PENCIL POINTS

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AN ILLUSTRATED JOURNAL for the DRAFTING ROOM

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PENCIL POINTS

Volume XIV May, 1933 Number 5

Architectural *Weeds* Versus *Needs*

By Ernest John Russell, F.A.I.A.

Editor's Note:—*The leading article in last month's issue, "Can We* Know *What to Build Where?" attracted much attention in the profession and drew expressions of approval from architects in many parts of the country. Among others who join in urging that architects and economists join to attack the basic problem of proper land utilization is the President of the American Institute of Architects, whose views we are glad to present here. We do not believe it possible to emphasize too strongly that architects can serve their own interests best today by cooperating with their fellows in each community, whether it be great city or small town, to survey the present physical and financial condition of existing buildings of all types and to determine the factors that affect the demand for their use. When the true facts are assembled and studied, unsuspected relationships are likely to become evident which will lead to an intelligent program for future building. Such efforts are already producing results in the communities that have been foresighted enough to go at the problem vigorously.*

The article by Mr. O. H. Cheney in the April issue of PENCIL POINTS demonstrates very clearly the necessity of a comprehensive survey of building needs. There are a number of national organizations that have made partial surveys and it might be advantageous to have them create a council for the purpose of formulating a program that could be used as a guide for communities in making such surveys. Such a council might also collect the data that is available at present and publish it as an educational document.

While office building managers in some of the large cities believe that the normal increase for office space should be at the rate of six per cent per annum, this rate may not apply in all sections of the country, and might be of little help to smaller communities that, nevertheless, indulge in many mistakes in this regard.

The amount of merchandising space that a given population would support has been occasionally predicted, but this prediction should be enlarged upon and the facts should be made known because of the tremendous waste that is constantly indulged in for this particular purpose.

Residential, institutional, and industrial needs should be determined. The suitability of location for each type of building is of the utmost importance as one of our greatest troubles comes from architectural weeds (the dictionary defines a weed as "a plant out of place"). It would be interesting and valuable for each community to catalogue its architectural weeds. St. Louis could show an interesting exhibit along these lines where there are wholesale houses between residential and retail districts, mis-located hotels that are financial failures, and combination buildings that should serve as warnings.

The architectural profession could benefit posterity immeasurably by assisting in such an analysis and by bringing the mistakes to the attention of investors. Such a survey, to be most convincing, should be participated in by all of the branches of the industry as the architect looks at a building from but one point of view, while realtors, investment bankers, and city planners have their varying approaches to such a problem.

Mr. Cheney's statement parallels in thought those activities of the present administration in Washington that are directed toward consolidating the various agencies having to do with farm relief and credit, the merging of public works agencies, likewise the suggested appointment of a railroad co-ordinator, whose duty will be to eliminate the wasteful practices that are indulged in of necessity because competition is uncontrolled. What a marvelous job this railroad co-ordinator could do if he were given the power to tear up the unnecessary parallel tracks that were originally installed more because of personal ambitions than of need for increased facilities.

The case for the building industry closely parallels that of the railroads in that there has always been keen and uncontrolled competition which has resulted in needless duplication of space and in ignoring suitability of location.

It is a wide field that Mr. Cheney has opened to us. I sincerely trust that his suggestions will be followed for I believe they would result in the greatest economies and that in time wasteful buildings would be reduced to a minimum. We will probably find it essential some day to set up Boards similar to those of Public Service Commissions with the power to refuse permits unless necessity for the project is convincingly proved.

I have such confidence in the members of the architectural profession that I am convinced they are ready to do their share in bringing about a much more wholesome condition that will be of great value to the investing public, and will at the same time establish the highest sort of a standard for the building industry.

Let us hope that Mr. Cheney has stimulated thoughts that can be translated into actions.

Facts Found Now Will Bear Fruit Later

Architects in a given community, whether it be a large city or a small town, can do themselves no greater service at the present time than by accumulating, coordinating, and studying factual information pertaining to the physical and financial condition of existing buildings and their state of occupancy. The livelihood of the profession depends upon the future demand for buildings. That demand, if it is to be healthy, is going to depend upon actual needs rather than upon speculative surmises. The only reliable method for determining needs is to base such determination on *knowledge* of existing accommodations and of the economic factors and trends which influence the demand for these accommodations. The securing and coordination of such knowledge is of course beyond the capacity of a single individual, except possibly in a very small town. This makes it necessary for the architects of a community to cooperate with each other and with the real estate and financial interests that have to do with building enterprises.

The New York Building Congress is now and has been for some time at work on a survey of the conditions of real estate in Manhattan and other boroughs of the metropolitan area. When this work was undertaken it was found first of all that a great deal of information had already been collected by various civic and municipal organizations and by the United States Census. Access was obtained to a large quantity of this existing data and a program was mapped out and followed to secure additional data through the activities of a number of draftsmen provided by the Architects' Emergency Committee and the Emergency Work Bureau. The committee directing this work consisted of a group of architects and an approximately equal number of economists. This committee started out as an informal group, but when the importance of its activities became evident, it was made an official committee of the Building Congress. Present indications are that the study is going to bear fruit and that it will serve as a basis for intelligent future development of New York real estate—which will benefit all parties concerned.

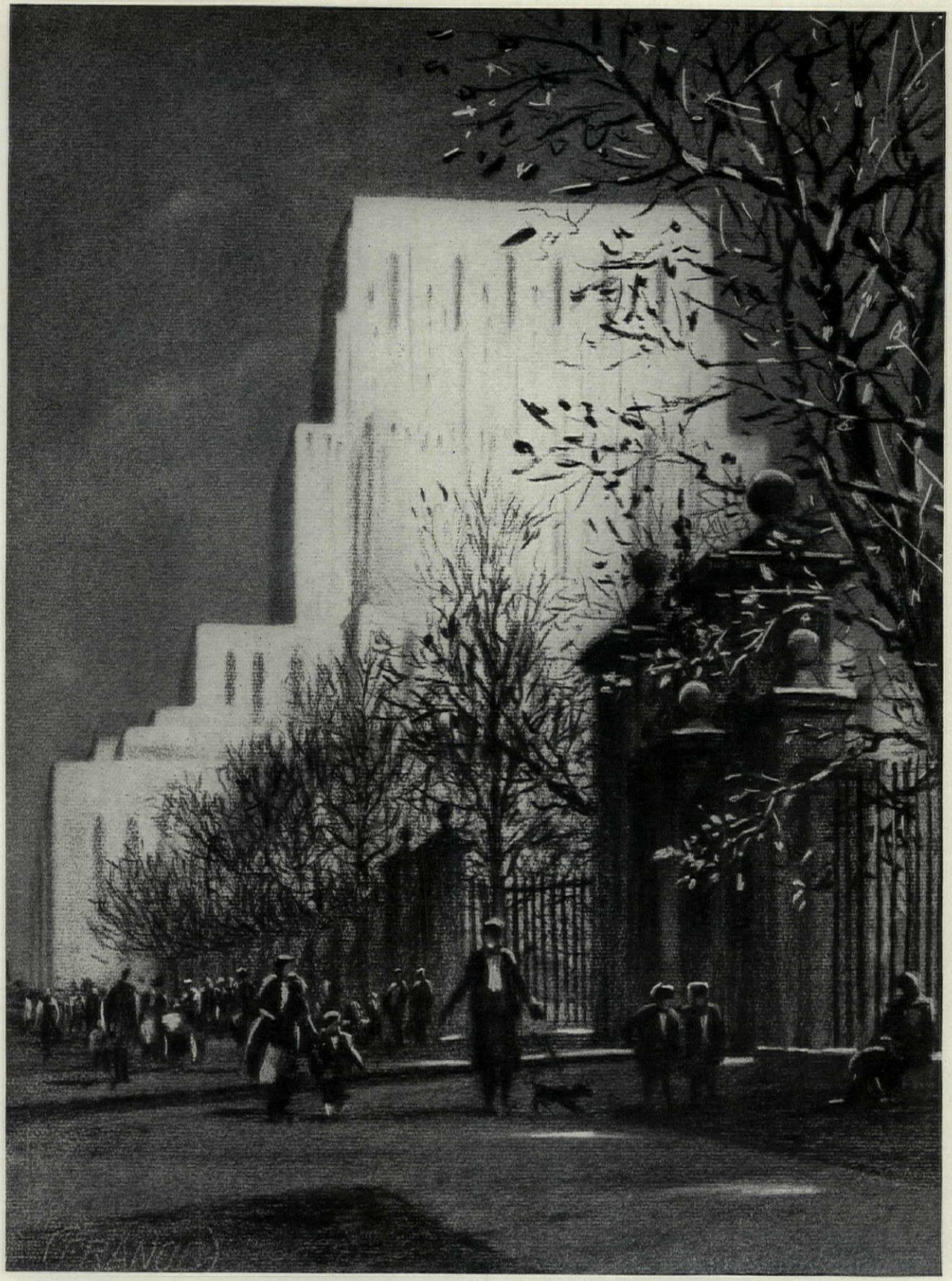
Architects in other cities have been and are actively engaged on similar studies. In Cleveland, for example, they have been at it for two years, and we are told that five sizable housing projects have been turned up as a result, the need for which was not convincingly apparent when the study was begun.

One of the significant things that is being brought out by the New York survey is that most land is definitely greatly overvalued. The overvaluation is based on the fallacious belief of a large proportion of property owners that their particular plots are potential sites for future commercial buildings upon which large profits could be made. The facts as collected and graphically presented show that, although Manhattan Island is and should be predominantly residential, the high valuations have caused a steady outflow of population for a number of years. They show also that, as a result of the forced outflow, a great volume of vacancies have been produced so that many blocks of residential properties are being operated at a loss. Facts obtained in the Census of 1930 show that the relationships between the incomes of the population and the rents demanded for residential accommodations have been seriously out of balance. The true value of the land is seen to be much less than that which has been placed upon it by the real estate operators, the property owners, and the city assessors. The same situation undoubtedly prevails in most other urban communities.

It is time that general recognition should be given to the principle that land is worth only what it can earn and that it cannot be expected to earn more than the traffic will bear. One of the obstacles now in the way of many housing projects for slum replacements is that the land is being held at too high a valuation, which makes it impossible to keep the rents low enough to do any good. The alternatives seem to be either to transfer the slum denizens to the outskirts of our cities by building them accommodations where land is cheap or to bring about, through condemnation proceedings or otherwise, a lower valuation of the land at present occupied by slums so that low rental housing could be built there. The facts that are now being brought together in various cities are making obvious in uncontradictory fashion the things that have hitherto been understood only by the more enlightened persons who have been thinking about the problem.

Other facts relating to business and industrial buildings are making it clear that certain areas are overbuilt with certain types of accommodation while others are lacking, that zoning has in some instances allowed entirely too much area for business or industrial use, and that the whole situation in regard to city and town planning is in need of intensive re-study. These things, tackled now, while architects have time on their hands, will surely pay dividends later on. It is up to the profession to take an active part.

Let us repeat, for we feel it very strongly, that there is probably nothing a group of architects located in any part of the country can do which will stimulate work in such large volume as to make, now, a really intelligent and thorough study of the existing stock of buildings in relation to probable future demand. This is no royal road to a job, but even although much hard work is involved, there is no surer way to bring about a revival of private building.



FROM A DRAWING BY E. P. CHRYSTIE

CORNELL MEDICAL CENTER, NEW YORK

Drawn with charcoal on white paper with touches of white chalk.

FROM A CONTE CRAYON DRAWING BY A. T. TORNROSE—STUDY FOR AN ETCHING

The original, which measures 11¾" x 16½", was drawn on newsprint stock which takes crayon very nicely. The scene depicted is purely imaginary and provides simply a study in composition. The artist is a commercial illustrator of long experience and it is interesting to see his approach to the delineation of an architectural subject.

Wrought Metalwork, 1

By Bernard Heatherley

Editor's Note:—*This article is the first of a series on the subject of wrought metalwork, written by a man who is particularly well qualified by training and experience to discuss for architects the matters pertaining to the metal crafts. He was born at London, England, and trained there first in furniture design and later in architecture. He came to the United States in 1921 and thereafter spent about two and a half years under Samuel Yellin. He then engaged in architectural work in Philadelphia, Rochester, N. Y., and Utica, N. Y. He is a member of the A.I.A. and a registered architect in the State of New York. Late in 1931 Mr. Heatherley rejoined Mr. Yellin's organization and spent about fifteen months in charge of his shop. He is now a metal craftsman in his own name.*

There are certain ways of using materials which make of their use what is called a "craft." It is a much abused word (being a favorite of the Gifte Shoppe and the arty sweatshop alike) and one eminent craftsman—when asked to explain what he understood by "craftsmanship"—has been known to say, "You can't explain it—you can only do it!" However, to crystallize the meaning of the word for present purposes, let us say that in the proper practice of a craft we have the element of art together with certain laws controlling the tools and methods employed. This prevents the craftsman's use of material from being classified as a "trade"—wherein, today, art usually has no place and practicality alone governs the methods of production. Trades and crafts often use the same materials but their uses thereof differ widely. In the case of wood, for example, the man who makes crates is hardly a craftsman, while the man who carves wood—might be.

Now of all the crafts practiced the least understood and appreciated seems to be, for some odd reason, that of wrought metalwork in general and wrought ironwork in particular. Therefore, this and ensuing articles and illustrations have been prepared in the belief that they will help towards the truer understanding of the craft that many more people could and should enjoy. I hope that it will not offend too deeply when I say that if most of the executed work about us is the gauge by which we must measure the knowledge and ability of the average metal craftsman —then he obviously has much to learn. This fact reflects upon the architect and decorator who would be able to render a fuller service were they more learned in the true meaning of such work. And a sharpening of the layman's critical faculty would bring not only an increased appreciation of fine things but also the ability to judge whether he is receiving full value for what he spends. It is very strange, but very common, to see—perhaps a building—perhaps just a room, where a fine result has been achieved with all the other crafts employed—the masonry, the woodwork, tile, plaster, and furniture—but where, as soon as decorative metalwork is introduced it is as though all sense of the fit and the proper had been lost. Such elementary requirements as shape and proportion (to say nothing of design and execution) are forgotten in the metalwork although remembered in everything else. The writings on this subject, as they occasionally appear in print, with their illustrations, usually provide additional evidence of a lack of understanding and are more sympathetic than discriminating; if further proofs of popular misconceptions were needed, the craftsman's mailbag and the average specification given to him would provide them.

Perhaps the greatest share of the blame for these conditions must be borne by the craftsmen, for it is primarily their place to understand the craft and to spread the gospel of good work. Facilities for study—documents and examples—are available to all, and the making of good work is as much a matter of logic as of heart. Only to a degree can the architect be blamed. In spite of Pytheos it is impossible for an architect to know thoroughly all the details of design and technique of all the crafts he employs. He has the right to expect that a man professing to a craft will relieve him of that necessity. In one respect, however, the architect is often culpable. Through either ignorance or indifference he is too seldom willing to make the effort necessary to obtain an adequate appropriation for the metalwork on his building. He and his client, therefore, quite often receive the products of a trade—although both may believe that they have examples of craftsmanship. In this connection it should be said that a proper sense of design and feeling for the material will permit fine things to be done at no greater expense than a "tradesman's" interpretation may involve. Of this more will be said later.

