

THE MAKING OF AN ARCHITECT

THOUGH it is true, in a sense, that architects are born, not made, it is equally true that even the best material requires a great deal of development.

Perhaps the most important fact to be grasped is that architecture is *not* something merely to be *learned*. In the opening sentence on this page the emphasis has been placed advisedly upon development.

There is a threefold purpose in any thoroughly good course of architectural training. Naming the least important purpose first and the most important last, we may make the following division. One purpose is the acquisition of the knowledge that is a necessary tool for the architect. Another purpose is the formation of a habit of proper procedure in attacking problems in architectural design. The third purpose is the development of appreciation and of the power to create in terms of architecture. One should *know* architecture, but to *be* an architect means this and a great deal more.

Whether one gains the knowledge, the habit and the development entirely in office work or through school work, supplemented by office experience is immaterial, though, excepting in rare cases, the conditions for proper training are not found in office work alone. Actual contact with good, old buildings in this country and abroad is very valuable and travel has a broadening effect. A travelling scholarship is well worth working for.

The courses offered by the recognized architectural schools and by the ateliers are open to practically everyone and are designed to accomplish the threefold purpose described above. The program of the Beaux-Arts Institute of Design, which is incorporated in most of the courses in architecture and followed in the ateliers, is planned to train the student in all these ways.

As supplementary training, each student ought to secure for himself in his free time as great a development as possible of his sensibilities and of his power to think clearly. Attendance at the opera and at concerts and visits to picture galleries in the season make him more sensitive to beauty and more receptive of the messages embodied in art forms. In the summer, tramping and sketching in the country, among the hills and in the forests; opening himself to an appreciation of the beauty of nature and to a comprehension of the inevitable sequence of cause and effect in nature's workings will give him invaluable development and will help him to maintain the splendid state of physical health that

is a prerequisite to really effective study or work. In this connection it seems well to call attention to a bit of sound advice Mr. Harbeson gave in his article in the June issue of this journal, when he pointed out the necessity for keeping one's vitality at the highest level and the folly of habitually allowing things that should have been done at the proper time to rob one of the necessary hours of sleep—of the folly of unnecessary *charretting*.

We have spoken of the opera and the picture galleries, but the musical comedy and the ball game have their proper place in the scheme—as has everything else that tends to normality.

Among the essentials of an architect's equipment is a grasp of the relation of the arts,—more especially of architecture, to human life. Part of this he will get from a study of history in connection with a study of the architecture of the past, part of it, the modern part, he will get from current literature and from everyday contact with people.

Architecture more than any other art has traditions, and they are invaluable as points of departure and as safeguards. The intelligent study of architectural documents, books of plates of measured drawings of the best old work, particularly such books as d'Espouy's "*Fragments d'Architecture Antique*," "*Architecture Toscane*," by Grandjean de Montigny et A. Famin, and other books of recognized authority is invaluable. For this reason the publishers of PENCIL POINTS are beginning the publication of a series of reprints of old books and of selected plates from some works, under the title "The Library of Architectural Documents."

Architecture has to solve practical problems and to find its expression by means of construction in a great variety of materials. The matter of practical requirements is one of the greatest importance. An architect must know how a particular family lives in order to design a house for that family, whether they eat breakfast in their rooms, and even more intimate details of family life and of personal taste. These inquiries need to be made with tact and judgment. Watch people, learn their mode of life, see how they act in the railroad stations, restaurants, stores, and plan these buildings accordingly. A mastery of construction is necessary, the man who hasn't a grasp of it is handicapped in designing and is not an architect. The ability to write good specifications is essential.

The many sided nature of architecture makes it at once the most difficult and the most fascinating of the fine arts.

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THE MAKING OF WORKING DRAWINGS

PART III, FULL SIZE DETAILS

BY JOHN C. BREIBY

This is the third of a series of articles in which Mr. Breiby of the staff of Carrère & Hastings is giving much practical information on drafting room work. The first article covered the preparation of general drawings, the one-quarter or one-eighth inch scale drawings. The second article covered the making of three-quarter and other scale details. Architectural models, shop drawings, etc., will be treated and at the conclusion Mr. Breiby will take up the preparation of sketches, etc., particularly sketches of interest to the drafting room.—Ed.

