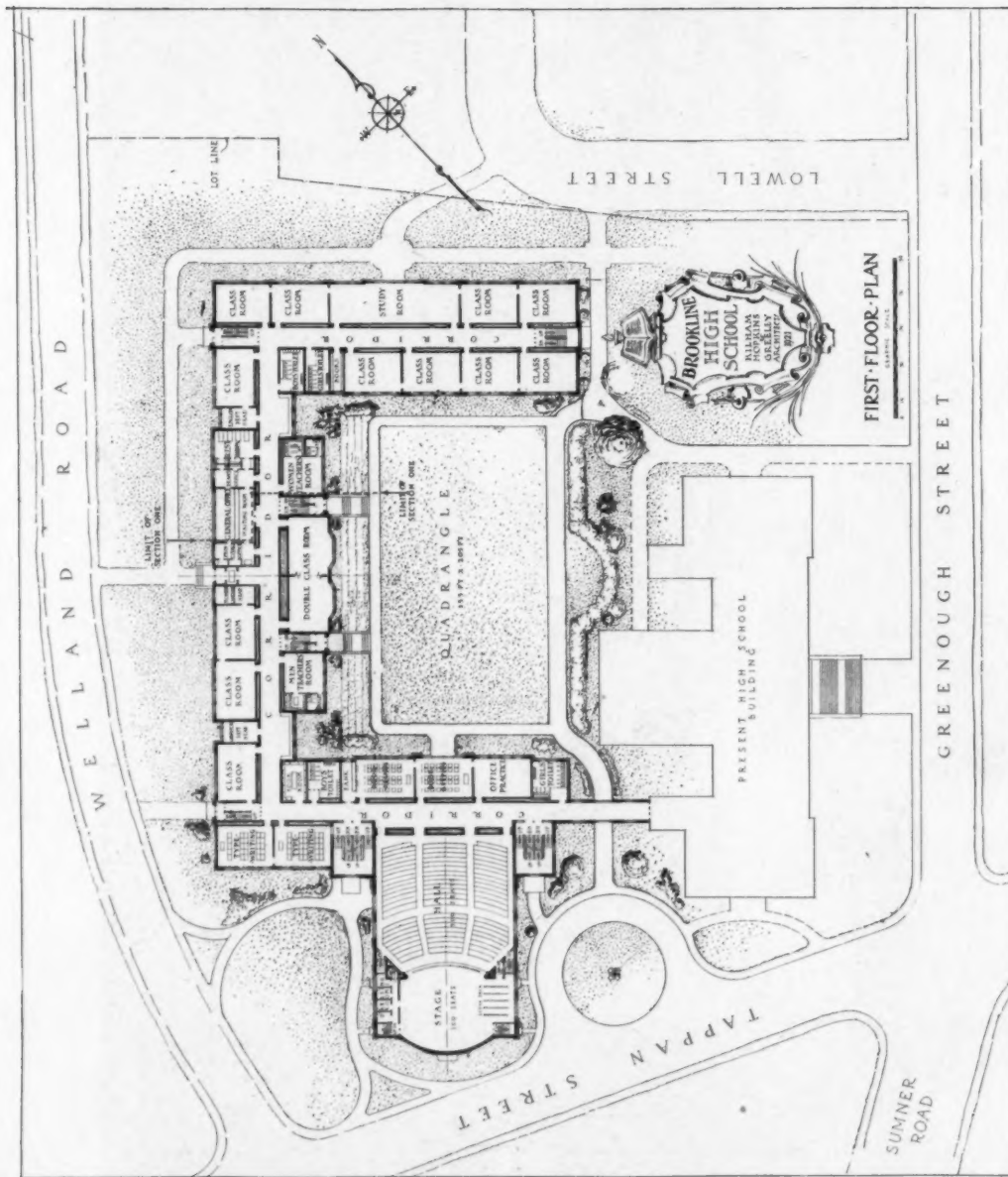


END OF AUDITORIUM, SHOWING ALLEGORICAL PANELS
BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

(See plan on back)

THE AMERICAN ARCHITECT
July 15, 1925. Plate 185



KILHAM, HOPKINS & GREELEY, ARCHITECTS



ART GALLERY

BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

(See plan on back)

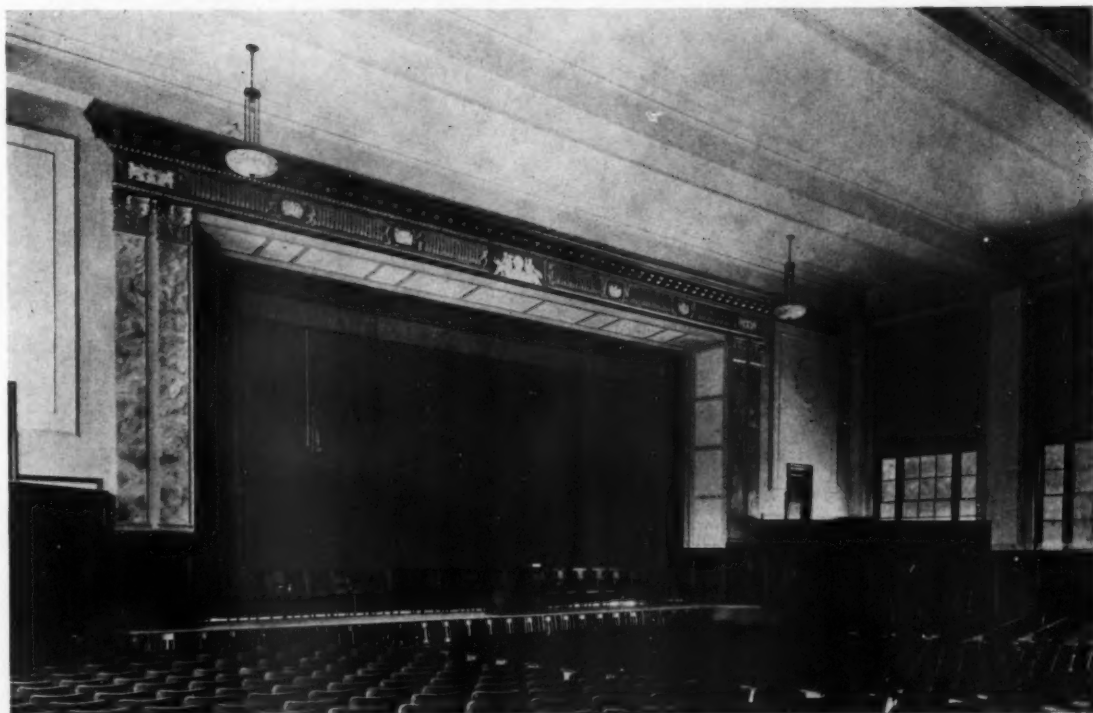
THE AMERICAN ARCHITECT

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ART DEPARTMENT

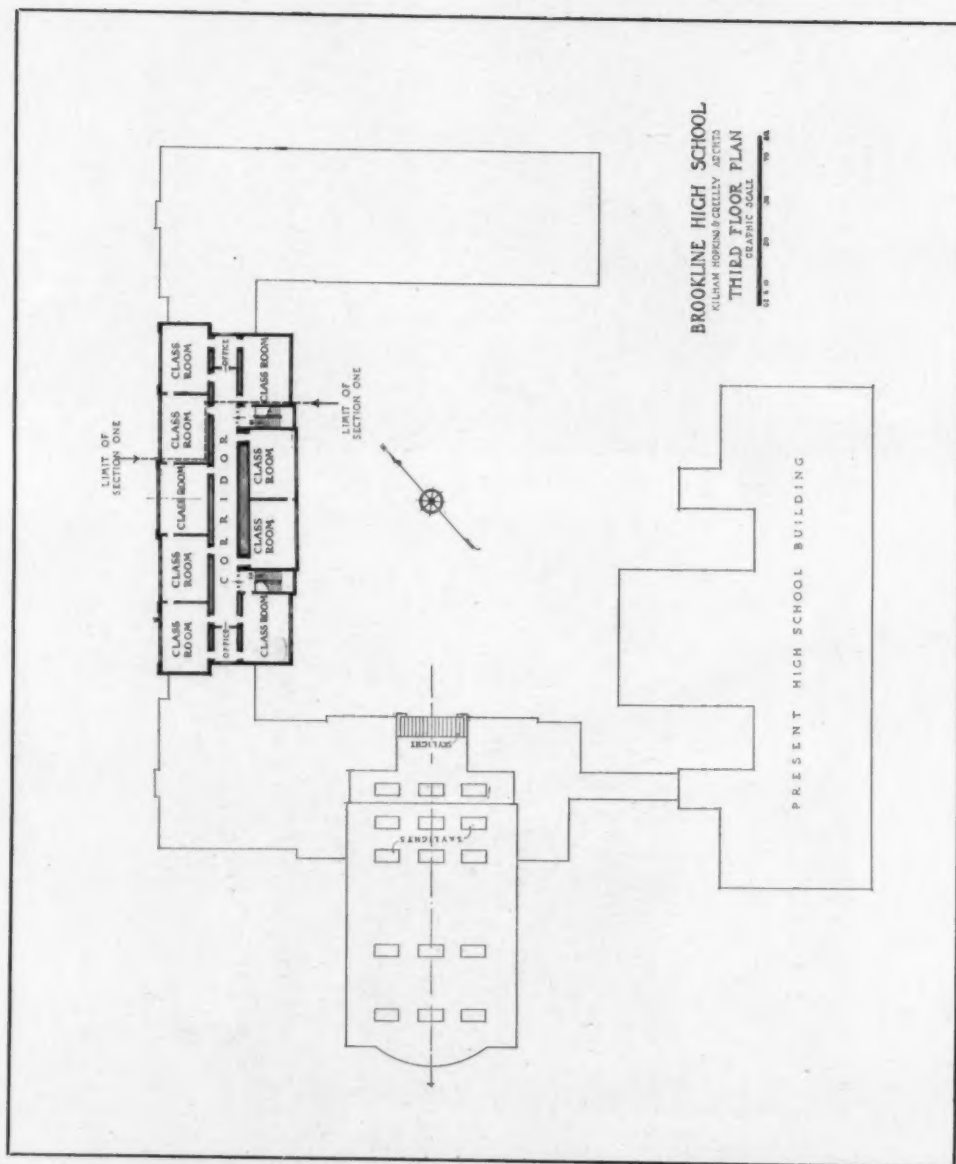


AUDITORIUM

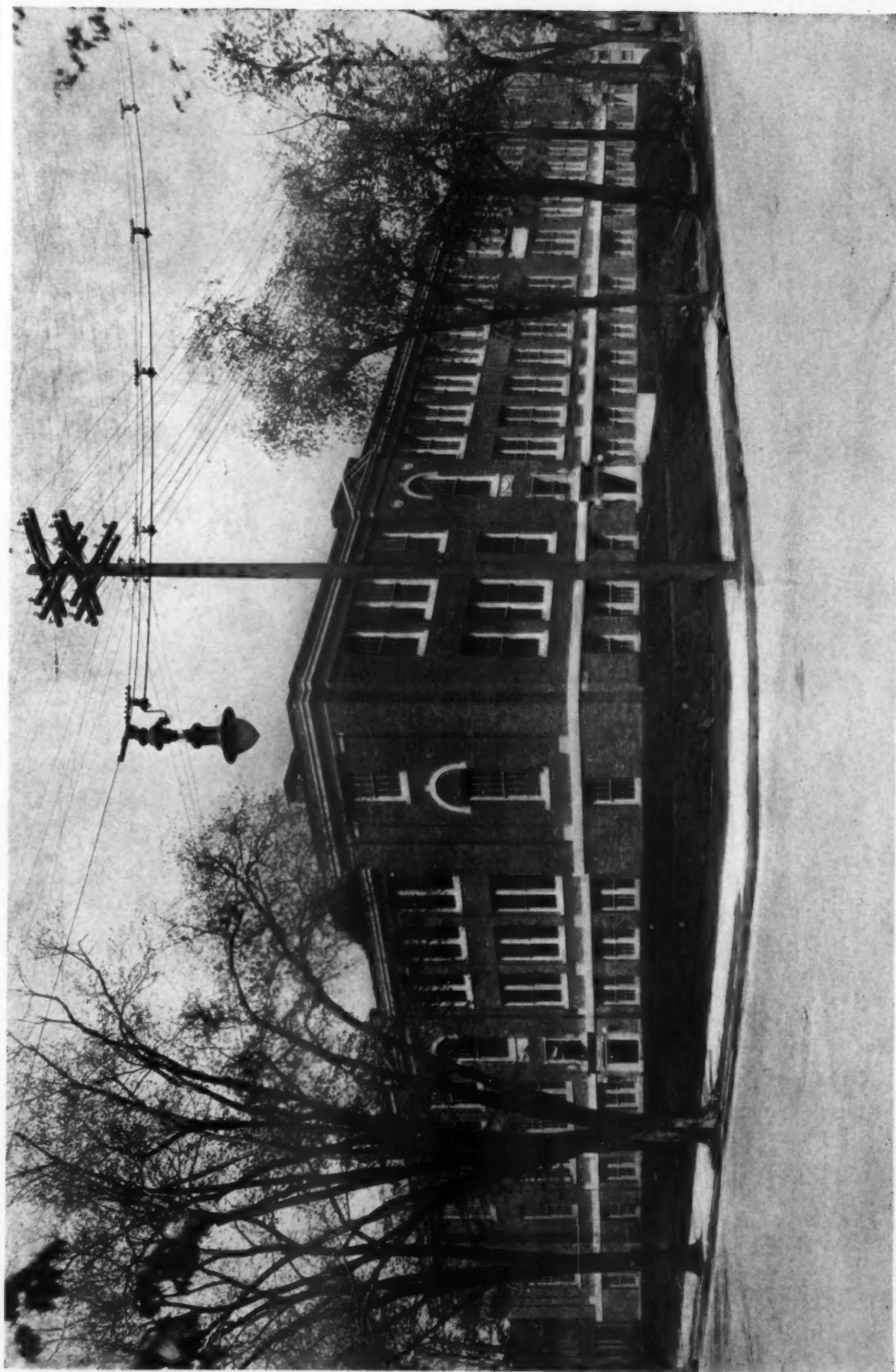
BROOKLINE HIGH SCHOOL, BROOKLINE, MASS.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

(See plan on back)



KILHAM, HOPKINS & GREELEY, ARCHITECTS



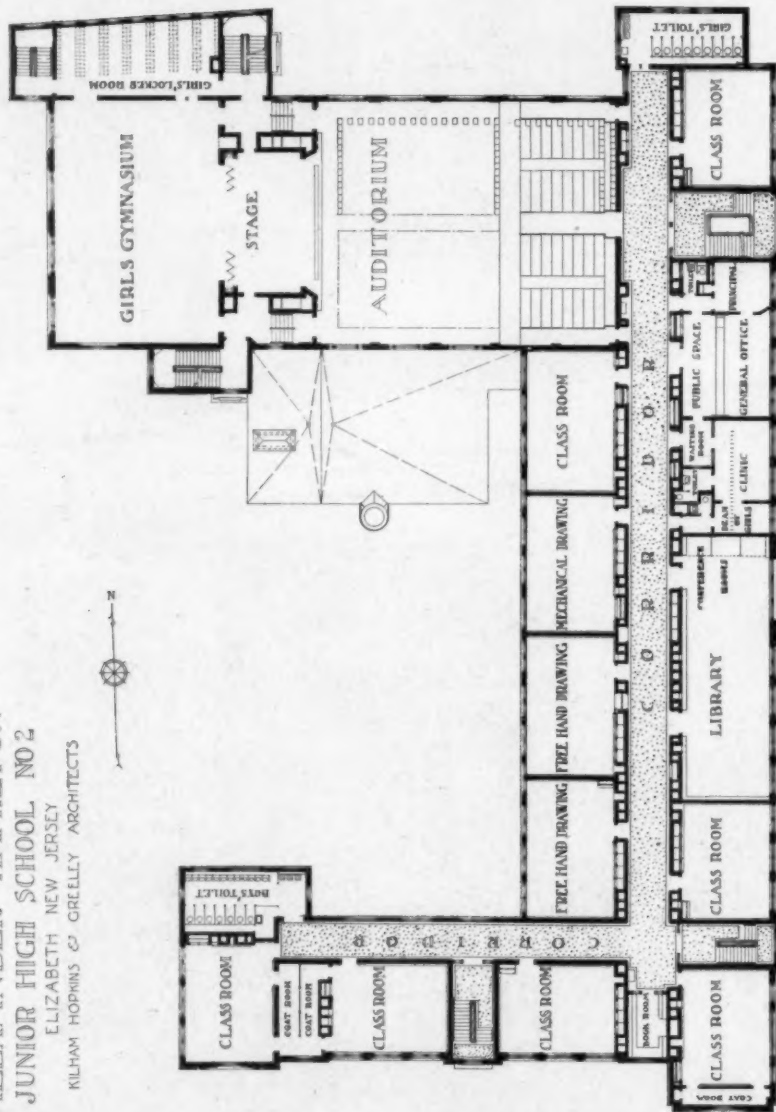
ALEXANDER HAMILTON JUNIOR HIGH SCHOOL, ELIZABETH, N. J.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

(See plan on back)

