THE AMERICAN ARCHITECT

VOL. CXII WEDNESDAY, AUGUST 29, 1917 NUMBER 2175

ROUND TOWER AND ANCIENT CROSS AT CLONMACNOISE

The Celtic Cross

BY W. H. McGINTY

Author of Ancient Irish Art and Architecture

THE origin of the peculiar form of the Irish cross cannot be definitely stated, but it has been ascribed to be a symbol of the Pagans adopted and used by the Christians. This particular symbol is said to signify Bel or Bael, the god of the sun, whose annual or annular course was indicated by the ring and the seasons by the crossing lines or quarters. Even the plain cross had a sacred import as indicating the sun's crossing the equator.

From the earliest Christian times stone carving in Ireland began with incise work. The crosses cut on pillar stones—such as that on St. Manchan's grave near Dingle—were of this early period. The cross was at times within a circle, and this circle, it is believed, was originally a wreath.

It can be said that sculpture held a very important place among Irish works of art. Of the High Crosses, however, not twenty can now be found throughout the various counties.

While there are certain usual types, the variety of design of the Irish crosses, both standing and on slabs, is, in ornamentation and in outline, very great. It is certain that in the ninth century more elaborate ornament was often added to them, either by incised work or in low relief. Among other shapes, a Latin cross merely cut away at the intersection of the arms is not uncommon, and some even plainer in form are also found. In other examples, a cross of varying shape is framed by lines along the margin of the stone. There is another form of seventh century date, in which the arms start from a circle in the middle and end in semi-circles. One of this form is on the grave of Columba, and a memorial slab with a similar cross was discovered in the cemetery of an ancient nunnery founded before 650 A.D.

CROSS AT CLONMACNOISE

Antiquarians seem to be confident with reference to the time when certain of the Irish crosses were executed. For instance, the fine cross at Monasterboice they claim was built about the middle of the ninth century, and one of those at Clonmacnoise is of the same date. The cross at Tuam is ascribed to the earlier part of the twelfth century. It is only with a few of them, however, that any attempt has been made to fix the date of their erection. The origin of the greater number it seems to be impossible to discover.

At Kilmalkedar, in the earliest Irish form, are the letters of the alphabet, and a cross on which the ends of the incised lines wind round in spirals. Similarly finished crosses are to be seen on some of the grave slabs at Clonmacnoise. There is also, at the same place, a cross fully developed into that shape so common in Ireland, in which the arms pass through the circle, and which dates from early in the eighth century.

On some of the crosses, as upon the perfect cross in the churchyard at Kells, and on one side of the smaller cross at Clonmacnoise, a vine more or less in spirals is carved, with birds and animals feeding on the vine fruit. The key pattern and interlaced work is often enclosed in panels, especially on the High Crosses, and the edges of the panels or of the crosses are frequently moulded. It can be said that on the high crosses all the elements of decoration are thoroughly assimilated and harmoniously combined, showing great artistic power.

The large crosses are built up of three or four stones, firmly united by means of mortise and tenon joints. Those which have not been disturbed from their original positions face east and west. This orientation, as is well known, also extends to churches and graves and is found to prevail throughout Christendom.

At Kells, in the county of Meath, there existed a High Cross, the parts of which were in various stages of advancement, from the first blocking out to completion. At Clonmacnoise parts of the crosses are unfinished.

Near the public road four miles north of Sligo, there stand the ruins of a Round Tower, and the ancient cross of Drumcliff. Near the cross is the base and shaft of another one, but without ornament. Both are of hard, close grained sandstone, such as is found in many parts of Ireland.

The base of this large cross is a single stone, the shaft up to the head of the cross a second stone, the head or part which has the circle is a third stone; and, from there being a mortise hole at the top, and from the incompleteness, it is certain that a fourth stone is needed to finish it. This cross is now about thirteen feet high and the width of the cross arms is three feet eight inches; the thickness of the shaft is nearly a foot, growing smaller to ten inches at the top. This cross is covered with interlaced ornament and figure carving, including a familiar subject used on the Irish crosses showing a man with animals on each side which seem to attack him. In the center of the head of the cross the carving is greatly effaced,

CROSS AT DRUMCLIFF

but from other crosses it is safe to say that the subject is Christ come to judge the world on the last day. On the ring there are four panels of interlaced ornament, while in the center is a representation of the crucifixion. Other Biblical subjects are represented on various parts of the cross.

ROUND TOWER AND HIGH CROSS AT KELLS, COUNTY MEATH

In and about Cashel there still remain many valuable monuments of ancient times, one of which, the Tomb of Cormac, situated in the cathedral, has a fine panel of Irish ornamental carving. This panel is seven feet long by two feet high, and in its style of ornament is quite similar to that on one of the panels of the Drumcliff cross.

On the Island of Iona several crosses are to be found, either in whole or in part. The cross of St. Martin has been pronounced, in outline and proportions, and in the carving of its eastern face, the most beautiful High Cross in existence, while the one at Monasterboice, County Louth, is said to be the most perfect in Ireland.

CAST BRONZE DOORS IN MEMORIAL CHURCH, FAIRHAVEN, MASS.
BRIGHAM, COVENEY & BISBEE, *ARCHITECTS*

BRONZE BALCONY RAIL, HOUSE OF JOHN D. ROCKEFELLER, POCANTICO HILLS, NEW YORK

WM. WELLES BOSWORTH, *ARCHITECT*

Bronze—Part II

By C. A. Fullerton*

Modern Development of the Art

IN a previous article some reference was made to the somewhat mistaken attitude of the general public toward the artistic individuality of the craftsman and the remedy that might be successfully applied. No further discussion of this phase of the craft need be attempted here. But before proceeding to discuss the development of the art of the craftsman in bronze in the United States, it might be well to again inquire, What is Bronze? At this juncture, the definition set down in the earlier part of our discussion will not enlighten us sufficiently to enable us to intelligently view the work of the craft or its technical phases.

Pure copper, if it could be properly handled and hardened, would be an ideal metal, but, except by certain special processes, the pure metal is ordinarily impractical to manipulate through the manifold requirements of the art of Bronzesmithing and by none of the ordinary processes. Therefore, to make the copper workable, to cause the metal to run hard, soft, ductile, brittle, tough or to obtain any of the various characteristics necessary to its practical handling, so far as the science of the craft has developed, it has been found necessary to alloy copper with metals having an affinity for it. Now it is found that the addition of Tin to Copper hinders it; the addition of Zinc gives a finer texture from which a finer casting is obtained, while Lead gives an easier flow of metal. Copper thus alloyed is given the generic term Bronze or Brass, although just what is Bronze and what is Brass is a question that might be susceptible of considerable argument, as up to within a comparatively recent time the alloy of copper and zinc now known as Brass was called Bronze, and most historical references to "tinkling brass" and "clashing bronze" are really the reverse of what we now know these metals to be.