ALL working drawings and specifications of architectural work are instruments of service for use during the actual construction, full size details may perhaps be called "temporary instruments" of service. The general working drawings, specification and scale drawings are always sacredly filed and guarded after the completion of the work, to serve as permanent records of executed work, and very often become active again, should any addition or alteration to the executed work be required.

Full size details are not so sacredly treated, for although they may be kept for some time after their service is over, they are usually too large to permit permanent economical filing. Often the method of construction or use of a particular material, which was the very latest at the time the detail was made, may have become entirely out of use, with the progress of science, in a short time. Should later information be required of work executed from a particular drawing, this can best be obtained from actual conditions at the completed building. Therefore, detail drawings should be made as simply and as economically as possible; but making details simply and economically, does not mean neglecting careful study.

Full size details are made for the purpose of explaining how the architect wants particular parts of the work executed, whether this is for ornamental parts or to show purely practical conditions.

As all architectural drawings can be divided into two distinct groups—those for the interpretation of design and those for the interpretation of practical portions—full size details must then also be classified in the same way, with perhaps this modification, that all full size details must show the practical way of execution no matter how elaborate they are required to be for the interpretation of design ornament.

From the making of the most simple drawings, such as details of windows, plain stone sills, etc., to the preparation of the most elaborate ornamental drawings, no phase of architectural drafting offers better opportunity for study and development in draftsmanship than the study and making of full size details. The younger men will more rapidly learn the technique of using the pencil in a free and bold way and will also acquire the knowledge of materials and the assembling thereof by constructing the work—true it is, only on paper, but it should be no less real. The work expressed by

drawings should, in the mind, take the shape of materials to be used and fitted into their required places in the completed building. The experienced draftsman will work in this way.

Details interpreting design, such as for carving of wood or stone, ornamental iron work, etc., are not drawings for the study of architectural ensemble or design. It is quite as impossible to study general mass and proportion on full size details as it would be to study the human figure by analyzing the hand only. Detailing is the very work of analyzing each part by itself, but the relation the detail bears to the complete composition must always be considered. The study and development of refinement or boldness in mouldings, ornament and relationship of one moulding to another can only properly be accomplished in the making of full size details.

Practical details, such as drawings showing the proper way to construct window frames, cupboards, curbing and ventilating devices for skylights and so very many other problems to be solved, are all studied and developed with a view of economy in execution or to utility.

The expression, "the drawing fairly sparkles," may well apply to a good detail whether it be a drawing of ornament or of some purely practical point.

Since as was mentioned before all full size details must show the practical way of execution, it will not be necessary to differentiate between ornamental and practical drawings in the following sketch outline of procedure in their preparation and use.

The making of full size details follows the making of the general and the large-scale drawings which have been considered in previous issues of PENCIL POINTS. By the time details are required, contracts for the execution of the work have usually been let. Such drawings are rarely prepared for estimating purposes. It must always be remembered that full size details must be governed by conditions which have been established on the general set of contract drawings and specifications, so any elaboration beyond that which is called for by the contract document drawings will always raise questions of extra costs between the architect and contractor.

Full size details are really enlargements made from the smaller scale drawings and upon such enlargements absolute detail information can be shown, for instance, how a cornice should be built up, or the accurate cutting shapes of mouldings,

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forms of ornament, etc. Study carefully the general and larger scale drawings and specifications to determine what portions are required to be detailed. Make a list of the drawings required. In fact a list covering all drawings to be made for the entire work, including general drawings, etc., is very good practice.

In order to arrange the detail sheets in the most practical way and of convenient size to include as many parts of the work as are required to be shown, it is well to make a small diagram on tracing paper at the same scale as the drawing to be detailed. Figures 1 and 1-A illustrate this method; Figure 1 shows a $\frac{3}{4}$ -in. scale detail of an exterior door treatment, parts requiring full size details being indicated by letters A, B, C, etc.; Figure 1-A shows a sketch of the sheet required and a general arrangement of details traced from drawing 1. Note that additional parts are shown on Figure 1-A, as indicated by letters B, I, J, which are not shown on Figure 1, indicating sections, side views, etc., necessary to complete the full size detail, but not necessarily required to be shown on scale detail. From the example given above, it will be seen that more than one sheet of details will be required to complete the work indicated on Figure 1.

It is well to remember that the maximum width of blue prints obtainable, is 54 inches,

but that they may be of any required length.

