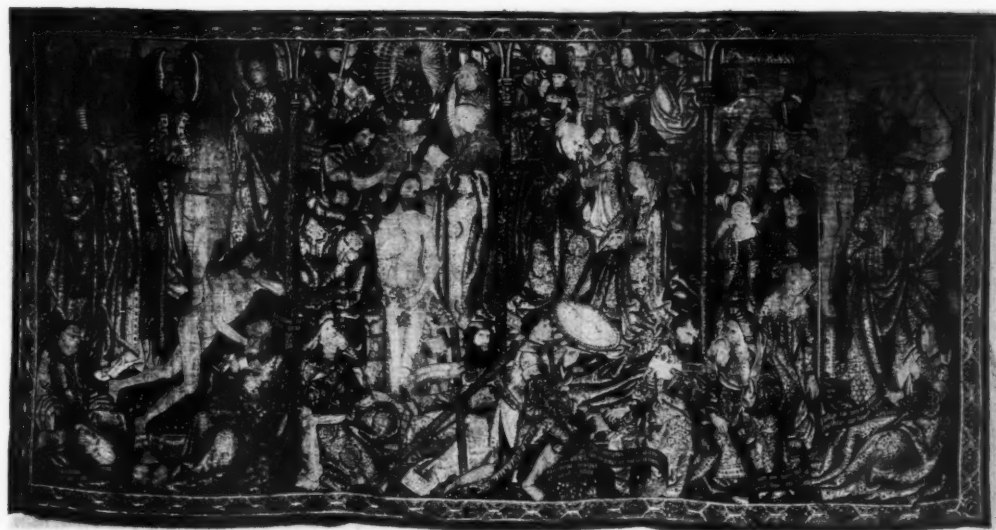


THE AMERICAN ARCHITECT

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WEDNESDAY, OCTOBER 17, 1917

NUMBER 2182



"THE APOSTLES' CREED"

GOTHIC TAPESTRY OF THE BEST TRADITION; VERY FLAT IN RENDERING (1450-1500)
(From Boston Museum)

Tapestry and Architecture—Part I

BY EDWIN S. PARKER

PART I—THE DEVELOPMENT

THERE is a peculiar paradox about the word "limitation" that is seldom understood, and because we have failed to appreciate its significance, we fear and often try to annihilate one of the greatest formative factors of our existence. We feel that if we could only be freed from all the hamperings of natural order we could create and build to an infinite degree. But we overlook the fact that it is these very limitations which make possible whatever we create, and that without them we would be powerless.

The difficulty is this: there are two phases or aspects to a limitation. First there is the negative or destructive one which holds us rigidly to the law and forbids our transgressing. Two plus two makes four, and four only, and we cannot step

without the bounds and get five or six when we choose. We are limited to this one answer.

But knowing that two plus two makes four with absolute certainty—always four and no other number—we can build the stupendous fabric of mathematics, and are free to wander at will in its vast territory.

Mathematics is made possible by this creative limitation. Change the limitation and we should get a totally different system which, in turn, would be formed by its own laws. But to violate a limitation and follow our whims is to get anarchy, not freedom, for freedom lies within and according to law.

Mathematics is only one example of this. Our very intercourse in language is dependent upon the

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limitation of certain words to certain recognized meanings, and to violate this limitation as the Futuristic poets are doing, makes the words lose their integrity and become mere sounds. And architecture, when analyzed, proves to be built in this same way, so that a violation of its limitations will change a structure from a living organism to a pile of inert matter put together by chance.

wall surface is to violate the architectural limitations, for here there is meant to be this solid member, not a vista of cool woods, two dimensions, not three, and even if what we may apply to this surface is very beautiful in itself, it is bad architecturally and becomes ugly as a part of the building when it violates the logic of the architecture.

There are Italian murals where the painted ar-



ROMANCE OF THE ROSE

FRENCH, MIDDLE OF XV CENTURY. PURELY DECORATIVE GOTHIC AND A FINE EXAMPLE
(From Metropolitan Museum, New York)

We have in architecture very simple elements: the point, the line, the plane, the solid, the void. With these all architecture is constructed, no matter how complex the results may be. And it is in terms of these that the structure is organic and beautiful. When the architect places a wall in a certain position, the whole structure depends esthetically upon the wall's standing just where it is, for as a part of the organic whole it takes its definite place in the structural unity which makes this building beautiful. To change the integrity of the

architecture on the walls is so deceiving that, judging from photographs, the really small rooms are made to appear like vast galleries, and, although the painting may be very wonderful in execution and composition, it is inexcusable unless the real architecture is so hopelessly bad as to require obliteration.

And this same principle holds with textiles. Regardless of the beauty of the piece as a thing by itself, if we look through the solid wall into the vista on a tapestry or behold thereon solid figures

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and forms, it is unmitigatedly bad architecturally and has no place as a decoration.

The great regret about plastic decorations (which represent three dimensions) is that such things are so unnecessary, besides being out of place. Primitive man first built plain walls, and this accomplishment was for a time entirely engrossing. Then, the art having been mastered so far, he found that a

is no doubt about the representation of a third dimension for the art of plastic drawing was unknown and they must thus have been flat by necessity. So ancient decoration, partly in spite of itself and partly because of a profound understanding, was truly beautiful.

When we come to the primitive tapestries of relatively modern times, dating from perhaps the



HISTORY OF THE SACRAMENT

FRENCH (1505-18). SHOWS THE RENAISSANCE INFLUENCE IN ITS PERSPECTIVE, BUT IS STILL FLAT IN RENDERING
(From the Boston Museum)

blank wall, no matter how well proportioned, needed some detail to break its simple monotony, for unity in variety is one of the first laws of art. So with the wall in mind primarily, he painted upon it, carved upon it, and hung tapestries, but all of these were so unified in a plane as to keep the integrity of the primary architectural element, the wall. The low-reliefs, carvings and paintings that have come down to us show the mark of the man who built primarily and decorated as he built, keeping the function of the decoration constantly in mind.

With the tapestries which history tells us so richly decorated the buildings of antiquity, there

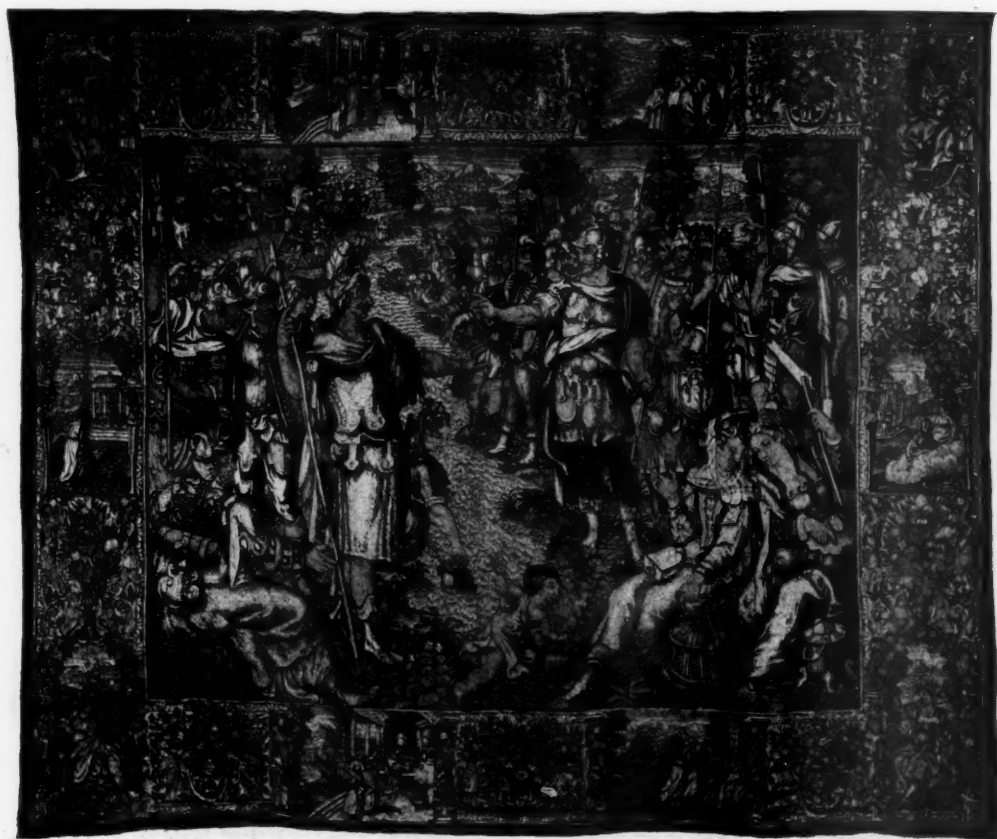
tenth or eleventh centuries, we find a very perfect flatness, but here it is due entirely to an inability to represent the third dimension, and they are flat in spite of all attempts to make them otherwise. The makers of the Bayeux Tapestry (embroidery), knowing nothing of plastic drawing, or even drawing of any kind, tried by a ruse to get the appearance of solidity and depth. They indicated the different distances by different colors, so that the off legs of a green horse were red, while those of a yellow horse were blue. And so we can hardly give these primitives full credit for all the excellence of their achievements.

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But there is one very conspicuous feature about these early tapestries: they were architecturally rational in that they were intended primarily to decorate the wall and were not designed as independent entities to be hung there to please the eye and fancy. And so there is really a profound element in their rational conception as perfect parts of a beautiful whole.

in spite of this, and their remarkable flatness gives them a delightful and very desirable decorative harmony.