THE AMERICAN ARCHITECT
July 15, 1925, Plate 188

ALEXANDER HAMILTON
JUNIOR HIGH SCHOOL NO 2
ELIZABETH NEW JERSEY
KILHAM HOPKINS & GREELEY ARCHITECTS



FIRST FLOOR PLAN

KILHAM, HOPKINS & GREELEY, ARCHITECTS



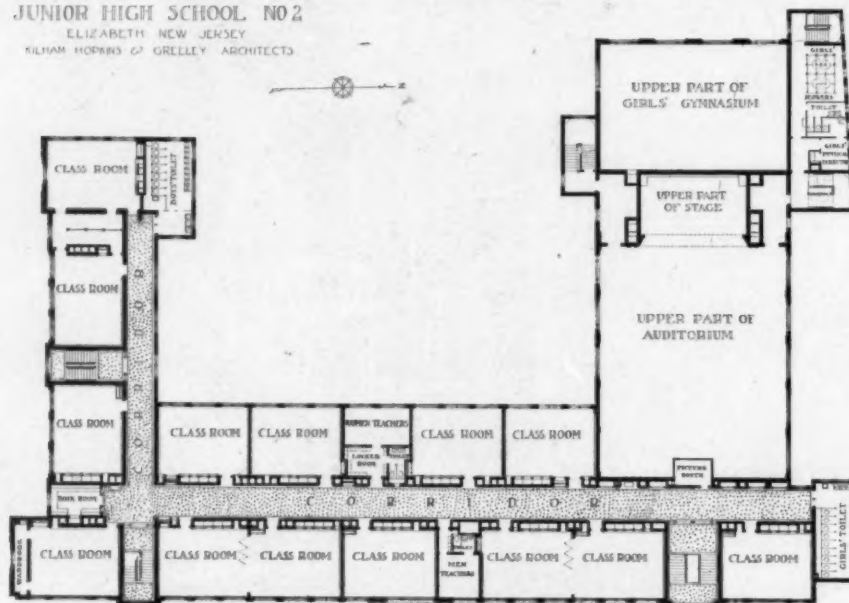
RENDERED DETAIL OF PRINCIPAL ENTRANCE

ALEXANDER HAMILTON JUNIOR HIGH SCHOOL, ELIZABETH, N. J.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

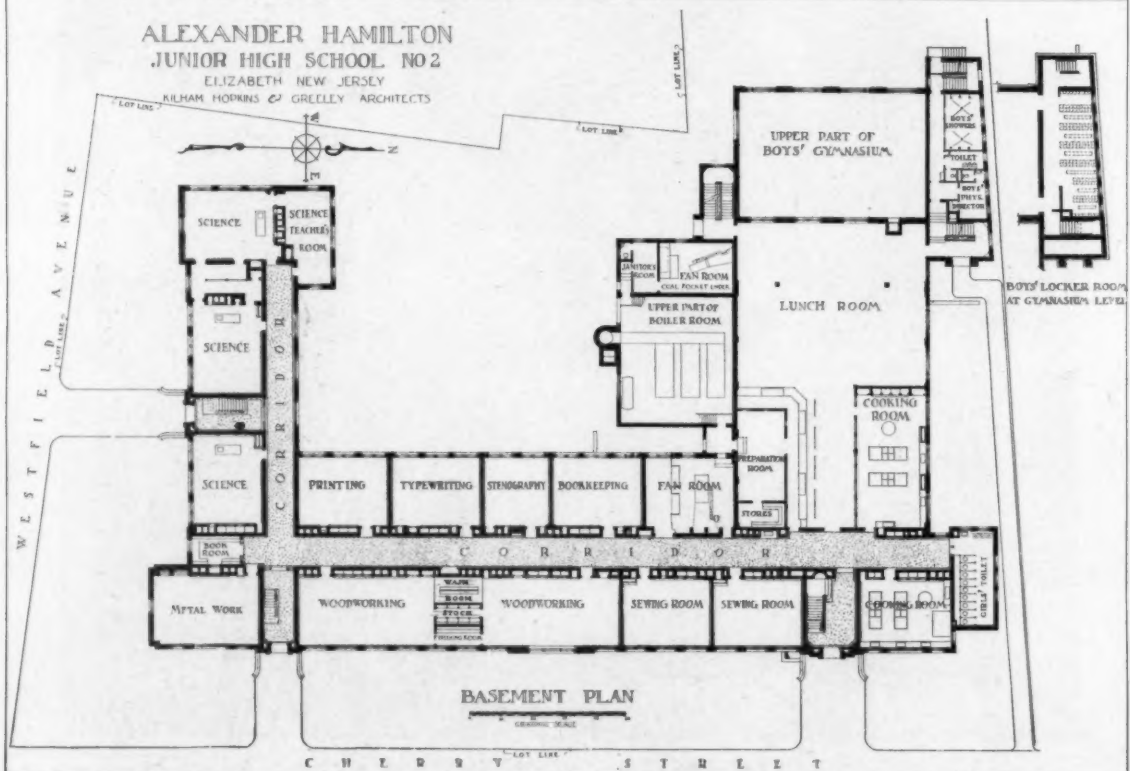
(See plans on back)

ALEXANDER HAMILTON
JUNIOR HIGH SCHOOL NO 2
ELIZABETH NEW JERSEY
KILHAM HOPKINS & GRELLEY ARCHITECTS



SECOND FLOOR PLAN

ALEXANDER HAMILTON
JUNIOR HIGH SCHOOL NO 2
ELIZABETH NEW JERSEY
KILHAM HOPKINS & GREELEY ARCHITECTS



BASEMENT PLAN

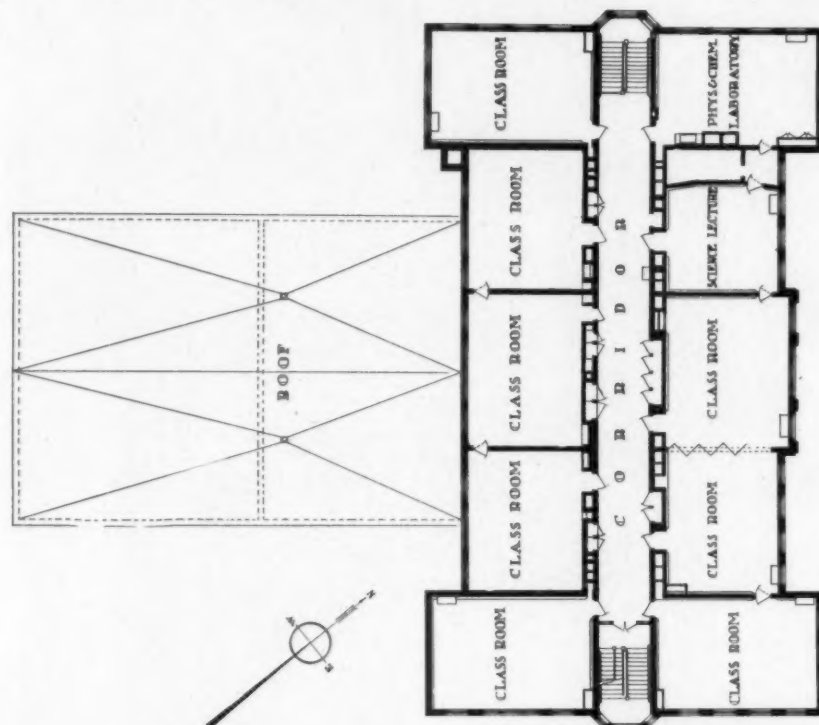
KILHAM, HOPKINS & GREELEY, ARCHITECTS



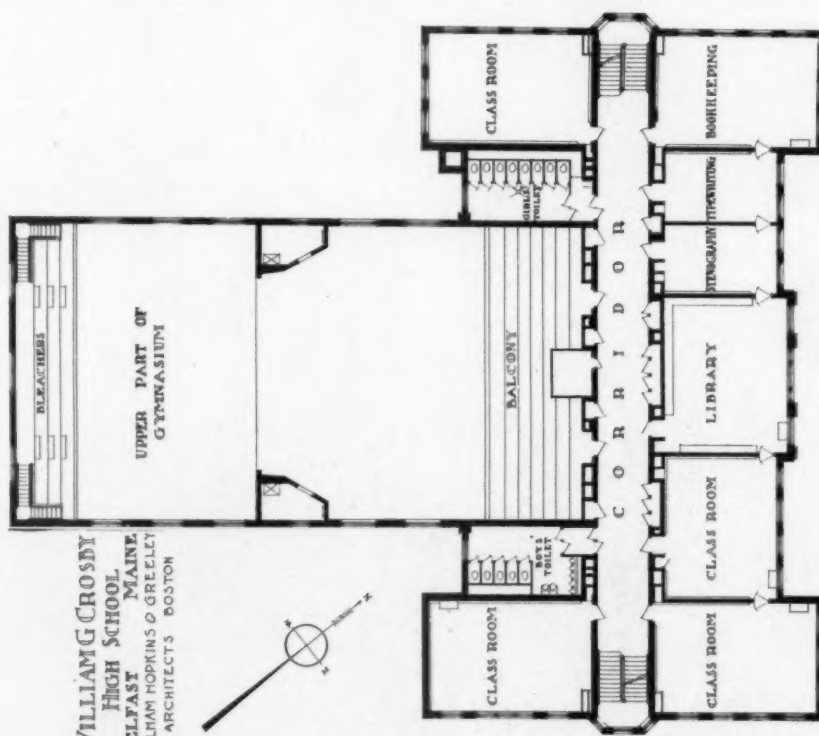
WILLIAM G. CROSBY HIGH SCHOOL, BELFAST, MAINE
KILHAM, HOPKINS & GREELEY, ARCHITECTS

(See plans on back)

THE AMERICAN ARCHITECT
July 15, 1923. Plate 190



THIRD FLOOR PLAN



SECOND FLOOR PLAN

WILLIAM G. CROSBY
HIGH SCHOOL
BELFAST, MAINE
KILHAM, HOPKINS & GREELEY
ARCHITECTS, BOSTON

KILHAM, HOPKINS & GREELEY, ARCHITECTS

EDITORIAL COMMENT

PRESS DESPATCHES QUOTE Dr. Rexwald Brown, chairman of the Chamber of Commerce of Santa Barbara, as stating that two basic problems confront those who have in charge the reconstruction of the ruined city. "It is a wonderful opportunity," states Dr. Brown, "to build the type of city we have been talking and dreaming of for years." That is exactly the proper spirit in assuming the rehabilitation of the earthquake stricken city. Unfortunately there does not appear in this farsighted statement a real promise of performance. Undoubtedly the man is sincere in his desires and will bend every energy toward the accomplishment of a laudable purpose. But such tasks are not one man jobs. They require an enormous amount of teamwork. Undoubtedly Dr. Brown intends that, as far as he can bring it about, the new Santa Barbara will rise from its ruins architecturally better than ever before.

If he shall accomplish so desirable a result, he will have to combat with the trade necessities and the housing needs that will go ahead as quickly as possible to find shelter in homes and business buildings.

* * *

In an interview published in the New York *Herald-Tribune*, Col. William A. Starrett states that all cities located in known earthquake zones can greatly reduce the hazard of earthquakes by proper rebuilding. While no building can be one hundred per cent proof against earthquakes, there are certain special problems of reasonably safe construction that have been solved by the study of damage sustained in other localities.

Col. Starrett states as his belief that any ordinary quake can be withstood with proper design and selection of materials. The correct practice is simply to build more strongly. Japan thought that toggle joints and weak, flexible supports were the best defense. According to Col. Starrett, they proved the worst. Build rigidly, he urges, and directs attention to the fact that a building standing on an undisturbed spot needs but vertical strength to overcome gravity, but when subjected to wind or earthquakes, it must also have horizontal strength. He strongly advocates the use of steel and reinforced concrete and that block masonry should never be used because it has no elasticity.

* * *

It would seem to be but ordinary prudence to study all the facts to be learned from previous earthquakes and not only rebuild Santa Barbara on lines of safety, but to revise at once the build-

ing regulations of every city located in earthquake zones. Seismologists tell us that there are likely to be recurrences of these shocks. They announce that the bed of the Pacific Ocean is slowly sinking and that there is a consequent increase in height of mountain ranges on the coast. We cannot prevent earthquakes, nor can we build entirely to prevent damage. What can be done, and it seems to be a duty on the part of every community on the coast, is to place such restrictions on building methods as will minimize as far as possible the loss of life and property damage when earthquakes occur.

* * *

What is needed now in Santa Barbara and will be needed for a considerable period, is a competent advisory board composed of architects, engineers and town planners. While engineers will at the outset be required to superintend the big operations incident to construction, it will require the highly trained services of architects and the equally skillful efforts of the best town planners to realize Dr. Brown's hope of a Santa Barbara such as has been dreamed of and talked about. The mistake in all instances where there has been damage by fire or earthquake, was that there was no controlling body of competent men to insure that the new city grew along the best architectural lines and was replanned in a manner to insure its logical growth.

* * *

CONTRAST, TO QUOTE the dictionary, is the dissimilitude of associated things, or things placed in opposition. Without contrast this would be a drab and monotonous world. Standardization is one of the greatest foes of contrast. The tendency to uniformity of production, to use the same material in the same way in different types of buildings, is to create lack of contrast and to insure monotony.

The Lutheran Church is devoting very well directed efforts toward the architectural improvement of Lutheran churches. It has achieved some worth while results. No detail is omitted that will contribute to the betterment of the artistic whole, none too insignificant to escape attention.

As indicating how seriously this movement for better churches and better conditions is going forward, the following, clipped from *Lutheran Church Art* is significant and also amusing. It states:

"Church organs, voiced according to movie standards, were decried at a recent Lutheran gathering, and the statements widely quoted. This

THE AMERICAN ARCHITECT

is a real danger. There has been too much acid voicing of strings lately, unification carried to dangerous extremes, inordinately high wind-pressures, pop-valve type of reeds, high mouths, leather lipping, imitation chimes, and abuse of the beloved *Vox*, which may be all right in a concert organ, but which sounds nevertheless like a sentimental billy-goat singing through his nose."

* * *

THE SPRINGFIELD, MASS., *Republican* has, we learn from an item in the daily press, offered an annual award of \$600 in prizes for the encouragement of better residential architecture in Springfield. This award is established as a memorial to the late Samuel Bowles. In his lifetime, Mr. Bowles was one of the proprietors of the *Hartford Times* and was greatly interested in the symmetrical architectural development of cities.

Naturally, the offer of the *Republican* has been enthusiastically received and unanimously endorsed. A liberal and far-seeing policy of this sort is the real essence of a successful effort to make good architecture popular and to bring its value home to the people. With such an impetus, the home builders will vie, one with the other, to secure an award which will stamp a guaranty of good architecture on the house, and what may perhaps be a more forceful argument to many, give it added value. Under such patronage and encouragement, it is logical to assume that those who desire to compete for the *Republican's* prizes, will not trust the design of their houses to incompetent hands. It is just at this point that the architect will come into his own. The type of houses that will be developed from this local and public spirited impetus to good architecture would, of course, be one that would meet the approval of an architectural jury, and for that reason its artistic merit would be guaranteed at the outset.

The *Republican* has started on a wise and public spirited effort and is to be highly commended for one so well directed. It is an example that could with excellent results be followed all over the country.

* * *

THE ARCHITECTURAL PROFESSION in Sacramento, California, have, we learn, organized a society for the promotion of better social relations among members. One of their first acts is a decided innovation and offers to architectural societies all over the country an opportunity to follow a good example. The Sacramento society has prepared a series of short talks on architecture, and why it is always advisable to employ an architect when a building is projected.

By arrangement with a local broadcasting station these talks will be broadcast at certain intervals. The idea is an excellent one. The propa-

ganda reaches exactly the sort of people who are apt to try to dispense with an architect's service. The lectures will reach directly into thousands of homes and the good results will no doubt be very great.

The efforts of committees on public information, the printing of specially prepared articles for publication in the daily press and popular magazines, have not produced noticeable results. With a radio "talk" broadcast to thousands of listening ears, the result should be more valuable and the end sought more speedily arrived at.

* * *

A COMMUNICATION

"Or equal to"

The Editor:

THE AMERICAN ARCHITECT—

REFERRING to the article entitled "Or Equal," by F. R. Still, in your issue of May 6:

In my twelve or fifteen years of close co-operation with architects and engineers, throughout the country, it has always been one of the most amusing topics to hear discussions regarding the "Or Equal" clause.

Either the manufacturers have not been able to impress the architects or specification writer regarding the quality of their product or the architect or specification writer simply will not conclude in his mind the product that he really desires.

In the present day of economy of distribution, hundreds of dollars could be saved in estimating, making quotations, salesmen's follow-up if the architect would specifically state class of material he desires to purchase.

There is no reason, that we know of, why the architect can not determine in his mind the class of product he wishes to use and all this money charged to "distribution" would be saved, and this, in itself, would bring the price of a product down so that cost of building would rapidly shrink.

Of course, there always will be architects who are not familiar with different products and unconsciously specify \$50.00 article with \$10.00 but with National and Business paper advertising, surely, our modern architect must appreciate who, and who are not, reliable, efficient, conscientious manufacturers.

Personally, I doubt if any manufacturer of years' standing in the field would take advantage of an architect's specification and raise his price because he was specified alone; rather, we believe a manufacturer who had this privilege would guard it as carefully as any other consequential problem in his own manufacturing plant.

THE SWARTWOUT COMPANY

Cleveland, Ohio

George H. Thomas
General Sales Manager

INTERIOR ARCHITECTURE

Personality in Design

THROUGH the articles of this department, THE AMERICAN ARCHITECT has commended those architects and decorators who are advocating originality and self-expression in architectural and decorative design. It has done what it could to further the expression of personality in the development of art for our own homes, for our own market and for our own people. This journal admits that a knowledge of the "styles" is essential to an architect's complete equipment for the task confronting him; it is also insistent that the value to be derived from the study of the styles and periods is in forming a judgment concerning them, in analyzing them, not with blind, imposed acceptance, but as an experienced connoisseur, understanding that each historic style was new in its day, sincere, free from taint of the copyist, conforming entirely to the contemporary period. Such an appreciation will

stimulate in one thus studying, a desire to carry forward this genuine tradition in his own original designs. A French writer offers the suggestion that the period styles should be studied only after having acquired by individual effort the practice and science of art and knowledge of materials, claiming that the degree of independence and of self-knowledge thus determined is necessary really to comprehend the styles. There is a great deal to that, and many of our more progressive educators are following this method.

The magazines devoted to the various furnishing trades give much space to the tendencies of the times, the "stylistic trend," as they call it. One journal recently boldly prophesied that "the Dutch style will become the vogue of this country in the next few years" for "did not the flight of the genius of painting travel from Spain to the Netherlands?" Another journal pats itself on the



A typical modern American room, featured throughout by unity and harmony of design which, aided by a craftsmanship that is beyond reproach, deserves unstinted admiration. Of course, strict adherence to period furnishings eliminates all opportunity for originality on the part of the architect and decorator or the expression of the personality of the owner

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back for "indications of the increasing interest in early American, Directoire, and Spanish types to which this magazine has been calling attention for months." *THE AMERICAN ARCHITECT* ignores these childish whims of fashion, and will devote its pages to matters pertaining to the more aesthetic development of our own inventive genius in its "need of creating and speaking a language which will translate into the permanent realm of art our civilization of today, what we think and what we feel—we people living today as real individuals and not as mere replicas or faint echoes of the past," as Joseph Stella, one of our modern artists, said a few weeks ago before the Art Directors Club.