The foregoing may read as a rather sweeping indictment of all the people who usually have to do with metalwork and it would be unfair to have written it without offering some suggestions for improving the condition that exists. Fortunately there are one or two rare souls who thoroughly understand this work and who are developing the craft sanely with whatever present-day helps are applicable to it. They have not cast aside the traditions (to do so is especially dangerous in making fine decorative metalwork) and in their slow, discriminating, and restrictive acceptance of the machine and modern technological device, have kept their work an art—instead of permitting it to become a manufacture or a trade. These are the men capable of judging the merits of what is being made and with whom it is safe to place work. For those who do not know what constitutes fine work, however, it might be difficult to decide who is of this class and who is not. The information here presented,

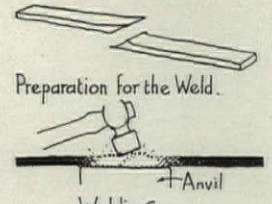
then, is intended to show what points such a decision should rest on. It is not intended to show the architect how to design and detail metalwork and thus usurp one of the proper functions of the craftsman—although suggestions will be made as to methods of indication and improvements in specification. In telling some of the blacksmith's secrets a more correct appraisal of different works will be rendered possible and the reasons for costliness as well as the ways to avoid it will be made plain. The illustrations will show different ways of doing similar things and will compare these various methods from the artistic, the practical and the economic viewpoints.

A certain mental attitude is necessary to the proper appreciation and working of metals as a craft. The keynote of this whole attitude is an understanding of the nature of the material. From this comes a belief in the propriety of certain tools and methods in working it and that the way in which a form is made is as important as the form itself. Iron may, figuratively (like the horse), be led to water, but (unlike the horse), it *can* be forced to drink. The results of such treatment are very painful to behold. True mastery of a material is shown in leading it along those paths wherein it is most tractable. The nature of iron has not changed through the ages and under the traditional tools and methods it has shown itself to be most tractable—having fewer limitations and more artistic possibilities than any other metal. In spite of the developments of new alloys, new processes, and new appliances, it still holds that place of honor. It must be with great care and respect, then, that we apply new devices to this patriarch of materials, although it is not necessary to feel that good craftsmanship was only possible before the machine age and that it demands confinement to primitive methods. The necessity comes—when using new tools and processes—in not stepping beyond that disciplinary line by which all art is bound. So, although the nature of iron requires that the greater part of the work done on it be handwork, there can be no just objection to the correct use of certain mechanical tools, such as, the drill press, the saw, the shear, the grinding wheel, or even the power hammer. Some of these tools are in the direct line of tradition and show a logical development of efficiency. Traditionally, power was used where possible and we have merely substituted the dynamo for the water-wheel. Even the artistically dangerous welding torch had its primitive forerunners and many have been the devices for supplying the furnace draft by means other than hand power. These things steal nothing from the proper practice of the craft. Neither do they add much or make possible what was not possible before. Their "advantages" lie in making certain parts of the preparatory work easier and quicker and thus reducing costs. The moment they are used for purposes beyond their proper scope—art—craft—design—all depart. In view of certain problems currently before the world they have yet to justify themselves.

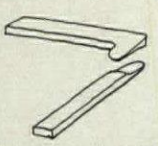
To those who hold that the day of handcrafts is over, it is only necessary to point out (not considering here the inevitable cycles in human activities) the perpetual joy men get from working with their hands and to compare a good product of the hand—its individual character and beauty—with the stereotyped product of a quantity making machine—each replica created stealing something from its mates however fine the first made piece may have been. Beauty has never satisfactorily been defined, but one of the laws by which it exists surely is that any exact repetition of itself weakens it.

* * * * *

It is not the purpose of this work to deal with historic design except where a process shown is definitely stylistic or archæological. The problems dealt with are those of the present day and their solutions come from experience in the craft rather than from an absolutely exhaustive study of the subject in books and museums. Since, in good metalwork, design is inseparable from the process that brings it into being, and since this design is derived mainly from structure, the three main structural methods employed should introduce the subject. It is on the repetition, the arrangements, the varying and correct applications of these methods that the whole theory of wrought metalwork design depends. First is the weld; second, the rivet; third, the collar. Welding is the beating of two pieces of iron together whilst they are in a hot and plastic state so that they merge and become inseparably one. Properly done, it is the strongest of all methods of joining pieces of metal together. It has many applications, some of which are shown in the accompanying illustrations. There are places where welding is demanded; borderline conditions where riveting might apply equally well; and places where to weld would be entirely wrong. The process of welding is to prepare the junction points of the two pieces (by various methods) in such a way that they have a greater volume of material than the finished weld will show. They are then placed in the fire and are heated *slowly*. The fire must be absolutely clean as the presence of any dirt at the weld will prevent the pieces from "sticking"—and a slow rate of heating is necessary so that the metal may heat to the correct degree of plasticity throughout its whole section instead of at the outside only. In earlier days sand was sometimes thrown on the heating metal and later borax was used similarly. There are at present several "welding powders" to be obtained. Some claim that these various powders act as a flux, make an easier weld, drive the air from the weld and assure its cleanliness. Actually, a perfect weld can be achieved without the use of powders or sand although they have their use. The correct welding point is indicated when the iron in the fire shows the first signs of giving a fine sparkling pyrotechnic display. It is white hot at this point and if left in the fire would, indeed, develop into fireworks and would burn away. Now that the iron is ready, speed and accuracy are the prime factors. The two pieces are quickly lifted from the forge, placed on the anvil in their correct relation and immediately hammered together. Any loss of time means a loss of plasticity in the metal with a consequent loss of



Finished weld. The slight swelling can be eliminated by further working with hammer; but it is very expressive of the process & unless practical objections exist, the work gains by it.

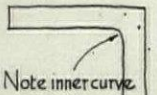


Preparation for a Corner Weld.

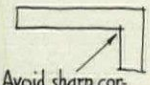
Side View of Completed Weld.

Preparation for a T-Weld

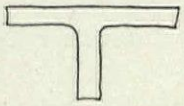
It is obviously wrong to weld scrolls together like this. They appear as though stuck together with glue. They should be held together by a collar.



Note inner curve which adds tremendously to strength, saves labor & is very expressive



Avoid sharp corners which are weak, more costly or indicate improper welding.

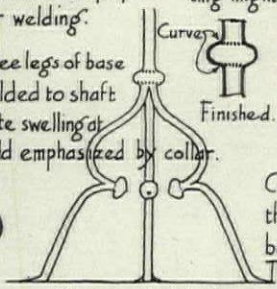


T-Weld – a relation of members to which riveting might apply.

Note contribution to general form by natural & obvious swelling at welds

Welding Ornament to a central shaft

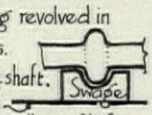
Ready · Welded · Finished
Welding a Flower Finial.



Three legs of base welded to shaft
Note swelling at weld emphasized by collar.

Collar placed thus on shaft before welding
Then heated.

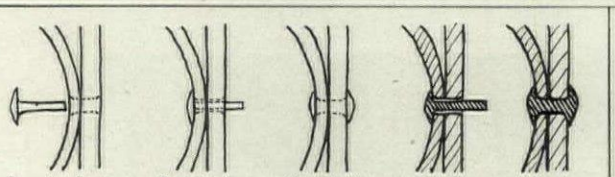
Hammered whilst being revolved in swage. V-opening closes. Collar is welded to self & shaft.

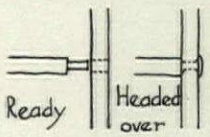


Welding collar to Shaft.

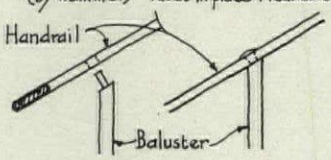
With multiple scrolls, however, welding is necessary for strength & to hold parts together for manipulation. Collar is added decoratively & to increase sense of solidarity.

SOME APPLICATIONS OF WELDING

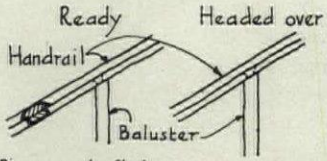


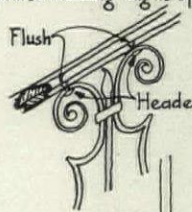


A relation of members to which welding might apply



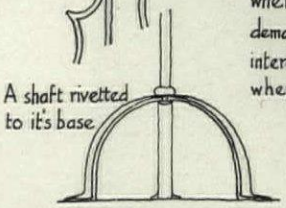
Ready Headed over



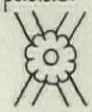


Rivets may be Flush where practicality demands but are more interesting if shown where possible.

This type of shoulder (vertical rivet) may be used, but is slightly more expensive.

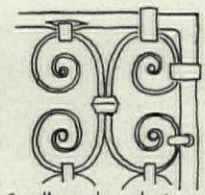


A shaft rivetted to it's base



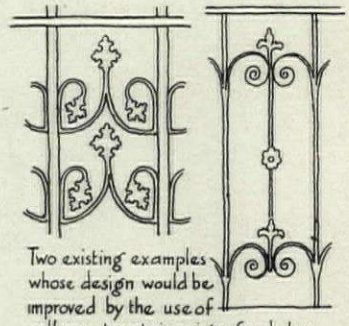
Rosette rivetted at intersection of members

SOME APPLICATIONS OF RIVETTING

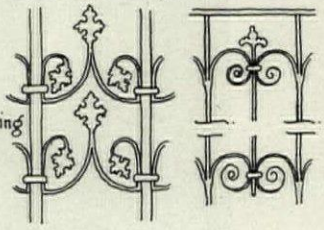


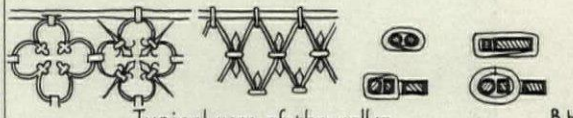
Scrolls in this relation should always be collared

Welding, Rivetting & Collaring in their perfect applications



Two existing examples whose design would be improved by the use of collars at certain points. See below.





Typical uses of the collar.

B.H.

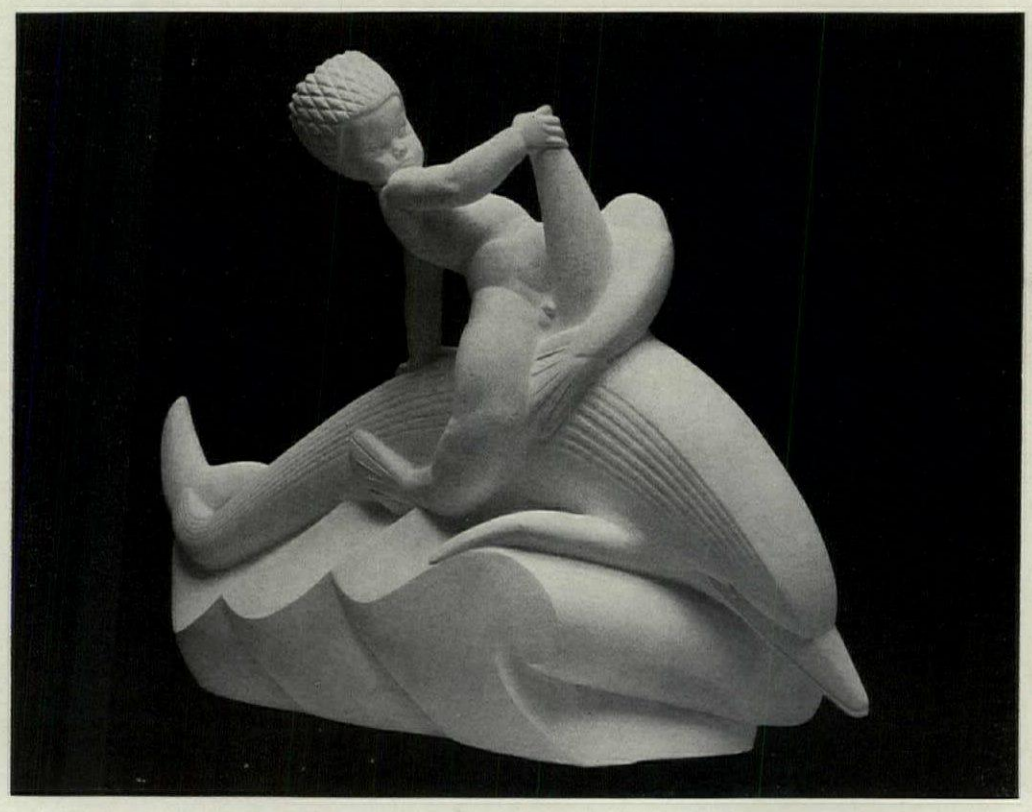
SOME APPLICATIONS OF COLLARING

THE THREE FUNDAMENTAL METHODS OF CONSTRUCTING DECORATIVE WROUGHT IRONWORK

ready adhesion and, if left too long, there arises the necessity of reheating and rehammering. In some cases a weld is so big that two heatings must be counted on. Welding on the anvil is a very thrilling and exciting experience and provides some of the most picturesque moments in the craft. It is not always possible to obtain the ultimately desired shape in the actual welding process. When this is the case, the work is reheated and *hammered* to its correct form. This is, briefly, the craftsman's way of welding and has for many years resulted in perfect welds of fine appearance. Later it is intended to discuss some modern welding innovations and to examine how they relate to craftsmanship.

The process of riveting is the passing of a metal shank through a hole and hammering the end of the shank so that it thickens and spreads, filling the hole and preventing withdrawal. Sometimes the problem is one of joining two pieces of metal together with a separate rivet. In this case, the rivet must have a head on one end of the shank before it is passed through the corresponding holes in the two pieces of material and "headed over" at the shank's other end. Sometimes the rivet is "shouldered" or "tenoned" on the end of a bar (as it might be—a stair baluster), pushed through the hole in the other member, and headed over. There are other methods which will also receive attention. The cross section of rivets is often a variation on the typical round—as the problem may dictate. All holes for rivets should be countersunk where the rivet is headed over and a great deal of riveting can be done perfectly well without heating the metal.