Many offices use standard size sheets for all drawings; that is, one size for all general small scale drawings, another for the larger scale drawings, and still another for full size details, and some offices have developed a standard method whereby drawing sheet sizes are established by a given unit size,

based upon a standard size sheet required by the general $\frac{1}{8}$ -in. or $\frac{1}{4}$ -in. scale working drawings, the larger scale and full size details then being multiples of the unit size sheet.

Any suggestions for arranging detail sheets or the use of standard size drawings must not be taken for fixed rules or better practice. It is of utmost importance, however, to know what to show and how to show it, which careful study and experience alone can teach.

These are the days of specialists; each particular part of the work is executed by men trained to perform that one part exceedingly well. Such specialists are generally known as sub-contractors, engaged by and under a general contractor who acts as head and is responsible for the entire work to the architect, or each specialist may have a direct contract to execute his particular portion of the work directly under the supervision of the architect. Whatever may be the arrangement of contract or contracts, the architect is the "master builder," for he

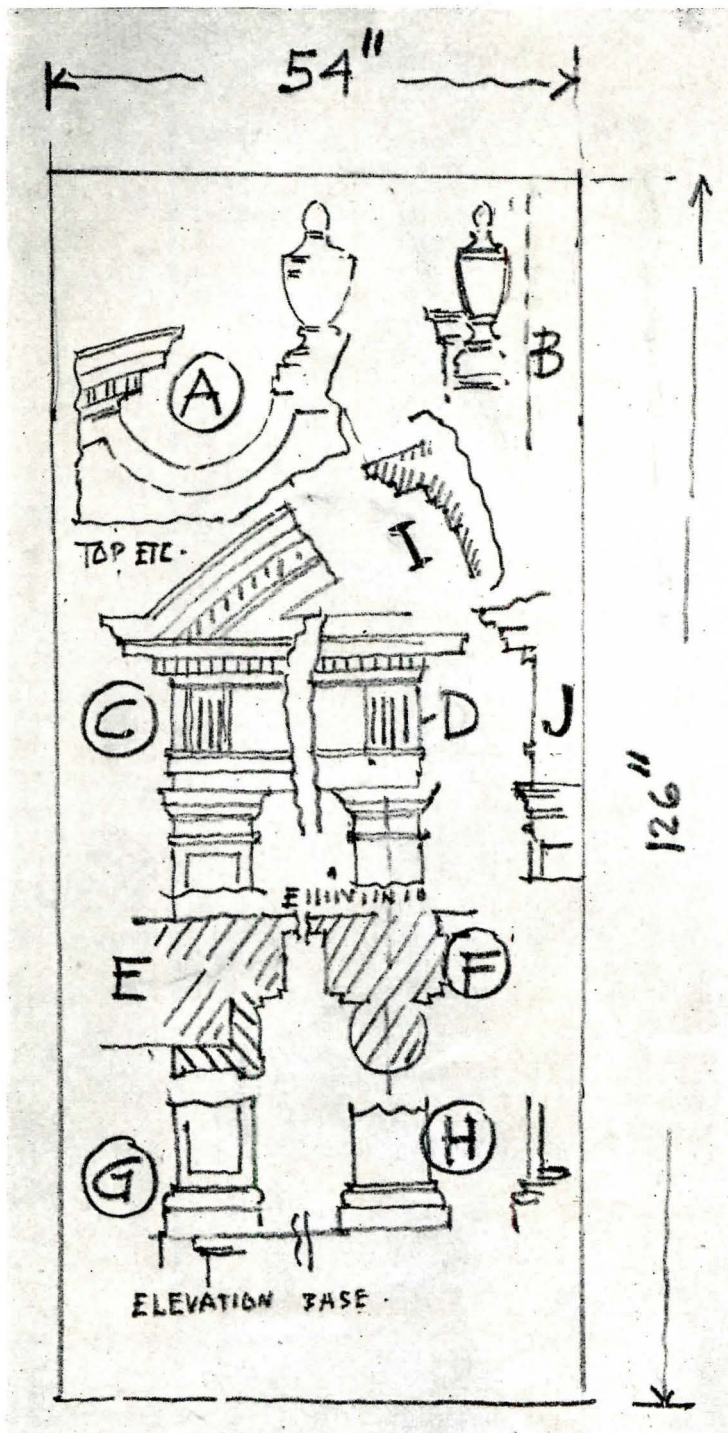


Figure 1-A. Small Diagram Showing Arrangement of Full Size Details on Large Sheet