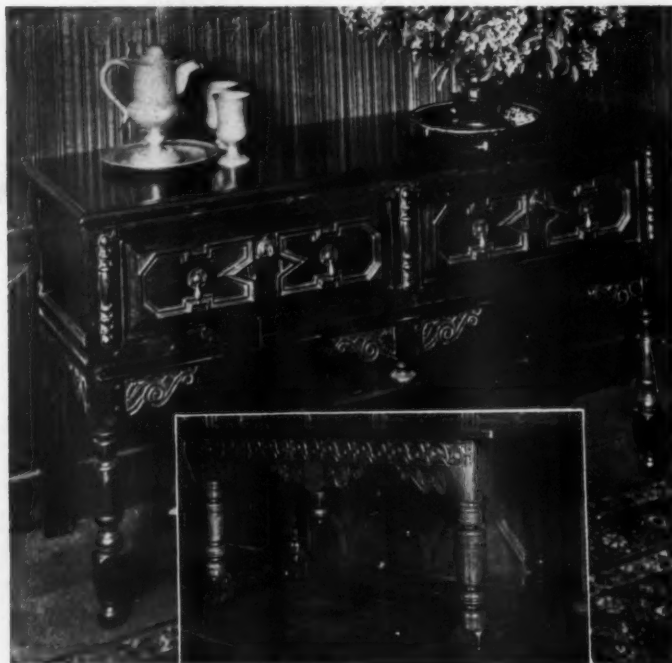
The distinction between the policy of *THE AMERICAN ARCHITECT* and that of the trade journals is well illustrated in the accurate use of the two words, fashion and style, which we, in our often careless and slovenly use of words, frequently use as synonyms. Fashion, as intended, is the prevailing mode or vogue as relating to conventional usage. Style, on the other hand, is the distinctive or characteristic manner of the presentation of that mode, especially of the fine arts. While one is dependent on the other, fashion would represent a vogue, and style the method of



THE RECLAMATION OF THE MINETTAS,
AN APARTMENT IN NEW YORK CITY

ARTHUR C. HOLDEN AND ASSOCIATES,
ARCHITECTS

There is a truthfulness in this design
which, after all, is of first importance in
an original expression



DESIGN OF OAK DRESSER DEVELOPED FROM "YORKSHIRE" OAK SIDETABLE. SHOWN IN INSERT FROM THE COLLECTION AT QUENBY HALL, LEICESTERSHIRE, ENGLAND

The style and character of the old piece have been reproduced in the new, although the design has been radically changed

expressing it. *THE AMERICAN ARCHITECT* accepts the fashion as it comes, and devotes its every effort to improve the style, the manner of expressing it. If, of course, it can be instrumental in also elevating the quality of the fashion, that idea is furthered by raising to a higher level the style of the prevailing fashion. For the taste of the public is thus improved, and cheap and vulgar ideas will no longer be accepted by them as fashionable. Generally speaking, the greatest fault is in the method of expression (the style), and not in the ideas themselves (the fashion). In the present craze for the Spanish, for example, the method of its presentation or interpretation in this country, in modern times, has actually debased the original Spanish art. Again, in adapting period ideas to conform to the prevailing fashion for Early American furniture, as seen, for

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example, in the so-called modern Windsor chair, the style in which these modern chairs are designed and produced—the interpretation of the fashion—makes them so coarse and vulgar that designating them as Early American is to misinterpret the artistic skill and fine craftsmanship of our forefathers. *THE AMERICAN ARCHITECT*, as already stated, seeks to elevate that method, but above all else it seeks to render aid in furthering the American designer to put his own interpretation into those ideas which may give him original inspiration, so that the expression of his personality will become the fashion, and the ideas which may still serve as inspiration, and also their derivation, will become so insignificant in the greater interest aroused in their interpretation, that they will not provoke a passing thought.

The competition to result in their annual exhibition, recently announced by the Art-in-Trades Club of New York City, is encouraging in that it stands for this same policy. The Art-in-Trades Club is taking its first step, and a cautious one it is as it must be, toward our national freedom in architectural and industrial art. Spurred on to greater accomplishments by the fact that America was not represented at the great Exposition of Modern Decorative and Industrial Art, now open in Paris, for the reason that this country has not yet developed "material suitable for display in the new spirit, it felt that the time was ripe for an awakening of our own efforts." The program is interesting. It calls for the complete decoration and furnishing of two apartments. The first consists of a combination living and dining room, 13 x 21 feet, and a bedroom, 12 x 14 feet, ceilings nine feet, six inches, to cost, complete, \$1800, including floor coverings, wall coverings, furniture and electric fixtures, but not including the cost of

the trim and cornice, although these will be included in the design and an extra allowance of \$500 is made for their construction. The second suite consists of a drawing room, 17 x 25, a dining room 15 x 20, and a bedroom, 14 x 18, ceiling heights not to exceed 15 feet, to cost not over \$20,000, and an additional \$4000 allowed for the construction of the trim and cornice. Direct copies of old styles or obvious imitations of old designs will be barred from consideration. Further details covering manner of rendering designs, necessary specifications, plans of the two suites, show-



CASA DEL CONDE DE TOLEDO, TOLEDO, SPAIN

(From "Provincial Houses in Spain")

It is hard to see much resemblance between this and the modern so-called Spanish rooms, so prevalent now. Why do we insist upon giving them that title?

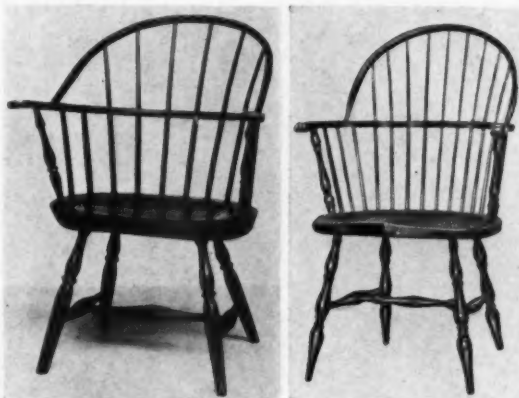
THE AMERICAN ARCHITECT

ing positions of doors and windows, prizes and method of awarding same, are all included in a program which will be sent to anyone addressing the Secretary of the Exhibition Committee, Art-in-Trades Club, 34 East 38th Street, New York City. Architects and decorators and designers all over the country are urged to compete, either independently or in collaboration with each other.

It is a question, and an interesting one, whether there are enough of us with minds awake, keen, and youthfully creative to form an effective body of competitors to justify the competition. We may as well admit that we have in this country a lot of intelligence and taste and inventive genius, and if any nation is desirous of keeping its place in the world of art, it will have to turn its back on the easy life of the copyist and fight its

way through to an artistic expressiveness as appropriate to the world of today, just as the eighteenth century styles were to the world of that day. The Art-in-Trades Club has taken an important step and it should be commended throughout the country for its courage. It is to be hoped that designers throughout the country will be interested

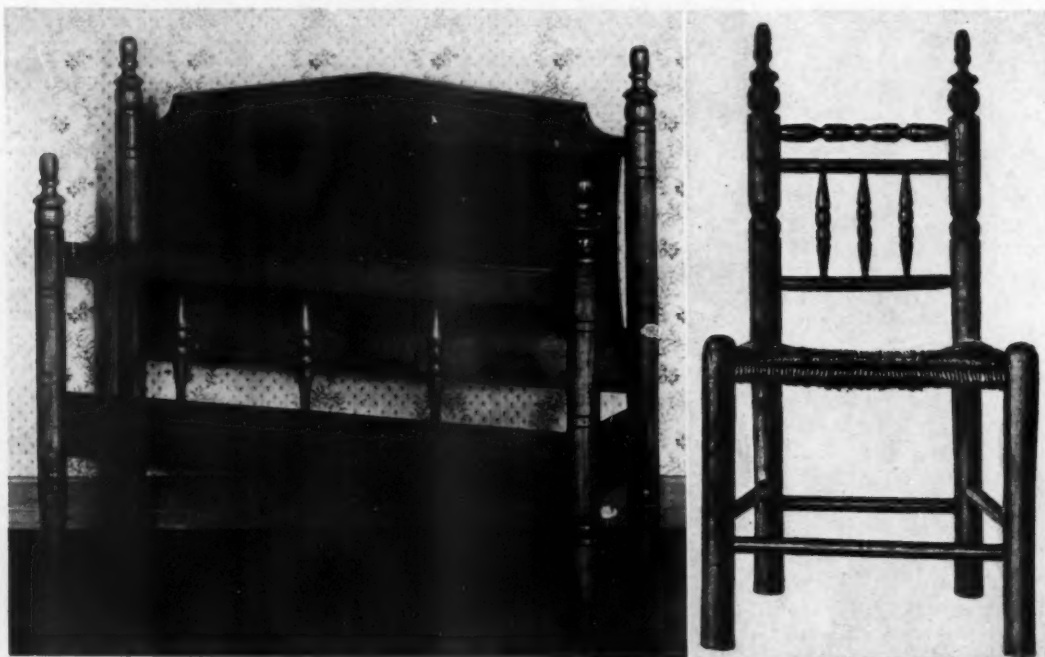
enough to compete. The prizes are worth while, and future opportunities for the prize winner would seem to be very large. But it is not as a competition that it should be considered, but as an opportunity to present to the world at large our own ideas of architectural and decorative design, and a chance, at least, goes along with it that those ideas may be accepted by the American people as a nucleus around which an American style of design — American ideals, of American



(Courtesy Metropolitan Museum of Art)

CONTRASTING THE OLD WITH THE NEW

A genuine antique Windsor chair (at left) in the collection at the Metropolitan Museum of Art, dating back to the 18th century, and a modern adaptation in which much of the grace of the old chair has been lost, and the method of construction entirely changed. Notice how the legs of the old chair come right through the seat



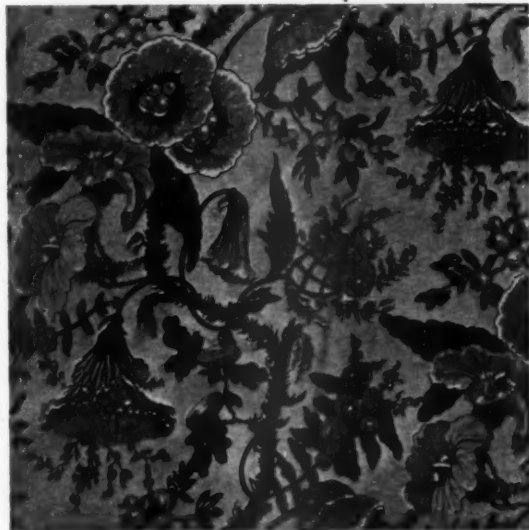
(From "Furniture of the Pilgrim Century")

BED IN MAPLE DEVELOPED FROM AN EARLY AMERICAN "CARVER" CHAIR, DATED ABOUT 1650, ILLUSTRATED HERE. THE CONSTRUCTION, AS WELL AS THE DESIGN, WAS SUGGESTED BY THE OLD CHAIR

THE AMERICAN ARCHITECT

products, by American methods—may be developed.

The American designer cannot with certainty attribute any tendency he may have to copy and thereby to neglect the personal element in his design to a lack of inspiration. The modern man-



A MODERN AMERICAN CRETONNE DESIGNED AFTER A STUDY OF A PILLEMENT PRINT AT THE METROPOLITAN MUSEUM OF ART

ufacturers with inventive genius have seen to that. For it is the building materials themselves and their dictated mode of construction which gives new ideas to a design. And our museums with their wonderful collections of materials of a constructive and decorative nature are a continual source of inspiration to the designers.

"The museum of art," so states Richard F. Bach



A WALL PAPER, THE DESIGN OF WHICH WAS INSPIRED BY AN OLD EMBROIDERED BEDSPREAD, THIS INTERPRETATION BEING ORIGINAL AND IN NO SENSE OF THE WORD A "COPY", ALTHOUGH ONE CAN SEE AT A GLANCE HOW THIS DESIGN MAY HAVE ORIGINATED FROM ITS INSPIRATION

in a document entitled *Manufacturer, Merchant and Museum of Art*, "maintains collections that tell the story of ages of design; it collects those things which have stood the test of generations of connoisseurs and so still remain to us as models for current workmanship and design. The manufacturer has come to see the economic, the commercial value of design in his product and he has gone to the museum of art for his ideas; the designer, long aware of the mine of resource offered him in the galleries, takes advantage of the fine opportunity now open through his chief's new vision. And on the other side, the merchant, with his finger on the pulse of trade senses a new feeling as evidenced in demand from the other side of

the counter. . . .

Critics tell us that designers need especially three qualities: ability, industry and taste. Without ability, the millinery designer remains but a maker of hats; without ability, the composer's efforts do not outlive the month; without ability, the furniture craftsman remains a carpenter—and there is a difference. But ability may be acquired, granted that



THE PARTICULAR ENGRAVING BY JEAN PILLEMENT, DATED THE LATTER PART OF THE 18TH CENTURY, WHICH SERVED AS THE SOURCE OF INSPIRATION FOR THE CRETONNE DESIGN SHOWN HEREWITH

(Courtesy Metropolitan Museum of Art)



A PART OF THE BEDSPREAD WHICH SERVED AS THE INSPIRATION FOR THE WALL PAPER ILLUSTRATED AT LEFT. IT IS KNOWN AS THE MARY BREED BEDSPREAD AND IS DATED 1776
COURTESY OF THE METROPOLITAN MUSEUM OF ART

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there are schools or a careful apprentice system. To acquire ability, industry and diligence and the willingness to take pains are pre-requisite. Industry implies readiness to work, to risk mistakes in the quest for information, to risk pride in the search for the wisdom that comes and the knowledge that lingers. Industry means perseverance and infinite capacity for work and satisfaction only when the goal has been reached and the best possible production realized.

"Ability and industry together have produced most objects of art which are preserved or recorded. But the outstanding pieces, the finest products in all fields depending upon design for success, whether rugs or buildings, jewelry or furniture, have had a liberal admixture of our third qualification, namely, taste.

"Taste, we have been told, is the essence of genius, a gift from above which may make precious metal out of dross. It is the beginning and end of successful design; it is the measure of success in all types of design. All designers may learn how to acquire ability; they may by force of circumstances be obliged to become industrious; they cannot buy taste or make it out of whole cloth.

"There is no royal road to taste. But there are aids and helps which will make our gifts in this

direction, however meagre, greater or more effective. It has been said that taste is discrimination many times exercised.

"Design is fundamental in all the arts: they all subscribe to its principles, though each approaches these principles through the avenues of different material or usage or mode of manufacture or period of art. For instance, textiles and buildings, rugs and silverware, furniture and millinery, metal work and painting, curtains and jewelry—throughout we could point the parallel in art principles; rhythm, symmetry, proportion, color, harmony, and all other qualities apply to oak as they do to marble, to silk as they do to straw. These fundamentals can be studied at first hand in our great museums. Out of this study will grow an appreciation for forms and for colors which will lead to always fresh ideas, new motives will be discovered, style possibilities discerned and the horizon of the designer so broadened that he can look over and beyond his weaker brothers toward greater markets on an offering of finer products of his skill."

Acknowledgment is made to the following firms for their courtesy in supplying illustrative material:—Baech Wall Paper Co.; Kensington Furniture Co.; Marshall, Field & Co.



HOUSE OF HERMANN YOUNKER, ELMSFORD, N. Y.

BUCHMAN & KAHN, ARCHITECTS

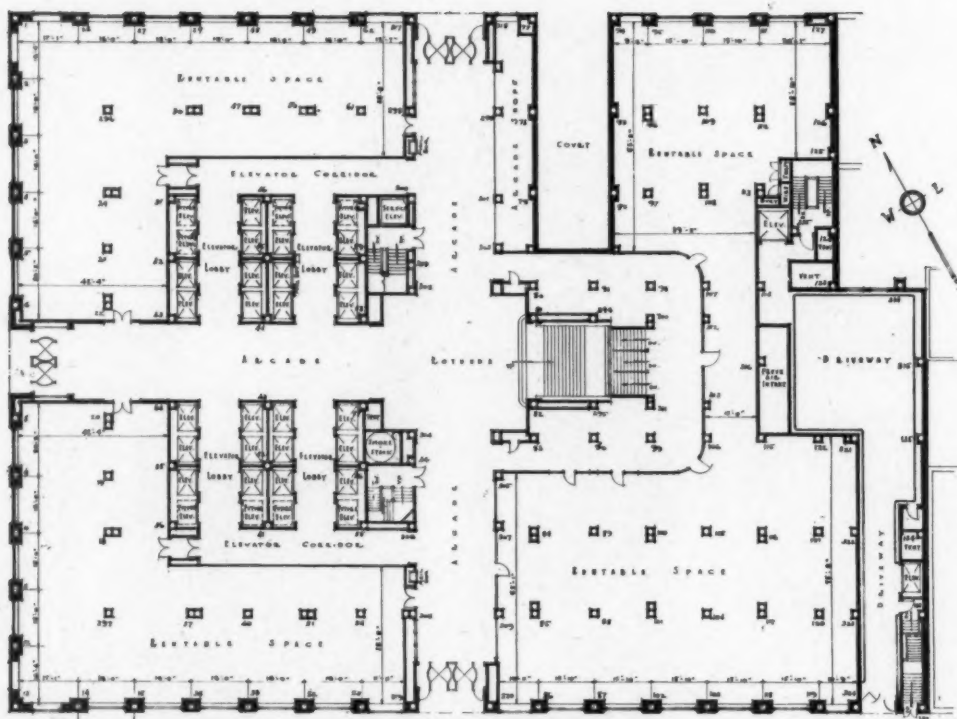
The structural plan has been the guide to the design of this room, and there has been no endeavor to imitate any period. There is no suggestion of artificiality visible here



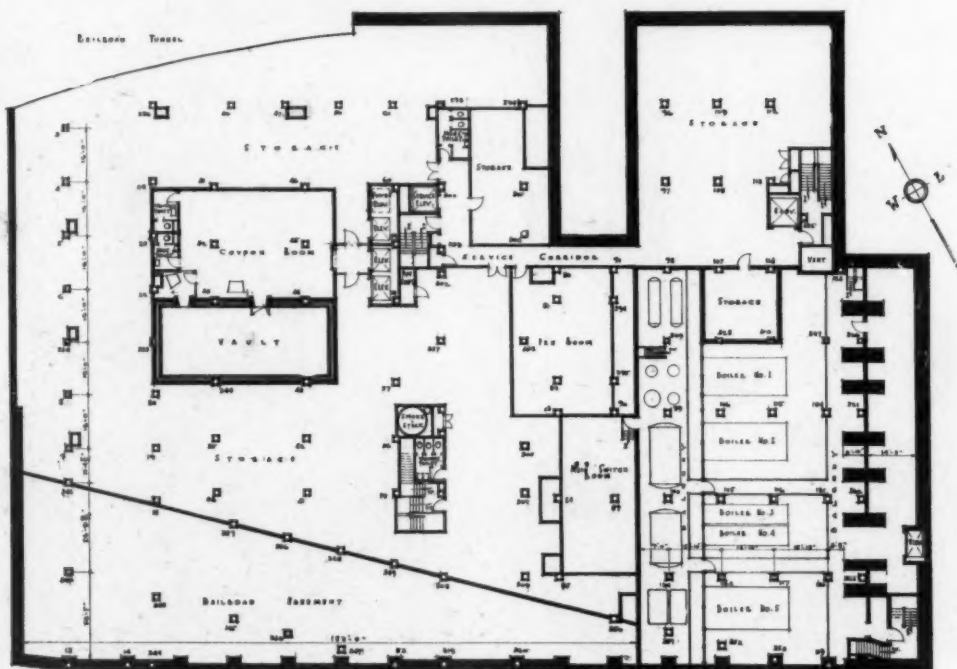
BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK

STARRETT & VAN VLECK, ARCHITECTS

(See plans on back)



FIRST FLOOR PLAN



FIRST SUB-BASEMENT PLAN

BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK
STARRETT & VAN VLECK, ARCHITECTS

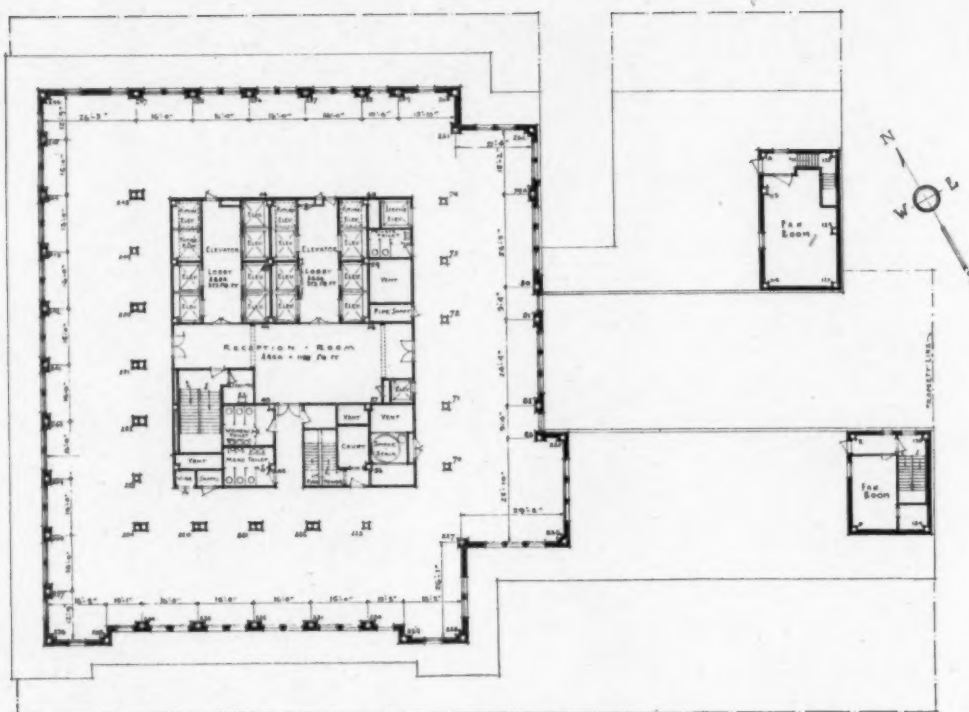


BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK

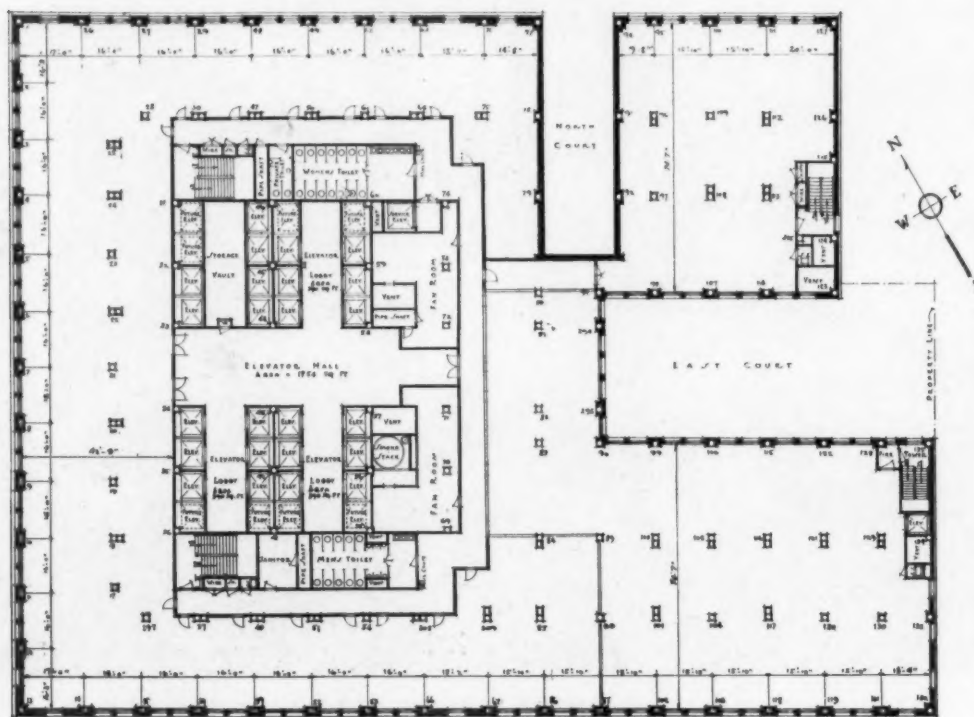
STARRETT & VAN VLECK, ARCHITECTS

(See plans on back)

THE AMERICAN ARCHITECT
July 15, 1925. Plate 192



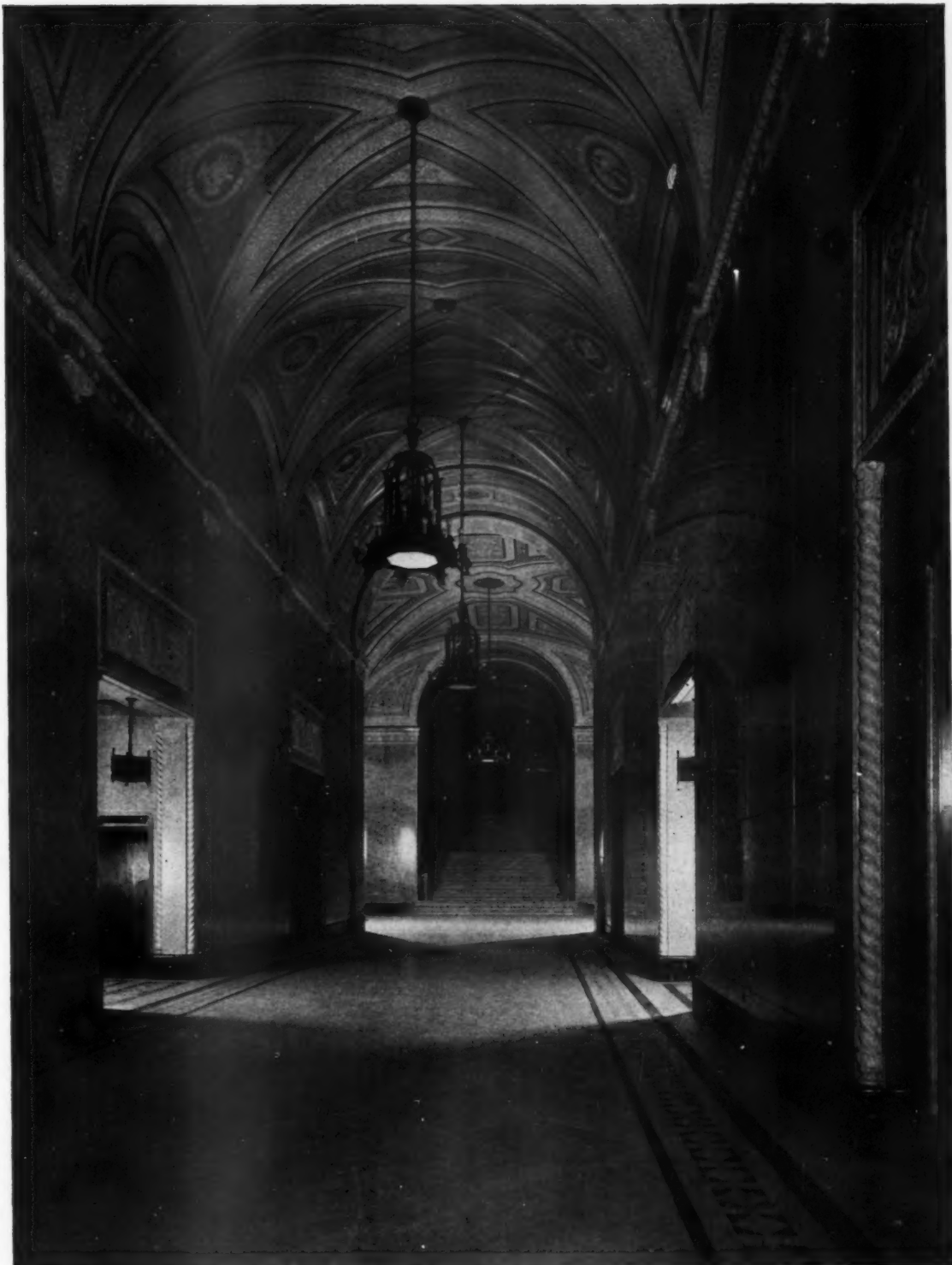
NINETEENTH FLOOR PLAN



FOURTH FLOOR PLAN

BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK

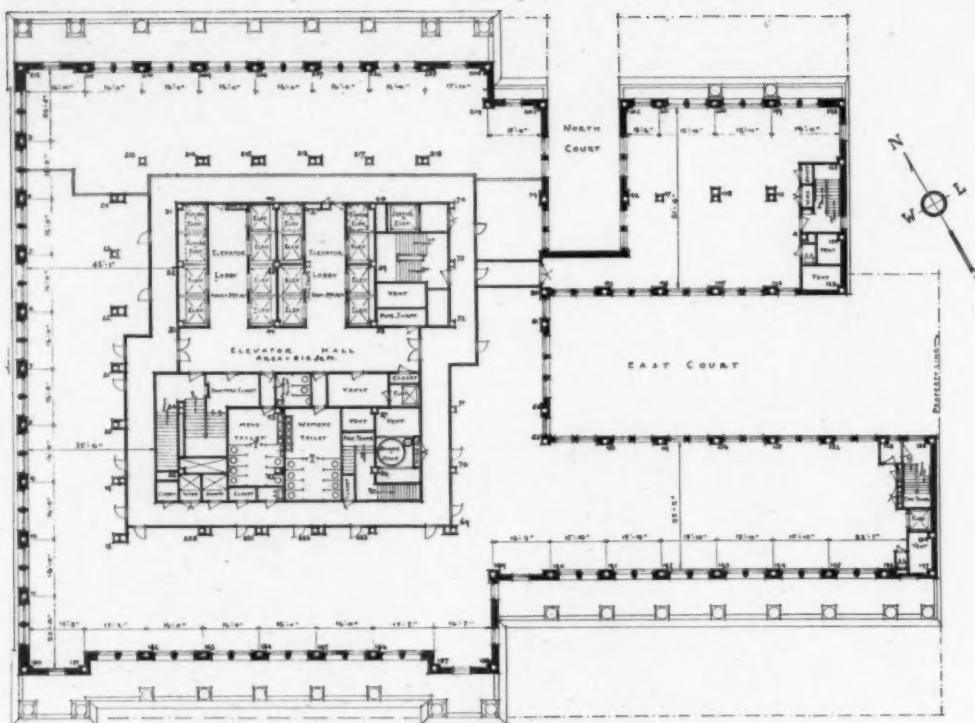
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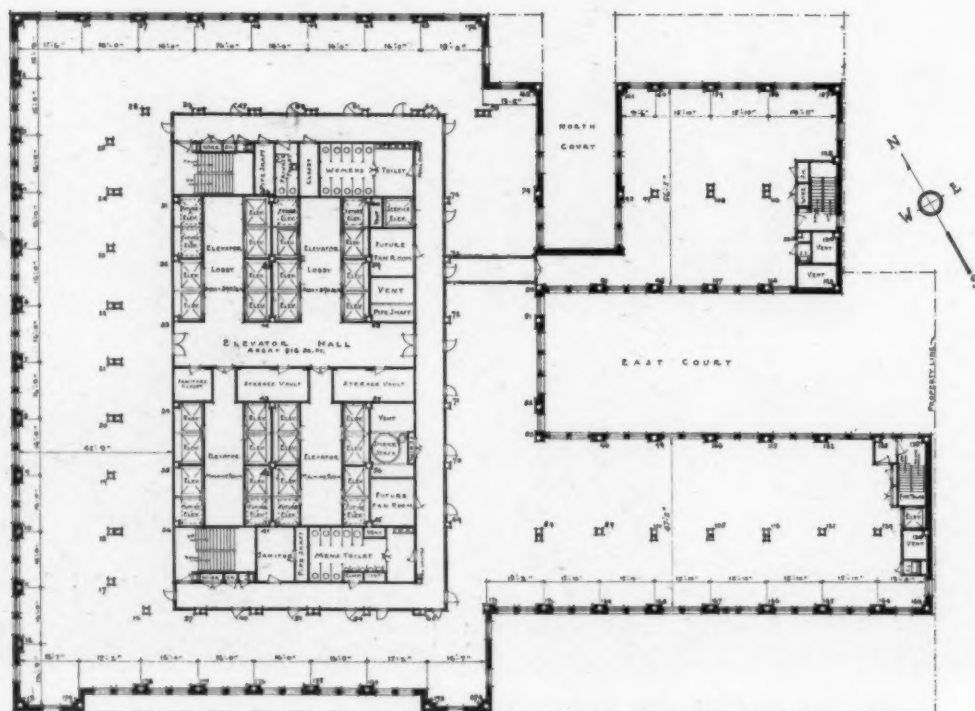
BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK

STARRETT & VAN VLECK, ARCHITECTS

(See plans on back)



SIXTEENTH FLOOR PLAN



FIFTEENTH FLOOR PLAN

BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK

STARRETT & VAN VLECK, ARCHITECTS



BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK
STARRETT & VAN VLECK, ARCHITECTS



BUILDING FOR EQUITABLE ASSURANCE SOCIETY, SEVENTH AVENUE, NEW YORK
STARRETT & VAN VLECK, ARCHITECTS



OWN HOUSE OF WILLIAM GEHRON, ARCHITECT, PELHAMWOOD, N. Y.

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OWN HOUSE OF WILLIAM GEHRCN, ARCHITECT, PELHAMWOOD, N. Y.

THE AMERICAN ARCHITECT
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OWN HOUSE OF WILLIAM GEHRON, ARCHITECT, PELHAMWOOD, N. Y.



THE AMERICAN ARCHITECT
July 15, 1925. Plate 168



HOUSE OF H. F. BAGBY, MISSION HILLS, KANSAS CITY, MO.

CLARENCE E. SHEPARD, ARCHITECT

(See plans and description on back)

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HOUSE OF H. F. BAGBY, MISSION HILLS, KANSAS CITY, MO.

CLARENCE E. SHEPARD, ARCHITECT

This house was built in 1923 at an approximate cost of 45e per cubic foot.

Exterior walls, brick veneer, stucco and half timber.

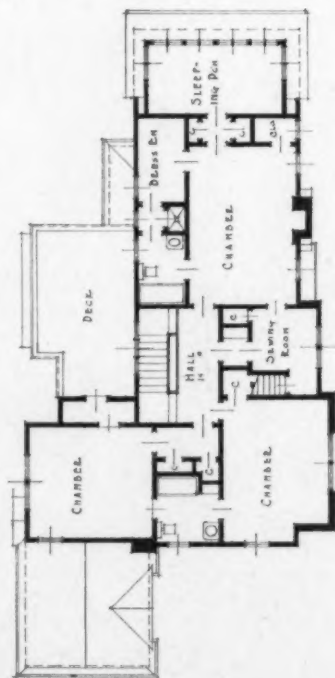
Roof, dipped shingles laid with a wavy butt effect.

House is of wood frame construction.

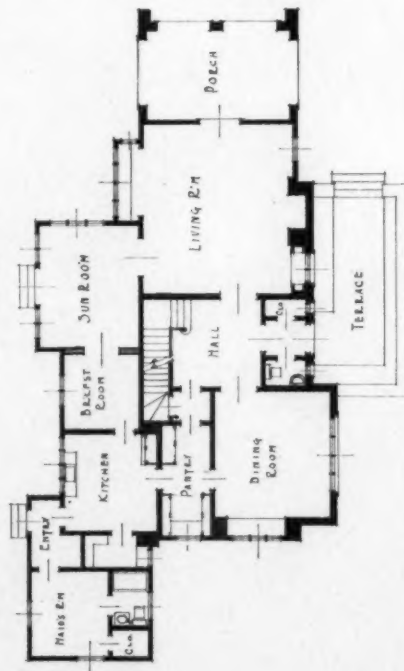
Trim, American walnut and yellow pine enamelled.

Plumbing, built-in tubs, pedestal lavatories, tiled wainscot.

Hot water heaters with automatic oil burners.



SECOND FLOOR PLAN
SCALE



FIRST FLOOR PLAN

The FUTURE of BUILDING COSTS*

BY W. C. CLARK, *Economist*, S. W. Straus & Co.

THE problem of the future trend of building costs raises many of the most abstruse and most controverted questions in the whole field of economics. It involves a study, if an adequate answer is to be reached, of almost every economic problem and every economic factor not only in this country but in the whole Western World. For when we speak of costs, we raise the question of prices, and any price represents the resultant of a myriad of economic forces and factors. Not only demand and supply for the individual commodity are concerned but demand and supply for all commodities involving such complex general factors as money supply, gold production, credit expansion, the working of the banking system, monetary policy, the progress of invention, the discovery or depletion of natural resources, taxation and social policy, shifts in business confidence, and the fluctuations of the business cycle. Nor can we confine ourselves to the United States alone, for the demand of the rest of the world for our products and more particularly the policies which the European countries will adopt in respect to such problems as the balancing of their budgets, the payment of their external and internal debts, the restoration of their currencies and the control of their credit systems will have a very vital bearing upon the general level of prices, costs, and incomes in this country. Obviously, the problem is not one which justifies the snap judgments and the hasty generalizations which have been so prevalent in the recent past.

He who would reach an intelligent opinion on the problem must first seek the answer to three major questions: (1) What is likely to be the general trend of commodity prices during the next decade or two? (2) Are there special influences at work in the building industry itself which might cause a divergence of the trend of building costs from the trend of general prices? and (3) At what stage in business cycle are we at present? It is obvious that the long-run trend of general prices has a most important bearing on our problem. If over the next ten or twenty years general prices are going to trend downward rapidly, building costs will almost certainly show the same tendency. Special factors affecting the construction industry itself may accentuate this general movement or retard it, but they will scarcely counteract it altogether. Similarly, the normal fluctuations of the business cycle which always bring corresponding variations in building cost, will take on a new significance if the business cycle during the next few years is to play about a

price level which is tending downward instead of remaining horizontal or slowly rising. Limitations of space compel us to restrict our attention to a brief consideration of the first of these major questions. Are we due for a crash to pre-war levels of prices?