Aluminum, Phosphor and Manganese Bronzes are alloys in which small percentages of the metals named are used for producing specific mixtures for mechanical and scientific purposes, and are not generally considered for architectural and artistic use.

By observing the table of analyses of borings of some of the world's greatest statues, it will be found that a divergence in the composition of this alloy occurs that is anything but standard. The fact is, that in ordinary practice the experienced foundryman occupies a position somewhat analogous to that of an experienced cook; he tempers or flavors his pot of mixture with such materials and condiments as his good judgment may deem proper for the problem in hand. This of course is not true in the case of standardized mechanical production, but it should be remembered the principal point to be observed in all architectural or art handling is, that whatever standard is adopted in the way of an alloy, each particular piece of work must be carried through in all its portions in an alloy that will give even color results, if the work is to be properly handled from the technical and artistic standpoint. This does not mean that the alloys are the same, for in combination cast and wrought work it is

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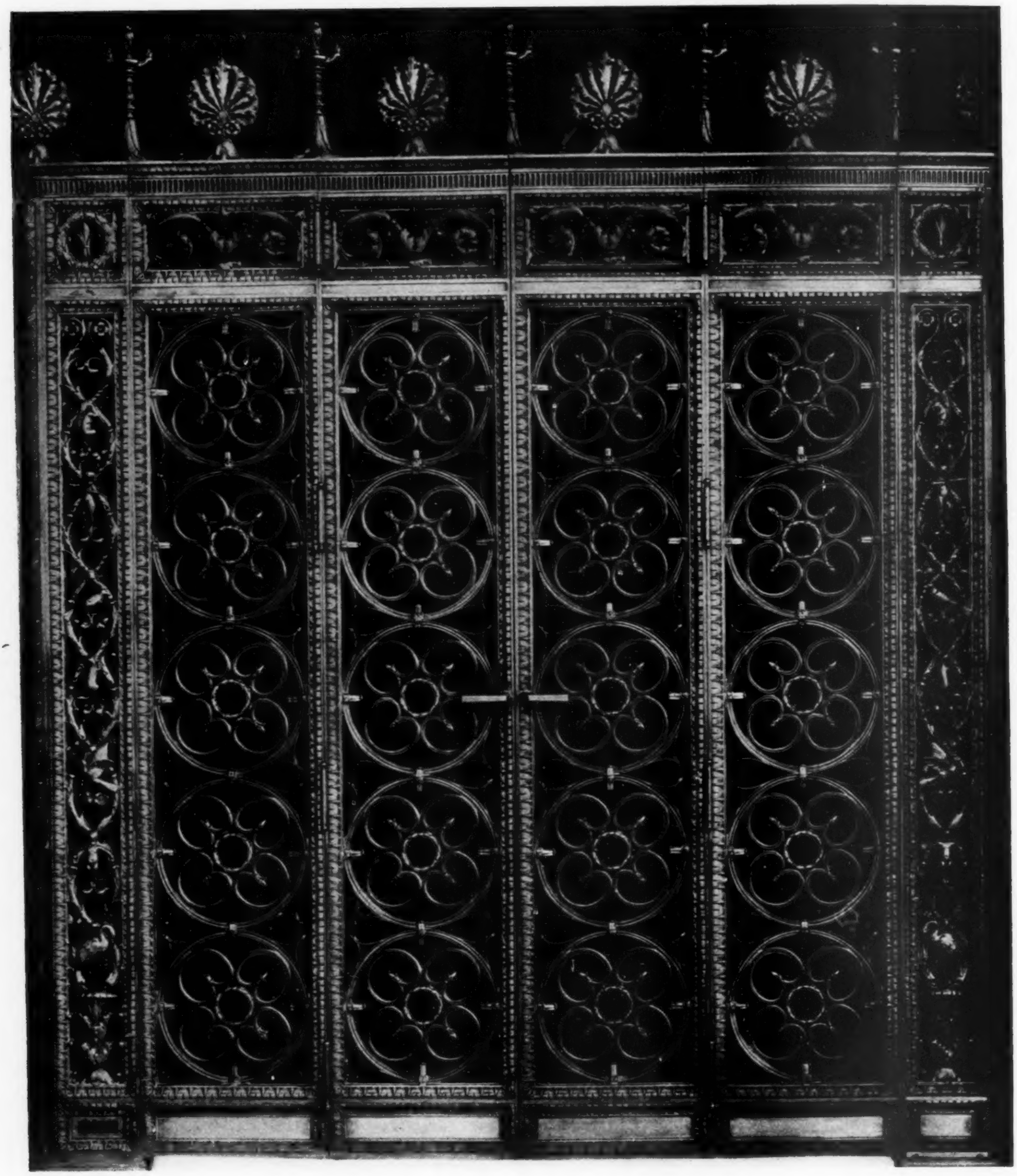
*Chairman Bureau of Technical Data of the Architectural Iron and Bronze Manufacturers.



BRONZE GRILLES—ST. LOUIS PUBLIC LIBRARY
CASS GILBERT, *ARCHITECT*

frequently found that to produce the same color of metal in the different processes requires a widely different alloy, which is due to the difference in texture or density of the metal.

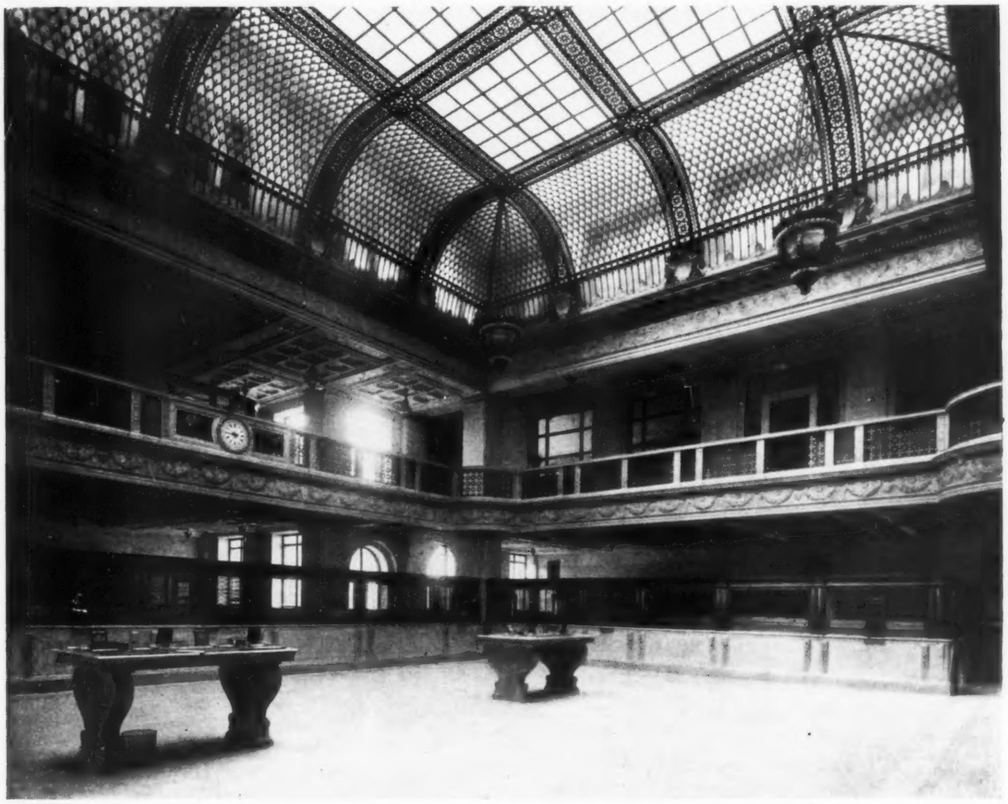
A common architectural specification is a requirement that work be furnished in "Government Standard Bronze" or in "Standard Statuary Bronze," and there seems to be a popular illusion that the Government has standardized this alloy. Such is not the case; neither the Supervising Architect's office, the Ordnance Department, the War and Navy Department, nor the Bureau of Standards has standardized Bronze alloys except for specific mechanical purposes as in coinage, although a movement is now afoot in the Bureau of Standards to bring about specific alloys for certain uses.