This decorative harmony is not so obvious as might at first appear. If we stand before a single tapestry it is not always easy to say immediately that it is either flat or plastic. But if it is even slightly plastic we feel instinctively that something



"THE CONFERENCE"

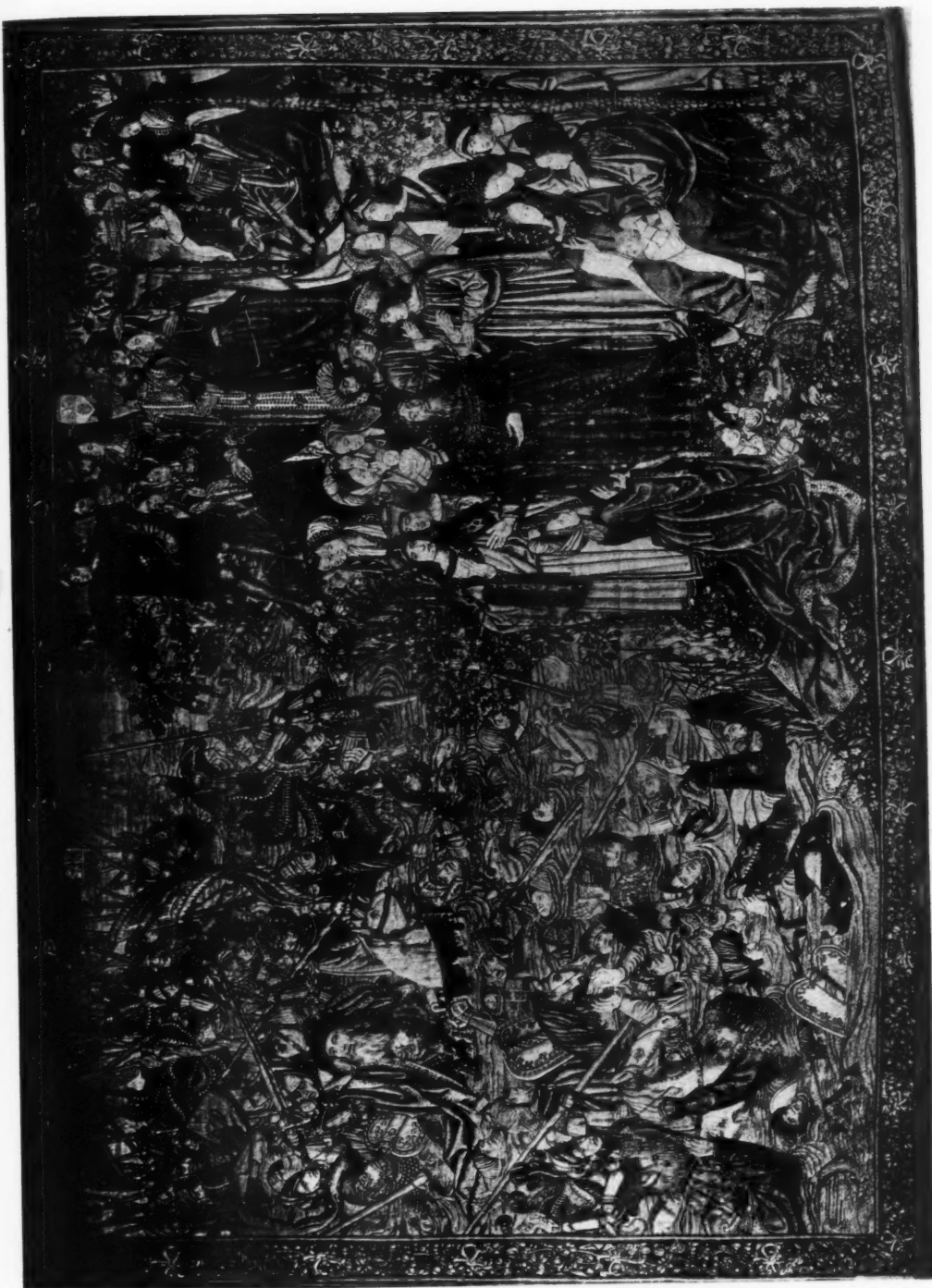
BRUSSELS, XVI CENTURY. FLAT, BUT ON THE VERGE OF THE FATAL STEP TO THE PLASTIC

(From the Boston Museum)

As the art of weaving progressed and architectural production had become practically a thing of the past in the Gothic countries, more attention was paid to the tapestries intrinsically, and while still architecturally good, they became more pictorial and dramatic, larger in conception and more full in detail. This development of Gothic tapestry weaving reached its culmination in the fifteenth century after a national development from within and after its own fashion. These wonderful Gothic compositions fairly seethe with figures, and yet all is repose

is wrong, that, though we can find no direct fault, there is somehow a confusion of elements, and the piece does not satisfy us. Also there is rather more depth observable than we can easily reconcile with the word flat, and comparison with a really flat piece shows the difference at once.

It is, however, real harmony in one case and real discord in the other, even if the depth is very slight, and is perfectly obvious in a gallery containing both kind of tapestries side by side. For where the plastic one is confusing, the Gothic gives us a



"CROSSING THE RED SEA"

EARLY RENAISSANCE TAPESTRY, YET SHOWING THE BEST GOTHIC TRADITION. C. 1500
(From the Boston Museum)



CUPLIC

SHOWING NO CONCEPTION OF THIRD DIMENSION
(From Boston Museum)

strange sense of harmony and repose that is made striking by contrast, and we feel its perfect fitness for its place on the wall.

These Gothic tapestries are unquestionably the most beautiful that have ever been produced. The weavers were intelligent and observant and besides merely carrying on the tradition which was handed down to them as a matter of blind routine, they went direct to Nature, the source of all the truths in this tradition, and from the original source of all they derived their inspiration. Their flowers and plants would satisfy a botanist, and their treatment of them is not the slavish imitation of the trained but unseeing eye, but is truly interpretative and lovely, keeping all that is significant and making it beautiful. And besides this, they lived in a period when religion was a vital thing, a thing that belonged to each and every man, and it is a reflection of this spiritual sincerity which alone can make great art. With the passing of faith and the coming of a superficial intellectualism, came the downfall of weaving.

[End of Part I]

"HISTORY OF JASON,"
AFTER AUDRIAN
FRENCH GOBELIN,
XVII CENTURY



(From The Louvre, Paris)

THOROUGHLY BAD. ILLUSTRATES EVERYTHING THAT SHOULD NOT BE DONE IN A TAPESTRY

Art in the Eastern Empire from the Time of Constantine

BY CLEMENT HEATON

II. THE BUILDING CORPORATIONS AND THEIR METHODS

THE City of Rome, after many sieges, became almost desert, and the scanty population there became mainly Greek, with a few Italians and Barbarians. This is proved by the fact that the part of the city then inhabited, near the Tiber, was called the "Ripa Greca," the Grecian Shore.

Many monasteries were then built, which were filled with Greek monks of the order of St. Basil; the Latin order of Benedict did not gain a foothold till much later. Thirteen Popes were Greek, and a Greek Duke held court at Rome, representing the Byzantine Emperor.

Roman art was thoroughly Byzantinized, and in the Eighth Century there was a new influx of Greeks in Rome, due to the iconoclastic persecution in Byzantium. The quarter of the Trastevere became a center of refugees from Ravenna, and was called "Urbs Ravennatum." Any Pagan buildings still remaining were transformed into churches.

For four centuries, from the time of Constantine to Pope Gregory the Great, this state of things went on, about as long as from our days to the discovery of America. Rome was in a poverty stricken state all this time.

Let us compare this to the history of New York, to realize what it means. It is a period about the same as that which has elapsed since a wall was in Wall Street, built there to protect the little city against the cruel Indians, when Dutch was spoken in "New Amsterdam." Yet how much In-

dian or Dutch influence remains in New York today? And how much of the primitive habits of those days?

It would seem foolish to us now, to ignore this period, and to link our present time to that of the Manhattan Indians! Yet that is what is habitually done in the case of Rome. It is imagined that Classic art and Classic methods of work survived the sieges and depopulation, and formed a point

of departure for "Romanesque Art." This is something like calling the City Hall "Indianesque" and ignoring the European tradition which gave its design.

Let us recognize the Greek influence, and examine what it was.

It is to the same eminent author, Auguste Choisy, who wrote of the Roman corporations, that we owe the illumination of the Greek methods of work. The contrast between the two is striking, and the line of demarcation is the Adriatic Sea.

Roman organization was the practical realization of division of labor, applied with pitiless logic. Byzan-

tine practice was, to the contrary, due to the natural expression of individuality, and work was done on the basis of a contract freely entered into with payment on completion.

The Adriatic Sea was not a mere geographical line. There the East ended and the West began, and as we shall see, the vital difference of nature between Eastern and Western races was found manifested in the customs on either side.

The information preserved is still more meagre



LATE ROMAN SARCOPHAGUS FROM KALA MARIA, NEAR THESSALONICA

ILLUSTRATING THE PENETRATION OF ROMAN TRADITION EASTWARD

THE AMERICAN ARCHITECT

for Byzantium than in the case of Rome, but indications are sufficient to make a clear record. For one thing, there are numbers of mason's marks cut on the stone or marble as the basis of accounts, that the work of individual masons could thereby be identified. By means of these marks it has been ascertained that one mason was accustomed to work on various parts of a building, columns, capitals, or even crude blocks of marble. This procedure still goes on in Macedonia. A proprietor, when undertaking a building, selects a master workman, who then assumes the title of *protomaistos* or chief master. Under him work *maistoses*, or ordinary masters, with their workmen. Everything in the building, from foundation to roof, is executed by this group, under the direction of the *protomaistos* who acts as architect. This little squad undertakes work in stone and wood, and even iron work and carpentry scarcely escapes for specialists. There being no systematic distribution of labor among the Greeks, whatever simplification is effected is reached by the invention of technical devices.

The Artisans of the Byzantine Empire were grouped in corporations as in Italy, and there are corporations still in Macedonia which are a detailed reproduction of those that once existed. They are called *esnaf*s, and constitute self-administrating bodies within the municipality, even as the municipality does within the general government. They are directed by a council, exclusively composed of masters, who attain this position only through apprenticeship and examination. The chief *protomaistos* is elected and has a secretary called *gramateus*, and another officer. The *esnaf* is at once a workman's confraternity, a

religious association, and a mutual benefit society.

There are annual feasts, with a banquet, and mortuary services which correspond to the antique *collegia funeratica*. There is a mutual benefit fund for members, and there are honorary members. There are religious customs, now Christian in form, which can be traced to an antique Pagan origin. The corporation has civil personality, with right of possession and of dealing corporatively. Official hospitality is accorded to persons of similar vocation who come from a distance.

The last named trait implies a habit of traveling, and of freedom to do so, and this was indeed a feature of Eastern life and a characteristic of the Byzantine organization. By this it is differentiated absolutely from the Roman model. Isaurians, for instance, were working at Constantinople, and the state of things existing in modern times is seen to have been in existence in the Byzantine Empire centuries ago.

The existence of these colleges or corporations is shown by means of the ancient laws, and by allusions found in Byzantine literature. For example, the author Glycas, writing of St. Sophia, mentions the son of the *Promeistor*, who was guarding the workmen's tools at the midday meal time.

The existence of other

masters with their workmen is here implied, as found today.

Doubtless, when Constantine drafted workers from Rome to Constantinople, laws were then enforced the same as at Rome, and then for long continued in the code. But custom in the East was intolerant of such methods, and when the Western Empire had ceased to exist, these laws were abrogated. Then the law of hereditary vocation disap-

(Continued on page 283)



A ROMAN TRIUMPHAL ARCH AT THESSALONICA (SALONIKI)

About 385 A. D., time of Theodosius, Emperor about fifty years later than the commencement of the reign of Constantine. Roman art with Greek influence

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PLATE 162

WEST HILL PLACE, BOSTON, MASS.
COOLIDGE & CARLSON, ARCHITECTS

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PLATE 163

WEST HILL PLACE, BOSTON, MASS.
COOLIDGE & CARLSON, ARCHITECTS



PLATE 164

WEST HILL PLACE, BOSTON, MASS.