There can be no doubt that one of the chief causes of pessimism and uncertainty which has so frequently cropped up among business men in the last two or three years has been a fear—with some persons, conscious; with others, subconscious—that the present price level was an inflated and artificial one and that a drop to the 1913 level (which is erroneously considered "normal") was inevitable in the near future. The business world, so it was thought, has been walking on stilts and a fall to the ground is bound to come. As long as business men are dominated by such a fear psychology, business cannot go ahead with confidence. Yet, as the Harvard Economic Service has so ably pointed out, this fear seems to have no solid basis.

The advocates of the downward trend in the price level base their views on what happened after both the Napoleonic Wars and our Civil War. After war inflation had carried prices to unprecedented peaks in 1814 and 1866, there began in each case a period of rapidly falling prices which lasted with certain interruptions for thirty or more years.

Now historical analogy provides a sound basis for reasoning, if all the governing considerations are the same. But a careful study of the available data will show that while the fundamental conditions following the Napoleonic Wars were the same as those following our Civil War, they are far from being comparable with those existing today. Only the briefest mention can be made of two or three of the fundamental conditions which render invalid this argument from historical analogy.

In both the earlier periods there was a rapid and continued fall in the production of gold (or of gold and silver after the Napoleonic Wars when both gold and silver were used as monetary standards). If due allowance is made for the use of gold in the industrial arts and for exports to the East, it will be found that for the period after each war very little new gold was available for monetary purposes.

What is the situation today? It is true that gold production, which had shown a very rapid and steady increase after 1890 (because of the output from the rich South African mines and the discovery of the cyanide process of recovering gold from low grade ores), reached its peak in 1915

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with a total output of \$469,000,000 and that from that time until 1922, there was a considerable decline due to increased costs, labor troubles, and the exhaustion of certain mines. Each of the past two years witnessed a considerable recovery and the most competent experts believe that this decline has reached its end and that for at least the rest of this decade the annual production should run over \$375,000,000 of which perhaps \$170,000,000 will be available for monetary purposes. When one remembers that the passing of about \$230,000,000 into monetary channels before the war was sufficient to keep the general price level rising at a steady and fairly rapid rate, it does not seem unreasonable to believe that the quota referred to above will be at least sufficient to prevent any material decline in the price level during the next few years.

In both the earlier post-war periods there was a very rapid increase in the production of goods. The first period saw an enormous world-wide increase in the production of commodities due to the opening up of new regions of the earth's surface, the development of steam transportation, and the rapid extension of the factory system which had recently been introduced into England and which had produced a revolutionary increase in productive efficiency.

Similarly, the period following the Civil War was an era characterized by the opening up of vast empires of virgin territory, the invention of an epoch-making series of agricultural implements, a remarkable expansion of the railway net work, the discovery of vast new deposits of iron ore, copper, coal and lead, and a continuance of the technological advances which added the sewing machine, the Bessemer process, the telephone, electric light and power, and other remarkable inventions to the contributions of the previous period. The huge increase in the production of goods coupled with the declining volume of gold output would alone have caused a serious decline in prices in each of these periods, even though war inflation had not previously occurred.

It is doubtless true that the next few years will show a steady increase in productive efficiency both in this country and throughout the world. There are few, however, who expect that this increase in efficiency will be as revolutionary as in the two earlier periods. Even if technological progress should continue at as rapid a pace, we cannot hope for the same relief from the opening up of virgin natural resources.

Perhaps as important as either of these factors is the financial policy to be adopted by the United States and the European countries in the next few years. In the two earlier periods the war debts were not so great as to render impossible a deliberate deflation and a reasonably rapid wiping out of the burden of war debt. The hardship

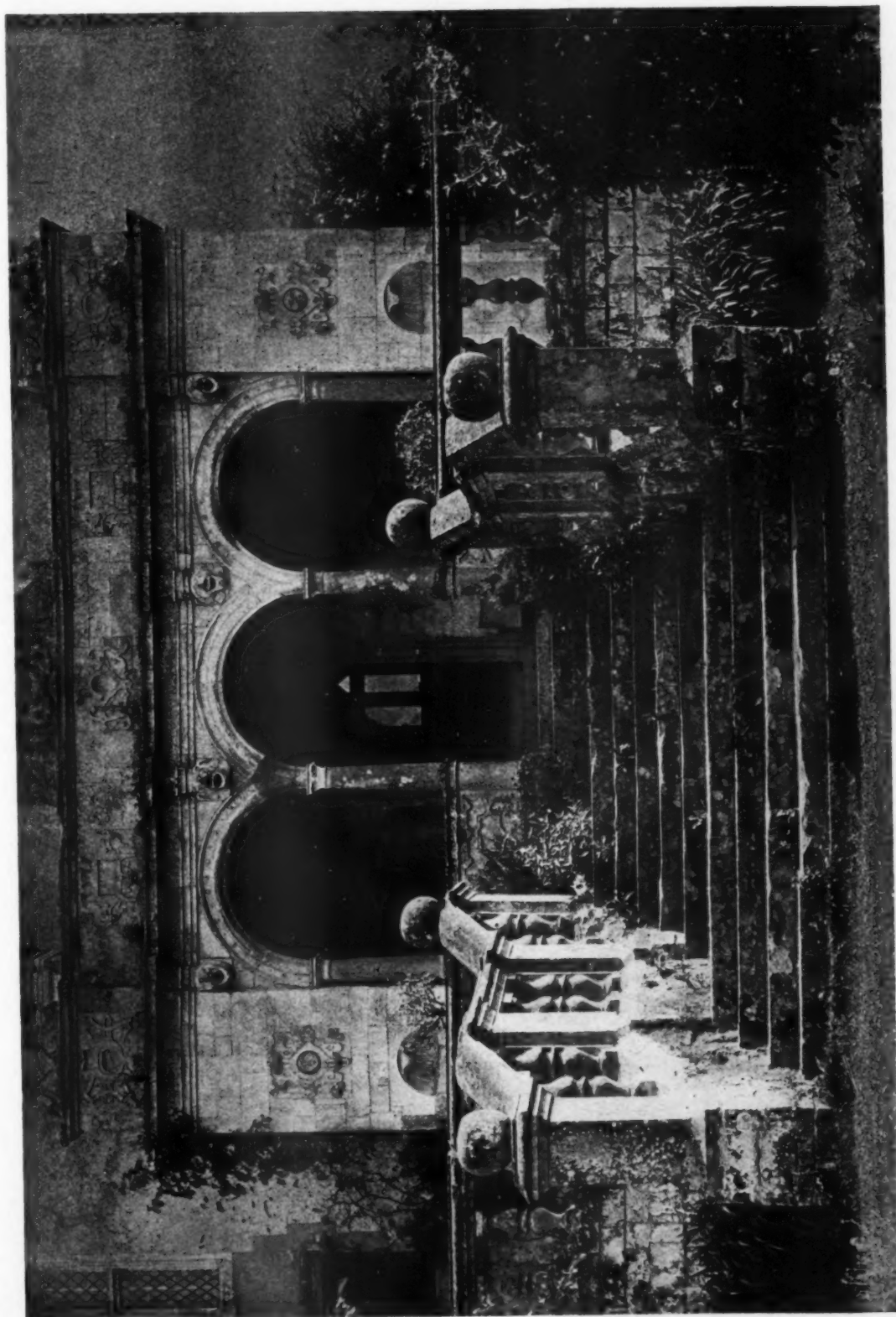
caused by the carrying out of such a policy in a period of falling prices was not so great as to make it unbearable or politically inexpedient.

So terrific, however, is the burden borne by many of the European countries today that their adoption of such a policy is almost unthinkable. Stabilization of currency is admittedly the first step which must be taken by them if chaos is to be averted. But he would be a rash prophet who would predict, at least for the continental belligerents, stabilization of currencies on the pre-war gold parity. This would be wholly impossible for a country like Austria and most improbable for Belgium, Italy and France.

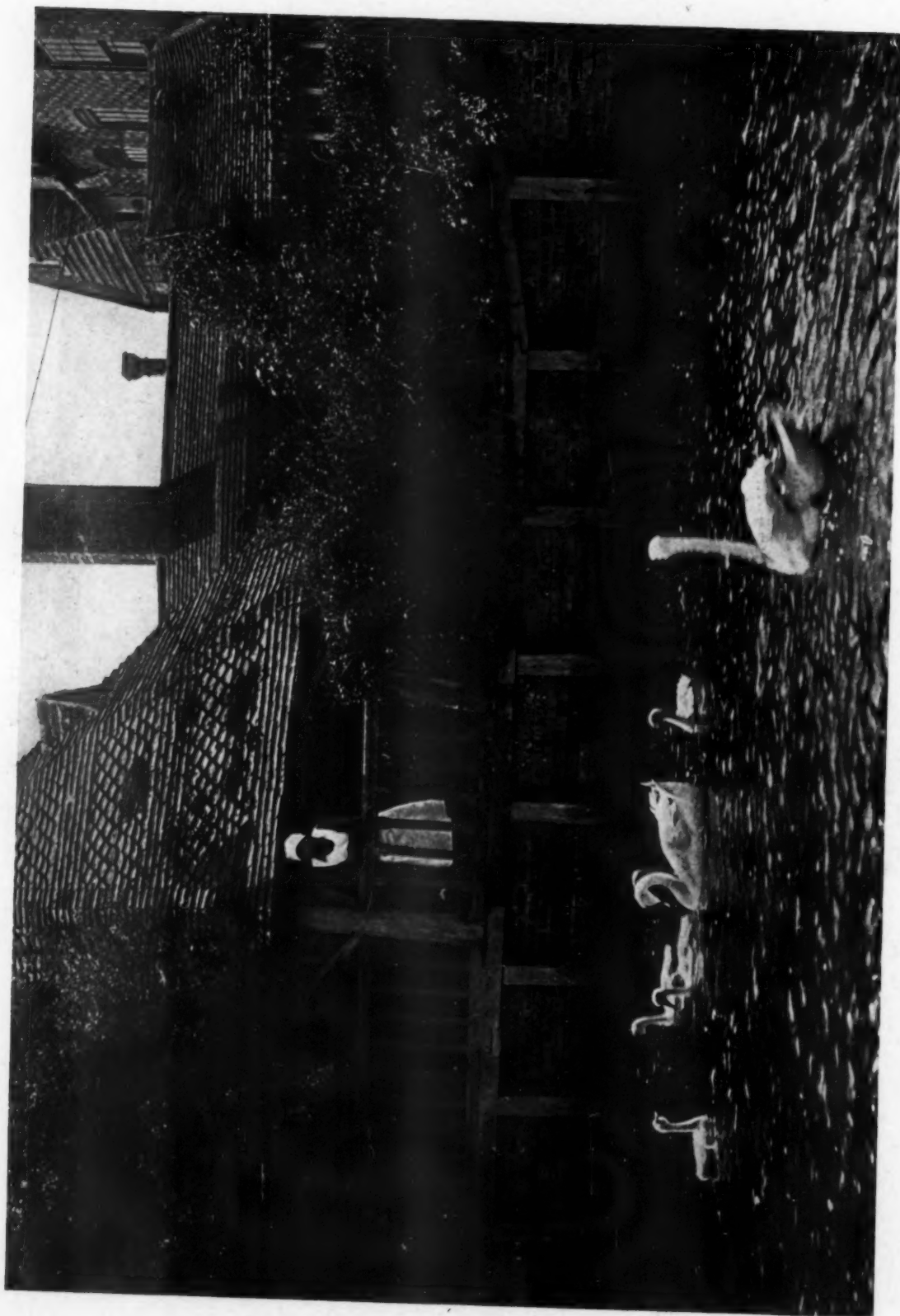
* * * * An analysis of the central gold reserves of the leading countries outside the United States, shows an aggregate holding of gold greater than before the war and, in most cases, the ratio of gold to paper notes outstanding (reduced to gold on the basis of New York exchange rates) is not unfavorable as compared with pre-war conditions. This analysis seems to indicate that if the principal countries are willing to forego the undesirable luxury of a hand-to-hand gold circulation, they probably have sufficient gold reserves to restore their currencies to a sound, stable basis. In any case, the United States has an enormous stock of gold—still nearly 4½ billion dollars in spite of the outward flow of the last four or five months—and could afford to lose, it has been estimated, from half a billion to a billion dollars worth without serious injury to her credit structure.

It does not, therefore, appear likely that serious contraction of prices will be forced by an inadequate gold supply. Further, it now seems certain, as it has all along seemed desirable, that the policy of the United States in regard to credit control and international debts will not be such as to force a drastic and prolonged contraction of prices and make exceedingly difficult, if not entirely impossible, the task confronting England and certain other countries of restoring and maintaining the gold standard, gradually liquidating stupendous national domestic debts and paying off within a reasonable period the tremendous international debt owing to the United States.

Summing up then, we find that the fundamental conditions current today are by no means comparable with the conditions which existed in the two earlier historical periods with which comparison is being made. If the supply of gold is likely to continue ample, if no revolutionary increase in the rate of production of economic goods is probable, and if a policy of deliberate and drastic deflation is extremely unlikely, it seems only fair to conclude that for at least the next five or ten years the general level of prices is not apt to show any rapid and drastic decline.



"WORKING PHOTOGRAPHS"
ONE OF A SERIES MADE IN ENGLAND BY
JOHN RUSSELL POPE, F. A. I. A.



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JOHN RUSSELL POPE, F. A. I. A.

ENGINEERING *and* CONSTRUCTION

MECHANICAL EQUIPMENT *of the* EQUITABLE LIFE ASSURANCE SOCIETY BUILDING, NEW YORK

BY EDWARD E. ASHLEY, JR.

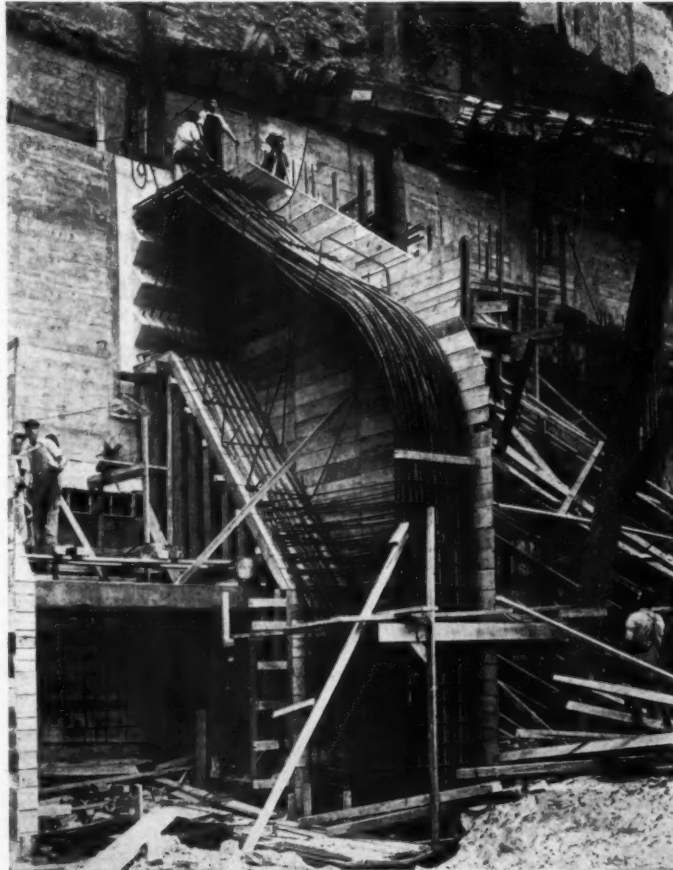
Mechanical Engineer of Starrett & Van Vleck, Architects

WHEN Starrett & Van Vleck were commissioned to design the building to house the home office of the Equitable Life Assurance Society, it was impressed upon them by the Building Committee that they were to design a work shop for the Society and not an architectural monument, and it was in carrying out these instructions that the most careful consideration was given to the mechanical installation. As the various details came up each in its turn was carefully investigated, not only by the architects but by representatives of the Society.

The building occupies the block between 31st and 32nd Streets on the east side of Seventh Avenue and covers an area of approximately 33,000 sq. ft. The building is 26 stories in height above sidewalk and three stories below with a net area of work space of 650,000 sq. ft. (this does not include space occupied by utilities, as elevators, etc.) and a cubical contents of 14,500,000 cu. ft. It extends 56' below and 380' above grade.

Every advantage was taken to provide natural light and ventilation in all work spaces so that there is practically no space in the building that is not within 30 feet of a window. While at the present time the Society is occupying a portion of the total space, it is their intention ultimately to occupy the building in its entirety, with the possible exception of portions of the ground floor and basement. The building is provided with a tunnel connection to the Seventh Avenue subway, and its location provides it with unusual transit facilities.

The elevator problem of the building is rather unique, owing to the fact that the building will be occupied solely by the Society, which will of necessity require that the elevators handle at least



DETAIL OF REINFORCING IN THE CONCRETE BUTTRESSES ALONG THE EAST BASEMENT WALL

50% of the entire population of 7,000 in fifteen minutes. In order to accomplish this provision was made for the installation of 30 main passenger elevators, two special elevators, one high rise service car and two short rise service cars. The main passenger group of elevators was arranged in four sections:

- (a) Six high rise express cars serving from the 14th to 22nd floor, inclusive
- (b) Eight high rise local cars serving all floors



A PORTION OF THE PNEUMATIC TUBE SYSTEM

- from second sub-basement to 22nd floor, inclusive
- (c) Six local cars serving 1st to 14th floor, inclusive, so arranged as to serve for peak traffic from 8th to 14th floor, inclusive
- (d) Eight local cars serving from 1st to 14th floor, inclusive, arranged for peak traffic to serve from 1st to 8th floor, inclusive

At the present time only 24 of this main group of passenger elevators have been installed, the shafts for the other cars having been provided complete so that the machines may be installed at a future date as service will demand.

The special elevators are for interoffice work, one serving from the 2nd to the 18th, inclusive, and the other from the 16th to the 22nd.

The service car serves from second sub-basement to the 24th floor and the short rise service cars serve from the ground floor to the second sub-basement, the purpose being to bring in all service through the driveway at rear of building to Receiving Departments in the sub-basements and distribute from there by means of high rise elevators to all portions of the building. A small service room is provided on each floor into which the service car discharges.