In Bronze working as in iron working, there are accepted two general classifications of handling: *Cast* and *Wrought* work.*

Cast Bronze includes that class of work or handling by which required forms are obtained through the deposition of metal in a fluid form upon moulds that have been specially prepared for its reception, the metal being hardened by air cooling or by chemical means. The metal may be deposited onto the moulds either by gravity, by pressure, by spraying, or by electric or dynamic deposition, it being a quality of the component parts of the metal—as with many other substances—to cohere when placed in juxtaposition either by pressure or by chemical processes. In general practice the mould is prepared in sand, the metal made fluid by melting, through thermal heat.

Wrought Bronze, while primarily produced from cast ingots, includes that class of handling which has treated these ingots by passing, kneading or working through dies or rolls. This includes sheets, plates, angles, bars, tubes, mouldings, etc., that are

(*Continued on page* 156)



INTERIOR OF THE BANK OF TORONTO, CANADA
CARRERE & HASTINGS & AUGUSTUS G. BIRD, *ASSOCIATED ARCHITECTS*

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*This classification has been designated by the Architectural Iron and Bronze Manufacturers' Association.

BRONZE GRILLE IN CONSERVATORY OF ART GALLERY OF THOMAS F. RYAN, ESQ., NEW YORK

CARRERE & HASTINGS, *ARCHITECTS*

THE AMERICAN ARCHITECT
VOL. CXII, NO. 2175 AUGUST 29, 1917

PLATE 86

STAIRCASE, ABBOT'S HOSPITAL, GUILDFORD

DRAWINGS AND PHOTOGRAPHS
BY WALTER G. THOMAS

ENGLISH DETAILS
NO. 7

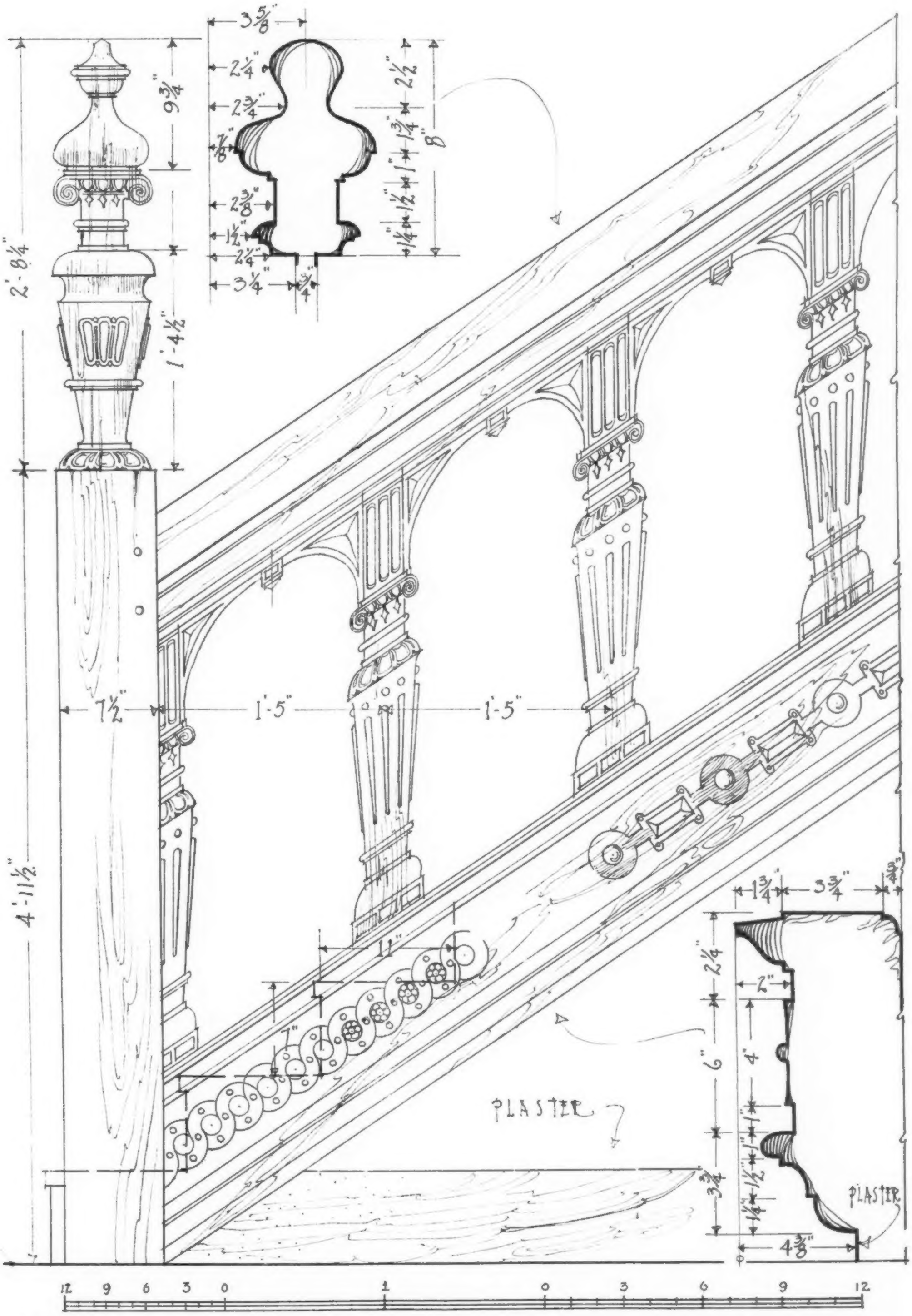


PLATE 87

STAIRCASE, ABBOT'S HOSPITAL, GUILDFORD

DRAWINGS AND PHOTOGRAPHS
BY WALTER G. THOMAS

ENGLISH DETAILS
NO. 7

PLATE 88

ENTRANCE FRONT

HOUSE OF HENRY I. HARRIMAN, NEWTON, MASS.