COOLIDGE & CARLSON, ARCHITECTS



PLATE 165

WEST HILL PLACE, BOSTON, MASS.
COOLIDGE & CARLSON, ARCHITECTS

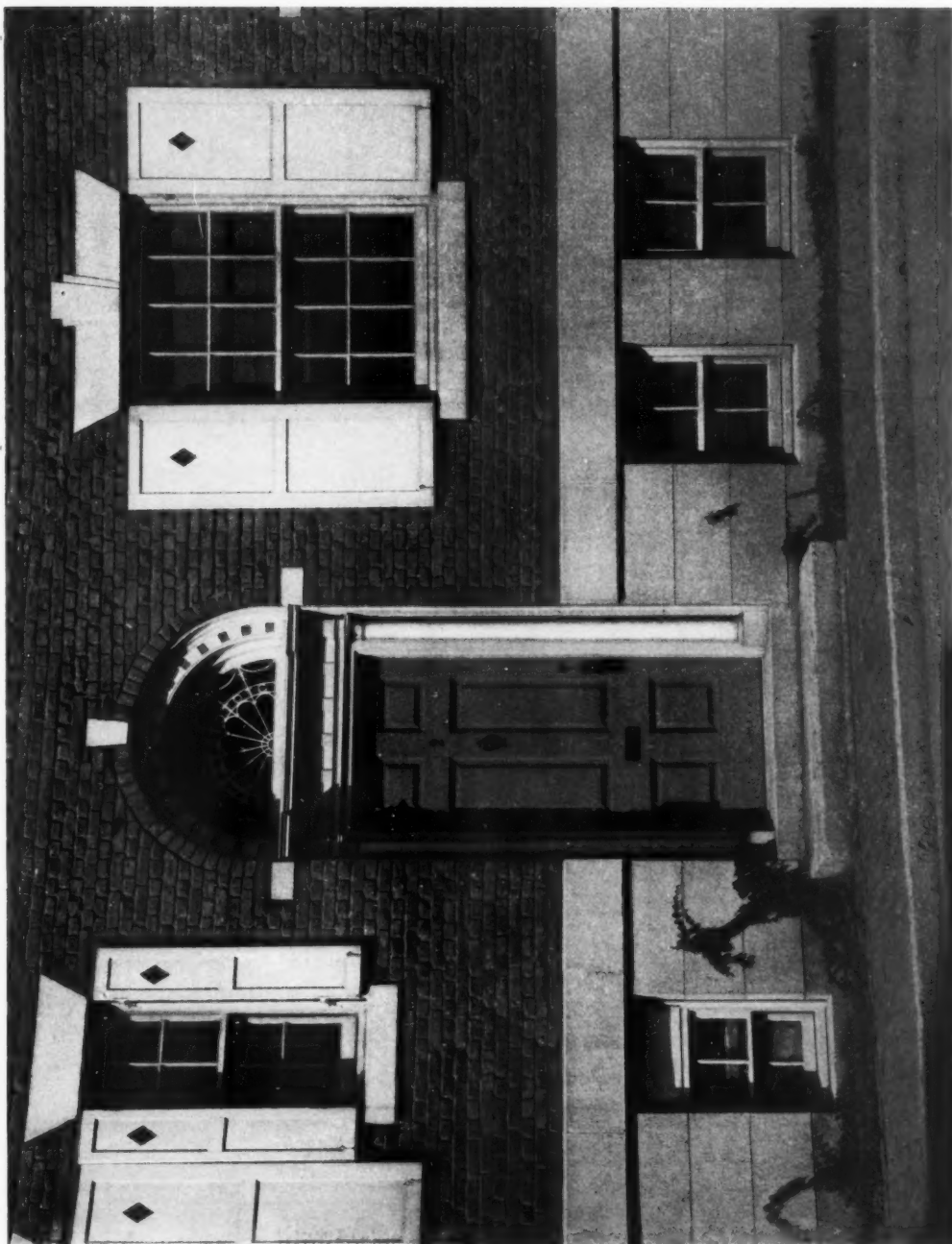


PLATE 166

WEST HILL PLACE, BOSTON, MASS.

COOLIDGE & CARLSON, ARCHITECTS

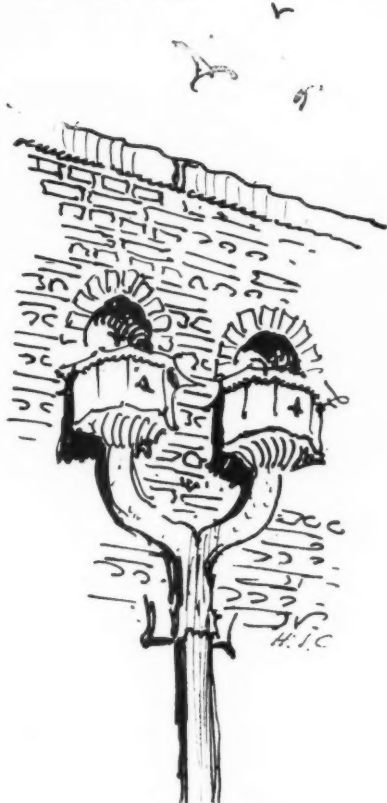


PLATE 167

OFFICE SKETCHES
WEST HILL PLACE, BOSTON, MASS.
COOLIDGE & CARLSON, ARCHITECTS

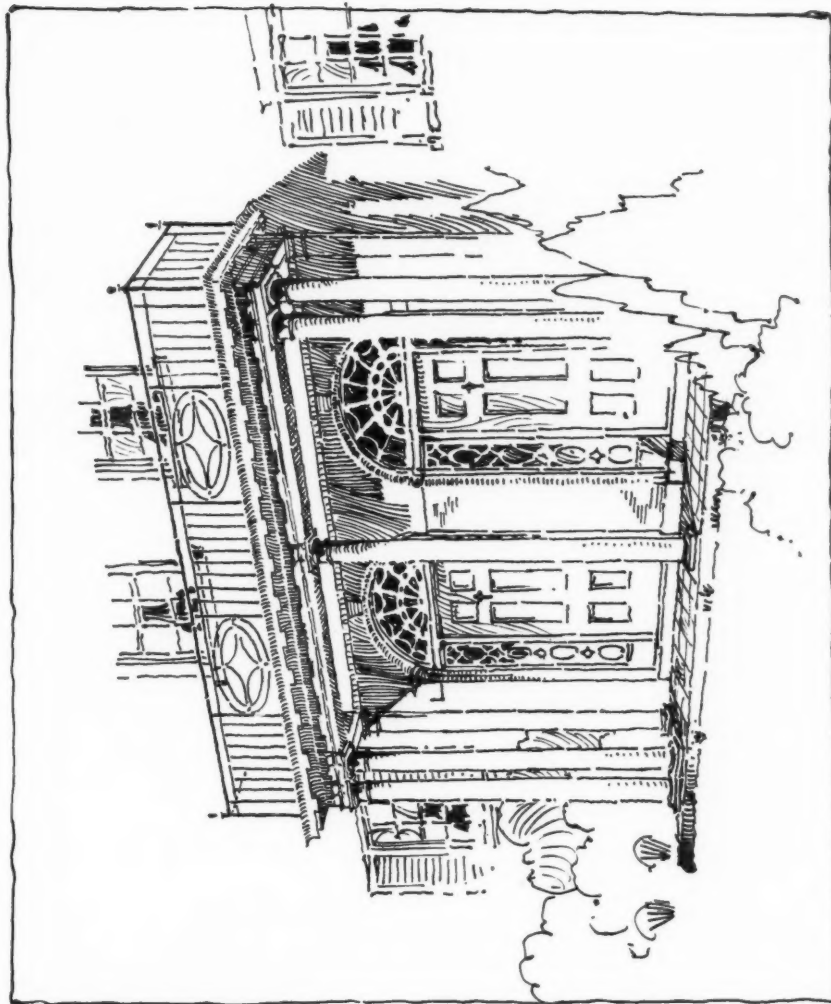
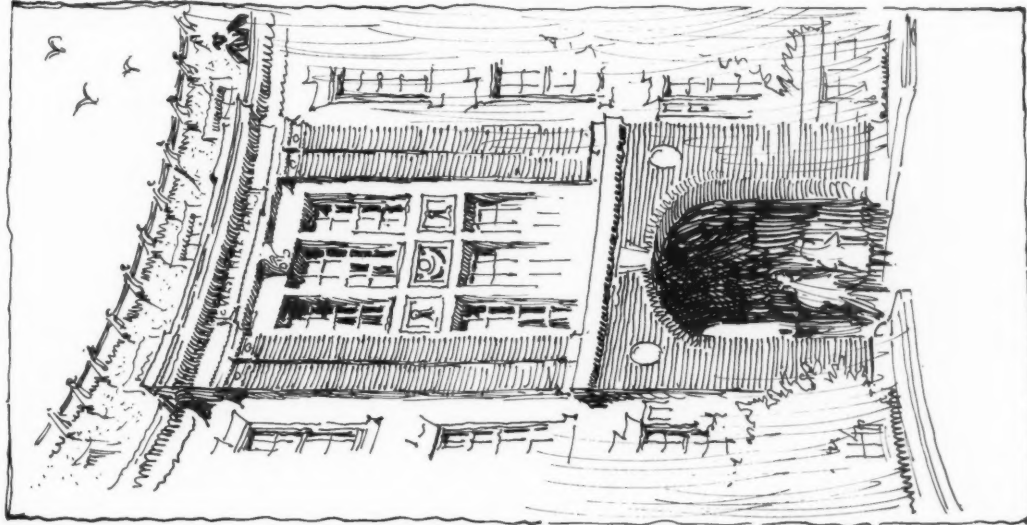


PLATE 168

OFFICE SKETCHES

WEST HILL PLACE, BOSTON, MASS.

COOLIDGE & CARLSON, ARCHITECTS



PLATE 169

BUSH TERMINAL BUILDING, FORTY-SECOND STREET, NEW YORK

HELMLE & CORBETT, ARCHITECTS



PLATE 170

VIEW LOOKING SOUTHWEST. THE SIGNS ARE TEMPORARY.