Special attention has been given to the size and arrangement of the elevator cars for handling the traffic without crowding. The platforms are 8' wide and 6' in depth. The cars themselves are of very simple design executed in bronze. The shafts and cars are provided with center opening doors and gates which allow a clear unobstructed opening the full width of the cars. These doors and gates are opened and closed automatically by

compressed air. The hoisting engines are of gearless, direct drive, 1:1 roping traction type, the passenger group being provided with variable voltage control, especially designed to handle the traffic with rapid acceleration and retardation without discomfort to the passengers. The car speeds are 650' per minute and the period of acceleration is less than two seconds, which is done with remarkable smoothness.

The cars are equipped with the usual type of up and down flash light group signals with call button on each of the several floors. Over the entrance to each of the cars is a special car signal which flashes white or red, depending on the direction in which the car is approaching the floor, these signals being placed at an angle in the soffit of the door opening so that they reflect the light through a railway

spread light lens $5\frac{3}{8}$ " in diameter on the floor directly in front of the car. On the ground floor over the entrance to the cars is placed a specially designed position indicator, which indicates the position of the car in the shaft, in addition to the usual car signal. Special signal equipment has been provided for the high rise local cars for use in connection with the security vault in the sub-basement.

Each group of cars is provided with starter's call back button for each of the cars together with a trouble signal which gives audible signal and flashes a tell-tale indicating which of the cars is calling. Each group starter's control board is provided with a telephone to his respective machine room, so that in case of trouble he has direct communication with the mechanic in charge of the equipment. The usual operator's car signal is provided in each car. This signal is set flush with the face of the cab as is the controller for operating the car so that there are no obstructions inside of cab. Illuminated directional signs are provided for each group of elevators. These signs are provided with double readings so that the cars can be shifted from local to express service during the peak loads, and are controlled from the starter's control boards on ground floor.

Considerable study and investigation were given to the necessity of providing artificial ventilation in the various work spaces above grade, and it was decided that with the unusually large amount of glass or window area and the general arrangement of working spaces, it would not be necessary to ventilate them artificially. However, in the investigation it was found that due to the location of the building with the heavy automobile traffic

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to and from the Pennsylvania Terminal, it would be desirable, in order to overcome any possible objection from gasoline fumes entering the building, to provide mechanical ventilation for the second, third, fourth and fifth floors. This portion of the building is provided with ventilating apparatus capable of changing the air 15 times an hour.

All spaces below grade are provided with both supply and exhaust ventilation effecting a change in the cubical contents of this portion 15 times an hour. All toilet rooms, janitors' closets, etc., are provided with exhaust ventilation effecting an air change 20 times an hour. Special ventilation has been provided in the various interior offices and in the laboratories. The elevator machine rooms on the 15th floor mezzanine are also provided with ventilation to take care of the heat dissipated by the machinery.

Generally, the supply systems are divided into two sections, one for the north half of the building and the other for the south half. From the second to fifth floor, inclusive, the air supply is drawn from the west end of the court in a furred space over the head of the windows. The air supply for the ventilated areas below grade is taken from the rear of the court at the third floor level and brought down to a distributing fresh air chamber in sub-basements one and two where the fans are located. There are two fan rooms, one in the first sub-basement and the other in the second, which furnish the air for the sub-basements, basement and second floor.

All air used in connection with the system is passed through air washers, each of which is provided with humidity control. Spaces have been provided on all floors so that should it become necessary, ventilating apparatus similar to that on the lower floors of the building may be installed. There are installed a total of 17 turbo conoidal high speed supply fans which are capable of handling 642,800 cu. ft. per minute. There are 29 exhaust units handling approximately 583,740 cu. ft. of air per minute.

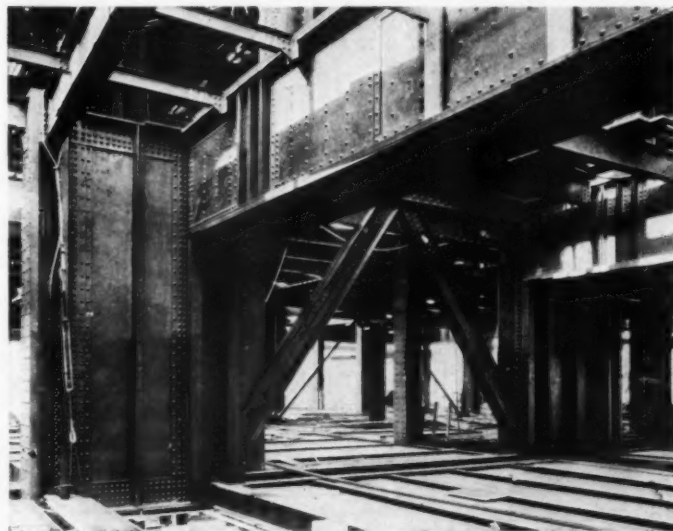
With the exception of the exhaust from the sub-basement, which is re-used for air supply to the boiler room, all exhaust is carried up through and discharged above the roof of the building. Each supply fan unit is provided with the usual tempering and reheater coils, which are thermostatically controlled, as is the direct radiation in any portion of the building mechanically ventilated. Thermostatic control is also provided for the executive offices on the 17th to 22nd floors,

where the radiators are enclosed under the windows. In connection with the ventilating apparatus there is installed approximately 700,000 lbs. of sheet metal work for ducts.

The building is heated throughout by direct radiation hung under the windows, supplies to these radiators being concealed in the furring behind the radiators so as to avoid any pipes coming through the floor or base, leaving the floor unobstructed and facilitating the laying of floor covering and cleaning.

The steam requirements for this building are heavy due to the large demand for steam required for the mechanical ventilation, and are estimated to be approximately 88,000,000 lbs. per annum. To furnish this steam five cross drum, water tube boilers, and one fire box boiler have been installed, giving a total of approximately 1572 H.P. The water tube boilers are provided with 12' high furnaces designed to accommodate mechanical stokers or fuel oil equipment. After considerable study it was decided to equip them for burning oil and a mechanical burner was selected for this installation.

The furnaces are arranged, as are the fronts, so that in case of emergency stationary grates may temporarily be installed, and the boilers hand fired, the doors for the furnaces and ash pits fitting to the same rings to which the burners are applied. The boilers and the fuel oil equipment are designed to operate at 250% normal boiler rating. The auxiliary apparatus has all been installed in triplicate to accommodate the great variation in the load requirements of the plant, keeping in mind that there would always be one reserve of each unit for emergency.



GIRDERS OVER THE INTERSECTION OF THE FIRST STORY CORRIDORS

Three oil tanks having a capacity of approximately 51,000 gallons are provided for the storage of oil, and are located directly under the coal bunker which has been designed so that in the event of installation of stokers coal may be provided directly from the bunker to the hoppers of the stokers, the capacity of this bunker being approximately 600 tons. Both the oil tanks and bunker can be filled from the driveway in the rear of the building. The boiler plant has been designed to operate at a steam working pressure of 150 lbs. to accommodate the possible future installation of an electric plant.

The heating demands are supplied through reducing valves from the main steam header. Each boiler is connected with this header through non-return stop valves and the header is provided with division valves and an auxiliary by-pass loop so as to eliminate the possibility of a total shutdown.

The steam for the heating system is supplied through four separate mains, each with its individual reducing valve. One main 16" in diameter extends to the 15th floor mezzanine, or pipe transfer space, where it connects to the risers supplying all direct radiation. The second main supplies all the tempering coils and reheater coils for the ventilating apparatus in the sub-basements. The third main supplies two risers to furnish steam for the tempering coils and the reheaters for the ventilating apparatus for the third to fifth floor, inclusive, and possible extension for upper floors. The fourth steam main supplies the steam for the vestibule and radiators on the main floor of the building.

A separate medium pressure line is run from the main header extending up through the building to provide steam for lavatories, hot water heaters, etc. For each of the four systems of supply mains a corresponding return main is provided. These are collected in the pump room and discharged into a boiler feed tank through three return pumps of such a capacity that two pumps will take the maximum load, allowing the third for emergency. The feed to boilers is handled by three four-stage, centrifugal, electrically driven pumps through a brass loop feed line with the usual division valves and by-pass throttles on the pumps to give a wide range of control.

There is approximately 82,000 sq. ft. of direct radiation and the tempering and reheater coils are equivalent to 144,000 sq. ft., or a total of 226,000 sq. ft.

The water supply of the building is taken from the City mains in both 31st and 32nd Sts., and enters building through 8" and 12" cast iron service lines which are metered just inside the building. These service lines are connected to two pressure suction tanks having a total capacity of 17,500 gallons, which is pumped from same by means of three centrifugal house pumps to the

storage tanks on the 25th and 26th floors. These tanks have a capacity of 30,000 gallons of water. There are also provided Underwriters fire and sprinkler pumps, one serving a system of fire stand pipes which are installed in each of the stairways with house outlets and hose on each of the several floors. The top of this system connects with a reserve water supply tank of 11,000 gallons capacity. The Underwriters sprinkler pump is connected with a sprinkler system which has been installed to protect the sub-basements, basement, 15th mezzanine pipe transfer space, and also porters' and janitors' closets throughout the building.

The water supply for the building is distributed from the storage tanks in penthouse by means of a down feed riser to a distributing main on the 15th mezzanine floor or pipe transfer space. There are two systems, one serving from the 16th floor and above and the other serving from the 15th floor and down, the lower system being supplied through reducing valves to minimize the pressure on the lower portion of the system.

The entire system of water piping is of brass. The hot water is supplied through two sets of water tube hot water heaters, heaters for the lower section of the building being located in the tank room on the mezzanine or tank level of the second sub-basement; those for the upper level being located in the 15th floor mezzanine or pipe transfer. The hot water system supplying the fixtures is what is known as a gravity circulating one.

The drinking water is supplied at one location on each floor and is filtered and ozonated, the ozonating plant being located on the 24th floor of the building.

Adequate toilet facilities have been provided on each floor to the north and south of the main group of elevators. Provision has been made for the installation of office lavatories on the alternate free standing interior columns. Provision has also been made for private toilets for the executive offices from the 17th to the 22nd floor. Special equipment has been provided for the Medical Department and research laboratories, the latter taking up the entire north side of the 16th floor where the latest type of laboratory has been installed. A special cast iron drain has been provided from this laboratory direct to the street sewer.

The plumbing fixtures were selected with the one idea of minimizing the amount of exposed metal work and the lavatories are provided with the concealed supplies and are hung from the walls on substantial brackets. The W.C.'s are of the syphon jet type 13½" in height instead of the usual 15½". This has proven to be a far more satisfactory height for the average person than the usual high W.C. The urinals are of the wall type, all set with short free standing stall slab set about 3" from the wall to facilitate cleaning. Trim-

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mings, valves, etc., used in connection with plumbing fixtures are of white metal. The urinals and W.C.'s are equipped with flush valves and W.C.'s with "Bakelite" seats. Four janitors' closets with slop sinks and one porter's or cleaning room have been provided on each floor for the use of porters and cleaning women. The lavatories in the public toilets are all equipped with soap dispensing systems.

The electric service is furnished by the New York Edison Company from two separate main underground feeders, one entering the building on 31st Street, the other on 32nd Street. The ca-

Not only the lighting current is taken from these panels but the necessary current for all office machines, as adding, mimeograph, printing, etc. The circuits for these machines are carried through a unique underfloor system which consists of three rectangular ducts running parallel with the outside walls and with splice boxes at certain intervals. This underfloor system is also connected to the two duct base along the exterior walls and around the interior columns. Of the three ducts, one is for telephone, one for bell and signal wiring and one for 110-220 volt wiring, and by tapping into the ducts at points between



VIEW ALONG THE EAST BASEMENT WALL

The strata in the rock under the adjoining property are at such inclinations that it might develop under load of a twenty story building, a dangerous horizontal thrust against the two story boiler room wall of this building. To counteract this thrust the concrete buttresses were erected. Fuel oil tanks are underneath and coal bunkers are above them

capacity of each feeder is sufficient to take care of the total load of the building; this arrangement is made to insure a continuity of service.

The current is carried from the service rooms through thirty-eight 4" x 1/4" copper bars, 19 for each feeder to the main switchboard located in the basement. A switching arrangement on this board makes it possible to take the lighting and power load either from separate feeders or from any single Edison feeder. Current for light is distributed up through the building at four points with a distributing panel at each point on every floor. These panels are provided with metering buses so that one or more sections may be metered separately without disturbing the circuit wiring.

the splice boxes any of the services can be obtained. The location of ducts and the use of base are such that they will serve any office layout.

One of the problems in connection with the lighting of the building was to provide sufficient general illumination to eliminate the use of desk lamps, and with this in mind it was decided to provide four outlets per bay, each outlet to have a simple pendant lighting unit equipped with a translucent glass-enclosing bowl, the selection of the particular glass being made after a test of some thirty different units. The lights are controlled from an arrangement of local switches so that any of the outlets in one bay can be controlled from one switch, the switch consisting of a combination switch and receptacle.

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The lighting fixtures throughout the building are of simple design except in the executive offices, cashiers' department and the main entrance hall and lobby where an ornamental type of fixtures has been employed. For the latter a specially designed concealed reflector was employed to provide the necessary uniform illumination without detracting from the ornamental features of the fixture.

The power is distributed throughout the building by a network of feeders, those in the upper floors carried vertically up through the building to points of distribution. All power equipment is electrical.

A special feature of this building is the provision made to take care of emergency lighting for the vault and coupon room occupied by the Society. This battery is charged direct from the Edison line and will furnish current in case of breakdown of the Edison service, another battery furnishing the necessary current for all low voltage wiring throughout. Batteries for the latter service are charged from motor generator sets.

To protect the building against fire, theft and water damage, a most complete fire alarm, watchman and sprinkler supervisory system has been installed. The fire headquarters is located in the sub-basement with an emergency call from the fire headquarters to the City Department. Arrangement has been made so that signals can be sent from any of the five stations on each floor to the central station, and in case of riot or watchman's distress, help can be called to any location in the building.

A complete automatic exchange is provided on the 15th floor for the telephones of the Society. This is practically the duplicate of a telephone central station and is one of the largest individual automatic stations recently installed, all circuits being centralized in shafts on each floor and from there distributed out through the underfloor system to the desired locations.

To wire this building it required 550,000 ft. of conduit, 575,000 ft. of wire, 120,000 ft. of under-floor raceways, 2900 junction boxes, 22,000 lighting outlets, 6000 switches, 35,000 ft. of base, or a total of 370,000 circuits. The total horse power amounts to 3886. The current for lighting amounts to 17,330 amperes.

One of the big problems that confronted the Society was the one of handling the interoffice correspondence, mail, etc., and the elimination, as far as possible, of travel through the building of messengers and office boys. The methods used by

the various large companies were investigated and it was finally decided to install a pneumatic tube system connecting the various departments. This system is probably the largest pneumatic tube system that has been installed in any similar building. The system consists of 53 outlying stations in the various departments and one central desk station in the sub-basement, to which all the tubes run. These tubes are 4" x 7" and the carriers are 14" in length and will carry packages up to 10 lbs. in weight.

A great deal of study was given to the arrangement of this system so as to give the maximum efficiency and to eliminate every possible chance of stoppage either at the terminals or in the tube itself. The terminals are what is known as the overhead discharge type designed with a receiving desk and arranged so there is no possible way of the carrier becoming lodged in the terminal but slides out by gravity into a container in the desk. At some of the stations where the service did not warrant the constant attention of a messenger a signal device has been provided which informs the floor messenger of the arrival of the carriers.

The time of travel from any one of the terminals to the central desk is about 10 seconds. Approximately 66,000 lineal feet of 4" x 7" tubing was installed in this system. All mail to and from the mailing room is handled by this system and it is of interest to know that although papers are only loosely fastened and in large numbers when dispatched, they are received in first class condition and are readily removed from the containers without crumpling, folding or even the loss of the ordinary metal clip.

At the central desk the carriers are all received on a traveling belt which discharges the carriers directly in front of the operators. They are then redispached to the designated stations. The central desk is operated by six young men and at busy periods of the day they handle in the neighborhood of 9600 carriers with a maximum of 11,000 transactions per day. The system is operated by two positive discharge blowers which are driven by two slow speed electric motors automatically controlled so that the speed and displacement of the blowers are governed by the number of carriers actually being carried through the system.

One is impressed in going through the building by the absence of messengers darting to and fro, or loitering in the corridors and wash rooms.

The mechanical work was installed under the direction of the Mechanical Department of Thompson-Starrett in direct charge of W. H. Driscoll.



A CRITICISM, A DISSENTING *and* a SUGGESTION

QUITE consistently, THE AMERICAN ARCHITECT has found itself able to approve the recommendations of the Building Code Committee of the Department of Commerce. Such criticisms as it has made have not been based on fine-haired technical points, but rather where experience and a liberal construction of engineering data did not appear to be in harmony with the recommendations. The Committee's recent recommendations for permissible live loads were appraised as an acceptable performance. It is with considerable regret that an unqualified endorsement cannot be given to the tentative Recommended Unit Working Stresses for Timber, Steel and Concrete for Design of Buildings. This element of building codes is of paramount importance and, as the report states, often subject to competitive influences. In this respect one expects a committee of the Department of Commerce to be immune.

In the following discussion it must be understood that THE AMERICAN ARCHITECT holds no brief for the steel construction interests nor any other interest and it has not anything but praise for the sponsors for wood and concrete materials. Its comments are made solely in the interest of fair play and with a desire to secure an unprejudiced, scientific and practical code.

The recommended fibre stresses for southern yellow pine and Douglas fir have been practically accepted by the associations of the producers of these materials. The stresses in concrete are based largely on those recommended by the Joint Committee on Standard Specifications for Concrete and Reinforced Concrete. Acknowledgment is made specifically to persons known to be expert in concrete and timber characteristics but in no case is there any specific reference to assistance given by or consideration given to experts in the production and fabrication of steel. It is true that reference is made to the recent report of the American Society for Civil Engineers' Special Committee and to the recommendations of the American Institute of Steel Construction, both of which are discounted with scant consideration.

The time-honored fibre stress of 16000 pounds for steel of "structural grade" in bending is recommended with a permissible stress of 18000 pounds for "steel for bridges," both conforming to the A. S. T. M. specifications. It distinctly classes the A. S. T. M. "structural grade" steel with steel "obtained without a definite specification" with no distinction between the sheep and the goats. It further specifies that columns shall be limited in slenderness to $l/r = 160$ without any distinction made between main and secondary members. In the light of the universal practice of making the limit $l/r = 120$ for main members,

the recommendation might be a clerical error. It is apparent to all designers and fabricators of structural steel that two indistinguishable grades of steel, whether used on one job or not, are impracticable and that the suggested use of the two grades can never become a common practice.