JOHN BARNARD, *ARCHITECT*

GARDEN FRONT

Plate 39

HOUSE OF HENRY I. HARRIMAN, NEWTON, MASS.

JOHN BARNARD, *ARCHITECT*

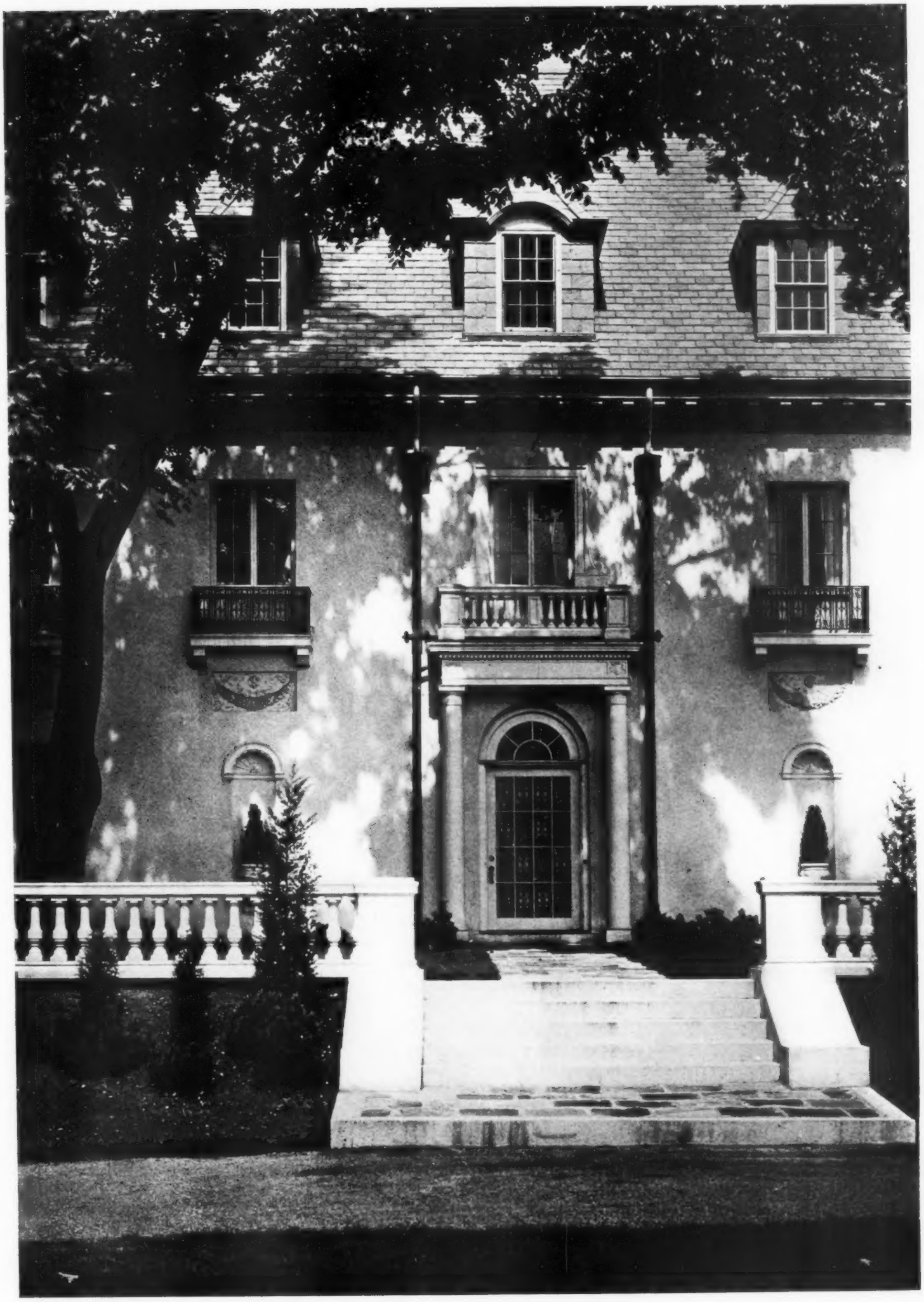


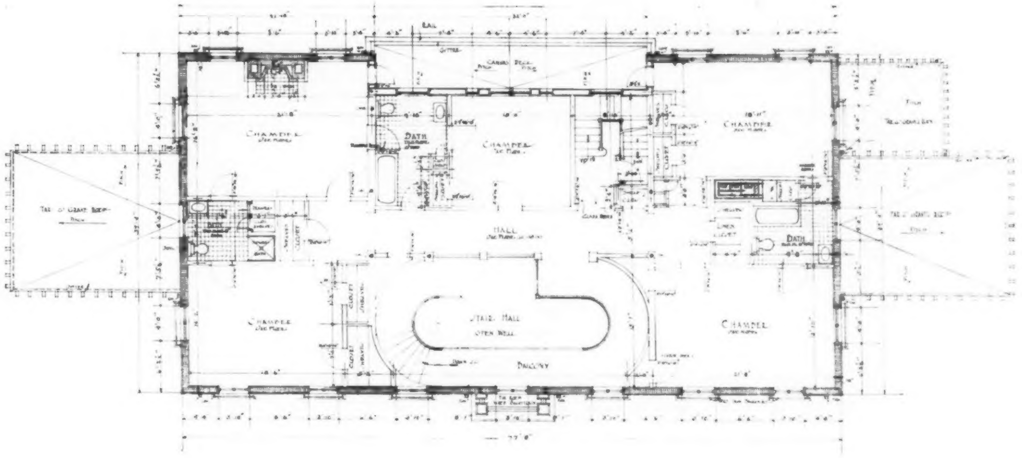
PLATE 90 DETAIL OF ENTRANCE FRONT

HOUSE OF HENRY I. HARRIMAN, NEWTON, MASS.