BUSH TERMINAL BUILDING, FORTY-SECOND STREET, NEW YORK

HELMLE & CORBETT, ARCHITECTS

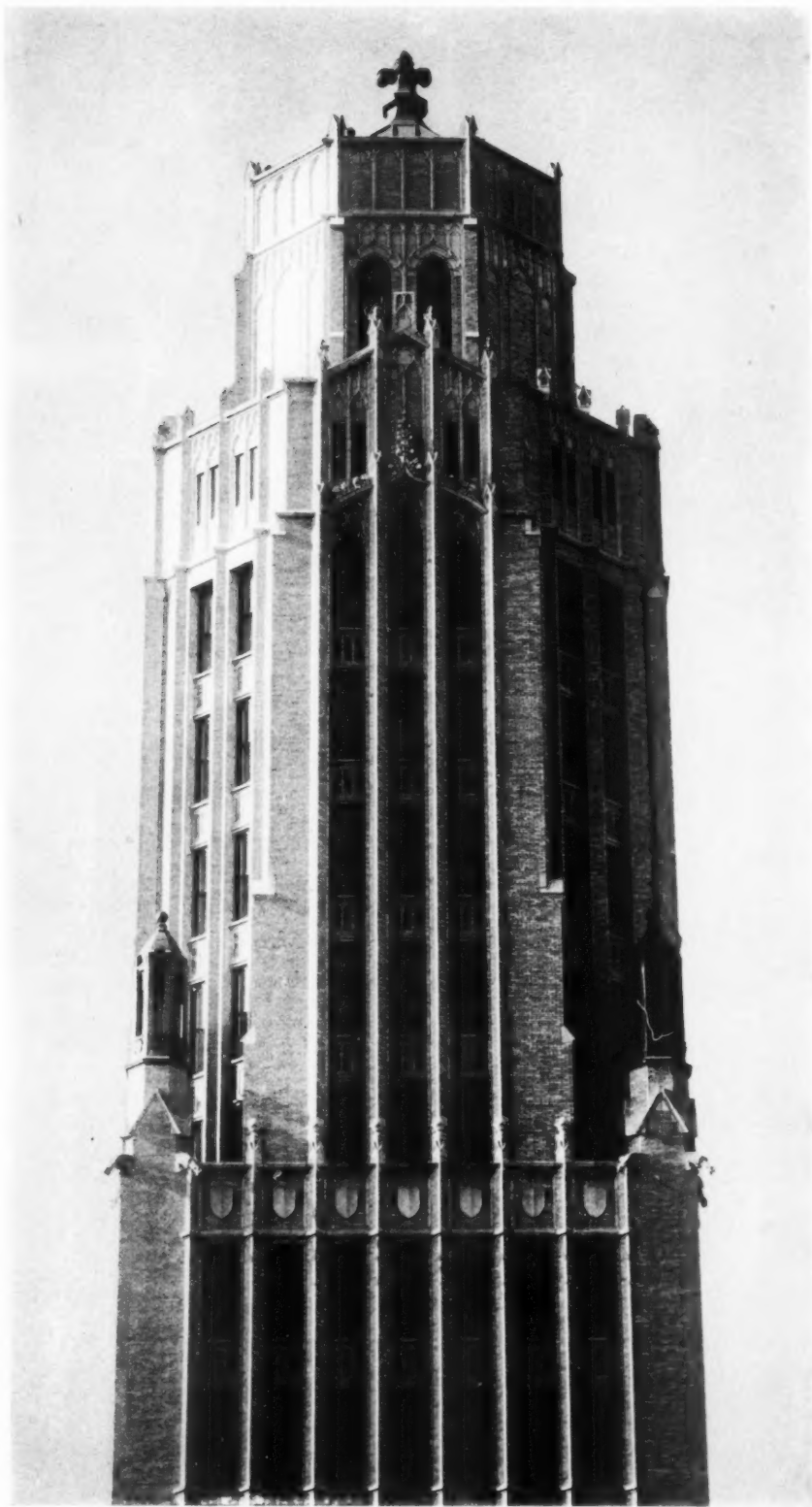


PLATE 171

DETAIL OF UPPER STORIES

BUSH TERMINAL BUILDING, FORTY-SECOND STREET, NEW YORK

HELMLE & CORBETT, ARCHITECTS

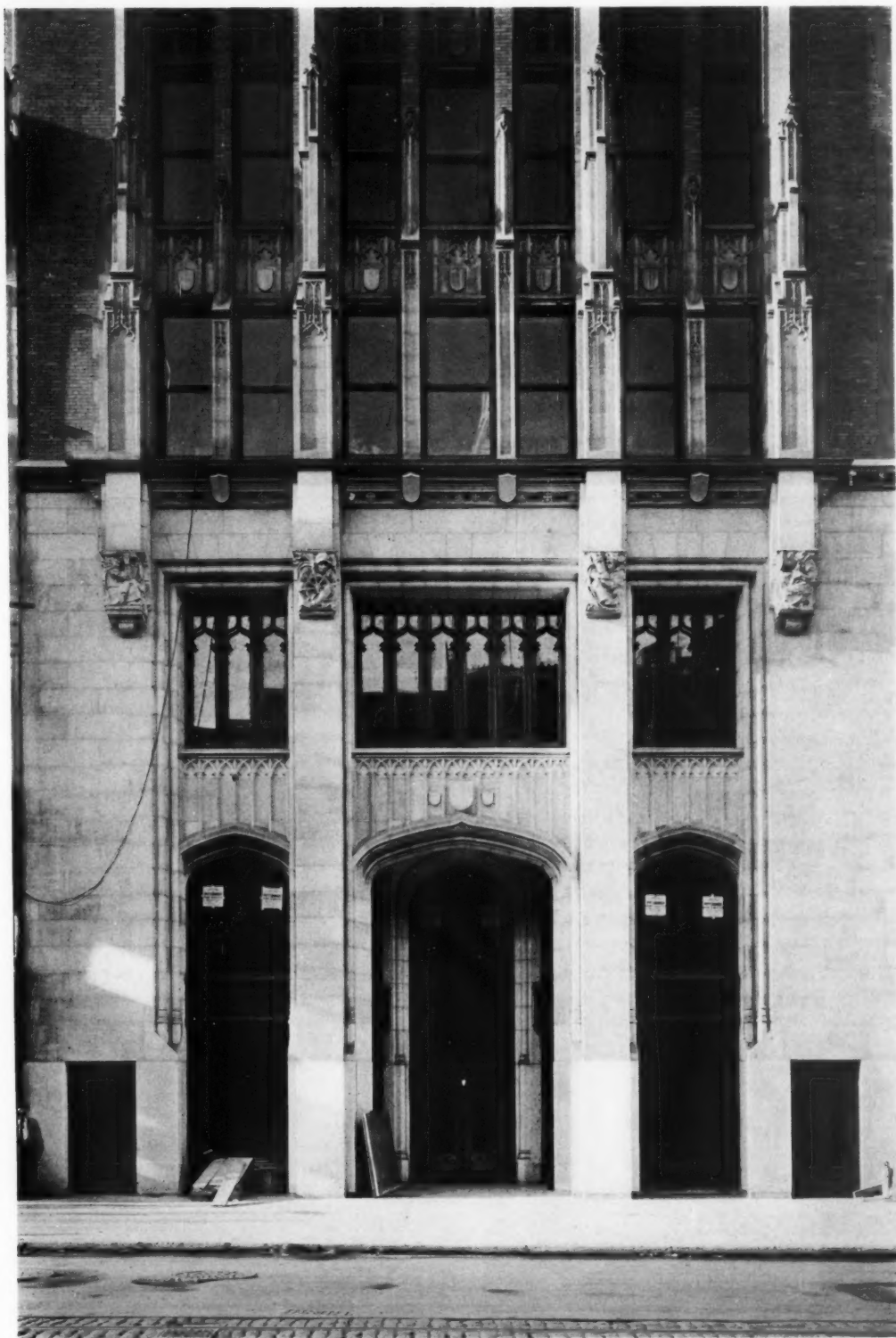


PLATE 172

DETAIL OF LOWER STORIES

BUSH TERMINAL BUILDING, FORTY-SECOND STREET, NEW YORK

HELMLE & CORBETT, ARCHITECTS

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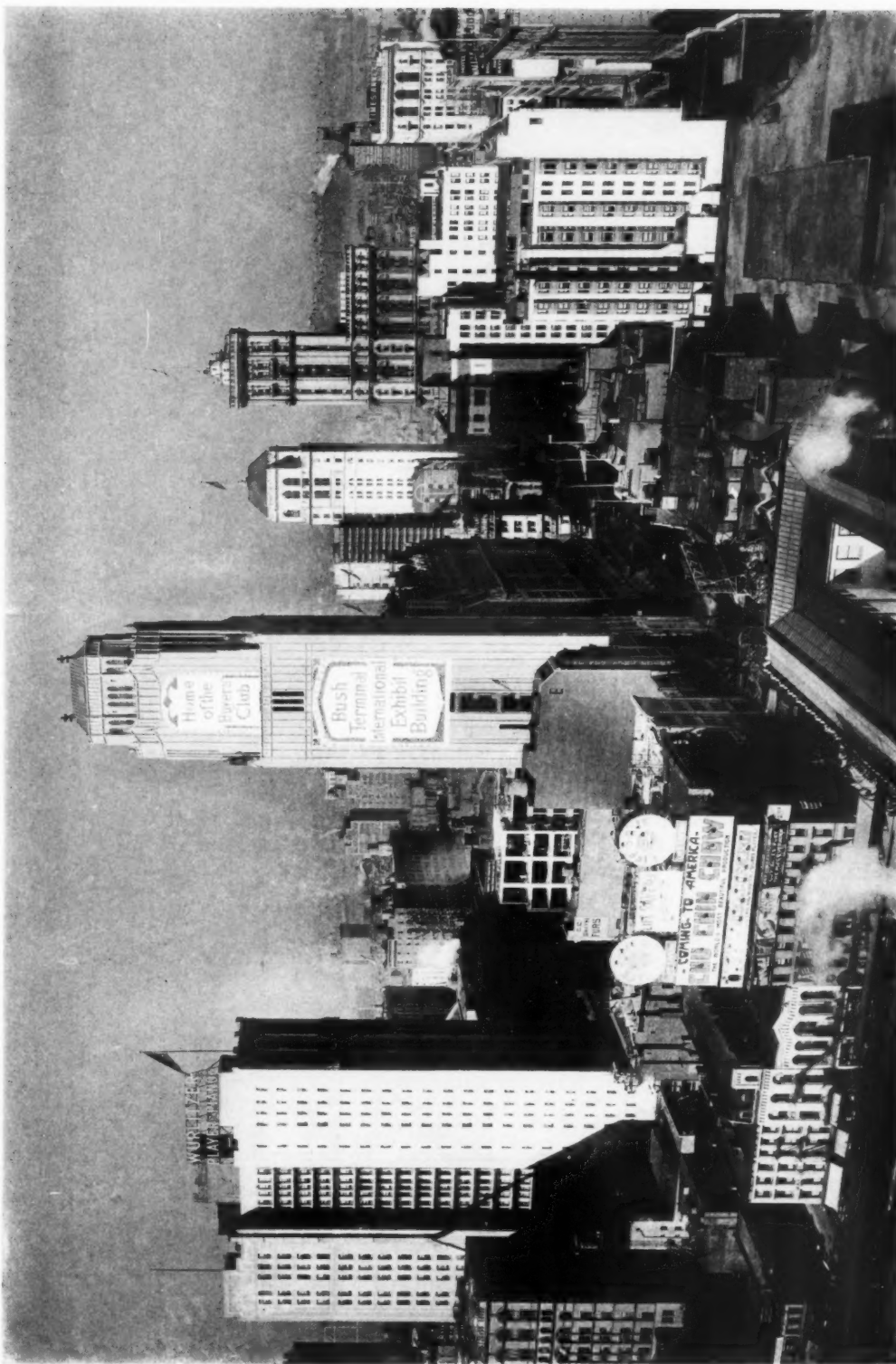


PLATE 173

BUSH TERMINAL BUILDING, FORTY-SECOND STREET, NEW YORK

HELMLE & CORBETT, ARCHITECTS



PLATE 174

MAIN ELEVATION

CHAPEL FOR LAFAYETTE COLLEGE, EASTON, PENNA.