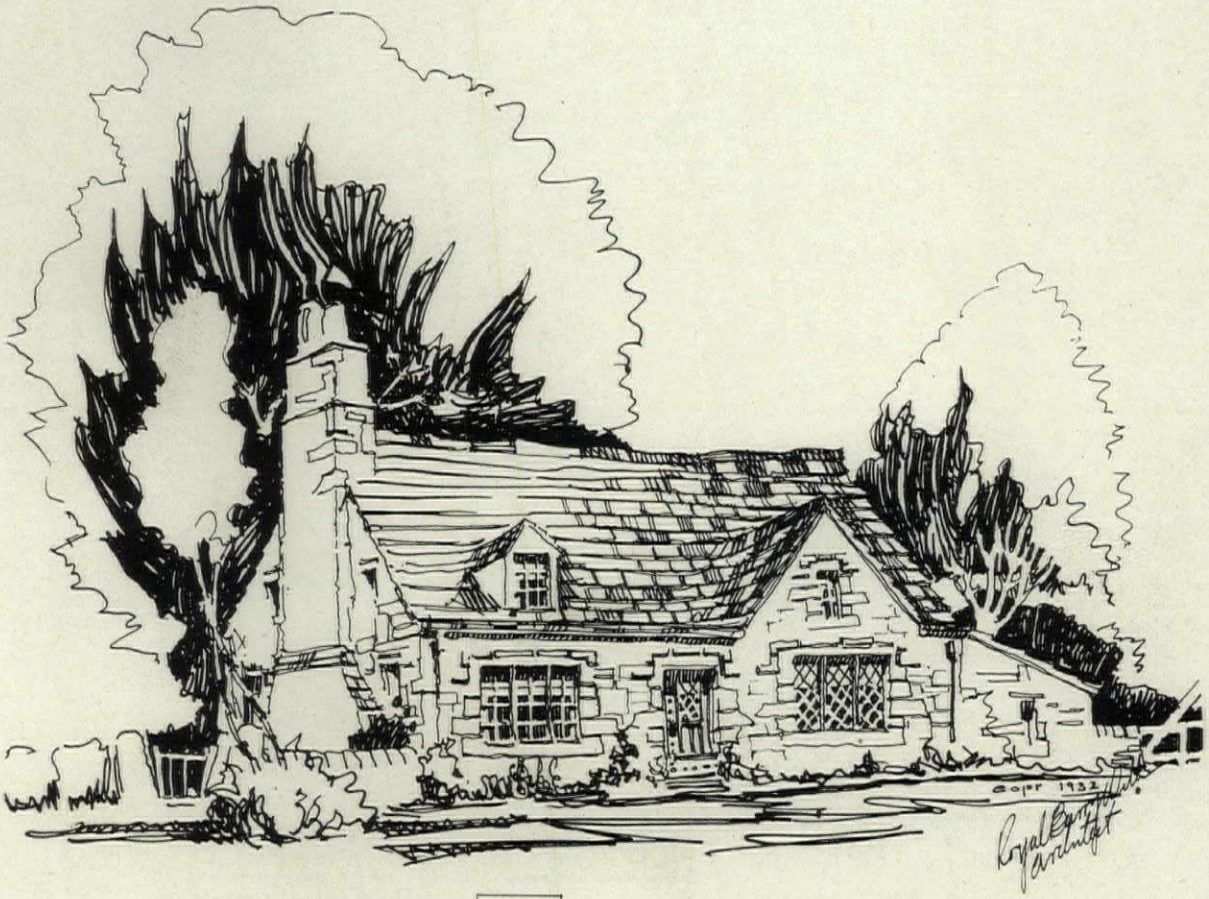
There is more interchangeability between the processes of riveting and collaring than between welding and either riveting or collaring. Collaring is the seizing of one member to another and wrapping a band of metal around the two pieces to hold them in their relative positions. A collar may be of almost any section, depending upon the general design. It is seldom necessary to weld the collar—thus making a complete ring—overlapping of the ends being perfectly adequate in most cases. Sometimes the ends of a collar are riveted together, but this is labor that might well be saved. The welding or riveting of collars, besides entailing a great deal of unnecessary work, gives a result not nearly as interesting as merely overlapping the ends. This does not apply, of course, to the decorative collar applied, for instance, to a spindle. In this case the welding of the collar to the spindle is a most necessary and desirable practice. The three processes just described bring up two particularly interesting points. They suggest comparison with certain phases of cast work as well as a consideration of the legitimacy of taking the heat to the metal instead of taking the metal to the heat. These matters will be taken up in later writings.

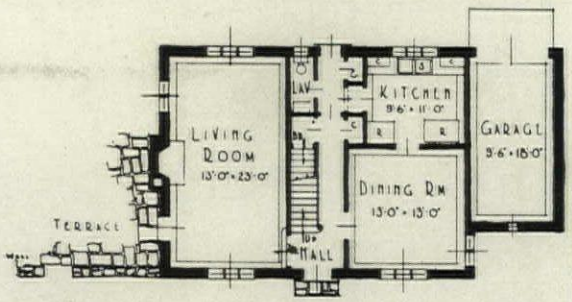


FOUNTAIN FOR COLORADO SPRINGS DAY NURSERY, COLORADO SPRINGS, COLORADO

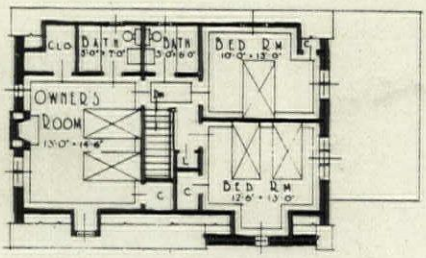
BENJAMIN HAWKINS, SCULPTOR

The original sculpture is 5'0" x 1'4" x 4'6". It was awarded the Avery Prize for Small Sculpture at the recent Annual Exhibition of the Architectural League of New York.





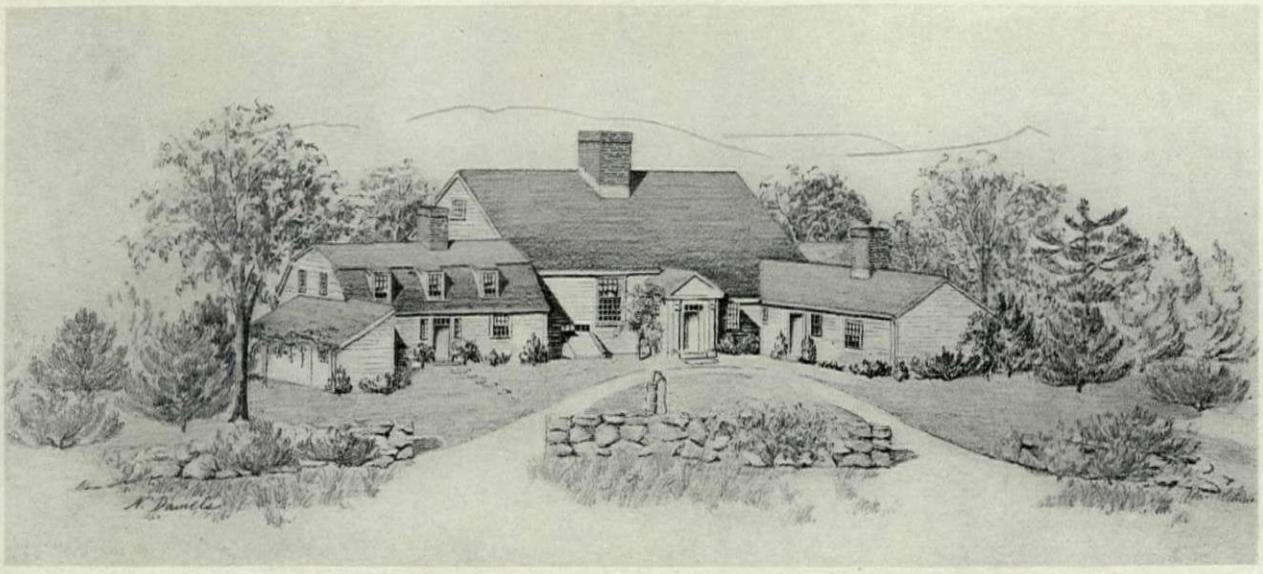
FIRST FLOOR PLAN

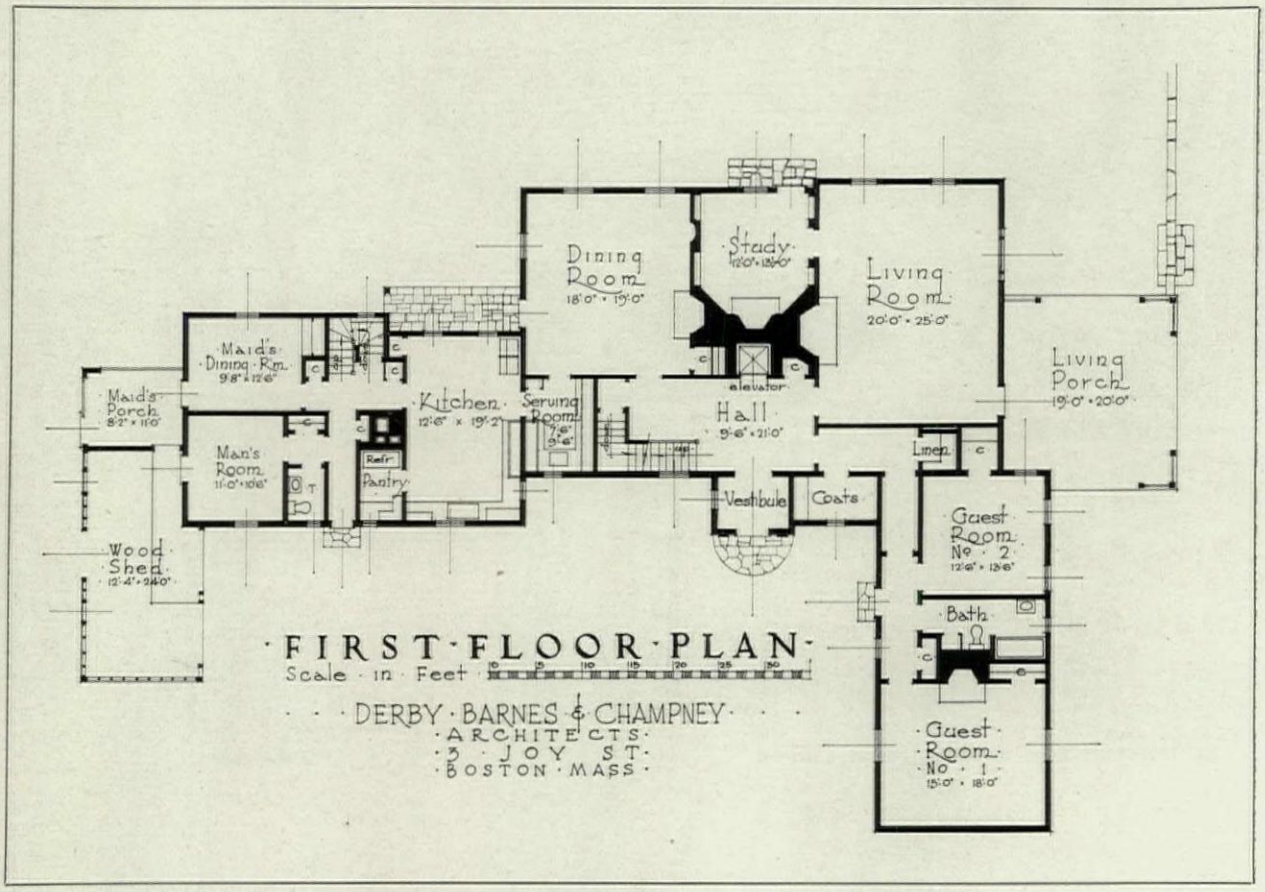


SECOND FLOOR PLAN

ROYAL BARRY WILLS, ARCHITECT

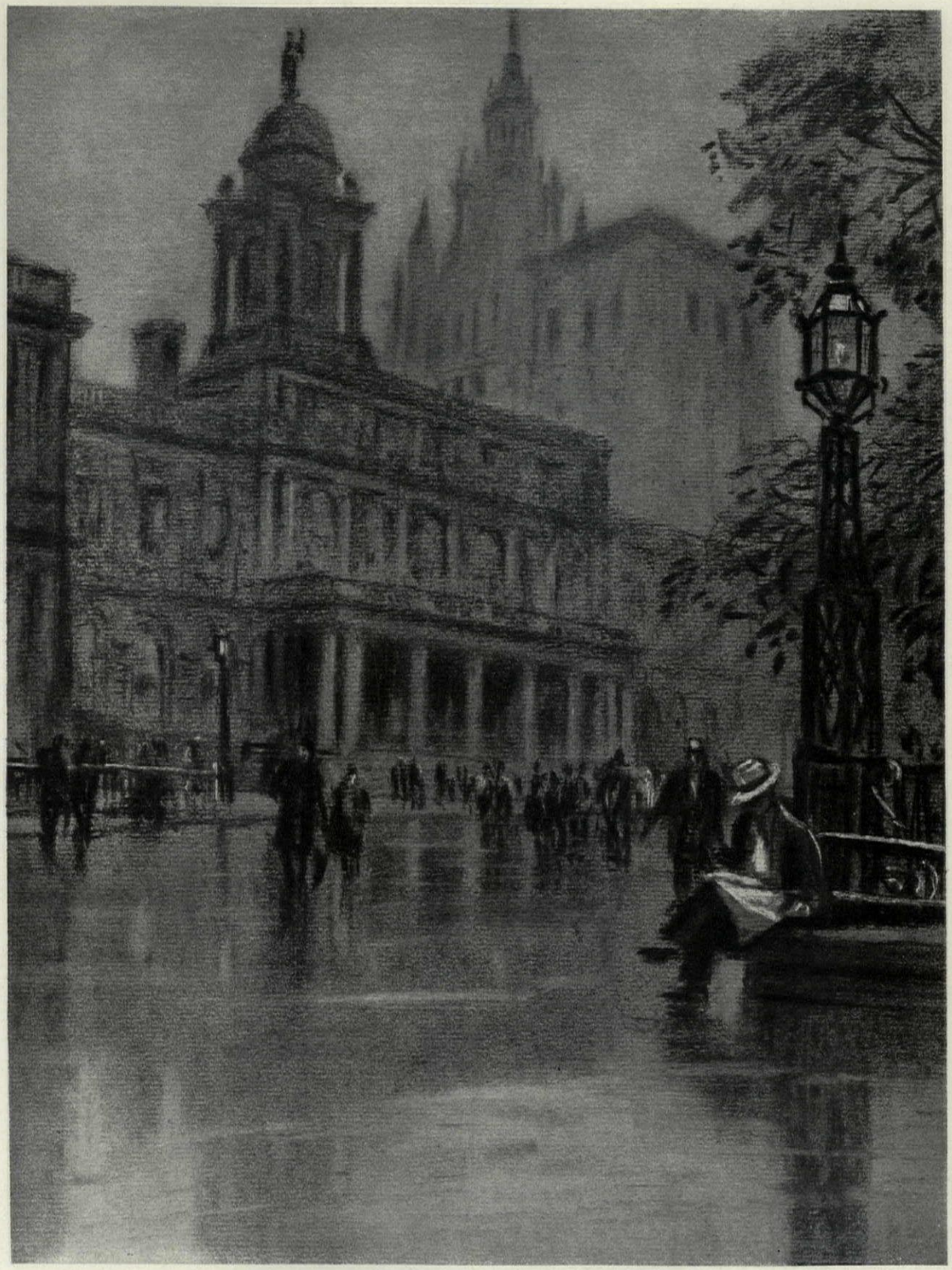
This house was designed to provide, at a low price, a house containing every element that a small family might require or desire. The architect has provided for three fireplaces, two baths and a two-fixture lavatory, a recreation room in the basement, a stepped down living room, slate roof, steel sash with metal screens, a wrought iron stair rail, ample closet space, and other features attractive to the average family. The house cubes up to 27,000 cubic feet with a plan 36′ x 25′. The stone work is to be cut stone scrap from a local quarry. The interior walls are to have one coat of plaster, tinted, and the trim has been held to a minimum.





A HOUSE IN NEW HAMPSHIRE BY DERBY, BARNES & CHAMPNEY, ARCHITECTS

The sketch of the house shows the north side taken from the country road which passes, running in a generally east and west direction. The view, of rolling hills, stretches out to the south and west with gently sloping land and meadow in the foreground. The prevailing breeze in summer is from the southwest. The plan is arranged to give the living rooms and porch the benefit of the view and breeze. The garden is to the west of the living porch. On the second floor of the main house are two large bedrooms each with its own bathroom; and one sleeping porch adjoining the room over the dining room. There is also a trunk room conveniently located in this part of the house. The maids' rooms and bathroom are on the second floor of the service ell. The wood finish throughout is painted with the exception of the study which is of white pine finished a soft brown. The house is thoroughly insulated and is heated with hot air—the main house and guest room ell having one furnace with blower, and the service ell a second smaller furnace. A hand-operated elevator designed for both passengers and freight runs from basement to the second floor. Water is supplied from a hillside reservoir stepped up for house use through a pressure system located in the basement.



FROM A DRAWING BY E. P. CHRYSTIE

CITY HALL, NEW YORK

Drawn with charcoal on gray paper with touches of white chalk.

More on Stairs

In Which a Few Questions are Raised Bearing on Comfort and Safety

By Frederick E. Markus

Much has been written about the rules and formulas for proportioning treads and risers. But rules and formulas do not take into consideration certain physical conditions incidental to mounting and descending a stairway. The errors as a result thereof are most apparent in short runs and in individual treads tucked into odd places.