JOHN BARNARD, *ARCHITECT*

THE AMERICAN ARCHITECT

VOL. CXII, NO. 2175 AUGUST 29, 1917



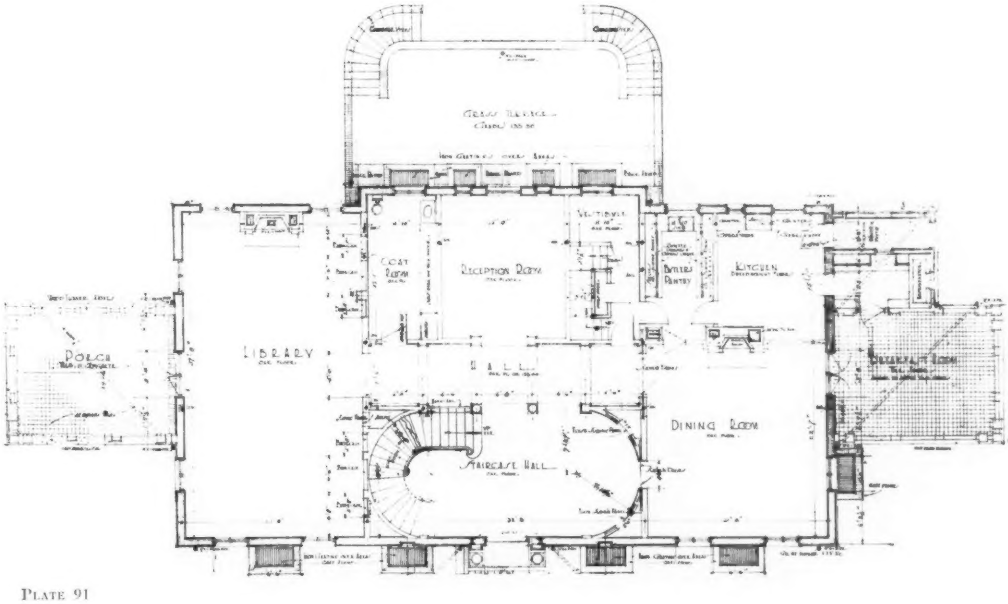


PLATE 91

HOUSE OF HENRY I. HARRIMAN, NEWTON, MASS.

JOHN BARNARD, *ARCHITECT*

PLATE 92

STAIRCASE HALL

HOUSE OF HENRY I. HARRIMAN, NEWTON, MASS.

JOHN BARNARD, *ARCHITECT*

LIBRARY

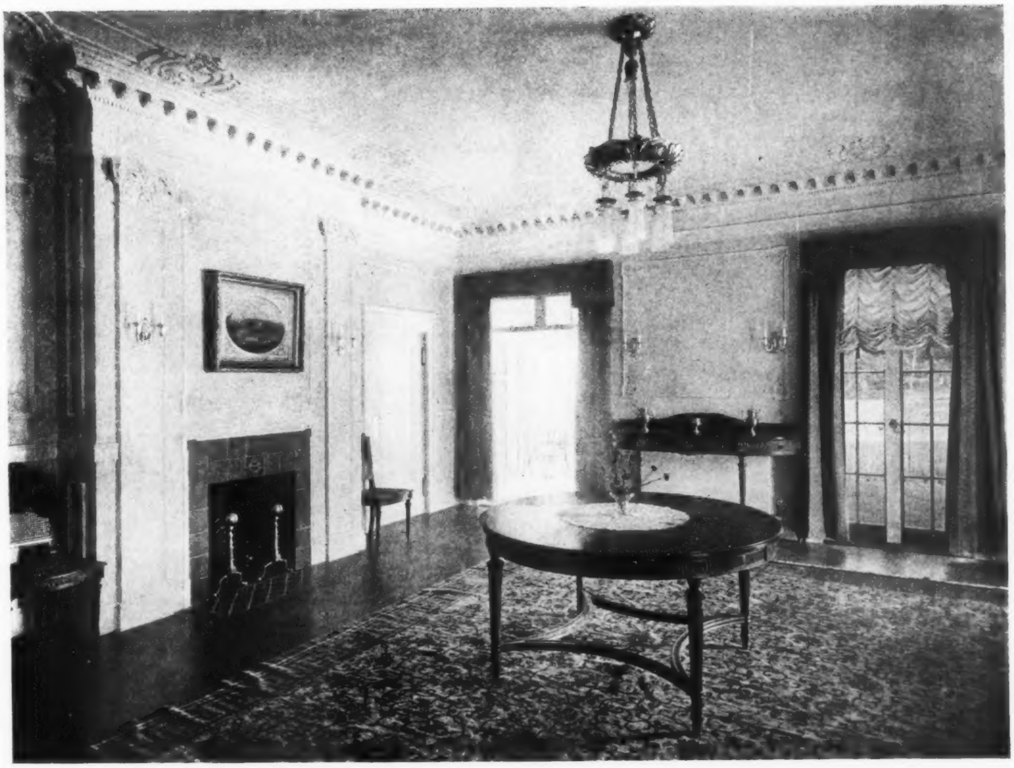


PLATE 93

DINING ROOM

HOUSE OF HENRY I. HARRIMAN, NEWTON, MASS.

JOHN BARNARD, *ARCHITECT*

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VOL. CXII AUGUST 29, 1917 No. 2175

New York's Congested Traffic Areas

PROPERTY owners in the district in New York contiguous to the Grand Central Station will be called upon to bear the entire expense in widening four streets, in order to provide better transit facilities. Forty-third, Forty-fourth, Forty-fifth and Forty-sixth Streets, between Madison Avenue and Broadway, are to be widened. It is hoped that by this means the very serious congestion of traffic on Forty-second Street may be relieved.

To accomplish the desired end will bring much hardship to property owners, entail enormous expense and will also impair the architectural dignity of many important buildings in this section.

In the area affected there are located clubs and restaurants, among them some of the best buildings of their class that have been erected in New York during the past decade.

Just how permanently this very expensive operation will effect the desired end is a question open to very serious discussion. With the completion of the subway on Seventh Avenue south of Forty-second Street and the new and large hotel opposite the Pennsylvania Station, the character of this neighborhood will undoubtedly be greatly improved and the same features of congestion presented.

All these conditions were foreseen a number of years ago, and a diagonal avenue that would connect the Grand Central and Pennsylvania Stations was proposed. This plan was shown to be not only a practical one, but economical in view of the results achieved. Where this diagonal street would cross Fifth Avenue, about at Thirty-ninth Street, it was proposed to lower the roadway in order that north and south traffic on Fifth Avenue would not be interfered with. This plan, we believe, never received the serious consideration to which it is entitled.

The present operation in the Grand Central area is quite likely to be duplicated in the vicinity of the Pennsylvania Station unless, with proper foresight, the city looks to it that all future building operations be carried forward with a view to the prevention of errors that have been proved so many times to be exceedingly costly in their correction.

Let's Build While We Fight

AMERICANS have a habit of quitting work and crowding around when an accident occurs. The case in point is the world's "accident" in Europe.

We are in danger of losing our heads and stopping work while the conflict is on. This would be a serious happening, but, happily, every American can help to prevent it without adding to the noise and confusion of going to war.

The only thing necessary is to go quietly on in attending to our own business.

While our naval and military forces are hastening to the front to destroy agencies and obstacles that seek to impede our growth, it is essential that we redouble our constructive efforts at home.

We can both build and fight, and we ought to seize upon this advantage as the greatest opportunity created by the war.

Let both public and private useful building construction proceed. Production and handling of building materials and public and private construction work are fundamental industries of the country. Any tendency to suspend or to postpone building projects is inconsistent with maintaining our prosperity. The country is prosperous. Building investors should not hesitate to go ahead with their plans. Railroads should spare no effort to supply the building industry with the cars needed to transport materials. Government, State, county and municipal authorities should encourage the continuance of all kinds of building. Road and street improvements in particular should go on unabated. Bad roads and streets are factors of first importance in the present high cost of foodstuffs. Never before was the improvement of highways so essential.