In the introduction of the report is stated: "It is felt, however, that the present status of building regulation, involving as it does in many cases only a haphazard control over design, construction and inspection, does not justify a marked increase in present code stresses for steel." Again—"If, however, the responsibility and competency of those in charge of construction are thoroughly established, and if measures are taken to control the many factors affecting safety, it is felt that stresses predicated on the 18000 pounds per square inch basic figure could be used with as great prospect of safety as characterizes structures designed and built on a 16000 pound basis without benefit of such control. Over 90 per cent of structural steel buildings are estimated to be designed and erected without supervision of those whose training and experience fit them to determine accurately what loads, stresses and special conditions affecting safety of the building will be. The possession of a handbook issued by a steel corporation, or a bit of hastily given advice from a building official often serves as justification for 'design' of considerable structures, for the safety of which the building official must assume at least partial responsibility." (See paragraph 17, Appendix.)

The above appears to be an unwarranted indictment and unjust estimate of that great body of technically educated, earnest and sincerely honest structural engineers and architects. It is true that the steel mills have issued very serviceable and valuable handbooks, but it is also true that the various producers of concrete materials and accessories have issued equally as serviceable and valuable handbooks which are not mentioned, not even disparagingly, in paragraph 19 of the appendix.

The validity of tests of structural steel is questioned. Absolute uniformity of all test pieces of steel is no more expected or required than it is of wood and concrete—the variation in the latter being far greater, due to the very nature of the material and the unreliability of the workmen who mix and place it. It is true that tests of steel can be manipulated by expert laboratory men and it is also true that expert engravers and printers can produce counterfeit money.

An attempt is made to show that the present day open-hearth steel is not of a better quality than the old time Bessemer steel. Why question the uniformity and quality of structural steel? Perhaps no member of the committee is old enough

THE AMERICAN ARCHITECT

to recollect the behavior of the first Bessemer steel beams as they passed through the fabricating shops. One end of a beam would be of medium grade and punch and cut beautifully; the other end would be hard and brittle, punching an irregular hole and often splitting the web. With that poor, non-uniform quality of steel we designed for a 16000 pound stress, sometimes 18000 or 20,000 if the required size was not "in stock" and mill delivery 90 days off, and yet those buildings still stand, solid and substantial. If the fine-haired distinctions and highly technical requirements made in paragraph 17 were essential and vital these old-time buildings, often with merely bolted field connections, should have collapsed long ago or they should do so now to justify the "higher criticism" displayed in this report.

No American product has received more scientific study and experimentation than steel. Its physical characteristics have been standardized under the specifications of the American Society for Testing Materials. Tests required by the purchaser, both mill and shop, have compelled the producers to maintain these high standards and it is known that the cost of inspection and tests made by the producers is now from six to eight times as great as when the making of structural steel was begun. The refinements of production are as perfect as the nature of the material permits.

Space does not permit mentioning all of the objections made to modern structural steel construction. It is with extreme regret that it is necessary to dissent from the structural steel section of the Committee report and to deprecate the invidious references to the ability of building departments and structural engineers for steel design and to call attention to the lack of unfavorable criticism of the ability of building departments and structural engineers when considering timber and concrete design. In mitigation of this, the report does in paragraph 19 of the appendix find it necessary to say—"Those expecting to invest large sums in important buildings should secure skilled designers and make preliminary tests, and should surround the construction with technical control in manufacture and placing of concrete." For what reason, should an inscrutable Providence withhold from the building official and engineer on a steel frame structure the qualities of ability and honesty and delegate the same qualities to the same persons when engaged on a wood or reinforced concrete project and also protect those "investing large sums" without considering the poor who can invest only small sums?

The rare failures in steel frame buildings have been due almost entirely to the weakness of supporting masonry walls and piers; to inadequate lateral bracing or to neglected eccentric loadings. But in no case that we can recall were they attributable to the use of excessive unit stresses.

These failures are of negligible amount in comparison to the tremendous tonnage of structural steel frames.

Paragraph 17 of the appendix fails to present corroborative testimony for the *ex parte* special pleading which characterizes it. In other reports such testimony was given in great detail and this radical departure from the past performance of the Committee is confusing. The universal high regard for the engineering ability and integrity of Secretary Hoover has given a heretofore unquestioned standing to his committee which it was hoped would function in a manner entirely worthy of an important governmental department. Engineers will expect Secretary Hoover to take cognizance of the radical departures exhibited by the Committee in this report.

It is suggested that the needs of this particular section of the tentative code can be well satisfied by the timber stresses accepted by the associations of the producers of yellow pine and Douglas fir and the Forest Products Laboratory; by the concrete stresses recommended by the Joint Committee; and the standard specification for structural steel for buildings adopted by the American Institute of Steel Construction. This latter code has already been adopted by over thirty important cities and was prepared by those best qualified. Its intent is not primarily to increase the fibre stress to a basis of 18000 pounds per square inch, but rather to establish a uniform, standard practice which comprises the elements of safety and economy. A strict and honest adherence to its rigid requirements of detail, for eccentric loading and lateral flexure rewards the engineer by an economical and safe design, and at the same time automatically penalizes the engineer who disregards these collateral factors which must be inherent to a basic 18000 pound or lower stress.

This tentative recommendation is of such vital importance to the entire building industry that it should be studied by architects and engineers and their approval or disapproval, with reasons, sent to the committee for its consideration before August 1, 1925. In no other way can a true consensus of opinion be made to serve as a guide for the Committee.

HOT WATER STORAGE TANKS

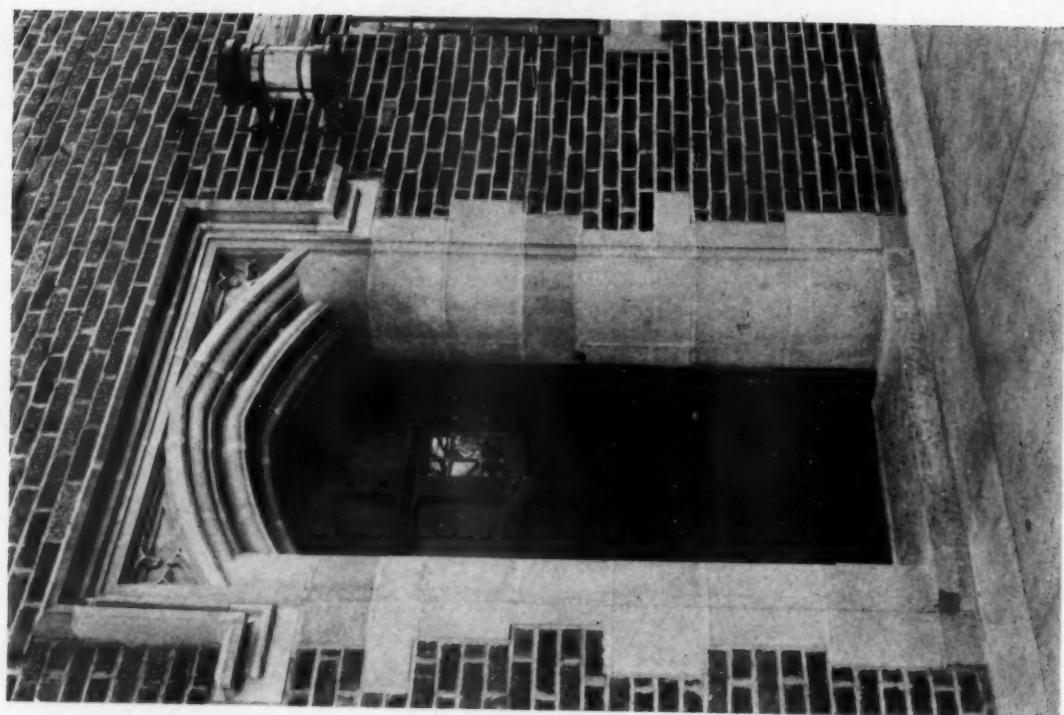
THE manufacturers of hot water storage tanks have agreed to reduce the number of different sizes and capacities of such tanks from 120 to 14, an elimination of 83-1/3 per cent. This agreement results from the campaign for the elimination of waste conducted by the Bureau of Standards for the Department of Commerce. Simplified Practice Recommendation No. 25 is sold by the Superintendent of Documents, Government Printing Office, Washington, D. C. Price 5 cents.

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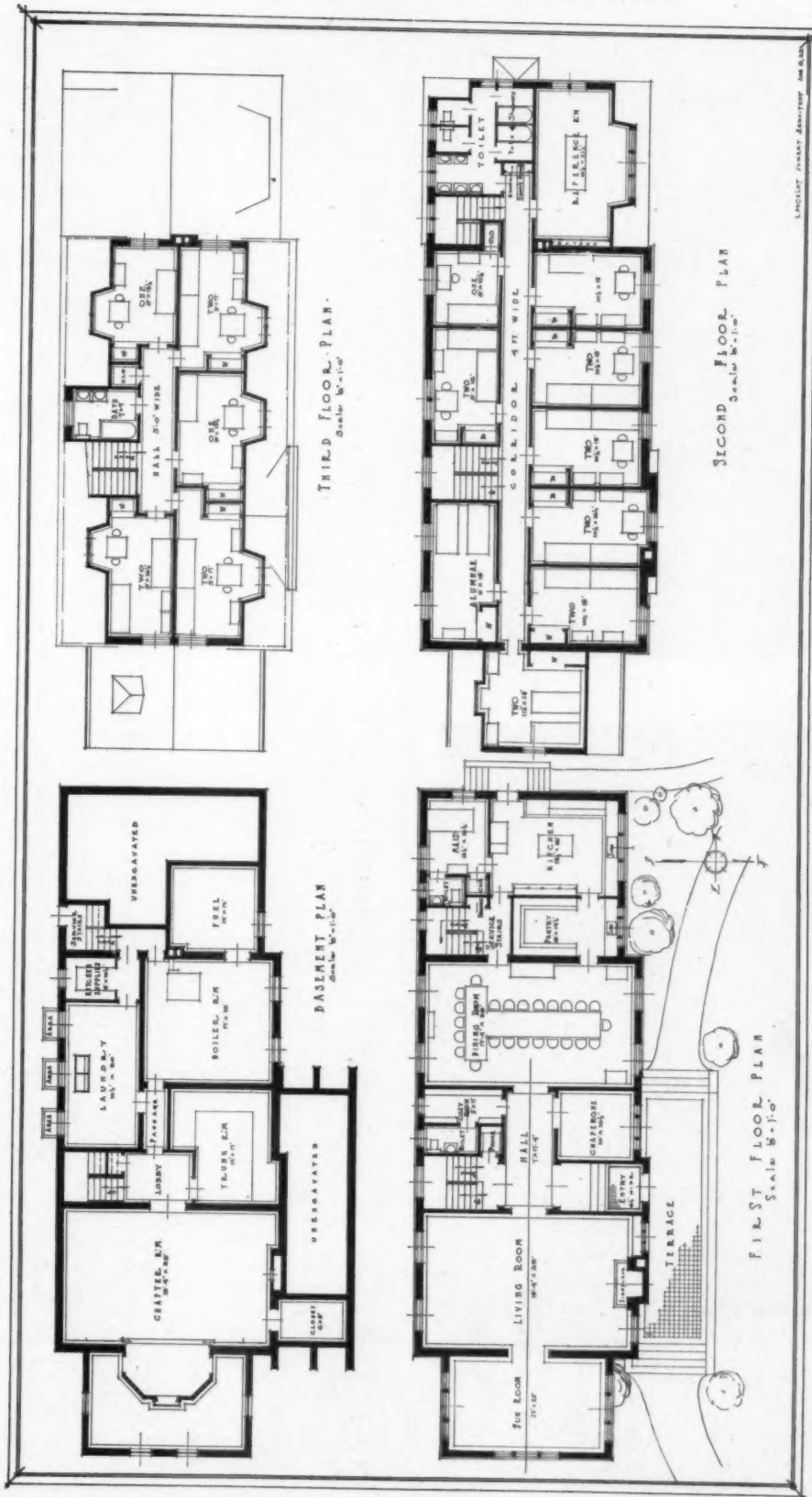
ALPHA PHI SORORITY HOUSE, ANN ARBOR, MICH.

LANCELOT SUKERT, ARCHITECT



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LANCELOT SUKERT, ARCHITECT





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ALPHA PHI SORORITY HOUSE, ANN ARBOR, MICH.
LANCELOT SUKERT, ARCHITECT

THE exterior walls combine a wire cut stock brick with about 70% of "culls, bats and bloaters" with swelled and popped surface. The finished surface presents a shadowy texture when struck by sunlight. The roof is of rough-cleft, variegated colored slate. The interior plaster work has a warm putty tone, resulting from mixing raw umber with the rough cast plaster. The house accommodates twenty girls, a chaperone, a maid and two alumnae members, and cost \$50,000.00 gross including landscaping.



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BOOK NOTES

A MONOGRAPH OF THE WILLIAM K. VANDERBILT HOUSE

DURING the days when Fifth Avenue in New York was in the zenith of its glory as the finest residence street in this country, the long expanse from Washington Square to Fifty-ninth Street was bordered by the palatial homes of rich men. Each sought to outdo the other in the grandeur of the architecture of their houses and the elegance of their interior design and decoration. Many stories were written as to these palatial homes, but the world at large knew them, of course, only by their exteriors. It was only the favored "400" who were permitted to enter their portals.

The invasion of trade on Fifth Avenue has accomplished a very radical transformation of that thoroughfare. One by one the homes of the "400" have either been razed or altered to fit them for use as stores. The few remaining are located North of Forty-eighth Street and of these few the Vanderbilt houses are the most notable, and that of William K. Vanderbilt, while not the largest of this group, is perhaps the one that represents in its every detail the best architectural expression of its period. Richard Morris Hunt was the architect. The house was begun in 1879 and took two years to complete.

A monograph of this house has been prepared and published by John Vredenburg Van Pelt. It is edited by Eugene Clute. This monograph takes the form of a portfolio 15 x 18 in. and includes a very well written description of the life and works of Richard Morris Hunt, and a very great many splendidly prepared plates showing the original drawings of interior and exterior details together with a great many well taken photographs. As a record of the work of one of America's foremost architects and of the passing of what at one time was considered one of the most pretentious private residences in America, this monograph is of considerable value.

A Monograph of the William K. Vanderbilt House. Published by John Vredenburg Van Pelt, 126 East Fifty-ninth Street, New York City, and edited by Eugene Clute. Portfolio 15 x 18 inches; 60 plates. Price \$33.00.

REPORT ON SCHOOLHOUSE PLANNING

THE National Education Association of Washington, D. C., has issued through its Committee on Schoolhouse Planning of which Frank Irving Cooper is chairman, a report that will be of very considerable interest and importance to those engaged in schoolhouse planning and construction. This report, as prepared by Mr. Cooper, is one of unusual thoroughness and while, of course, based on actual operations, is authoritative by reason of the fact that its prepara-

tion under Mr. Cooper's supervision is based on the most practical and extensive experience.

Many of the mistakes of the past would have been avoided if there had been a clear conception of the steps that should be taken in planning and constructing a school building. The purpose of this report is to set forth the various steps in their proper order and to indicate the direction in which error is most likely to occur and to suggest the means for its avoidance.

Copy of this work may be had by applying to the National Education Association, Washington, D. C.

A NEW ENGLAND MEETING HOUSE

ARCHITECTS interested in the development of the earlier types of New England churches, will find much material of value in a brochure issued by The Charitable Baptist Society on the 150th anniversary of the dedication of the meeting house of the First Baptist Church, Providence, R. I., May 28, 1775. This work refers particularly to a history of the fabric of this meeting house. The description, written by Norman M. Isham, F. A. I. A., is of considerable interest and the reproductions of plans, elevations, together with photographs of exterior and interior have considerable suggestive value. We infer that a copy can be had free on request to The Charitable Baptist Society, Providence, R. I.

MASTERPIECES OF SPANISH ARCHITECTURE

SUPPLEMENTING an already very valuable collection of books on early examples of architecture, the Pencil Points Press, Inc., has issued a volume of Masterpieces of Spanish Architecture, with particular reference to Romanesque and Allied Styles. This work is a reproduction of one hundred plates from Monumentos Arquitectonicos de Espana, and has in addition a well written text by John V. Van Pelt, F. A. I. A., A. D. G. F.

Pencil Points is performing a very valuable service in this research among earlier published works now out of print and therefore unavailable for the architect's working library. The plates have been reproduced in the usual excellent manner and present an amount of suggestive information that can be found, as far as we know, in no other way. We regard this series of publications, and particularly this volume as imperatively necessary in the architect's working library.

Masterpieces of Spanish Architecture, Romanesque and Allied Styles, with text by John V. Van Pelt, F.A.I.A., A.D.G.F. Size 9 x 12 inches; half cloth binding; 100 plates. Pencil Points Press, Inc., 19 East 24th Street, New York City. Price \$6.00 postpaid.



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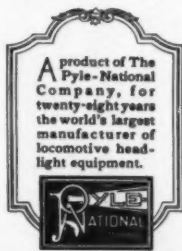
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ATLANTIC TERRA COTTA

THE last issue of *Atlantic Terra Cotta*, the monthly publication of the Atlantic Terra Cotta Company, is one that will be unusually interesting to architects. It treats of Studies in Polychromy, and more particularly of the Spanish-Mexican XVII Century Period.

The feature is the very complete illustration of the architectural terra cotta details of the Hotel Ponce de Leon at St. Augustine, Fla. That hotel, built in 1885, was the first commission of the firm of Carrere & Hastings. In addition to the photographic details, all fine examples of the photo-engraver's art, there is presented a double page illustration of the rendered colored drawing of the Ponce de Leon, made by Mr. Hastings forty years ago. This historic document, the caption states, while faded and cracked, is treasured as a record of Carrere & Hastings' first commission.

The leading article in this issue is by Leon V. Solon who discusses the Use of Color in the XVII Century Architecture of Mexico.

AMERICAN ACADEMY IN ROME ANNOUNCES PRIZES

GEORGE FRASER, instructor in architecture at Cornell University, Ithaca, has received the Grand Prix de Rome Fellowship in Architecture and Walter Hefler of Cambridge, Mass., the Walter Damrosch Fellowship in Musical Composition from the American Academy in Rome.

The architecture award includes a three-year appointment to the American Academy in Rome, tuition, subsistence, studio and an allowance of \$1,200 a year. The musical fellowship carries a three-year appointment and allowance of \$2,000 a year.

Mr. Fraser's design of a stadium was selected by a jury of five prominent architects as the best of eight plans submitted in the final competition. Ernest Born of San Francisco and R. V. Faro of Chicago received honorable mention.

Mr. Fraser is 29 years of age and a graduate of the University of Minnesota. He holds a master's degree in architecture from Cornell University, where he has been a Faculty member for three years.