The natural speed with which one climbs a stairway may vary considerably depending on whether the climb is a long pull or just a few steps and the length of one's climbing step is proportional to the speed. Therefore, short runs of steps would be more naturally proportioned if the treads and risers were increased somewhat from accepted standards. It should also be obvious that out-of-door stairs can have a somewhat greater tread or rise, as the case may be, because in the open air it is less fatiguing to climb stairs. How much difference to allow for interior and exterior stairs, becomes a matter of feeling.

Let me give an actual example to illustrate the absurdity of our rule of thumb applied in one particular case. A large fire station just completed, has a billiard and social room leading from the apparatus floor. There is a difference of 32″ in floor levels. Cement finish steps without nosing connect the two. The treads are nine inches, the risers eight. This would fit most rules pretty closely. Now, fire companies are made up of rather robust individuals. Can you imagine a fireman breezing out after a round of billiards, and checking himself on approaching these steps to carefully place his 13″ feet on the 9″ treads? A single intermediate step would no doubt feel much more natural to a fireman, than the four little bumps. And to suppose that a fireman in responding to an alarm actually hobbles down these steps is, of course, absurd. He will be tempted to jump the whole flight. Yet, is there not a considerable element of danger in jumping such a stairway? I would have preferred at least a 14″ tread with this same 8″ rise. Then, for such a short run, one's walking or running tempo is not greatly disturbed in ascending or descending. Such a run is not long enough to tire anyone. And with a wide tread, the steps could perhaps be made in two jumps by a fireman without great risk.

On the other hand, some of the older as well as new buildings at Harvard University have interesting examples of short flights of very comfortable steps, yet they would not fit any of our pet formulas. There are, for example, the outside steps in the court of the new Lowell House which serve the various entrance doors. For those having three risers, the tread is 14″ and the rise 8″. Where four risers are required, the tread is 13″ with the same rise as before. Most draftsmen would be alarmed at these figures, but I can vouch for the healthy feel of these steps.

Another good example at Harvard is University Hall, a fine old granite building. The four entrances are served by as many granite stairs of nine risers each. The treads are 15″ and the risers 8″. A real "masculine" stair if there ever was one.

Theatre and lecture halls furnish numerous examples of too ardent sticking to the rules of thumb. How often does one find a change in level requiring an intermediate step, where the step could just as well be broad and ample regardless of what the rise has to be. Yet only too often is a 7″ or 8″ rise given its rule-of-thumb tread. But perhaps the biggest fallacy of all is the habit of sticking a rule-of-thumb step against each rise for tiers of seats. For instance, if the seat tiers are 32″ wide, there is no reason why intermediate steps should not have a 16″ tread for risers up to about 8″. If two intermediate steps are required, then the tread could be 10-2/3″ wide. Observations will demonstrate the fact, that persons using these stair aisles place but one foot on each step, even though the series of treads alternate between, we will say, 9″ and 23″. Then why not make the treads uniform? Such a stair would be much safer to negotiate, to say nothing of a better appearance. It would still leave ample room for getting between seats.

The proportion for treads and risers can vary considerably from accepted rules, even on long runs, without any appreciable discomfort. There is, for example, the fine Italian stone stairway from 1st to 2nd floor in the Steward Gardner Museum courtyard. The tread is 14″, the rise 8″. There never was a more comfortable stairway.

Whenever you are in doubt about your next stairs, especially short runs, think in terms of your car and ask yourself: Does this little hill require second gear?

Courtesy Goodspeed's, Boston

SILHOUETTE OF SENLIS—FROM A DRYPOINT BY SAMUEL CHAMBERLAIN

REPRODUCED AT SIZE OF ORIGINAL

Courtesy Goodspeed's, Boston

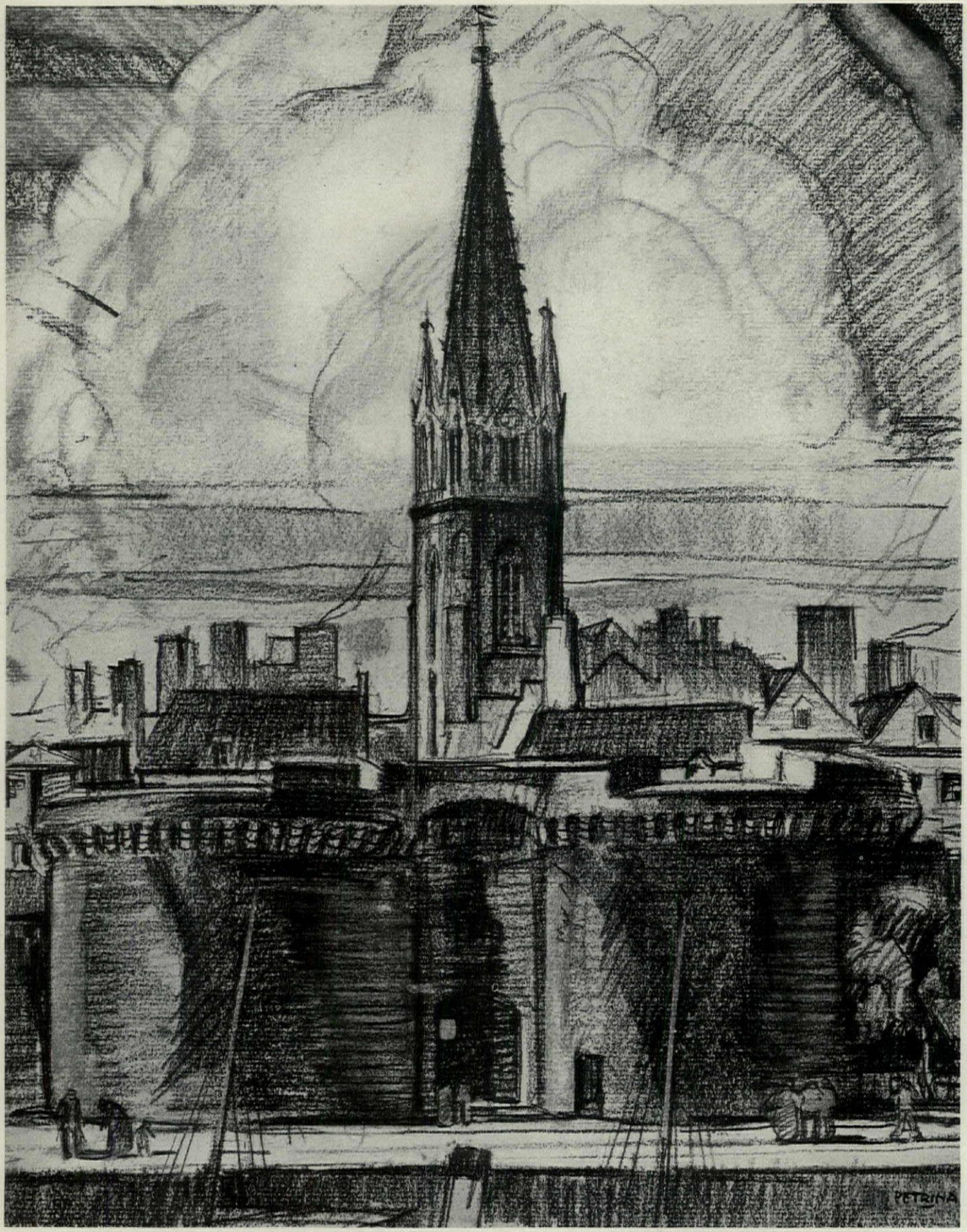
"LES ARBRES"—FROM A DRYPOINT BY SAMUEL CHAMBERLAIN

SIZE OF ORIGINAL, 10" x 7¼"

FROM A RENDERING IN PENCIL BY JOHN WELKER

A RESIDENCE BY PEABODY, WILSON, AND BROWN, ARCHITECTS

The rendering, which measures 28" x 12", was done on an ecru or cream tracing paper, quite thin and somewhat similar to onion skin paper. Paste was then applied to the back and permitted to dry for just a second before mounting on a piece of illustrator's board. As the paste dried unevenly a clouded effect was achieved which was further accentuated with pencil in the sky to form clouds. The building surface was then opaqued with white crayon pencil and a touch of color added here and there in the foliage.



LA GRANDE PORTE, ST. MALO, BRITTANY

FROM A CRAYON DRAWING BY JOHN PETRINA

Figures and Finance for the Architect

By Robert Lee Henry, C. P. A., L. L. B.

Editor's Note:—*In response to many inquiries regarding problems of office management and accounting procedure,* PENCIL POINTS *has recruited the service of the author, recognized as one of the foremost authorities on the financial phase of the architect's work, who will conduct this page hereafter and in addition to a regular monthly article will directly answer all questions where a Certified Public Accountant can be of assistance. Mr. Henry has been closely allied with the Architectural Profession for a long period of time and at present, under the auspices of the New York Architects' Emergency Committee in connection with its program of "made work," is actively engaged in the supervision of the preparation of a Uniform System of Accounting for Architects. Inquiries of this nature are invited. Letters directed to Mr. Robert Lee Henry,* PENCIL POINTS, *330 West 42nd Street, New York City, will receive prompt reply. If a question is of general interest it will be published, unsigned, in* PENCIL POINTS, *together with Mr. Henry's comments.*

There are few practicing architects whose offices are alive to the tremendous necessity for adjusting the old time "hit or miss" methods of conducting the financial, management, and accounting division of the office. To those who come within the larger group it is pointed out that while the great minds of the nation are jousting with the national and world-wide problem of economic readjustment the average architect has been sitting by in his ringside or, by this time, his gallery seat.

Completely ignored has been the well known and age old philosophy of the immortal Confucius who stated, when China was beside itself with difficulties, "Before we can put our nation in order we must put our states in order. Before we can put our state in order we must put our families in order. But, before we can put our families in order we must put ourselves in order."

It cannot be disputed that the philosophy of the wise old Chinese applies to the architectural family and, more specifically, to the architect in his office.

Has the practitioner who is standing by, awaiting the gong that will ring in the return of a normal amount of work, done everything possible, from the viewpoint of scientific office and financial management, to make himself ready for the so-called "New Deal" which, if effective, is bound to reach him too? Moreover, and this for the benefit of the conservatives, even if we are to assume that the recovery will be slow and that the only prospect for future work is in small house and alteration design, what about making just a little more profit out of that type of work and also out of the work on hand?

It is true that prior to the last few years the average architect was interested primarily in his artistic endeavors and that finance and its blood relatives, accountancy and management, occupied only a secondary position. However, the economic epoch through which we are now passing has forcibly brought to the attention of a large number of architects, who have been called upon to render public service and donate their time and money as officers and workers in sociological endeavors such as Unemployment and Fund Raising Committees, the necessity of acquiring a working knowledge of statements, budgets, costs, and management problems in general.

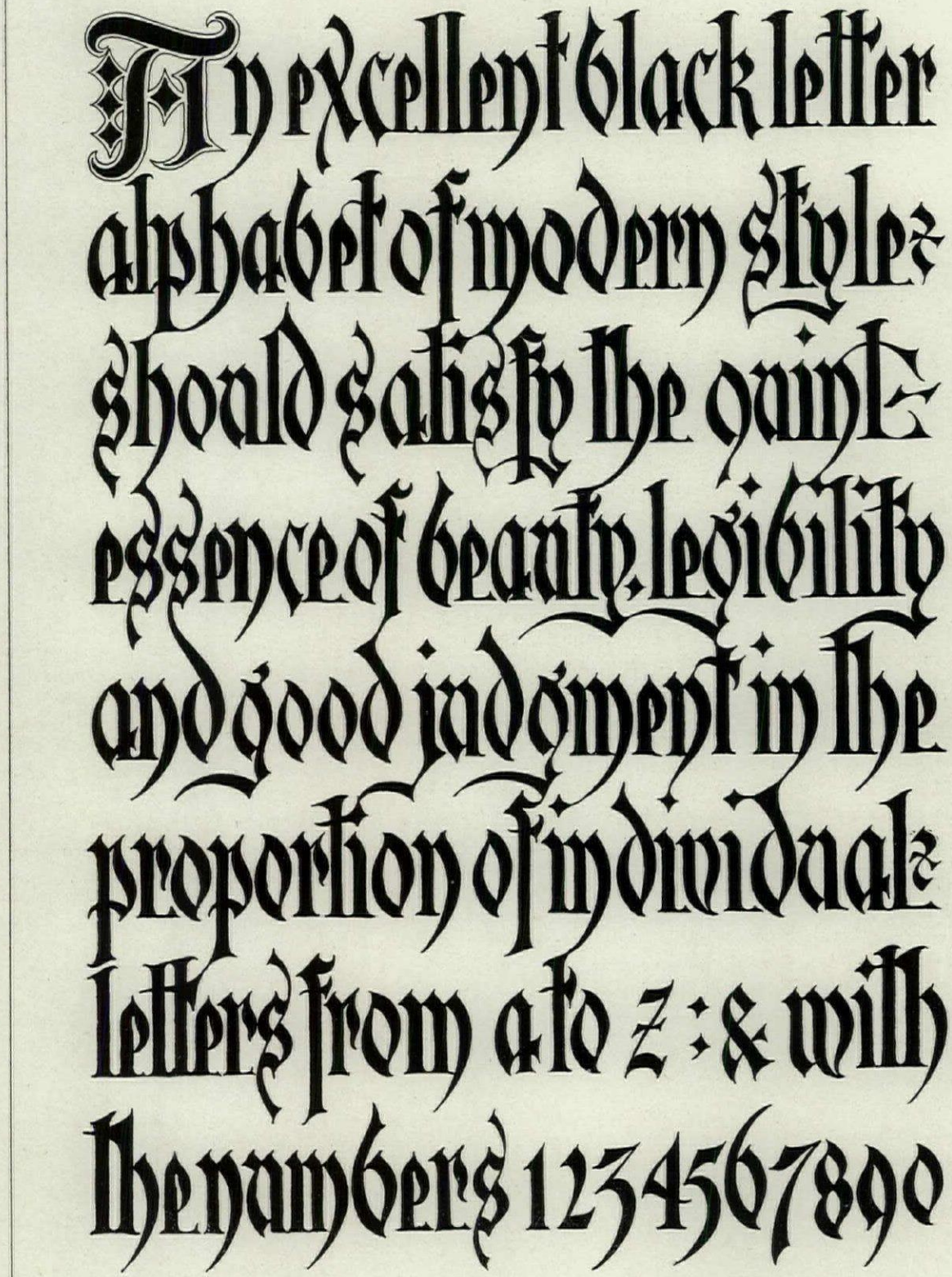
Setting the house in order involves planning along certain definite lines with an end toward the elimination of waste of both money and time, resulting in the utmost profit and utilization of history of experience. Naturally, the size of the plan should depend upon the size of the office. It is obviously ridiculous to "fit the wagon to the wheel." The aim must be toward evolving a system of office accounting and management which will be flexible and will allow for a free increase of capacity.

For the purpose of disclosing one of the most patent defects in the present-day methods, let the architect ask himself the following questions: 1. How much did I actually earn from my last commission? 2. Did I apply any of my general overhead or burden against the profits on that commission? 3. Did I figure in the time it took me to close the sale of the commission? 4. Could I have increased my profits and yet maintain the same degree of efficiency had I known during the course of the work the amount of overhead going into the commission? In all probability, the answer to all except the last question is "No."

The architect who fails to make proper provision for the demon overhead is only fooling himself. Not only must he fight against it (and surely, before a fight can begin, he must know of the existence and nature of the enemy) but having reduced the demon to a minimum he must see to its precise allocation.

Even in the case of the man who maintains his office in his home, the need for a proper consideration of burden and its application to the specific job is of prime importance. To this type of practitioner it becomes an absolute necessity to apply part of the cost of maintaining that home just as if it were his regular business office. Not only is this a proper viewpoint from the standpoint of Income Taxes, but it will result in an ability to maintain a degree of equilibrium at that time when the residence facilities are outgrown.