The lumber, brick, cement, lime, sand, gravel, stone and other building material industries are basic. Neither Government regulations nor railroad restrictions should be unnecessarily imposed to interfere with them. If any action is taken which results in the prostration of so fundamentally important industries, there is real danger of a surplus of unemployed labor, a surplus of railroad cars and a crippling of business that will seriously embarrass the Government in financing the war.

Let us build while we fight!

Waste in Art

HERMAN A. MACNEIL, N. A., Sculptor, in a recent address before the American Federation of Arts, suggested the establishment of a gallery in Washington where plaster casts of the best American work in sculpture could be permanently assembled for the purpose of study. Mr. MacNeil directed attention to the Sculpture Gallery in the City Art Museum in St. Louis, where a handsome collection of the work of American sculpture has been formed. While these casts represent works that total in cost more than one million dollars, the Museum, by securing from sculptors casts that had served their purpose, have been able to gather a most valuable and representative lot of examples of the art of sculpture in the United States, practically without cost.

Hundreds of opportunities to make collections of important works in sculpture have been presented and ignored during the comparatively short history of the development of the sculptor's art in America.

Every important local celebration in our larger cities has been marked by the creation of important work worthy of a place in museums. The larger expositions, particularly the Panama-Pacific, have been prolific in results of the greatest importance. Most if not all of it has at the close of the expositions been broken up and turned to rubbish. Paintings of no greater merit have been preserved and found a dignified resting place in museums or in private collections.

The distribution of so many casts of good sculpture would seem to be an artistic waste that should be prevented. This prevention can be easily brought about by concerted action between museums and the National Sculpture Society. As one of the arts allied to architecture, sculpture has in this country co-operated in the most valuable way in the embellishment of important buildings. It would therefore be well if our architectural societies would lend the weight of their influence to the conservation of what is a decided artistic resource, and seek by some well developed plan to make exhibitions of good sculpture as general throughout the country as are those of good painting.

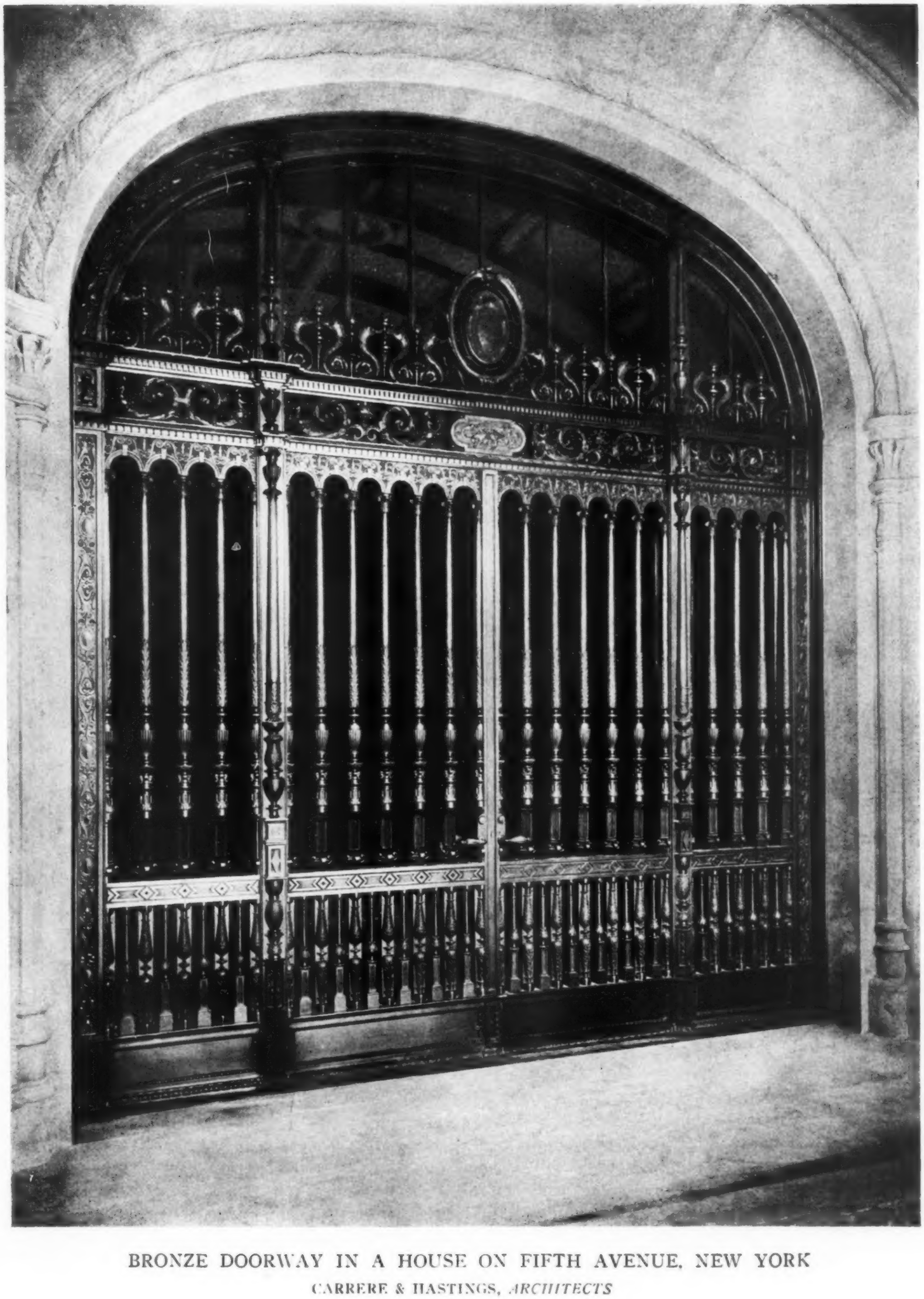
We shall probably reach a time when war memorials will be springing up in all our important cities. Collections of good sculpture would exert a very beneficial influence. Perhaps the many artistic errors that marked memorials erected at the close of our Civil War were due to lack of good example. It might be well to check what is really a decided waste, and to endeavor to retain for study and inspiration examples of American Sculpture that otherwise will be lost.

Campaign to Educate the Tenement Dweller

NO one will argue the point that people are willing to be as happy as circumstances will permit, and therefore the campaign undertaken by the New York Tenement House Department to teach our poorer citizens the simple and obvious essentials of health and efficiency has been welcomed with interest.