CARRERE & HASTINGS, ARCHITECTS



PLATE 175

SIDE ELEVATION

CHAPEL FOR LAFAYETTE COLLEGE, EASTON, PENNA.

CARRERE & HASTINGS, ARCHITECTS

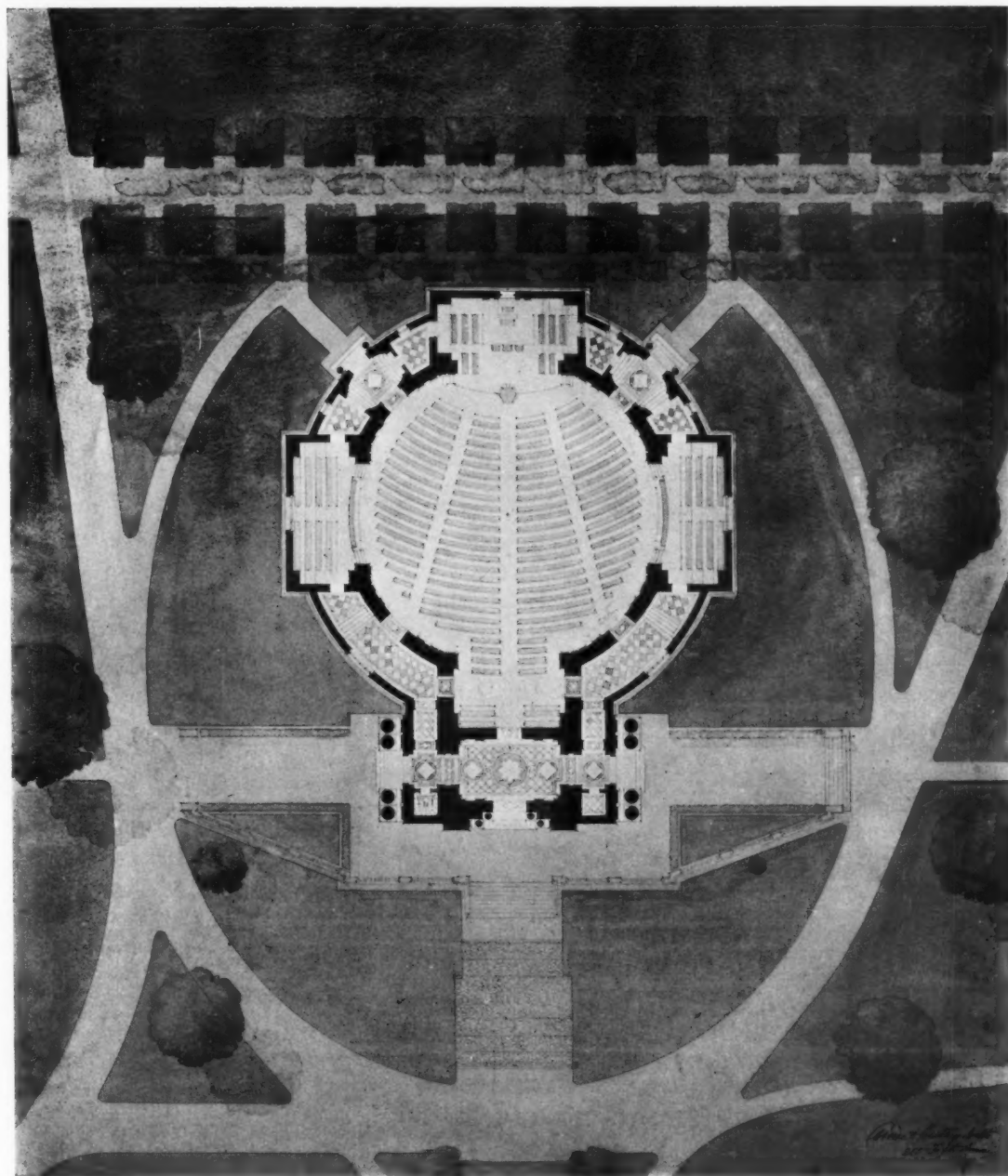


PLATE 176

PLAN

CHAPEL FOR LAFAYETTE COLLEGE, EASTON, PENNA.

CARRERE & HASTINGS, ARCHITECTS

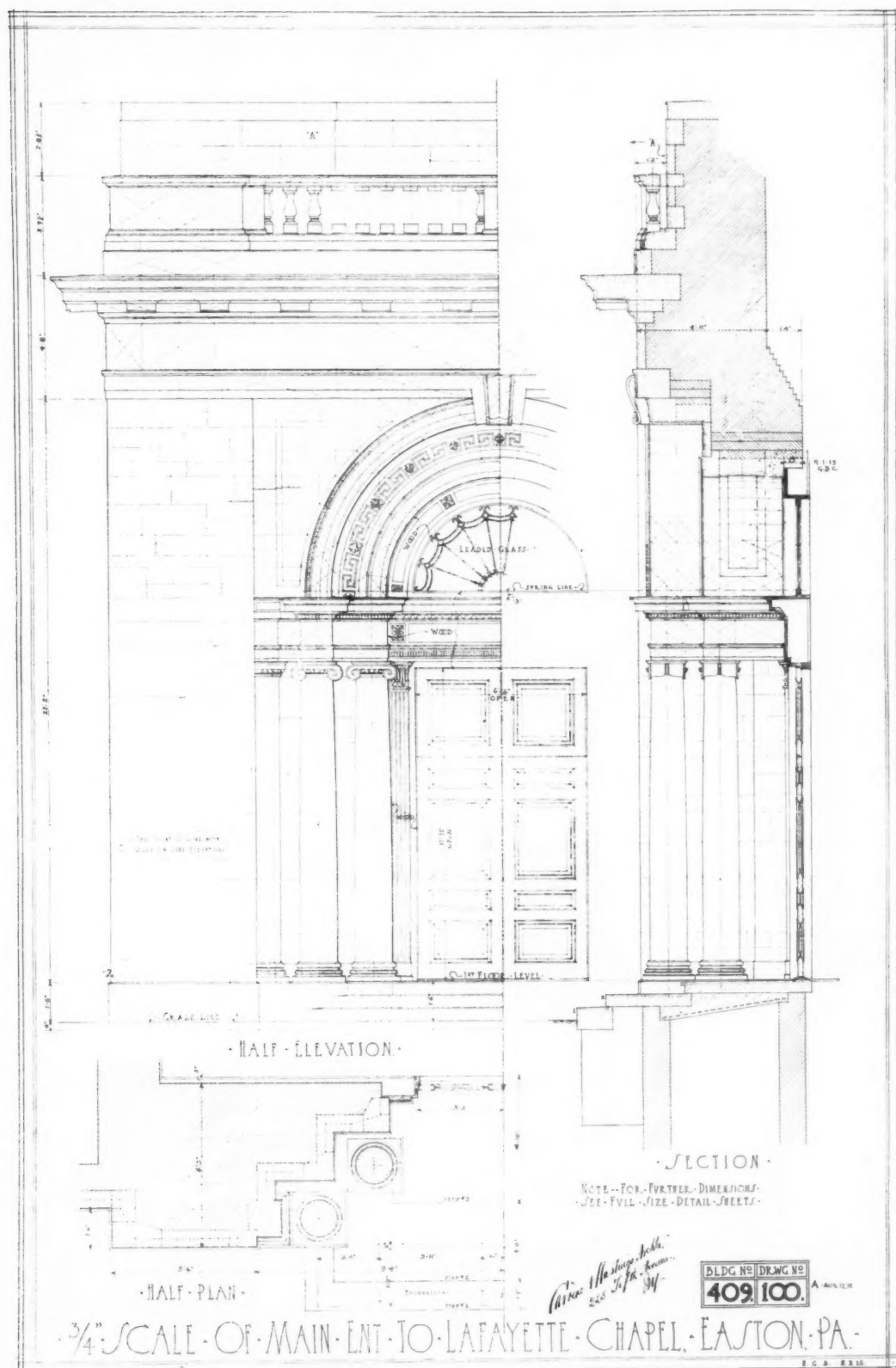


PLATE 177

DETAIL OF MAIN ENTRANCE

CHAPEL FOR LAFAYETTE COLLEGE, EASTON, PENNA.

CARRERE & HASTINGS, ARCHITECTS

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To Build or Not to Build

LETTERS addressed to the Editors of the AMERICAN ARCHITECT ask the question whether or not the present is a good time to enter upon the work of important construction. The reply has invariably been made that there does not appear to be any good reasons for the abandonment of necessary building projects.

Ill-advised expressions of opinion by alarmists, appearing in the daily press, have served to create the impression that the National Government has practically commandeered all the available labor and material and is monopolizing all transportation facilities. Naturally, the operations of the Government in the transactions of the widespread preparation for war and all the many details incident to the placing of a large army in the field have created abnormal conditions.

To spread broadcast the statement that these activities have made it impossible for individuals to proceed in the development of private undertakings is misleading and a menace to our economic well-being.

Architects will not be able to proceed with the designing and planning of buildings with the same disregard as to the availability of material and labor, or the quick facilities of transportation, as in normal times, but they can, if they will, inform

themselves as to present conditions, and design their buildings with a view to the availability of materials to insure the steady and expeditious progress of the work.

It is stated that the large manufacturers of structural steel will keep full stocks of standardized patterns in their warehouses, guaranteeing reasonably prompt delivery. Patterns made to special design will not at this time be considered for delivery earlier than eighteen months and perhaps two years from date of acceptance of contracts.

The course for architects to pursue would appear to be obvious. There is at present an abnormal demand for lumber and large stocks have been distributed to meet Government needs. At the same time production has been very largely increased and it is the generally accepted view of the future that there will be no difficulty experienced in placing orders for reasonable execution.