While the question of overhead with respect to both its curtailment and proper distribution is of vital import, it is certainly not to be construed as being the millennium or all that is necessary to "put the house in order." To apply some of the principles set forth above is merely to scratch the surface of clean-cut management. But, at least a new field of thought will have entered the office portals.



BLACKLETTER DESIGN BY OLIVER WHITWELL WILSON

A Thought on Building Codes

By J. J. Del Bourgo, Consulting Engineer

Practically every city, township, and boro in New Jersey has a building code, the purpose of which is to regulate the practices of construction and the uses of materials so as to insure in all buildings to be erected adequate structural strength, safety against fire hazards and accidents, and proper sanitary conditions. Architects and engineers entrusted with the design of buildings and structures are required to conform to the building code of the locality in which such buildings and structures are to be built, and Building Department officials are expected to see that plans filed do so conform.

There can be no question that such regulation of building practice is not only desirable but necessary. There can be no question that a building code, in order to serve best the welfare of the community, must be drafted with extreme care by competent persons and must provide for periodical revisions.

A building code must be drafted so that no materials shall be favored for the benefit of their manufacturers or other interested parties. Unfortunately, however, we can not prevent manufacturers or interests seeking privileges from offering and lobbying for revisions to local building codes which may on the surface appear beneficial to the community but which are calculated to restrict the business of competitors supplying equally good or better materials. There is no objection against a manufacturer proposing a material which is both safe and economical and endeavoring to have the Building Code favor it, if such a favor will promote the welfare of the community. But the motive of many a manufacturer or industry in lobbying is to advance its own business, the welfare of the community being of minor importance.

The preparation of a suitable building code is very expensive, requiring the employment of experts and much clerical work, and often small communities, not seeing their way clear to go to such an expense, are apt to welcome offers of codes and provisions gratuitously drawn up by interested parties. This is a dangerous practice; nevertheless, it is done; and the authors of these codes and provisions are regarded as public benefactors. It has resulted in the inclusion in different building codes of a variety of regulatory provisions the nature of which was determined by the influence the different privilege seekers in the different localities were able to exert. It has resulted in a different building code for each community, much to the confusion of architects and engineers.

A complete and exhaustive comparison of all the building codes in New Jersey together with an analysis of their provisions is a task that would reveal many interesting things about them, but such a study is laborious and expensive and beyond the scope of this short article. In the accompanying table, however, a few of the Building Codes were taken at random and a few of the provisions in those building codes, also taken at random, were collected together. This table shows, firstly, that there are considerable disparities between the different

City or Town	Direct Compression Longleaf Yellow Pine Lbs. per sq. in.		Compression in Steel Columns Lbs. per sq. in.	Live Load for Flat Roof Lbs. per sq. ft.	Ultimate Tensile Strength of Structural Steel Lbs. per. sq. in.	Base of Retaining Wall	Extreme Fiber Stress in 1:2:4 Concrete Beams Lbs. per. sq. in.	
	With Grain	Across Grain					Steel	Concrete
Newark	1200	300	$\frac{18{,}000}{1+\frac{L^2}{18{,}000\ r^2}}$	40	Conform to Specifications of American Society for Testing Materials	¼ of height	18,000	650
Hackensack	No provision		No provision	No provision	54,000 to 64,000	No provision	No provision	
Belleville	To be determined by Building Inspector		To be determined by Building Inspector	To be determined by Building Inspector	No specification	No provision	To be determined by Building Inspector	
Plainfield	1600	1000	$16{,}000-55\frac{L}{r}$	No provision	55,000 to 65,000	No provision	16,000	700
Red Bank	Such size as will safely carry the weight imposed on them		Such size as will safely carry the weight imposed on them	50	No specification for structural steel	No provision	Stresses recommended by American Society of Civil Engineers	
East Orange	900 to 1200	300 to 350	$16{,}000-70\frac{L}{r}$	50	55,000 to 65,000	No provision	16,000	650

codes and, secondly, that a number of codes are altogether lacking in important provisions. It must be understood that this table is no more than a drop in a bucket of revelations; a more thorough study would undoubtedly show more and greater disparities and more omissions.

Compare, for example, the allowable compressive stresses across the grain for Longleaf Yellow Pine. In Newark it is 300 lbs. per square inch; in Plainfield it is 1000 lbs. per square inch; in East Orange it is 300 to 350 lbs. per square inch; and in the other municipalities compared there is no provision, except that in Belleville the stress is to be determined by the Building Inspector. A glance at these figures is sufficient to convince one that something is wrong; either the Plainfield stress is unsafe, or the Newark and East Orange stresses are too low. The stress recommended by the Southern Pine Association in the *Southern Pine Manual, 1927*, page 139, is 250 to 375 lbs. per square inch, indicating that the Plainfield stress is too high. This may be an inducement to use timber instead of steel wherever possible.

Needless to say, where there is no provision at all, the designer is under a great difficulty, as in each case he must ask the Building Department officials what stresses he may use, and the latter are in a position to allow some engineers higher stresses than they allow others.

It is not necessary to analyze the other disparities shown in the table, as remarks similar to the above apply to them all. It is, however, pertinent to call attention to the allowable roof loads in Newark and Red Bank. The amount of probable snowfall in these cities is about the same; if there is any difference, we would expect it to be greater in Newark, because Newark is situated north of Red Bank; yet we find that 40 lbs. per square foot is sufficient for Newark, while Red Bank requires 50 lbs.

Another criticism of our building codes is that in them there are many unnecessary or irrelevant provisions. Let us cite page 156 of the Building Code of Newark:

> "Doors affording ingress or egress, as well as any entrance or exits or openings, shall not be obscured by curtains or draperies, and no door shall be locked or fastened at any time during the time such building is open to the public."

The hanging of draperies and the opening and closing of doors is purely a police regulation affecting the safety of the public. It has no place in the Building Code, and the Bureau of Buildings cannot enforce it without the aid of the Police Department.

Another example is the following, also from the Building Code of Newark, page 179:

> "I. No person shall at any time place any incumbrance of any kind whatsoever before or upon any fire escape, balcony or stairway.
>
> "II. It shall be the duty of every fireman and policeman who shall discover any fire escape, balcony or stairway of any fire escape incumbered in any way, to forthwith report the same to the commanding officer of his company or precinct, and such commanding officer shall forthwith cause the occupant of the premises or apartment to which said fire escape, balcony or stairway is attached or for whom the same is provided, to be notified, either verbally, or in writing, to remove such incumbrance and keep the same clear.
>
> "III. If said notice shall not be complied with by the removal forthwith, of such incumbrances, and keeping said fire escape, balcony or stairway free from incumbrances, then it shall be the duty of said commanding officers to apply to the nearest police magistrate for a warrant for the arrest of the occupant or occupants of the said premises or apartment of which the fire escape forms a part, and the said parties shall be brought before the said magistrate, as for a misdemeanor; and, on conviction, the occupant or occupants of the said premises or apartment shall be fined not more than ten (10) dollars for each offense, or may be imprisoned not to exceed ten (10) days, or both, in the discretion of the court."

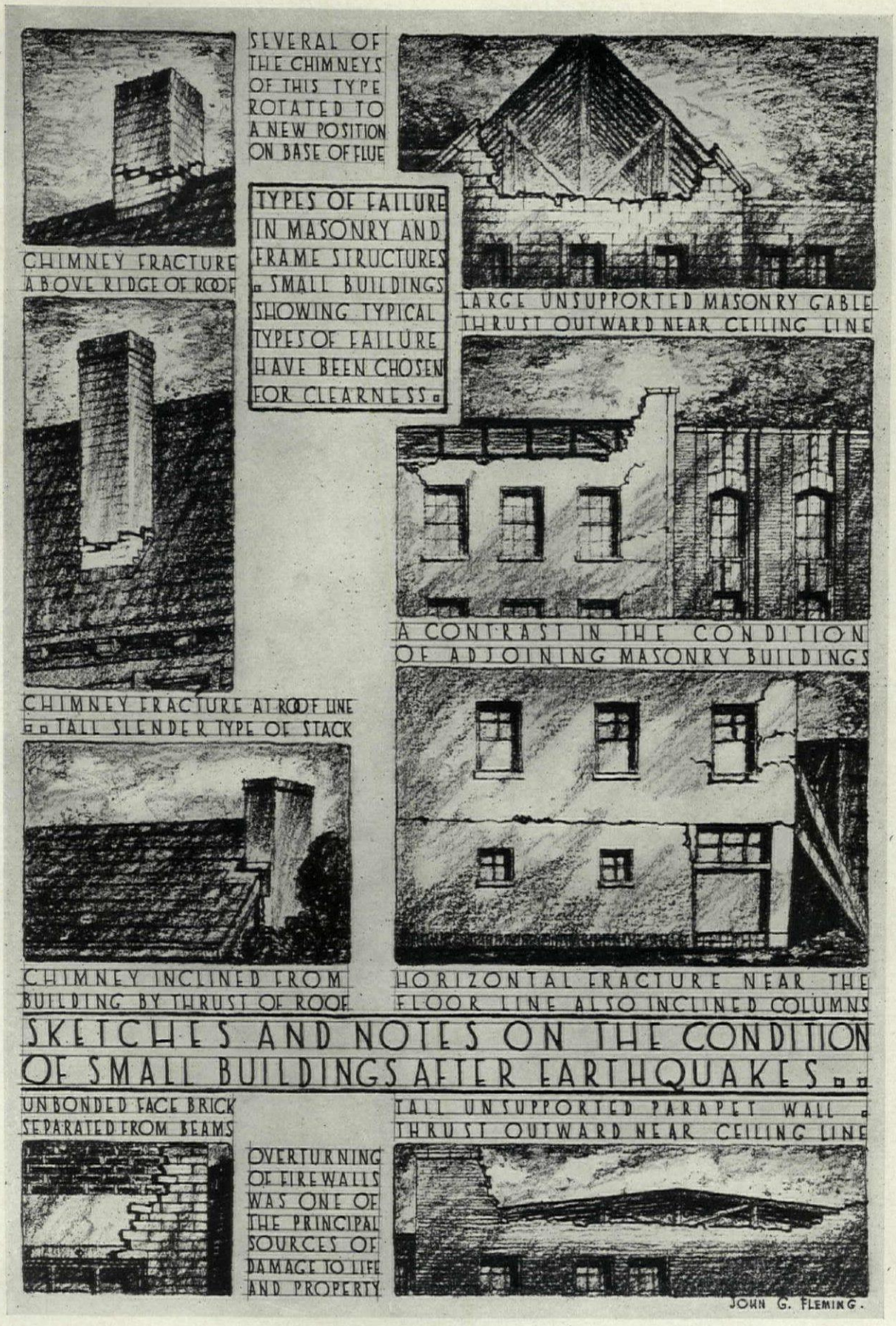
This provision is incorporated in many of our building codes probably because the New York City code has it. In fact, except for a few changes in phraseology, the above section is a copy of §162 of the New York City Building Code as amended to January 1, 1925. It is significant that here the impossibility of enforcing the article without the aid of the Police or Fire Department is recognized and the Police procedure in case of violation is outlined in detail, although it is not at all clear what the Building Department has to do with the placing of incumbrances on the fire escape of a building after it is occupied.

It is hardly necessary to give any more examples of the defects in general of our building codes to show that there is much room for improvement. Four desirable attributes of building codes are now lacking and should be sought: uniformity; consistency with recommended practices; adequacy; and the elimination of irrelevant provisions. In seeking all these advantages, it must be remembered that now more than ever revision of building regulations must be done without undue expense.

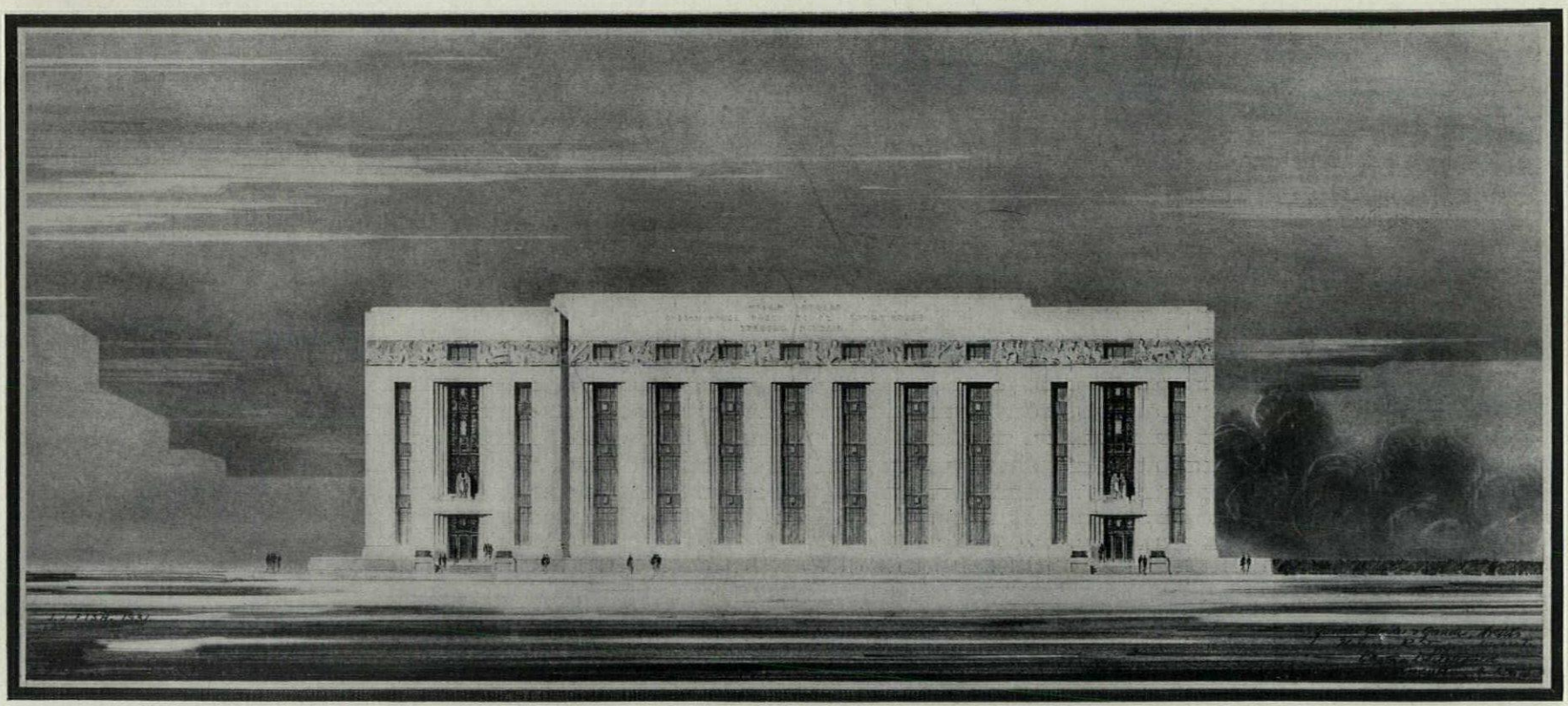
A State Building Code would economically secure for us all these advantages. One building code, applicable throughout the state, inevitably will make regulations and practices uniform. One building code, in which the recommended practices and specifications of recognized national societies and committees are considered, will secure consistency with them. One building code, in which all the necessary and desirable features of all our numerous codes are included, will enable us to formulate an adequate catalog of regulations, instead of the numerous incomplete ones that we now have. One building code, in which irrelevant provisions are carefully omitted, will give us as brief and as handy a code as can be drafted. Lastly, one building code for the whole state will save so much duplication of work that the most authoritative experts can be employed, and it will still cost the taxpayers of the state less than the numerous codes now in use. According to the Public Record Office publication, *Directory of County and Municipal Officials, Year 1933*, there were in New Jersey on January 1, 1933, 565 municipalities. Most of these, probably as many as 500, have building codes of their own. If each of these municipalities would contribute only a portion of what they now spend on building codes to a State Bureau, there would be ample funds for the production of a State Building Code.