A COMMUNICATION

To the Editor,
THE AMERICAN ARCHITECT:

WE have been much interested in reading the article by Ross E. Stewart in your issue of June 3. One remark in particular puts its finger directly on an evil which exists in many architectural offices.

Mr. Stewart says, "Many of the men in our drafting rooms and our specification writers do not understand, or frequently forget the standard sizes of rough lumber as it comes from the saw mills and to what dimensions it works as a finished product after going through the dry kilns, planers,

moulding machines and sanders, made ready for the building."

In failing to inform themselves on these points, the specification writers and their employers are negligent. There are something like ten or twelve groups or lumber manufacturers or associations which publish for free distribution or at nominal cost moulding and millwork books which give the exact finished sizes of every standard pattern. Together with this type of book, these same organizations issue grading rules which include specific information as to the exact sizes of rough and dressed lumber as it comes from the mill. Therefore, there is no reason why every architect's office should not have in its file complete information of this character regarding every American wood.

Progress is being made in this direction as evidenced by the fact that The American Institute of Architects has recently collaborated with lumber manufacturing organizations in arriving at a set of moulding and millwork patterns which will be acceptable to the architectural profession and economically practicable from the viewpoint of the lumber manufacturer. As a matter of fact, except on ornate specifications calling for special workings, there are few millwork bills which could not be satisfactorily filled in stock sizes as carried by local lumber dealers even including sanded finish.

We are interested also in Mr. Stewart's specification for a satisfactory window frame. It is a good one but there are a number of other combinations which would cost even less than the one he indicates and yet give the best of service. We are also wondering whether Mr. Stewart has given sufficient consideration to the different species in what he classifies as yellow pine. It has been our own observation that many well qualified architects have overlooked the distinct superiority of certain species of this general classification for certain uses.

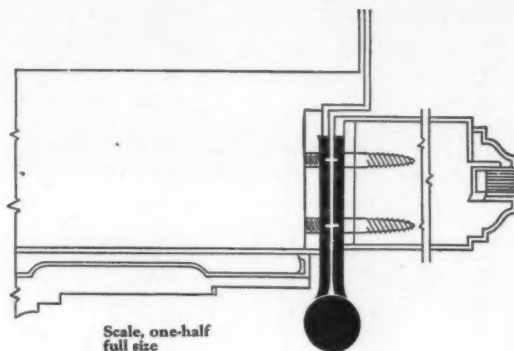
Referring again to the matter of the specification writer and standard sizes, this organization will be glad to furnish every member of The American Institute of Architects with a complete set of moulding designs and book of grading rules, complimentary.

ARKANSAS SOFT PINE BUREAU

B. Greaves
Little Rock, Ark. Assistant Secretary

GOVERNMENT AID IN DENMARK

THE acute housing shortage in Copenhagen and the provincial cities has made necessary during recent years the active assistance of the Danish Government, writes *Housing Betterment*. This assistance has taken the form of loans to builders at low rates of interest. Of the total of 47 million crowns authorized for this purpose, only 4 million crowns are left, and a request for an additional 20 million crowns has been presented to the Ministry of the Interior. It is thought that the Ministry will recommend that an additional 15 million crowns be granted.

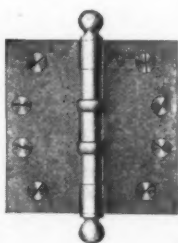


The Insurance Company of North America

determined, as they say, to make "every detail of interior arrangement and equipment of the finest" in their new 16-story office building. Naturally the doors swing on Stanley Ball Bearing Butts.

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Stanley No. BB 174
4½" x 4½"

Wrought Steel Template Ball Bearing Butts, as used in this new building.



Architects:
Stewardson and Page,
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COMPETITION FOR A DESIGN FOR A CELLAR

A COMPETITION for an "Ideal Cellar" is proposed by the American Radiator Company, Bryant Park, South, New York. This is a national contest for architects and draftsmen and has been instituted to secure a design for an ideal cellar so as to make the space below the first floor level as available for living purposes as any other part of the house. Twenty-eight prizes, aggregating \$4200, are offered by the American Radiator Company. The competition closes August 25.

For full particulars address Executive Offices, American Radiator Company, 40 West Fortieth Street, New York.

SCHOLARSHIPS IN BUILDING CONSTRUCTION

SEVEN students of the Department of Building Construction at Carnegie Institute of Technology, Pittsburgh, shared in the awards of \$300.00 worth of scholarships and prizes presented this year by the Pittsburgh Builders' Exchange, according to a recent announcement.

The scholarship fund was established several years ago by the Builders' Exchange for distribution annually among students of the Department of Building Construction who make the best scholastic records in their work during the current year. At a recent meeting of members of the Exchange, the faculty, and students of the department held in the College of Industries, J. Charles Wilson, president of the A. and S. Wilson Company, presented prizes of \$56.25 to each of four seniors, and \$25 to each of three junior students.

The awards were made to the following: Seniors; John E. Smith, Centre Hall, Pa.; Nathan Leebow, Springfield, Mass.; J. G. Good, Honeybrook, Pa.; and Harold A. Weideli, Munhall, Pa.; Juniors, Dwight V. Beede and George J. Murphy, of Youngstown, Ohio, and Reginald Rowley, of Wheeling, W. Va.

BUILDING THE SEVEN-DAY-A-WEEK-CHURCH

THE Bureau of Architecture of The Methodist Episcopal Church, with offices at 1701 Arch Street, Philadelphia, Pa., and 58 E. Washington Street, Chicago, Ill., has prepared a 32 page monograph entitled "Building the Seven-Day - A - Week - Church." The monograph has been circulated among 10,000 Methodist Episcopal city pastors by the Board of Home Missions and Church Extension of that denomination. The purpose of the booklet is to stimulate church building in such a way as adequately to provide for the requirements of a modern city church. The booklet undertakes to emphasize the matter of making an individual study of the requirements of each building project. "Every building problem requires special study. Selecting a plan from a catalog is as satisfactory as selecting a prescription for medicine in the same manner." There are a number of illustrations of plans and exterior and interior views published for purely suggestive purposes to indicate

how certain problems, each with differing circumstances and limitations were solved. The booklet illustrates the present mode of organizing religious educational programs on departmental basis. Nothing riles a leader in the Methodist Episcopal Church more than to see an architectural plan on which "Sunday School Room," "Main School Room" and scattered class rooms are indicated. This indicates that whoever is responsible for planning the building is not familiar or is not committed to the departmentalized Church School. The term "Church School" is now used instead of "Sunday School" in keeping with the development of religious education which includes not only Sunday School but various departments of week-day religious instruction. The importance of carefully selecting the architect is stressed. "The service of the architect, like any other expert professional service, is valuable. Cheap service is quite certain to prove more expensive in the end than the best available talent. The scholarship and culture of the architect should be considered as well as his engineering and business ability." The Bureau of Architecture is rather more favorable to the employment of a thoroughly competent architect who has not built church buildings, than the architect of mediocre ability who has built so many churches that he feels that he has nothing more to learn, provided the architect selected will avail himself of the advisory service provided by denominational Bureaus or of one of a few architects of outstanding record in modern church building. The booklet advocates the use of gymnasiums, bowling alleys, swimming pools, moving picture equipment, etc., where the religious and service motive dominates the use of such equipment.

The booklet frankly cultivates the present tendency noticeable in non-liturgical churches in the direction of a more churchly design and formal interior arrangement. One Methodist Episcopal Church interior illustration shows not only a formal lectern and pulpit but an altar.

A bibliography is included in the booklet, copies of which can be secured from the Bureau for 25c each.

CHARACTERISTIC DESIGNS FOR LIGHTING FIXTURES

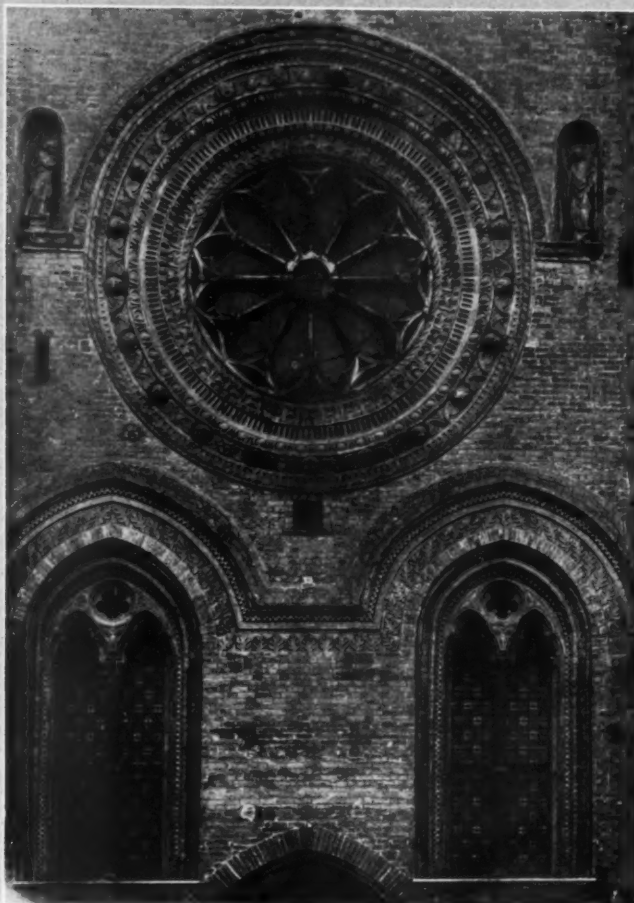
TWO pamphlets recently issued by Curtis Lighting, Inc., New York, Chicago and Los Angeles, illustrate in a number of sketch designs and actual photographs the recent development in characteristic designs for electric light fixtures. The artistic advance in these accessories to the modern building has been very great and it would seem on reference to these pamphlets that Curtis Lighting, Inc., has kept abreast of the times and possibly a little in advance. These pamphlets placed in an architect's files will afford a ready and valuable means of reference and suggestion in the selection of luminaires. They may be had by addressing Curtis Lighting, Inc., at any of their various offices.



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*Church of Santa Maria del Carmine, Pavia, Italy.
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THE AMERICAN ARCHITECT

HOUSING PROGRAM OF THE CITY OF DUDLEY, ENGLAND

A HOUSING program has been adopted by the Town Council of Dudley, England, an industrial city 8½ miles west of Birmingham with a population of about 56,000 inhabitants, the Department of Commerce is advised by Vice Consul Brown, Birmingham. This program calls for the construction of 1,150 houses during the next two years at an estimated total cost of £533,600 (\$2,596,765 at the normal rate of exchange); of this number 1,000 are to be erected by the municipality and 150 by private enterprise. Due to the shortage of skilled labor it will probably be necessary to construct two-thirds of the houses of concrete. At the present time contracts have been awarded for the construction of a total of 134 houses at a cost of £62,152 (\$302,463) or £464 (\$2,258) per house. The number of houses required, taking into account those needed to relieve overcrowding, replace unfit houses, and houses below a reasonable standard of fitness, and the number to meet the natural growth of population during the period named is estimated at 1,600, or if temporary small houses were removed, 1,900.

A NEW STRUCTURAL SOCIETY

THE Structural Society of New York is the name of a recently organized association of men directly connected with the various branches of the building industry. The Society desires to receive literature, catalogs and samples of interest for its reference files. Address Sidney Kitzler, Secretary, 112 Haven Avenue, New York City.

NEW HONORARY MEMBERS OF THE A.I.A.

SIR GILBERT SCOTT, London; Arthur Byne, Spain; Camille Lefevre, Paris; and Horacio Acosta Y. Lara have been elected honorary corresponding members of the American Institute of Architects.

PERSONALS

Jesse L. Bowling, Inc., architect, has moved his office from Suite 276 to Suite 384, Arcade Building, St. Louis, Mo.

Russell S. Walcott, architect, has moved his office from 11 East Huron Street to 410 North Michigan Avenue, Chicago, Ill.

Lockett & Chachere, architects, have formed a partnership for the general practice of architecture at 521 Baronne Street, New Orleans, La. Manufacturers are requested to send catalogs and samples.

W. L. Clanton, architect, has moved from Jackson, Tenn., and opened an office in both Albany, Ala. and Decatur, Ala. Manufacturers' catalogs and samples, particularly with reference to hospitals and apartment houses, are desired.

Martin Hauri has opened offices for the practice of architecture in the Coolidge Building, Miami, Fla., and will appreciate receiving manufacturers' catalogs and samples. Mr. Hauri's mailing address is P. O. Box 1939, Miami, Fla.

Announcement is made of the dissolution of the architectural firm of Whinston & Hurwitz. B. H. Whinston is now located in new offices at 6 East Forty-sixth Street, New York City, where he would be pleased to receive manufacturers' catalogs and samples.

The address of the Chicago office of Lockwood, Greene & Co., engineers, has been changed from 38 South Dearborn Street to 602 Wrigley Building, 400 North Michigan Avenue, where they would be pleased to receive up-to-date copies of catalogs from building material, electrical, mechanical and supply houses of all kinds.

Thomas W. Ludlow, architect, announces the removal of his offices from 511 Wabash Building to Suite 1209 Chamber of Commerce Building, Pittsburgh, Pa., where he will conduct a general practice in architecture and a consulting practice in specification writing and architectural engineering. Manufacturer's literature is requested.

Rowe, Dillard & Rowe, architects, 127 North Dearborn Street, Chicago, Ill., have established a branch office in Bradenton, Florida, where they are at present actively engaged in the building of a new subdivision. Their office will be located in the Tri-City Trust Building and they desire to receive manufacturers' catalogs and samples for their office files.

Mrs. Elsie Y. Barber announces that she will continue the architectural practice of her late husband, Donn Barber, under the direction of Henry A. Erdmann and George A. Flanagan with offices at the old address, 101 Park Avenue, New York City. Mrs. Barber has also secured the services of three architects of recognized standing who will serve as an advisory board available at all times.

Roswell E. Pfohl and Thomas S. McLaughlin, A. I. A., announce the establishment of the firm of Pfohl & McLaughlin, Inc., architects and engineers, 830 Walbridge Building, Buffalo, N. Y. Mr. Pfohl was formerly chief engineer for Moran, Maurice & Proctor, consulting engineers, New York City. Mr. McLaughlin for the past nine years practiced his profession independently at Providence, R. I. Manufacturers are requested to send catalogs and samples.

The PUBLISHERS' PAGE

A QUESTIONNAIRE recently sent to subscribers with reference to certain proposed changes in our publication dates resulted in a mass of valuable suggestions and many laudatory comments. These are now being carefully considered and later will be the subject of a special announcement.

With the results of this questionnaire in mind, we were greatly impressed to find that editing a journal devoted to the field of architectural practice differed today little, if any, as to the problems that had to be considered, from those equally insistent forty years ago. The following editorial appeared in the February 13, 1886, issue of this journal:

We have been sincerely pleased that subscribers have taken occasion to say to us very pleasing and flattering things. They have added advice and suggestions as to how this journal can be made most valuable. Naturally no two men want the same thing. For instance, the first who replied hoped that the new plates would be confined entirely to American subjects, while the very next man asked us to give foreign views alone; another wishes interiors mainly, another asks for details, while still another has, in the eyes of some correspondents, the singular taste to ask for country houses. Another urges us to resume the publication of our "detail sheets," while others call for illustrations of heating and ventilating systems, city houses, decoration, chromo-lithographs, and so on. All this shows how impossible it would be to publish a journal which should every week wholly satisfy each subscriber, but it also proves, we think, that our past course has been sailed with as delicate a touch on the tiller as such baffling winds required, and all that we can say as to our selection of future subjects is, that we shall make the most judicious mixture that our perceptions will allow.

* * *

Prophecy is always dangerous. If our forecast comes true, we feel a certain elation, a sense of pride in our sapience. But if everything is all awry, if nothing happens as we declared it would, we want to forget all about it and we hope our readers will. Forty years ago, THE AMERICAN ARCHITECT then, as now, had the courage of its convictions. It was in step with progress. The underground railway had not been really considered as a practical thing. There was nothing on which to base a surmise and the plans then outlined were, in a sense, audacious. The Broadway Arcade referred to in the editorial reprinted below, will be remembered by old dwellers in New

York, who were wont to peer down a grating on lower Broadway to a gloomy depth where the first, and last excavation for an underground arcade was made.

In February, 1886, now not quite four decades ago, the editor of this journal prophesied as to the future of underground transit in New York. To prove how accurately he forecast the future, the following editorial which appeared in the issue of February 20, 1886, will be of considerable interest.

Mr. Rowland R. Hazard, a man of considerable note in connection with semi-scientific enterprises, has surpassed himself in the production of a scheme for an underground railway, which certainly seems to possess most of the merits of the systems hitherto suggested, without the defects of some of them. The main idea appears to have been borrowed from that of the original Broadway Arcade Railroad, which proposed to excavate the whole of the street, from curb to curb, some fifteen feet deep, and to

replace it by a structure of iron columns and beams, carrying an iron roof, upon which a new street pavement was to be placed. Mr. Hazard's plan, like this, is to excavate the street between the curbs, and fill the excavation with a structure of iron beams and columns; but he improves upon the Arcade by separating the six parallel sections of which his road consists by partitions of "fer-flax," which is a sort of fibrous material, made with steel wire and hemp, woven together and saturated with linseed oil. This material, which deserves a better name, is to be used for

TWO NOTABLE ISSUES

THE issue of August 12 will contain the first of two articles by Samuel Chamberlain, on new and artistic methods of illustrating architecture. In that issue Mr. Chamberlain writes on Etching as a Medium of Architectural Expression. In issue of September 9 he will discuss Lithography in the same relation. Both issues will be illustrated by many examples of Mr. Chamberlain's work.

the cars, which are to run on the railway in the arcade, these being formed of light steel frames, filled in with the "fer-flax" felt, which is to be pressed into suitable forms. As applied to Broadway, where it is intended to try the first experiments, the two exterior sections of the arcade will be used to contain gas, sewer and water pipes, and electric wires; and the other four will be occupied by tracks, of which the two inner ones will be used for express trains. The stations will be built of "fer-flax," and bridges will be provided at the express stations, so that passengers can reach their trains without crossing the other tracks. The principal obstacle to carrying this clever scheme into execution would seem to be the fact that the Arcade Railway Corporation already has the right to occupy Broadway; but as the charter of the Arcade Company will be forfeited unless it completes its lines from the Battery to Forty-second Street before the first day of next July—which it is very unlikely to do—the persons interested in the new project expect to have the field to themselves after that time. If the road is built, it is intended to move the cars over it by means of electricity. The conditions for this would be unusually favorable, and it is believed that trains could be run without difficulty at the rate of fifty miles an hour.

The development of rapid transit facilities is but one of the great many momentous undertakings that have marked the period of the life of this journal.



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