The real difficulty in the present lumber situation is one of transportation. While in the past, owing to the widespread congestion of freight traffic on railroad lines, deliveries have been uncertain and sometimes impossible, the Government, in co-operation with the combined management of large transportation lines, is slowly working out a solution of this important problem. The good results are already apparent, and while we shall not for some time reach normal conditions as to freight deliveries, it will be only necessary to take a larger look ahead in the placing of orders to insure that lumber may be at hand when wanted.

Architects will need to "cut their coats according to their cloth." If they will take the pains to study the many phases of present conditions, as affecting their work, the availability of specific materials, of labor and transportation, they should get on well enough with their clients and be able to serve their pressing requirements.

It is the clear duty of architects to give close attention to these things and, thoroughly informed, to prove to their clients that any hesitancy as to the carrying forward of building projects is not only unwarranted, but may be in a sense unpatriotic.

The American Defense Society

WHILE we are in this war, those of us who cannot go to the front will hardly be content unless we do our share at home. The strong sense of every true American will lead him to exert himself, as far as possible, in such activities in our national defense as he may be able to accomplish. Individual effort while always good is often futile through misdirection. Our willingness to serve

may be very often fruitless through our ignorance of the best way to lend our aid.

For these reasons every man and woman may very well turn for guidance in this matter of national service to the American Defense Society, and, not only by a contribution of money but also by personal service give material and valuable aid to the efforts that this organization is putting forth to insure by every means possible that the United States will be in a position where it will be safeguarded both from foes within our borders and from any enemy that might seek to invade us.

Recent disclosures have shown that the menace from disloyal and traitorous people, living in this country, is grave. It may not be equally well known that the disclosure of this menace has been brought about largely through the well-directed efforts of the National Defense Society. This group of patriotic men and women has given time and money to the cause, and, in aiding this patriotic work, every man who wants to "do his bit" has as excellent an opportunity to do so as the man who has joined the military forces of the United States.

The Sunken Garden in Central Park

IT is to be hoped that none of the many influences being exerted to prevent the building of a sunken garden in Central Park, as fully illustrated and described in THE AMERICAN ARCHITECT, issue of

August 8, will be successful in postponing the carrying forward of a scheme that is so very admirable in all of its phases.

The element back of the campaign that is being waged against this project in certain daily papers in New York may, it is believed, be easily identified with those who have endeavored to gain access to the park for schemes that would serve private interests. Stalking behind a plea for more extensive playgrounds for children, it has endeavored to create a sentiment against the Hastings plan for a sunken garden. Failing to arouse any very decided sentiment for the introduction of a playground and pool, with all the attendant concessions, unsightly buildings and general confusion in a section of the park already in a large measure devoted to buildings that are museums of the arts and sciences, those who can find no political "job" in the sunken garden scheme and hope to substitute it for one that will present such an opportunity, are still further trying to discredit the present plan. There can be no doubt that the element in the city that unselfishly has the best interest of Central Park closest at heart, both in the present and in the future, are in favor of the sunken garden scheme, and it should accordingly be approved and carried to a speedy conclusion.

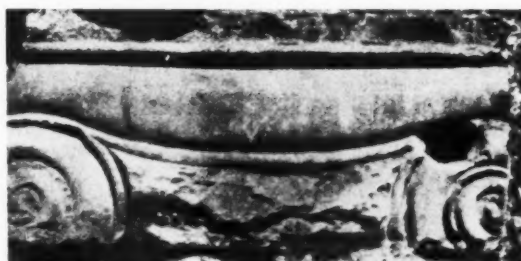
The proposed improvement, with MacMonies' splendid fountain, the wide lagoon and the terraces, would form a dignified completion of the Catskill Aqueduct, the greatest engineering work in the history of New York.



Art in the Eastern Empire from the Time of Constantine

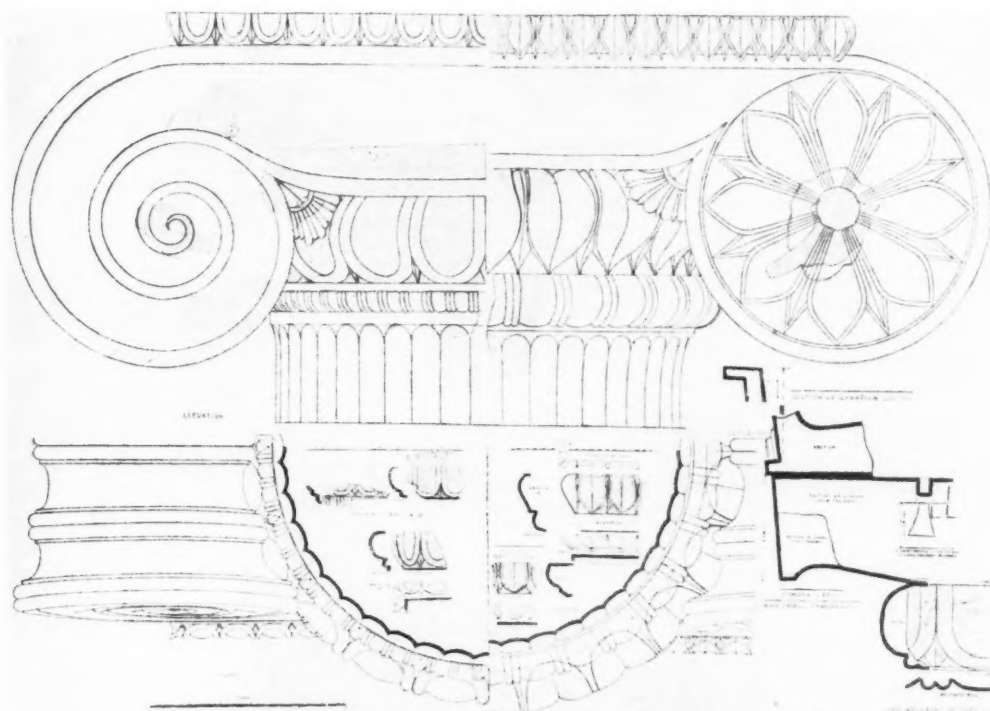
(Continued from page 280)

peared; also that of punishment for desertion; that of penal incorporation into the more material vocational labors, a point so common in Roman legislation, also went. The code of Justinian is, in fact, a protest against the Roman methods, and what was suffered to remain was mentioned specially as being Roman. On the other hand, immunities and privileges were preserved, and artisans when exempted by list, were dispensed in *whatever city they might live in*, a clause which reveals their liberty to travel. There was encouragement, rather than constraint, and the emperors had but occasional recourse to forced labor.



A SMALL CAPITAL FROM EPHEBUS

In the Ninth Century, all coercion disappeared from the laws, and workers were then freed from imperial administration. The corporation no longer counted as an official department of imperial authority, and the government which was stranger to the corporations, rather regarded them askance, as secret societies. But an active solidarity among the workers themselves remained, and as before they retained the old respect for tradition, a respect bordering on superstition. Each city had its independent corporation, independent of other cities and of the Central power. As each corporation maintained its individual statutes and procedure, these induced



DETAILS OF CAPITALS, BED-MOULDS, CORONA AND CYMATIUM GUTTER

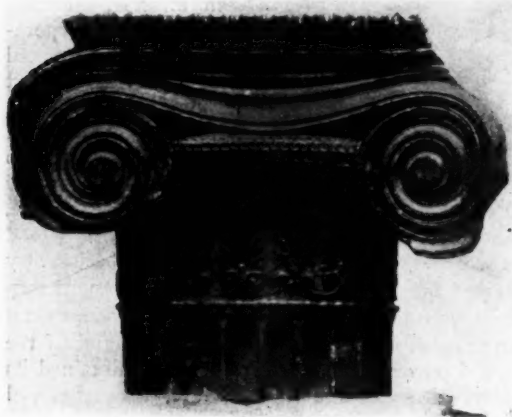
(From British Museum Excavations at Ephesus)

THE AMERICAN ARCHITECT

fixity in art, and led to the formation of distinct local styles, two characteristics of Byzantine art.

In the ancient Eastern corporations, there was a responsible director, corresponding to the Roman Curator, sometimes a Patrician. There was a superintendent, *Oikistikos*, and the architect, who was, as in Rome, a technical director, essentially a constructor. He was called *Mechanikos*. Anthemius,

peror, the power to undertake constructions, and he but exaggerated the use he could make of this power. It is said the entire taxes of the province of Egypt were spent on one part of the Cathedral



A CAPITAL FROM THE ERECHTHIUM, ATHENS
(From the British Museum)

the architect of St. Sophia, was so called, and wrote a treaty on machines. It is said of them, that they enjoy immunity, so that "they can more easily teach their children the practice of their art," but under Justinian official inspection replaced this family instruction.

In reading Gibbon's "Decline and Fall of the Roman Empire," one is struck by the enormous expense that Justinian went to for his constructions, and one wonders how he was able to do it? The explanation is that he still retained, as Em-



A CAPITAL FROM THE TEMPLE OF ATHENA
NIKE, ATHENS
(450-430, B. C.)

of St. Sophia. This is only explicable when precedent history at Rome is remembered.

The great difference of form which existed between Roman and Eastern methods, is certain to have produced corresponding effects. The comparatively few trained men who built up the essential parts of Roman architecture were followed up by a great crowd of workers who had but brute force; so there is an abundance of material used, obtained by the immense number of persons drafted on the Imperial works. But in Byzantine architecture no such imposing mass is to be found, and the effect is got with far less expenditure of material, worked out with greater variety in design, while decoration assumed an importance equal to the construction.



PART OF AN ARCHAEAN EPHESIAN CAPITAL
(From the British Museum)

West Hill Place*

COOLIDGE & CARLSON, ARCHITECTS

WHEN the Boston Metropolitan Park Commission reclaimed the shores of the Charles and established a permanent water level, it gave to Boston a residential section at the foot of Beacon Hill which is unequalled in the beauty of its surroundings and in accessibility to the business portion of the city. But even before the new embankment with its lawns and foliage made a picturesque setting for the houses along the river, this was a region of quiet homes and gardens.

At 164 Charles Street, Oliver Wendell Holmes lived during the '60's. "His study at the rear of the house," Dr. Holmes' biographer tells us, "commanded a wide and beautiful view of the Charles River, with the towns of Cambridge and Brighton and the green slopes of Corey and Parker Hills in the distance. To the right, one sees the long procession of travelers along West Boston Bridge; beyond loom the spires of Cambridge; the far-off hills are full of beauty, their tints ever changing.

"At night there is something Venetian in the appearance of the Back Bay. The long lamp rows of the bridges and of the Brighton road; the colored lights streaming down into the reflected abyss of the sky; the gleam of the smooth elastic surface of the stream; the expanse of the stars—it is all very soothing and beautiful of a summer evening.

"In winter the scene is still full of charm with variety of tint and aspect—the distant snow line meeting that of the sky, the boats, the ice, the wheeling gulls."