It is true that there are some provisions applicable in one locality that may not be so good for another. But within a state provisions not generally applicable are only those of minor importance. A State Building Code may well be written to take care of these provisions by zoning or by providing that special regulations affecting only a small area and not inconsistent with the State regulations may be passed locally and approved by the State.

This article was written with particular reference to New Jersey, but there is hardly anything said here that does not apply with as much force in other states. It may even be possible to formulate a Federal Building Code and have uniform regulations throughout the United States.



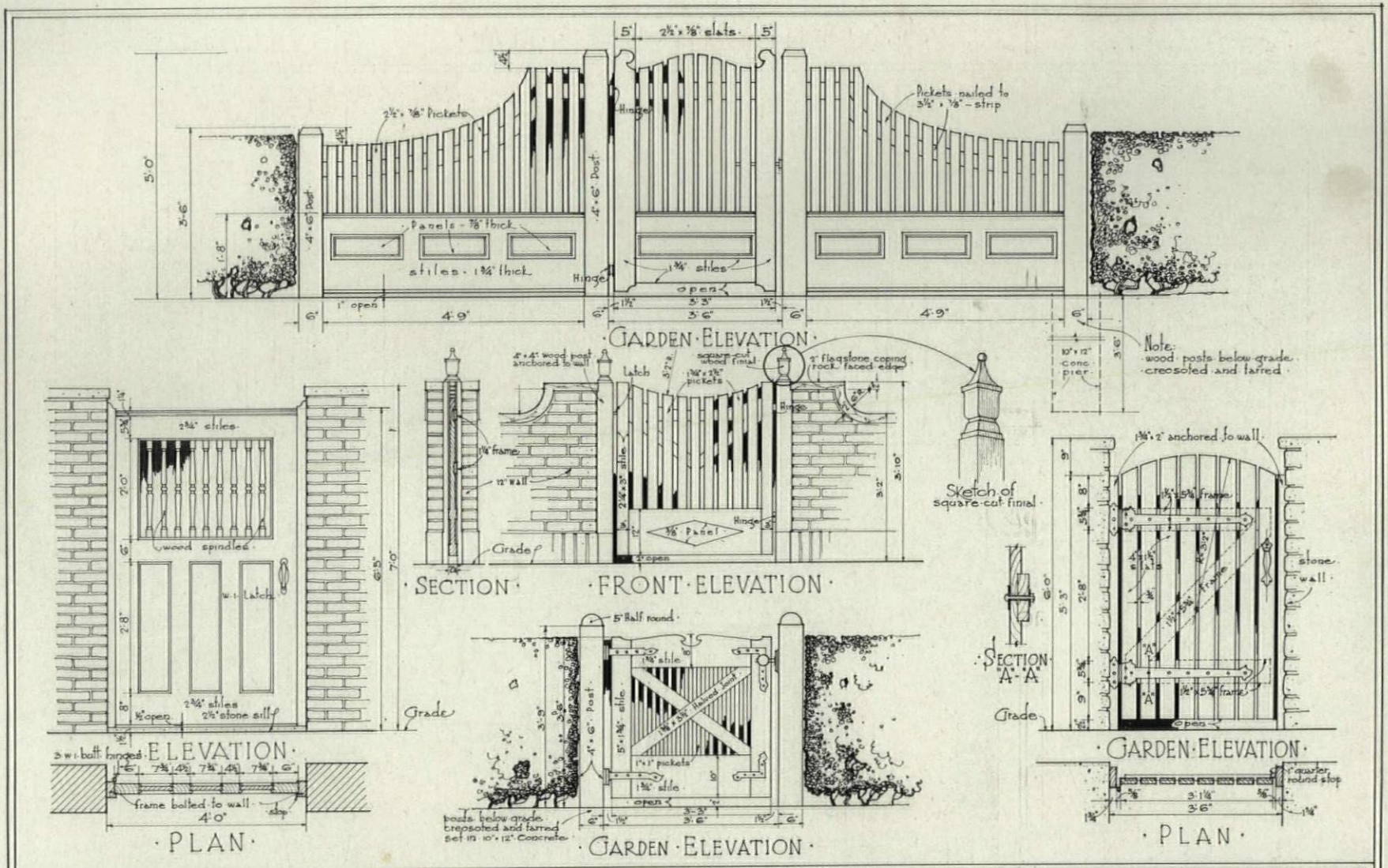
ARCHITECTURAL NOTES ON THE RECENT EARTHQUAKE, BY JOHN G. FLEMING OF GLENDALE, CALIFORNIA



FROM A "SMOOCH" RENDERING BY J. J. FISH

UNITED STATES POST OFFICE, COURT HOUSE, AND CUSTOM HOUSE AT ALBANY, NEW YORK

Gander, Gander, and Gander, Architects—Norman R. Sturgis, Associate—Electus D. Litchfield, Consulting Architect



GARDEN GATES OF WOOD

WILLIAM PITKIN JR. & SEWARD H. MOTT
LANDSCAPE ARCHITECTS CLEVELAND O.

SCALE

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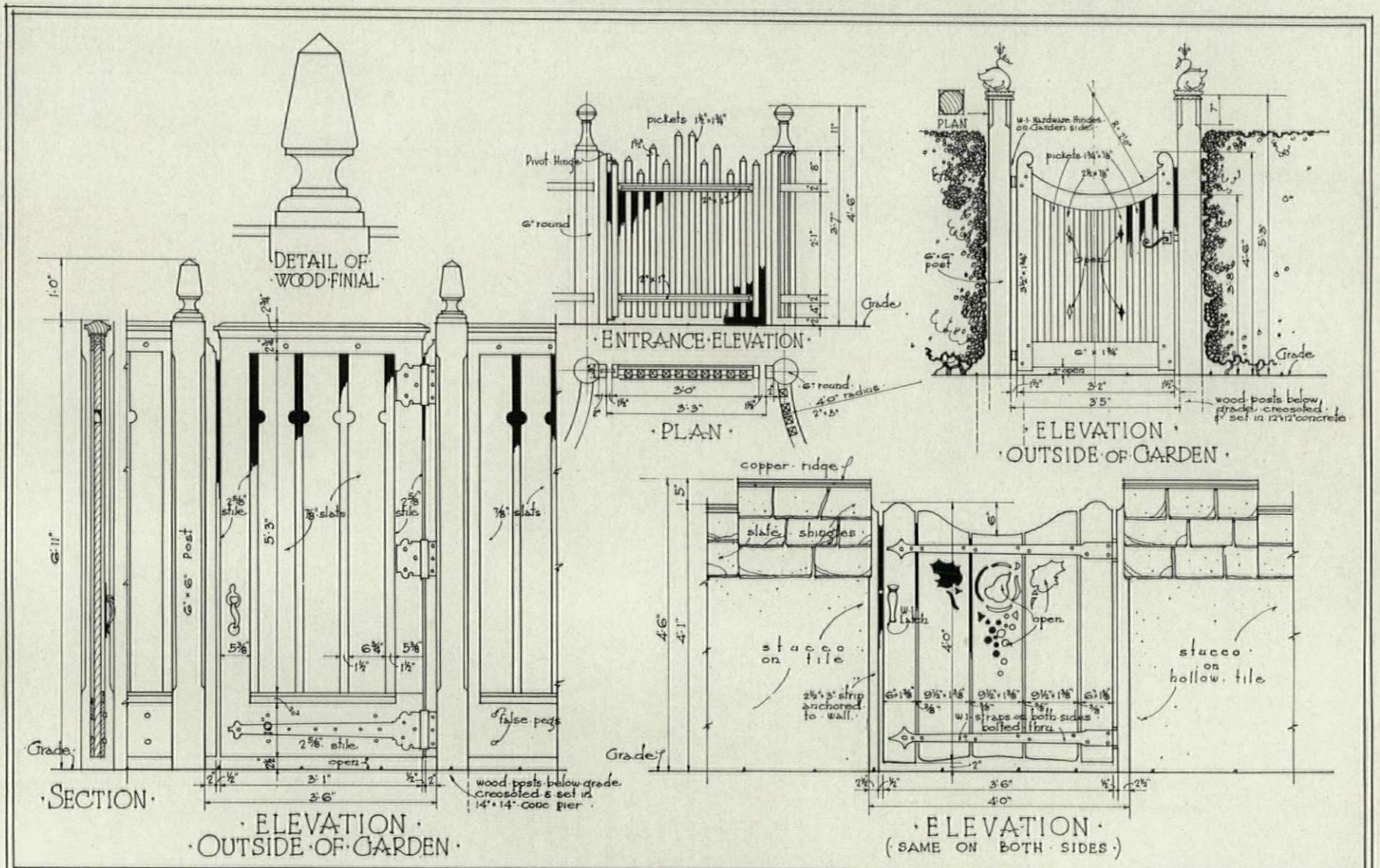

DETAIL OF WOOD FINIAL
ENTRANCE ELEVATION
PLAN
ELEVATION OUTSIDE OF GARDEN
SECTION
ELEVATION OUTSIDE OF GARDEN
ELEVATION (SAME ON BOTH SIDES)
GARDEN GATES OF WOOD
WILLIAM PITKIN JR. & SEWARD H. MOTT
LANDSCAPE ARCHITECTS CLEVELAND O.
SCALE

PART OF MURAL DECORATIONS BY D. PUTNAM BRINLEY—ILLUSTRATING THE STORY OF HUCKLEBERRY FINN
THIS PANEL BEARS THE INSCRIPTION, "BY THE LIVING JINGO, HERE LIES THE BAG OF GOLD ON HIS BREAST!"

Murals for Business Diversion

Office Building of the Metropolitan Life Insurance Company, Harvey Wiley Corbett and D. Everett Waid, Associated Architects

By Sylvia Starr Wertz

At high noon when office dwellers heave sighs of relief, cast off the tension of working hours and disperse for lunch, they are actually going through a period which will appreciably influence the rest of their day. It is now generally conceded that a maximum of business capacity is realized from each employee only when working conditions are the most favorable that can be created, so that the most intricate air conditioning and special lighting systems are taken simply as a matter of general equipment in today's large office buildings. But what of the all too brief period at mid-day when workers should not only be reviving their bodies with food, but, of even more import, refreshing their minds as well? If they must hurry off to battle for room and service in crowded restaurants, to return tired and irritated, obviously the office has lost a certain precious measure of their efficiency. Realizing this, big modern concerns are more and more often installing their own lunch rooms and seeing to it that these are not only convenient but thoroughly attractive and satisfying from all angles.

Some of these concerns have the equivalent of the entire population of a good-sized little city to provide for; as an example—for the 13,000 employees in the home office group of the Metropolitan Life Insurance Company's buildings, kitchen facilities have been installed in the newly completed addition (which, incidentally, covers the area of some twenty-three acres of floor space!) and these kitchen facilities are capable of feeding the 13,000 people during a two-hour period!

For reasons too varied and complex to be gone into here it was decided to locate these kitchens with their adjacent dining rooms in the second and third basements; of course the difficulties of windowless rooms are easily counteracted by air conditioning and special lighting systems. But the remaining handicap of blank walls then became the most considerable problem because windowless enclosures, wherein natural perspectives are lacking, suggest the feeling of oppression—a sense of being shut up—the very opposite to the experience of mental and physical release, which is now believed may be of even greater psychological worth to the diners than the actual nutritive value of the lunch hour. Since one of the surest aids to creating the desirable illusion of release is a generous perspective of pleasant vistas, the simulation of these became the objective which the architects, D. Everett Waid and Harvey Wiley Corbett, felt could best be achieved by murals. But these must necessarily be of a special character, since the meaningless forms of conventionalized patterns commonly used lack that personal significance differentiating mere decoration from stimulative Art.

Mr. Corbett explained when asked some of the determining factors in their decision: "We felt it highly desir-

"THE COCKFIGHT"—MURAL BY NICHOLAS PAVLOFF FOR NEW HOME OFFICE BUILDING OF THE METROPOLITAN LIFE INSURANCE COMPANY

D. EVERETT WAID AND HARVEY WILEY CORBETT, ASSOCIATED ARCHITECTS

able to offer the diners something entirely different from the usual routine of business, something perhaps suggestive of the romantic and imaginative literary themes of early American flavor which would both interest and amuse while lending a cultural significance somewhat at variance with the usual daily life of the present time." He also added that the possibilities for the proper enhancement of purely commercial areas with a type of mural decoration leaving large spaces unadorned (as covering the whole with solid painting would prove too ponderous) bring into play all the skill, originality and genius of the artist, opening a field for the muralist, of much wider scope than present opportunities allow.

As a first step toward the arrangements for the murals the architects called in as their advisor one particularly fitted to study such situations in regard to their peculiar demands. Dr. Humphrey Burr Alexander, of the University of the State of Nebraska, has evolved a unique profession. It is his business to delve into the particular decorative needs of buildings, arrange these in their logical orders, and present his findings in a synopsis or sort of glorified "Theme Song" for the artists to embroider. His concisely set forth treatises were, no doubt, considerable factors in the success of the famous Nebraska State Capitol sculptures, and his papers on the project under discussion are as illuminating as short essays on psychology. He says: "The murals do not call for a single tale or a closely connected theme but for loose strung fantasies, which should be at once amusing, worthy of attention without commanding it, and outdoor in atmosphere. The conditions are admirably met by Washington Irving's New York Tales, such as, Rip Van Winkle, The Legend of Sleepy Hollow, Knickerbocker's History of New York. These tales are full of amusing pictures, most of them very familiar; they are outdoor in treatment and remote in time; they have the advantage also of being local in character, and native in a sense rare in America. The material is sufficient for the whole area, and varied enough not to be tiring. In the handling it should not be realistic; there should be no painter's illusions of natural landscape; yet at the same time the suggestion of the outdoor setting should be vivid. A painter's style—half sketch or cartoon —a play, rather than a composition of colors, all this will make for a kind of enchantment which should be the aim of this decoration."

To fill the whole space covered by canvas (some 45,000 sq. ft.) would be not only an almost impossibly exhaustive task but also entirely too ponderous, as Mr. Corbett has noted, for this is an inconceivably large area when seen in numbers alone; only when we imagine it applied to an eight-foot wall do we begin to visualize it as stretching well over a mile in length! Specially large frames had to be constructed on which to stretch the canvas which also was specially made; for shuttles weaving heavy linen strands across a space of twenty feet are necessarily slow and unwieldy affairs and there are not many of them in existence. The total mural area is something like 23,000 sq. ft., the largest of its kind in the world, so it is readily understandable that the vastness of this expanse practically precluded one artist handling it, especially considering the time limit set for its completion (big business being infallibly in a hurry). So the subjects were divided and submitted to a group of artists who, with small scale sketches, competed for the choice of the architects and owners.

Of the men chosen Edward Trumbull includes among his previous work the ceilings of the Chrysler lobby and Graybar Building Concourse in New York City; as well as the murals for the New York Life staff dining rooms. Mr. Trumbull is at present color director at Rockefeller Center. The episodes from the Tale of Rip Van Winkle for the lounge and escalator hall of the Metropolitan's second basement were worked out by Mr. Trumbull in a temporarily vacant fabricating shop for ships (the Groton Iron Works at New London, Conn.) where he had space enough to hang nearly half the canvas at one time which is a great help in determining the proper scale in the relationship of the various groups to one another.