Attractively presented in simple form, the Tenement House Committee of the Charity Organization Society has issued a small educational primer named "For You," which is forcefully written and graphically illustrated to show the inter-relation between congenial, healthful housing conditions and success in business. This subject has a strong appeal, explaining vividly as possible the rights and duties of tenement dwellers under the law, laying special stress upon cleanliness, ventilation and fire protection. The booklet has already been through two editions with such success as a social and civic enterprise that a third edition is now published in co-operation with five other branches of the municipal government, the Police, Fire, Health, Street Cleaning and Water Supply Departments, thus bringing out the relation of these departments with the larger tenement house problem.

In order not to depreciate the value of the pamphlet by permitting it to be spread broadcast, it is distributed by special women workers in the Tenement House Department, who are enabled by observations made in their activities to call attention to any violations of law and to obtain the help of the proper authorities in securing improvements. These women, by virtue of their friendly and helpful suggestions and their close contact with social agencies of all kinds, are doing much toward the welfare of the tenant and the larger well-being of the city.



BRONZE DOORWAY IN A HOUSE ON FIFTH AVENUE, NEW YORK
CARRERE & HASTINGS, *ARCHITECTS*

Bronze

(*Continued from page* 151)

produced by rolling, drawing, bending, extrusion, stamping or other hammering and kneading processes.

Kalamein Bronze (sheet Bronze, planted on wood to give it bulk), sheet metal and wire working are distinct branches of this industry. Work in these lines should be specified and kept distinct from ornamental Bronze and ornamental Iron specifications.

BRONZE SCREEN

This latter phase of metal working is one which it is well for the Architect to know, inasmuch as it has become common practice to specify Ornamental Iron and Bronze work together and to scramble in with the lot sundries in the way of kalamein, sheet metal and wire working. In order to standardize forms of specifications and to eliminate all questions of doubt as to the trade subdivision of Bronze and Iron Ornamental work, the Architectural Iron and Bronze Manufacturers' Association has recommended the following classifications:

Ornamental Bronze work,
Ornamental Iron work,
Miscellaneous Bronze and Iron work.

To be designated as *Miscellaneous* in Bronze and Iron specifications:

1. Vault lights
2. Rolling steel shutters
3. Hollow steel, kalamein or other metal clad work
4. Anchors for other trades
5. Mail chutes
6. Book stacks
7. Glass
8. Mirrors
9. Sheet metal work (gutters, flashings, etc.)
10. Electrical work
11. Field paint
12. Wood handrails
13. Marble, slate, concrete, compo or patent stair treads
14. Elevator signal device

BRONZE CLOCK FOR BUILDING OF U. S. EXPRESS CO., NEW YORK

RENWICK, ASPINWALL & TUCKER, *ARCHITECTS*

15. Automatic elevator door operating devices
16. Revolving doors
17. Directory board equipment
18. Window cleaner's bolts
19. Vault doors
20. Power hoists
21. Flag poles
22. Steel sash
23. Pipe railing
24. Stock register
25. Stock clocks

The development of the art of the Bronze craftsman in the United States has been marked by many vicissitudes. Up to a certain period it languished, not so much because of lack of appreciation of its artistic possibilities, but mainly because only a few craftsmen had been developed to an extent that would insure the artistic interpretation of the artist's designs, and, like any art that has not received the sort of encouragement that would inspire to better performance, the craft of the Bronze worker has undergone many discouragements.

At the present time a determined effort to overcome the handicap of recent years has been made that these limited conditions of craftsmanship may be overcome. Men of artistic knowledge, supported by capital risked in these enterprises, have in some of the more important cities set out to place the production of artistic Bronze in the United States on a plane that should command the respect of the artistic world. They have, in a measure, succeeded, but success will always be hampered by strangling limitations until those who should be the most deeply interested in so important an artistic development have learned thoroughly that craftsmanship, like any phase of art, can only reach its highest performance when untrammeled by such price methods and restrictions as are placed on the mechanical trades.

It is but seventy years since the first Bronze statue was set up in this country. This was a monument to Dr. Bowditch, the astronomer, cast in 1847. Examples good and bad have since marked the production of artistic Bronze. The formation of the National Sculpture Society, some thirty years ago, and the various competitions for Bronze work of all kinds have been very important factors, and have done much toward the elevation of the art of the craftsman in Bronze.

While we have not perhaps "arrived" we are journeying steadily and straight toward a very high development, and it is the writer's opinion that we have in America to-day craftsmen who are second to none in the world and who are able to produce examples of workmanship that will compare favorably with any in the world's history. While in many branches the American Bronzesmith can in the terminology of the day, if given the opportunity, "cut circles around them," with honor.

No painter or sculptor would, if he knew the dignity of his art, accept a commission where the de-

BRONZE STAIR RAIL, NEW HAMPSHIRE HISTORICAL SOCIETY
GUY LOWELL, *ARCHITECT*

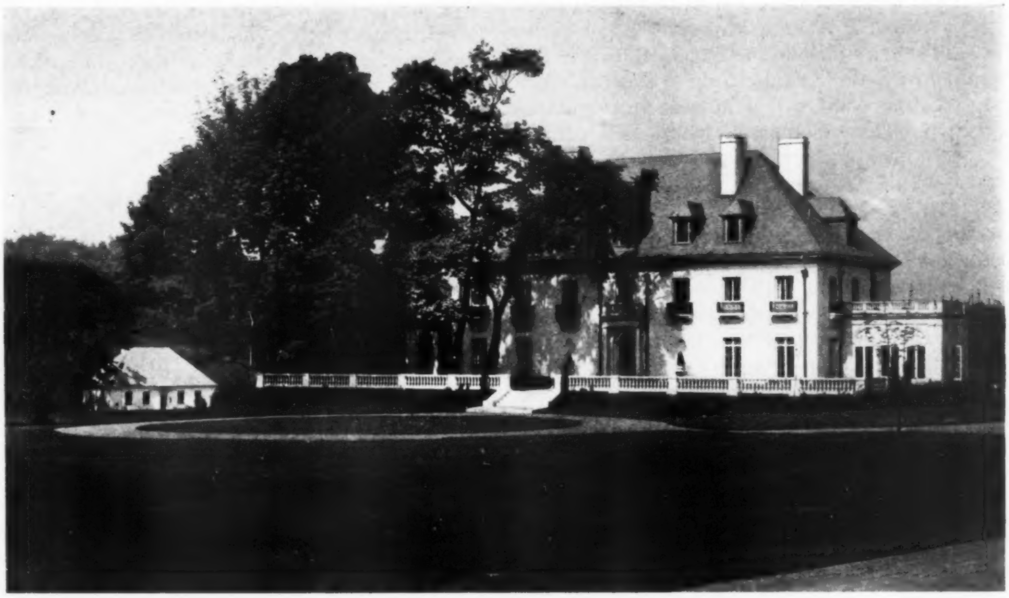
tails of color, composition and form were set down in a hard and fast "specification." The craftsman must needs do this, or languish without patronage. Hence his slow progress; but where his "Pegasus" is allowed to range uncontrolled, when he receives generally the knowledge of the space he must fill, and its design is left to his artistic judgment in collaboration with the architect, then we shall have a higher craftsmanship that will rival the best the world has known.