148 Charles Street was the home of James T. Fields, Dr. Holmes' publisher, and at that time editor of the "Atlantic." The pleasant business relation which existed between them is brightly reflected in the following note written by Dr. Holmes:

*This interesting description is, in part, taken from a pamphlet issued by the owners of the property.

"I am just beginning to clear the decks for autumn action. I think we had better *talk* the matter over any evening that you will appoint, either at your house or mine—any time after eight or half past eight—inasmuch as we sit an hour or so after tea at the west window to enjoy the recollection of sunset—which is premature these days—and dig up the roots of remembrances that flowered and went to seed in the old summers and autumns.

"Won't you come in any evening which suits you and talk me into a fine frenzy of ambition and composition?"

Between Dr. Holmes' garden, which extended to the water's edge, and that of his neighbor, stood a massive brick building resembling a Colonial block-house but containing nothing more belligerent than an iron gasometer.

Unfortunately, Dr. Holmes' house and garden have been cleared away to make room for the new Nurses' Home. But the Fields' garden is still beautifully maintained, and on the site of the gasometer now stands a most interesting group of houses built around a circular court and named "West Hill Place."

The following description of this group will interestingly supplement the views and drawings that are shown herewith.

In West Hill Place, the circular court at once suggests

houses of unusual shape and an arrangement of rooms giving abundance of light and air.

The architecture of West Hill Place was inspired by the Post-Colonial homes on Beacon Hill, and although the interiors of no two houses are alike, a general symmetry of exterior design has been maintained throughout the group.

The dark red and black irregular brick laid in black mortar and trimmed with white marble; the entrance porches on graceful, slender columns with entablatures delicately detailed; the doorways with fanlights and leaded sidelights—all bespeak the



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conservation of our best colonial tradition.

The six houses on the Embankment are each four stories high—four of them having their entrances upon the Parkway, while the two central ones are entered from the short road leading into the circle. Around this circle are grouped eight houses, seemingly three stories in height, but with the fourth story set back, forming a terrace around the entire circle and permitting the sunshine to reach the lower windows of the opposite houses. This fourth story is covered with stucco and the projecting rafter-ends suggest a pergola which in time may be covered with vines from flower boxes on the terrace. Planting spaces have been provided at the ground level so that vines may be trained over the walls of the buildings themselves.

The general interior arrangement of each house is as follows:

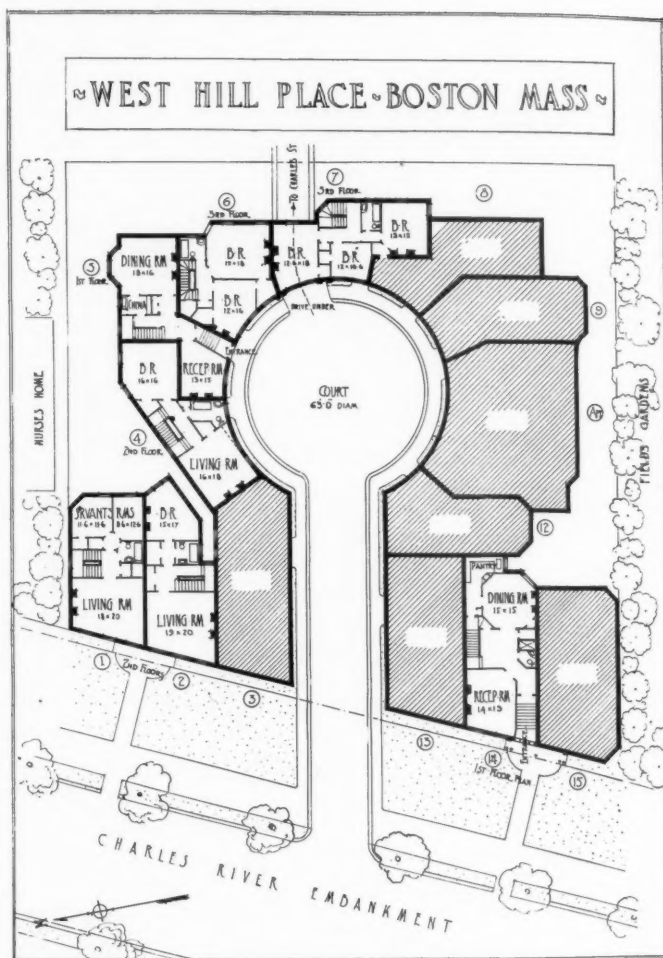
On the first floor are the vestibule, stairhall with coat closet and toilet, reception room, dining room and pantry connected by dumbwaiter with the kitchen below.

The second story contains at the front a large living room—in some cases as much as 30 feet in length—and at the rear either a library or a bedroom with bath. In some of the houses the maids' rooms are placed on this second floor so that they may be nearer the kitchen.

The third and fourth floors are divided into bedrooms and baths, with linen closets, clothes closets and trunk storage.

There is easy access to the roof, with its garden possibilities, its promise of coolness on warm summer nights and its beautiful view over the Charles River.

In the basement are the laundry, kitchen, pantry, furnace room and space for storage. A unique feature in many of the houses is the use of fuel oil for the furnaces. The fire under the heater can be easily regulated, and the steam is further controlled by automatic valves attached to the radiators. The basement has wooden floors underlaid



with nailing concrete, which prevents dampness.

The houses are lighted by electricity, with fixtures varying from semi-indirect alabaster bowls to the conventional candelabra type. There are wired outlets for electric ranges, plate warmers, flat irons and vacuum cleaners. Some of the houses are piped for gas ranges, clothes dryers and water heaters, and are provided with garbage incinerators.

Each principal room has an open fireplace with mantel of Georgian design. The living room is trimmed with gumwood, stained a soft brown and with a wax finish. The woodwork throughout the rest of the house is painted in ivory tones.

A Commissioner of Peace Industries Proposed

At a recent meeting held in the office of Borough President Marks, New York City, largely attended by members of the building and affiliated interests, a resolution was passed asking Congress to appoint a Commissioner of Peace Industries to regulate prices if necessary so that the business of peaceful industries might be continued during the war on a reasonably normal basis. A committee was appointed during the meeting composed of architects, builders, representatives of commercial interests and labor organizations to make a detailed study of the present building situation and of prices for material with a view to suggesting measures for relief.

It is proposed to learn from architects how many buildings have been postponed through failure to obtain loans and difficulty in securing material.

A representative of one of the largest loaning corporations is quoted as stating that his company had practically stopped making loans as it was afraid to loan under present conditions. It is proposed to thoroughly investigate every phase of the present building situation, and in a report, which will undoubtedly be a very clear statement of the present situation in the building and material trades, urge the appointment of a commission that will so regulate these industries as to prevent, as far as possible, stagnation due to preventable causes.

Exporting Building Materials

In an article in a recent issue of the *New York Times* the possibilities of the present large market in the countries of our Allies in Europe is pointed out. It states:

"With facilities for manufacturing building materials in France paralyzed on account of the scarcity of labor or diversion of labor to other purposes, the urgent necessity for materials for reconstruction has caused France to look to America to supply her requirements in this respect also. The large shipment of common bricks made last week is undoubtedly a forerunner of shipments of other building products to come.

"That shipments in the specialties line can easily be made is well known, but to secure quickly materials for construction of exterior walls or facing of buildings is more of a problem. A survey of the market shows that there is available for this need such products as face-brick, of which there is a fairly large reserve stock; cement, so much used in reinforced concrete construction, of which there is an ample supply, and architectural terra cotta.

"The latter possesses unique features in that it can

be manufactured in large quantities quickly. Architects' designs for buildings, calling for either plain surfaces or delicately modeled ornament, as well as elaborate and beautiful color treatment, so much desired abroad, could be sent to this country, from which the entire façade or interior would be manufactured and accurately assembled prior to shipment, with each unit numbered, so that it could be rapidly put in place on arrival.

"This availability of architectural terra cotta will permit France to rebuild not only in a permanent manner, but to design her buildings in accordance with her high ideals of architecture, as it offers a wide variety of textures and finishes and a choice of practically all the colors of the spectrum."

School of Landscape Architecture, Harvard University

The Aug. 15 issue of the *Official Register* of Harvard University is a detailed announcement of the various courses of the School of Architecture for the present year, which opened on Sept. 24.

Membership in the School of Landscape Architecture is open to men who have had a full course leading to a bachelor's degree in a college or scientific school in good standing. Other men of suitable age and attainments are also admitted by special vote in each case, but such admission does not imply admission to candidacy for a degree. Special students must have had a high school training, must be over twenty-one years of age and must have had at least three years of professional training and experience or otherwise satisfy the Council as to their preparation. All special students will ordinarily be required to undertake at least three courses.

Copies of the *Register* may be obtained by application to the University, Cambridge, Mass.

College of Architecture, University of Michigan

The College of Architecture of the University of Michigan, Ann Arbor, has issued its announcement for the new collegiate year.

This is *University Bulletin* Vol. XIX, No. 1.

Applicants may be admitted on diploma; by examination; on credits from another college; or by a combination of these. They may also be admitted as special students, as students with advanced standing, and as graduate students.

For a detailed statement regarding admission, advanced standing, examinations, fees, scholarships, and related matters, students should refer to the

Announcement of the Colleges of Engineering and Architecture, a copy of which will be sent on request.

Record Price for Painting by Living American Artist

Edmund C. Tarbell's picture, "A Girl Crocheting," has been sold, it is stated, to C. V. Wheeler of Washington, for \$16,000.

This is believed to be the highest price ever paid for a picture by a living American artist.

This picture was first exhibited in Boston, in 1905. The artist is said to have received \$2500 for his painting from the original purchaser, Mrs. Bela L. Pratt.

Degas, French Artist Painter, Dead

Hilare G. E. Degas, a painter of world-wide reputation, died in Paris on September 27.

His pictures of Parisian life, particularly of dancers and race horses were eagerly sought by collectors and museums. His *Danseuses a la Barre*, sold some years ago for \$87,000, and it has been stated that the original purchaser secured it from Degas for \$97.

At the time of his death, Degas was eighty-five years old.

Recent Books

DECORATIVE ELEMENTS IN ARCHITECTURE. By William Franklyn Paris. Full cloth, 152 pages, size 6 x 9½ inches, price \$5, New York and London, John Lane Co.

It is not with the intention of implying any disparagement of Mr. Paris' excellent book to state that its title is quite misleading. The decorative elements in architecture of which it treats are purely the elements of accessories and not as might be inferred from the title the elements of design in the architectural treatment of buildings. The work is divided into ten chapters. These treat of the development of ornament and its application to furniture, fixtures, carving, stained glass, bronze and wrought iron. Starting out with this knowledge of the true character of the book, one may read it with a considerable degree of satisfaction. The author's style is particularly graceful, and his knowledge of his subject profound. While architects will take a certain degree of interest in a work of this sort, it will, we believe, be found of greater value and more generally instructive to men engaged in the decorative arts. The illustrations have been selected with care and avoid a repetition of material found in similar works.