Because this lounge and hall space were not so large as the other sections Mr. Trumbull was able to use the time

honored but time *consuming* "square system," a method of marking the canvas off into squares, corresponding to similar ones drawn over the small scale preliminary sketches, to act as guides in accurately enlarging them to final size. Color was painted on, only to be partially wiped off again, a trick which keeps the pale buff of the background continually showing through in the irregular pattern of the weave in the canvas. Though light, his tones are characteristically rich, and a whimsical fertility of imagination in his treatment of the lovable old reprobate, Rip Van Winkle, is to be felt in every detail. Harold Joachim Kihl was Mr. Trumbull's assistant on this work.

The second largest space of approximately 6,500 sq. ft. was allotted to D. Putnam Brinley. In this, his latest commission, Mr. Brinley was called upon to decorate the lounge and escalator hall of the third basement, which he did with "Scenes from Wild Life" and the Section Heads' dining room for which his subject was "The Adventures of Huckleberry Finn." In the latter, his scheme called for a continuous running pattern of colored lines, the color range voluntarily limited to six tones to preserve a uniform intensity throughout. Since the subject is a homely one hardly admitting of any flights of esthetic fancy, he has simplified his figures almost to symbolism and accentuated their humorous naïveté in an amusingly perspectiveless treatment, well exemplified in the incident which bears the lettered inscription; "The king and the duke got out a couple of long swords made out of oak laths, and begun to practise." Here it is quite evident that all the subjects have been treated in the same plane of space so that one gets a sort of cross section through the water showing the fish swimming about in it and even the sea weed on the bottom. Another amusing trick is evinced by the showing of stars or a moon in the sky to denote a night scene though the colors are just the same as the day scenes but have only clouds in the sky.

To enlarge his small sketches to final size, Mr. Brinley used a sort of magic lantern which, by means of reflectors, enlarges and projects the small designs so that they may be traced off directly onto the canvas, obviously this is a great time saver and makes for absolute accuracy, however, Mr. Brinley was after a special sort of line, so the sketches were projected first onto large sheets of ordinary wrapping paper, traced off and then cut out to form the stencil-like templates through which the final design was blown onto the canvas with an air brush. This produced a line which is clean cut on one side and delicately shaded on the other, giving an almost modernistic and slightly modeled effect, at once novel and well adapted to this particular subject.

The largest space of approximately 12,000 sq. ft., for which the Knickerbocker History of New York furnished the material, was allotted to Nicholas Pavloff.

Especially interesting groups among his panels of vignetted sketches, surrounded by wide margins of undecorated canvas, are the gaily costumed, shrewd visaged Dutchmen watching a cock fight; the "Dutch Wedding Journey," wherein one glimpses a restrained glow of almost Oriental color, probably suggested by early visions of the pomp and glitter that was Old Russia. Again one catches this note in the panel on the winemakers (a timely motif, most feelingly portrayed!), and the grotesque figures on stilts, as well as such quaint touches as the all but unpronounceable Dutch names on the tomb stones in an episode from the Headless Horseman—all these bespeak a careful research into historical folklore and costuming, acceptably veiled with the gay humor pervading the whole of these faintly and inimitably stylized decorations.

To wander through the various rooms with their grand total of over half an acre of decorated canvas which, now that all the stir and clutter of finishing is over with, seems to have been so effortlessly executed and hung, who would imagine that, simply to apply them to the walls, some fifteen (15) tons of white lead mixed with varnish have been consumed. One can only conjecture at the degree of cooperation necessary to produce this suave continuity, which is probably saved from monotony by the wide diversity in temperament and technique of the three artists.

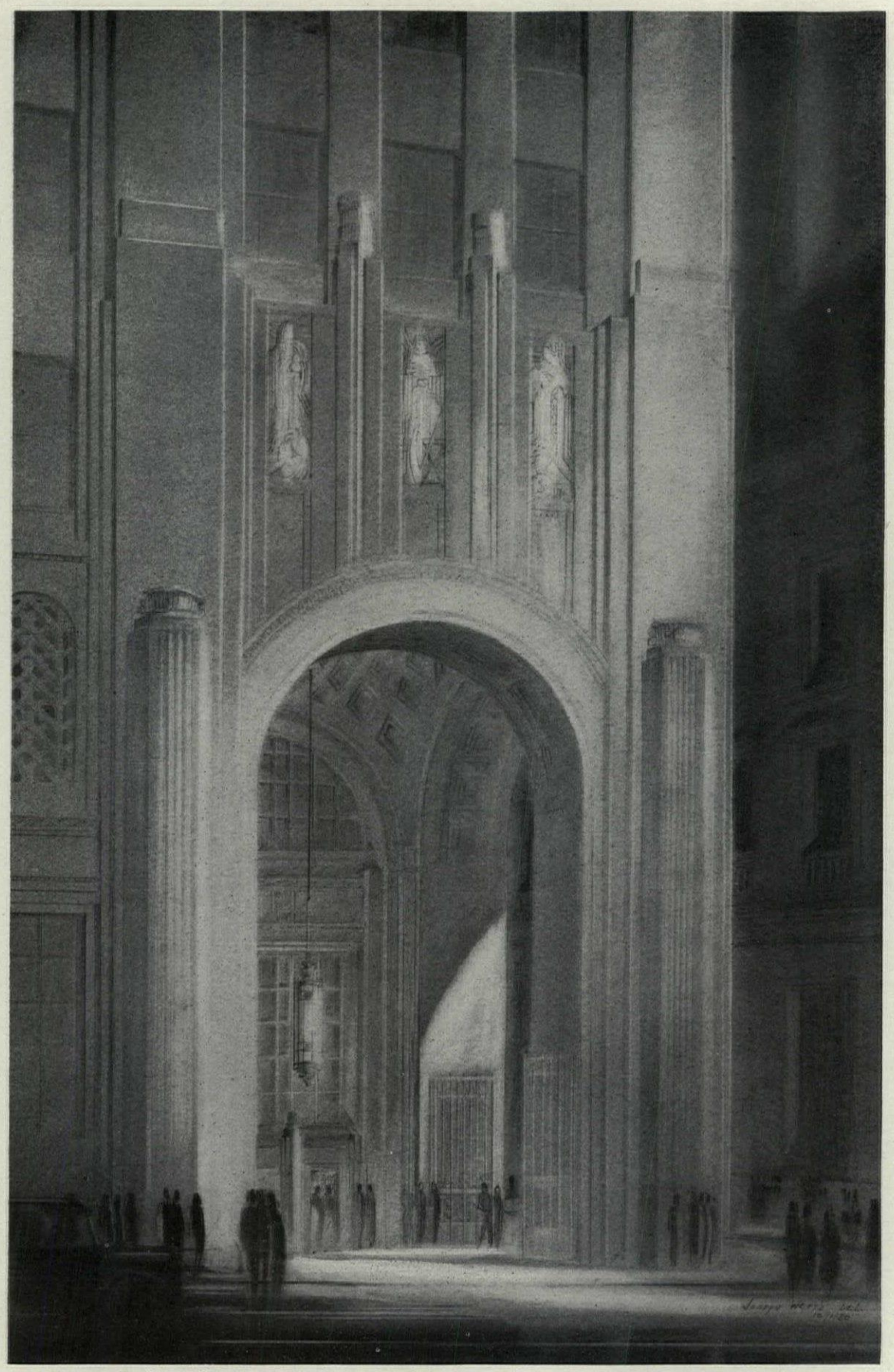
"They fail to recognize Rip Van Winkle"

Detail of "The Gnomes"

TWO OF A SERIES OF THIRTY MURAL DECORATIONS BY EDWARD TRUMBULL ILLUSTRATING THE STORY OF RIP VAN WINKLE

NEW HOME OFFICE BUILDING OF THE METROPOLITAN LIFE INSURANCE COMPANY

D. Everett Waid and Harvey Wiley Corbett, Associated Architects



Size of original, 16" x 24½"

FROM A CHARCOAL RENDERING BY JOSEPH B. WERTZ

ENTRANCE—THE NEW METROPOLITAN LIFE INSURANCE COMPANY BUILDING, NEW YORK

D. Everett Waid and Harvey Wiley Corbett, Associated Architects

Le Brun Traveling Scholarship

The Program and Report of the Jury of Award

The annual competition for the Le Brun Traveling Scholarship of fourteen hundred dollars was conducted by the Committee in the usual manner, the nominations being closed January 15th, 1933, and the drawings received March 17, 1933. The subject of the program was: *A Recreation Center for a Small Community.*

In a town of 50,000 inhabitants, situated on the east bank of a river, it is proposed to build a Recreation Center and Playground. A large playground has been prepared, with baseball and football fields, tennis courts, a swimming pool and a general playing field. Across the west end of the playground, facing the playground on one side and the river on the other, is to be placed the Recreation Building which forms the subject of this program.

This building is to contain:

A gymnasium covering about 2400 sq. ft. with gallery for spectators, ample dressing rooms and showers, separately arranged for boys and for girls, and with access both from the gymnasium and from the playground; these dressing rooms and showers may be on a basement floor.

An auditorium of about the same size, with a stage for unpretentious dramatic entertainment; a gallery and dressing rooms.

An ample lobby, accessible to both gymnasium and auditorium.

Offices for the director and assistant director.

Adequate toilet facilities for both children and public, which may also be on a basement floor.

A large enclosed terrace or sun-room where children can assemble in bad weather.

Wide open terraces overlooking both the playground on one side and the river on the other.

The architectural treatment should be gay and cheerful. Color may be freely used.

There were 220 candidates, of whom 122 submitted drawings, nearly twice as many as those competing last year. They were examined by the jury consisting of L. M. Franklin, Otto F. Langmann, Oliver Reagan, and Chester Aldrich, Chairman. The jury met on two separate occasions to study the drawings and consider the recommendations of the competitors, and have made the following unanimous awards:

The Prize to Walter T. Stopa, c/o John Holabird, Chicago.

1st Mention to George D. Recher, Chicago.
2nd Mention to Edward A. Pauly, Hamburg, New York.
3rd Mention to Magnus Thompson, Washington, D. C.
4th Mention to Floyd Rible, Los Angeles, Cal.

The level of the drawings was high and the presentation frequently interesting and brilliant, though many of the competitors missed, especially in plan, the character desired and neglected too much the elevation on the playground. The winning design, however, meets the conditions of the problem with an excellent and well organized plan. The different elements are well studied and placed, the entrance admirable, the sun-room especially agreeable, and the lockers well lighted and aired. The dominance of the gymnasium which, after all, is the essential feature of the entire program and the circulation to it, both from the locker space and the lobby, are especially commendable. The elevation, which like many others is treated in a rather commonplace modernistic manner, has, however, a cheerful character, but the presentation of the perspective is perhaps a little inadequate. As a whole, the project speaks well for the ability and resources of its designer.

The design receiving first mention has a good plan, giving excellent light and air. The lobby is exaggerated in size and the character of the perspective somewhat violent.

The second mention, though the plan is contracted and not well organized (the sun-room being especially inadequate), has an attractive elevation and perspective excellently presented.

The plans of the third and fourth mentions are rather too compact and the elevations lack somewhat in charm and distinction. In the fourth mention the sun-room is especially ill-placed, though the plan otherwise shows ability.

Mr. Stopa, the winner of the prize, has the highest recommendations from his sponsor, Mr. Holabird, and seems to be an excellent young man who will profit fully from the opportunities offered by the Scholarship.

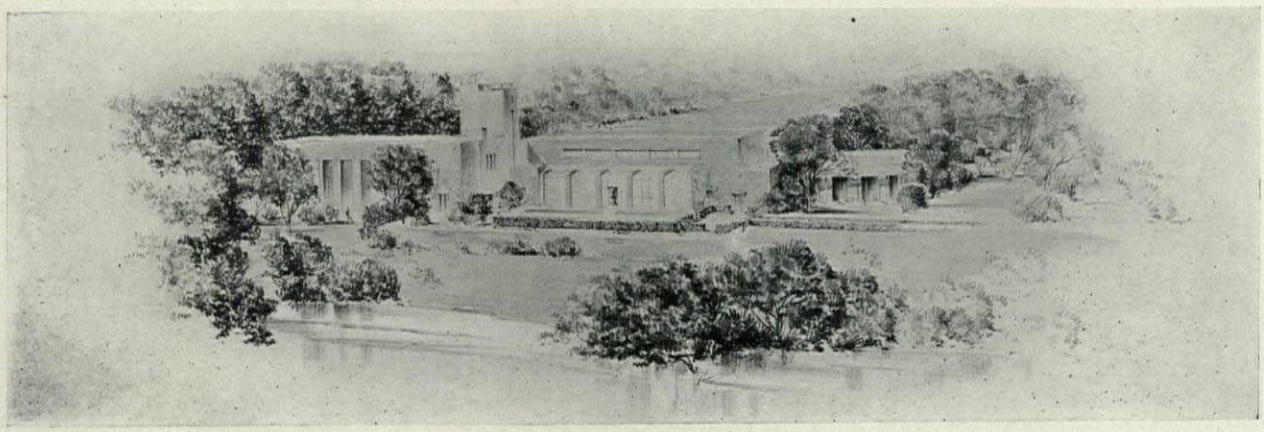
Respectfully submitted,

(*Signed*) L. M. Franklin
Otto F. Langmann
Oliver Reagan
D. Everett Waid
Chester H. Aldrich, *Chairman*

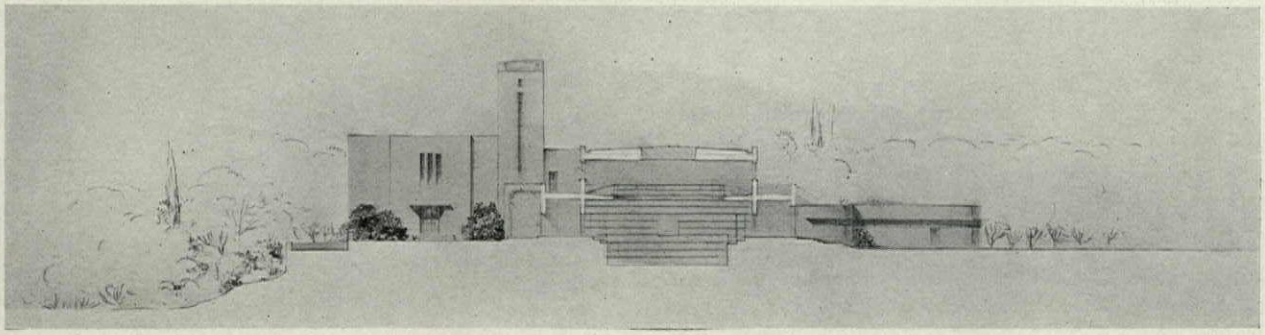
WALTER T. STOPA

Walter T. Stopa, who has been awarded the Le Brun Traveling Scholarship for 1933, is 27 years old and has studied architecture at the Armour Institute, The Chicago Art Institute, and The Chicago Architectural Sketch Club Atelier. For the past seven years he has been employed by Holabird & Root. To this organization he wishes to express his appreciation for the opportunities and assistance offered him in furthering his studies of architecture; and in particular to Mr. David W. Carlson, to whose kindly criticism and instruction Mr. Stopa owes most of his architectural knowledge.