Adapting Buildings to War-Time Needs

The Architects' & Builders' Journal, discussing the transformation of St. Mark's College, Chelsea, England, into a war hospital, says:

"It possesses two kitchens, one each for the medical and the surgical section respectively. In the first of these, which is capable of cooking for 400 to 500 persons, the following apparatus was installed: A three-oven gas roaster, a 200-lb. capacity potato steamer, a double-oven gas range with hot plate, two hot plates for boiling and stewing, a gas-heated stock-pot stand, four gas boilers of capacities ranging from eight to forty gallons, and a combined carving table and hot closet.

"The equipment of that kitchen was completed within thirty-six hours after first notice had been received by the gas undertaking responsible for the work—a record paralleled not once but many times all over the country, though even then the industry was hampered by lack of men owing to the immediate and enthusiastic response given by its employees to recruiting appeals. Nor was it only the hospitals which claimed its aid; there were camps to be fitted up for our own men and their prisoners, Y.M.C.A. huts to be provided with cooking and heating facilities, and, in large numbers, buildings to be equipped as comfortable havens for Belgian refugees. In all these cases the work could not have been carried through so expeditiously and so well, had it not been that gas-mains are everywhere to-day, and gas apparatus can consequently be easily and quickly connected up and put in working order."



House of Henry I. Harriman, Esq., Newton, Mass.

JOHN BARNARD, *Architect*

A description of the main structural features of this house are as follows:

Basement: Below grade, stone foundation. Above grade, concrete, rusticated, and lined off to imitate stone.

Play room and billiard room have red tiled floors.

The first floor is mill construction (8 x 12 hard pine beams with 3-inch plank), forming rough beam ceiling for playroom and billiard room. The walls of these rooms are rough plaster. Fireplace of Weymouth seamed face stone.

Exterior walls above first floor of 10-inch hollow tile covered with stucco composed of white marble dust and cement. The inside of these walls are furred, wire lathed and plastered.

The library is finished in English and American walnut, with ornamental cornice and beams, the detail of which has been picked out in gold and color.

The reception room has a plastered cornice and canvas wainscoting, paneled and painted in gray tones.

The staircase hall is painted in shades of cream, with wood paneling to second floor. Above this are plastered walls with a Dutch metal finish. There is a heavy ornamental plaster cornice at the ceiling.

The dining room has walls of champagne color. These also are canvas with wood moldings forming panels. The ceiling has an ornamental plaster border.

The breakfast room has a blue tiled floor and the plaster wainscoting painted an old rose. The frieze above this wainscoting is papered.

The second floor has five bedrooms, with three baths and a recessed sleeping porch.

The third floor has four large bedrooms, one bath and a storage space.

The roof is of heavy green slate with ornamental wood cornice.

The garage is of 8-inch hollow tile with an exterior finish similar to the house. The interior surface of the walls is of a glazed smooth tile.

New Model City Planned At Port Wentworth, Georgia

Details of the model town shortly to be erected at Port Wentworth, a few miles outside of Savannah, Ga., have been made public.

Charles W. Leavitt, landscape architect, has prepared the plans of the city, and the actual work of construction will be carried forward under his direction.

Port Wentworth City will be erected to provide convenient and comfortable homes at a nominal expense for the workmen and families of the employees of the various enterprises established at the nearby Port Wentworth Terminal, which is owned by the Savannah & Atlanta Railway.

These industries include the Savannah Sugar Refining Company, the Atlantic Pulp & Paper Corporation, a cotton compress, a lumber mill, and the Terry Shipbuilding Company, which will employ about 3500 men in building the vessels it is to construct for the Government.

The plan of the city, which will have its own water supply, sewerage system and lighting plant, calls for a white and negro village on opposite sides of the Savannah River, with separate schools, community stores, churches, parks, and moving picture theaters. All the cottages will be of frame construction, the materials being cut on the property. The houses in the white village will be of Colonial style of three, five, six, and eight rooms. In the colored district there will be 250 two-room bungalows. Two modern hotels will also be erected.

Open-air school classes for the children will be one of the modern ideas introduced at Port Wentworth City, and landscape effects will be carried out in the general arrangement of grounds and buildings.

The city will be connected by rail with Savannah, and passenger vessels will ply the river regularly between Savannah and the model village. The site of the town was formerly a large plantation, and an opportunity will be offered employees to cultivate their own gardens in the fertile soil of the adjacent fields.

The care taken to provide this model city with all the modern attributes at a lower expense to employees than could be secured otherwise, is expected to go a long way toward solving the ever-vital problem of adequate labor supply.

Fargo To Limit Building Heights

An ordinance is now before the city commission of Fargo, North Dakota, that if favorably considered and passed, will limit the heights of factories, apartments and storage buildings to seven stories and will prohibit the erection of any buildings for office purposes to a height exceeding ten stories.

House Numbers

The American Vice-Consul at Pernambuco reports from that city that the municipal authorities are installing a system of numbering the houses that appears to be practicable and based upon common sense. The system is to number them according to the distance of each from a given starting point. For example, the number 134 on a house means that it is that distance in meters from No. 1, or the corner house from which the numbering begins. The house opposite would be 135. The system is in use in several cities in southern Brazil, having been first tried in Bello Horizonte.

INDUSTRIAL INFORMATION

Interlocking Tile Details

A collection of reproductions of line drawings showing details of wall construction is published by the Denison Interlocking Tile Corporation, Hippodrome Building, Cleveland, Ohio. These drawings illustrate the ways of laying Denison interlocking tile for ideal construction of various types, to insure perfect alignment, strength and insulation. This data may be secured by application to the company or its eastern representative, the American Clay Products Company, 175 Fifth Avenue, New York.

Standardized Specifications for Cork Insulation

A specification file prepared in accordance with the recommendations of the American Institute of Architects is ready for circulation by the Armstrong Cork & Insulating Company, Inc., Pittsburgh, Pa. It contains condensed descriptions and full specifications covering corkboard insulation for cold storage rooms and freezing tanks; cork cold pipe and high-pressure steam line and boiler coverings; Nonpareil insulating brick for furnaces, ovens or boiler settings; machinery isolations, and cork flooring brick of different kinds for specific requirements. Materials and their application are illustrated in an interesting manner. The specifications are fastened in a letter-size, specially prepared file wrapper, while guides for cross-indexing are supplied to facilitate location of desired information.

An Artistic Pool for the Daily Plunge

The Associated Tile Manufacturers, Beaver Falls, Pa., have a new brochure on swimming pools, for distribution upon request. It is beautifully illustrated with photographs of pools and natatoriums, details of tile construction, cross sectional diagrams of waterproof wall structures, floor plans and gutter drainage details. The information is more or less general, but the association is prepared to work out specific problems and to make practical recommendations for given conditions, upon request.

A HOUSE IN GRANADA, SPAIN