Industrial Information

Do You Specify Wright?

To architects and others interested in the erection of buildings is dedicated a little booklet on Wright Wire Lathing. This material is described as fire-resisting, light and easy to handle and durable. It is made in galvanized, japanned and iron finish, of No. 18 to No. 22 wire. The manufacturers, Wright Wire Company, are at Worcester, Mass. They give an interesting list of business buildings, hospitals, hotels, schools, dwellings, theatres and railroad stations in which their material has been used, and photographs of several of the best-known of these.

Specifications for Steel Buildings

A set of specifications, based on the best present practice for the construction of Truscon Steel buildings, has been issued by the Truscon Concrete Steel Company, Detroit, Mich. Copies may be had free on request. The demand for this type of building has largely increased since our entry into the war. These specifications will serve in the very best way for the type of building for which they were originally drawn and also every type of building for which this form of construction is desirable.

A New Bulletin on "Adsko" System of Heating

In an interesting new bulletin published by the American District Steam Co. of North Tonawanda, N. Y., is a detailed explanation of their "Adsko" system of atmospheric steam heating for all types of public and private buildings. The "Adsko" is a vapor system, which has stood the test of actual operation, it is claimed, under all sorts of climatic conditions in almost every type of modern building. The system hinges on the principle that steam is lighter than air. Wherefore steam admitted through a valve into the top of a radiator occupies the upper portion of the radiator, the condensation and air flow out at the bottom. The "Adsko" valve does not permit an excess amount of steam to pass into the radiator; hence no heat is wasted, but the maximum amount of heat is delivered to the room. The company offers its services in a consulting capacity to inquirers who have specific heating problems.

These bulletins may be had by architects on request.

Department of Architectural Engineering

Some Engineering Features of the Bush Terminal Building New York

By HARVEY WILEY CORBETT, OF HELME & CORBETT, *Architects*

A NY building ten times as high as it is wide is an unusual engineering problem. We would never think of standing an object of that proportion on the parlor table without a wide spreading base to keep it from tipping over, yet we do not hesitate to place such objects on the surface of this rapidly rotating ball called the Earth, and feel safe in assuming that they will keep their position. None of our high office buildings has tilted over, as yet—I don't believe we even have a "leaning" tower in this country—and although it may be a little early to judge of the life-conduct of our steel sky-scrapers (since few of them are old enough to vote and none of them exceeds the draft age), a short study of the peculiar problems that arose in a particular building might be of engineering interest.

The Bush Terminal International Exhibit Building, located on the south side of 42nd Street near Broadway, covers a lot 50 feet wide by 200 feet deep, but only the front portion on 42nd Street goes to a height that would place it in the tower class. Here, over an area 50 by 90 feet, it extends for thirty stories above the curb level and is nearly 500 feet high if measured from the bottom of the lowest footing to the top of the copper finials which cap the highest points of the roof. It is the highest building in that section of New York City, and as far as I know is the highest building in the city over so small a ground area as 50 by 90 feet.

Three problems are met with in all tall steel structures—the vertical forces of gravity, the longitudinal forces of wind, and the resisting forces to both through the foundation. A solid basis to build on is essential in any human endeavor, but is fundamentally essential in a building. We will start with the foundation and bring out the peculiar engineering features there. That section of New York City

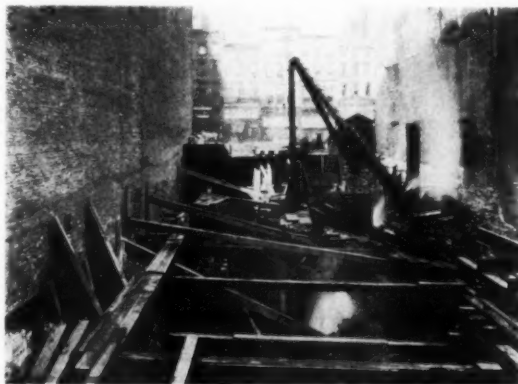
is covered by filling on blue clay with micaceous rocks and boulders below rock very irregular in its surface and broken up by fissures in many directions and found in layers of varying thickness for considerable distance below the surface. Water runs freely at 30 feet below the curb level, and if left to itself without continual night and day pumping would fill any foundation hole to within 10 feet of the surface. When operations started only the front lot 50 by 100 was available—buildings on both sides were in full operation and could not be disturbed—42nd Street, one of the busiest at all

hours of the day and night, was the only means of access, and work which would do credit to a Nevada mining operation had to be carried on within that limited space and under those trying conditions.

The two adjoining buildings on the east and west were five stories in height and did not even go down to rock foundation, but rested on the surface soil only, so they both had to be shored up, held suspended in air, so to speak, until all excavation work was complete, and their walls carried down to rock instead of being built up from it.

The illustrations given herewith show some idea of the complicated condition of the site during the progress of this work.

The old building which stood on the site was demolished in August, 1916, the first column footing was completed in February, 1917, the first steel was placed in position in January, 1917. All the steel for the building had been fabricated and was ready for delivery long before the foundations were complete, so that no delay was caused by lack of material, once the work of erecting the steel had started. Each piece was brought to the building at the moment needed, so as not to block the traffic on the street or occupy any unnecessary sidewalk space



THE SITE ON OCTOBER 16, 1916. SHOWING THE UNUSUAL CONDITIONS ENCOUNTERED BOTH IN WIDTH AND DEPTH OF EXCAVATIONS

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for storage purposes. By May, 1917, just four months after the first column arrived on the site, the last piece of steel for the roof ridge was in place and the finished brick work over half way up. By September, 1917, all exterior work was complete. The interior was 90 per cent finished, except on

heavy plate girders and strong knee braces at all columns.

The following data will give one some idea of the enormous weights and strains involved in this undertaking:

Total load on foundations, 18,400 tons (distributed by 24 columns).

Wind bracing in the narrow direction consists of plate girders in each bent rigidly connected to columns.

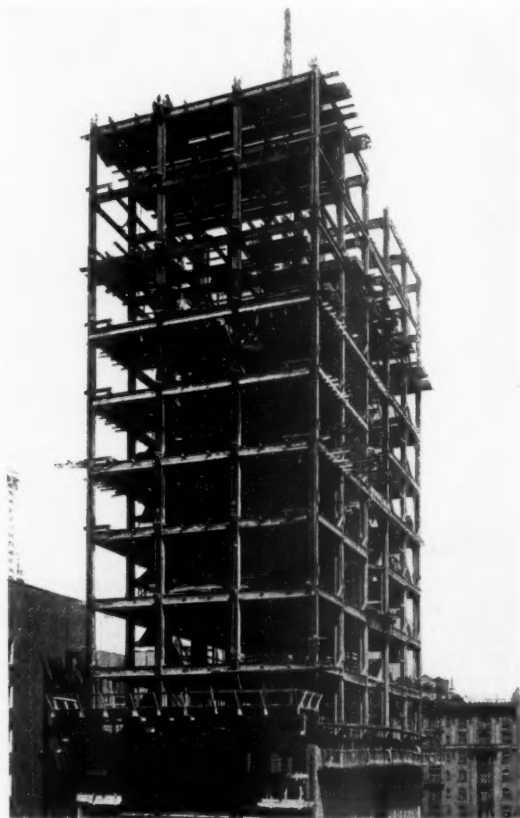
Girders are: Interior bents, 33 inches deep 1st to 3rd floor, 24 inches deep 4th to 19th floor, 21



PROGRESS PHOTOGRAPH MAY 14, 1917. ALL STEEL IN PLACE AND WALLS COMPLETED TO THE 18TH FLOOR.

special floors requiring more elaborate treatment, and that work is still in progress.

The effect of wind pressure on a building of this proportion, height and exposure is similar as an engineering problem, but in a minor degree, to the action of gravity on the horizontally projecting span of a cantilever bridge, but in the case of the bridge the perfect structural form of the triangle unit is possible. In a building where the practical requirements of space require only rectangular shapes, the effect of triangulation must be obtained by heavy reinforcement with short knee braces at the column points and by increasing all cross-girders by heavy plates. The unusual height of all stories, 13 feet 9 inches from floor to floor generally, and 16 feet in one particular case and 14 feet in another, made the wind-bracing problem difficult. The great strain naturally came across the short 50-foot width of the building, but in this direction the plan requirements permitted no interior partitions or exterior blank wall surface in which to conceal triangular cross bracing. Therefore the equivalent effect could only be obtained by extra



PROGRESS PHOTOGRAPH SHOWING FRAMING OF UPPER STORIES

inches deep 20th to 25th floor. End bents, 33 inches deep up to 2nd floor, 24 inches deep 3rd floor, 21 inches deep 4th to 25th floor.

In the long direction of the building the wind bracing consists of knee-braced beams which are double up to 5th floor, single 6th to 20th floor.

Total wind pressure figured on exposed side of building, 550 tons.

Dead and live loads were figured as follows:

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Dead load, I-beams, 85 lbs. per square foot; dead load, columns, 100 lbs. per square foot; live load, 120 lbs. per square foot.

One particular engineering feature that is seldom met with in modern steel frame buildings resulted from the necessity in plan for a wider space at one point on the three lower floors than was possible to get between the regular column spacing. Therefore, at the 4th floor level two columns, carrying a total of 1300 tons, rest on a pair of cross-girders 72 inches deep and weighing 11 tons each. The clear span at this point is 35 feet.

Permanent Home of The American Architect

ONE of the largest real estate transactions recorded in connection with the technical and trade paper publishing business has just been concluded.

The United Publishers Corporation 239 West Thirty-ninth Street, New York, publisher of some twenty or more leading technical and trade papers, including *THE AMERICAN ARCHITECT*, *Iron Age*, *Dry Goods Economist*, and *Motor Age*, has purchased the building largely occupied by it, and generally known as the McGraw Building, at 239-243 West Thirty-ninth Street.

This is an eleven-story and basement loft building, measuring 194 feet 6 inches front by 90 feet deep, and entirely occupied by publishing interests. This purchase was consummated through the acquisition by the United Publishers Corporation of a majority of the stock ownership of the building. The transaction was based on a valuation of the property of more than \$1,300,000.

The building is ideally located. It is within easy access to both the New York Central and Pennsylvania terminals, and but three blocks from Times Square.

The first floor is occupied by the Times Square Station of the New York Post Office; three floors are occupied by the Federal Printing Company, which is the printing department of the United Publishers Corporation. Four floors are occupied by the publishing offices of the United Publishers Corporation.

This purchase guarantees to the United Publishers Corporation a permanent home under the most ideal conditions and surroundings.



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A STREET IN AVILA, SPAIN

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