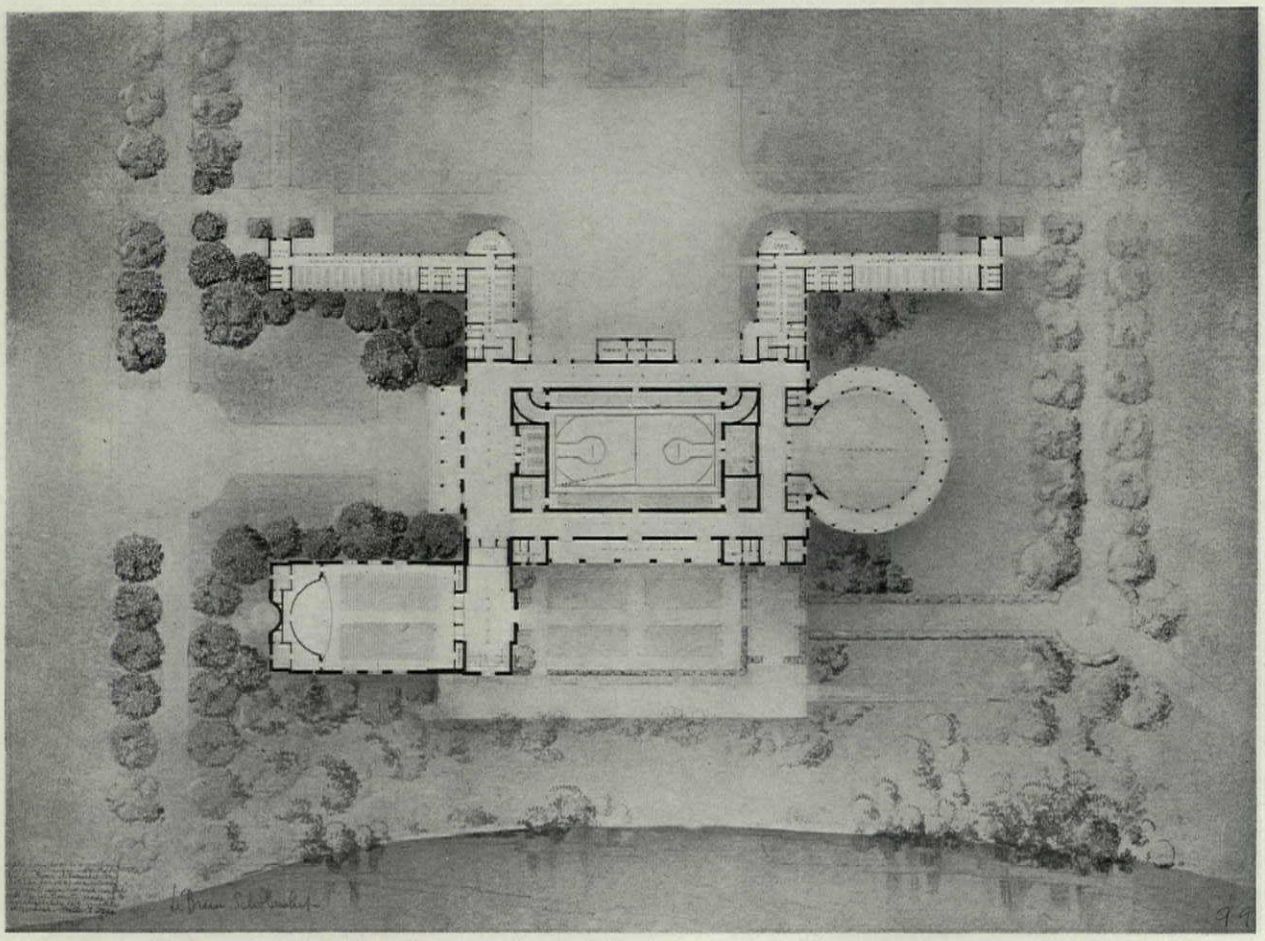
Mr. Stopa is now working on various Century of Progress designs for Holabird & Root, and plans to stay in Chicago until the opening of the Fair. Accompanied by Mrs. Stopa, he will leave about July 1st for the Scandinavian countries, after which he will tour Poland, Germany, Switzerland, and Austria. The winter months will be spent in Italy and Southern France, after which he will tour France and England.



PERSPECTIVE



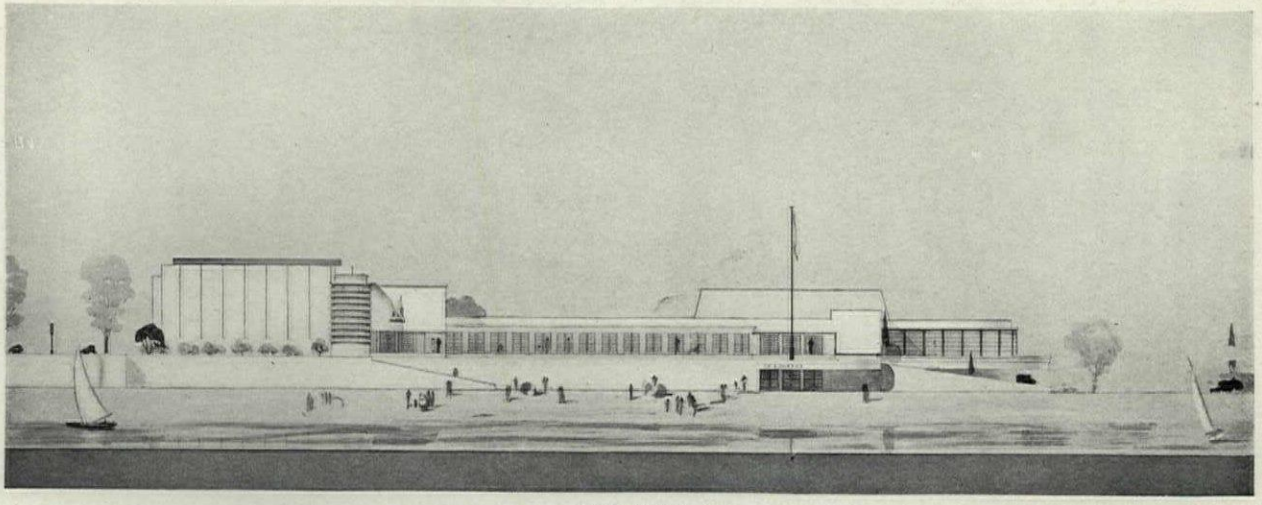
SECTION



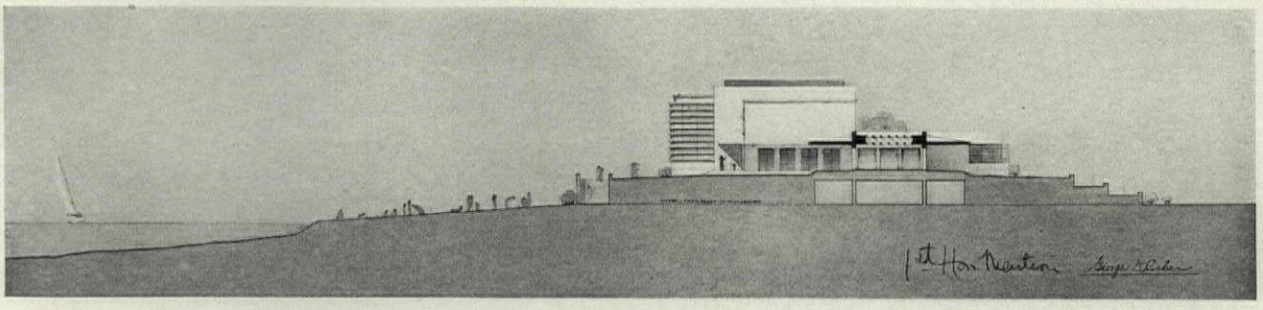
PLAN

WINNING DESIGN FOR "A RECREATION CENTER FOR A SMALL COMMUNITY," BY WALTER T. STOPA

COMPETITION FOR THE LE BRUN TRAVELING SCHOLARSHIP FOR 1933



ELEVATION



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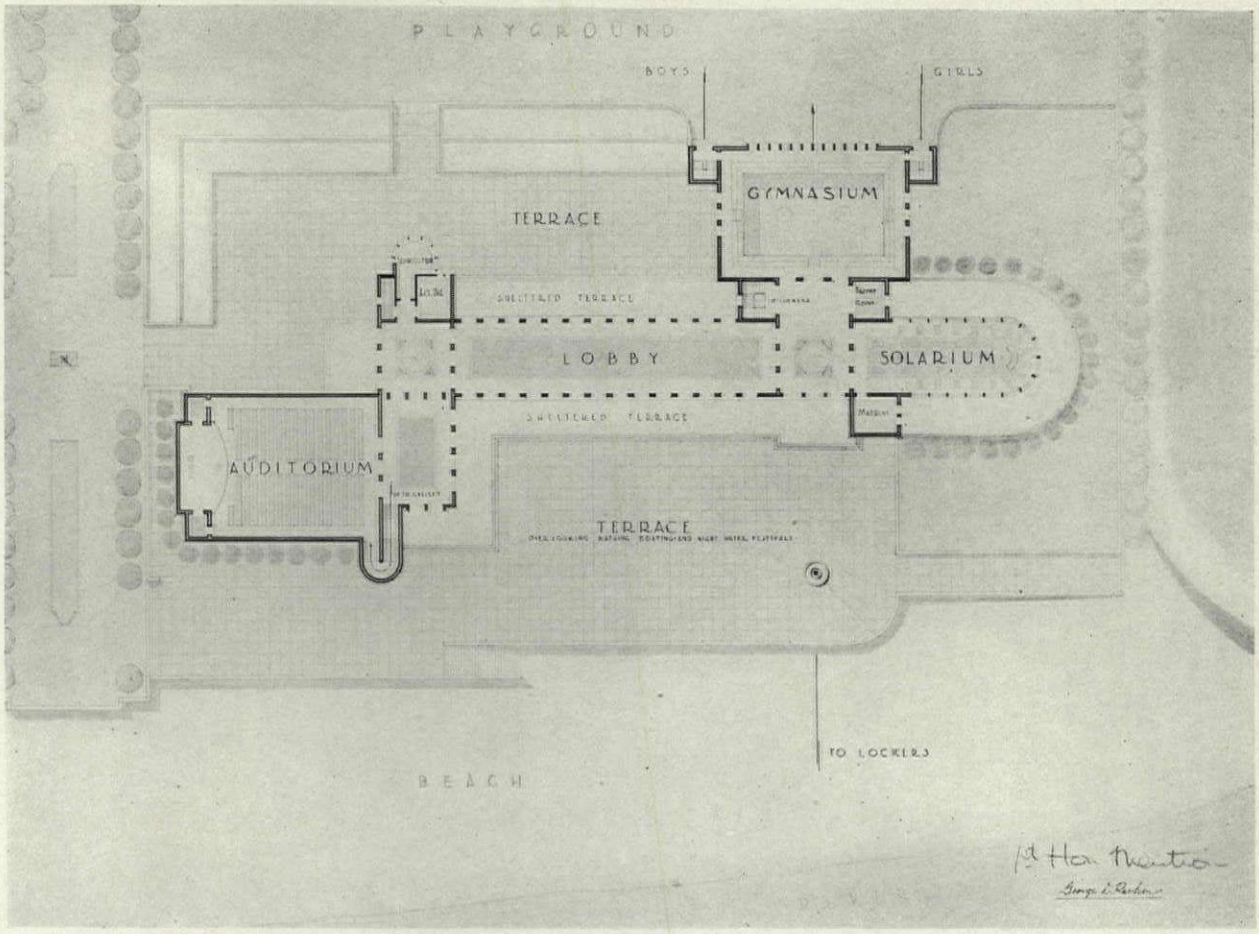
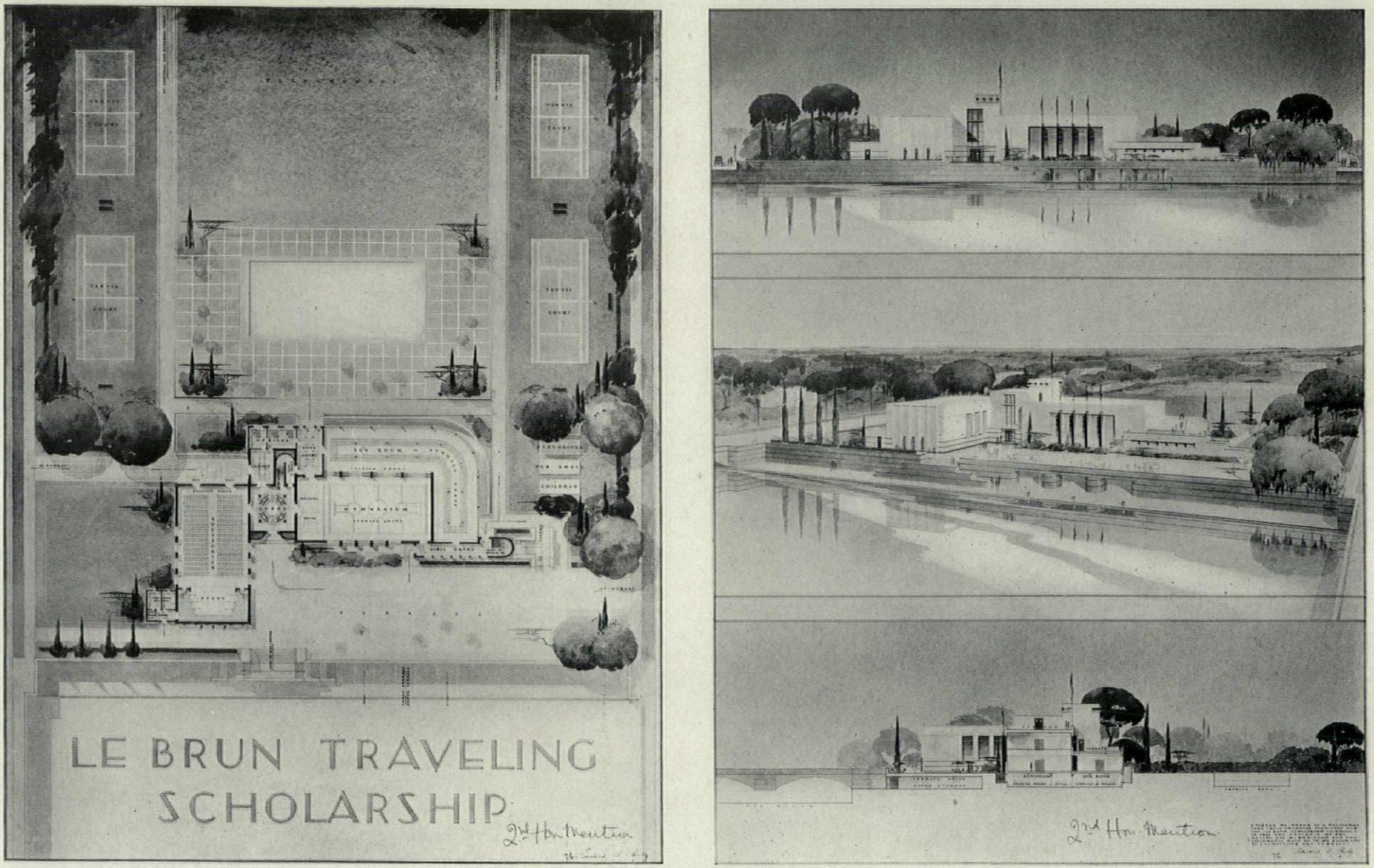


FIRST MENTION DESIGN FOR "A RECREATION CENTER FOR A SMALL COMMUNITY," BY GEORGE D. RECHER
COMPETITION FOR LE BRUN TRAVELING SCHOLARSHIP FOR 1933



PLAN, ELEVATION, PERSPECTIVE, AND SECTION—SECOND MENTION DESIGN FOR "A RECREATION CENTER FOR A SMALL COMMUNITY," BY EDWARD A. PAULY

COMPETITION FOR THE LE BRUN TRAVELING SCHOLARSHIP FOR 1933