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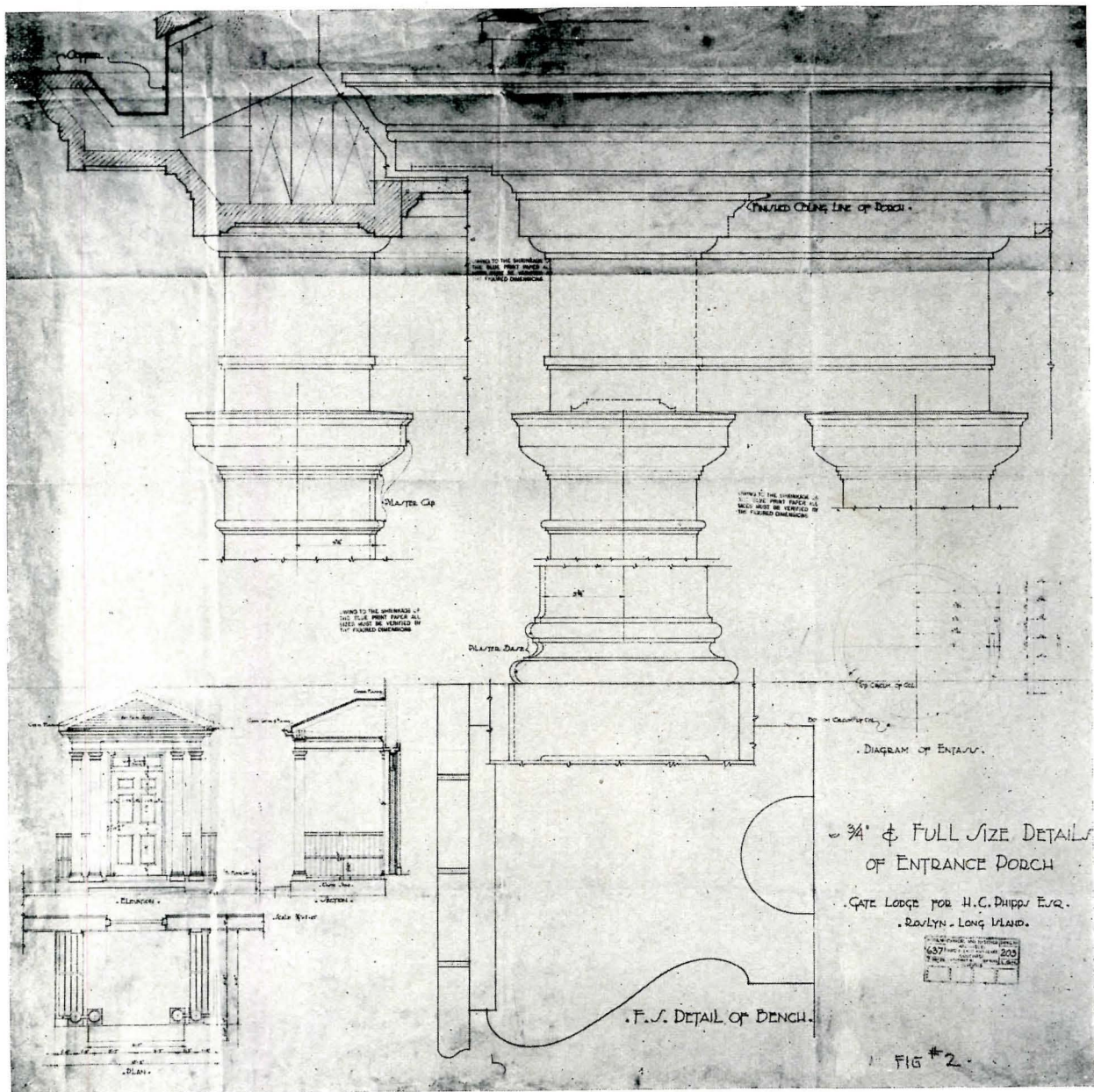


Figure 2. Full Size Details of Entrance Porch. Gate Lodge for H. C. Phipps, at Roslyn, L. I.
Carrère & Hastings and Shreve, Lamb & Blake, Architects.

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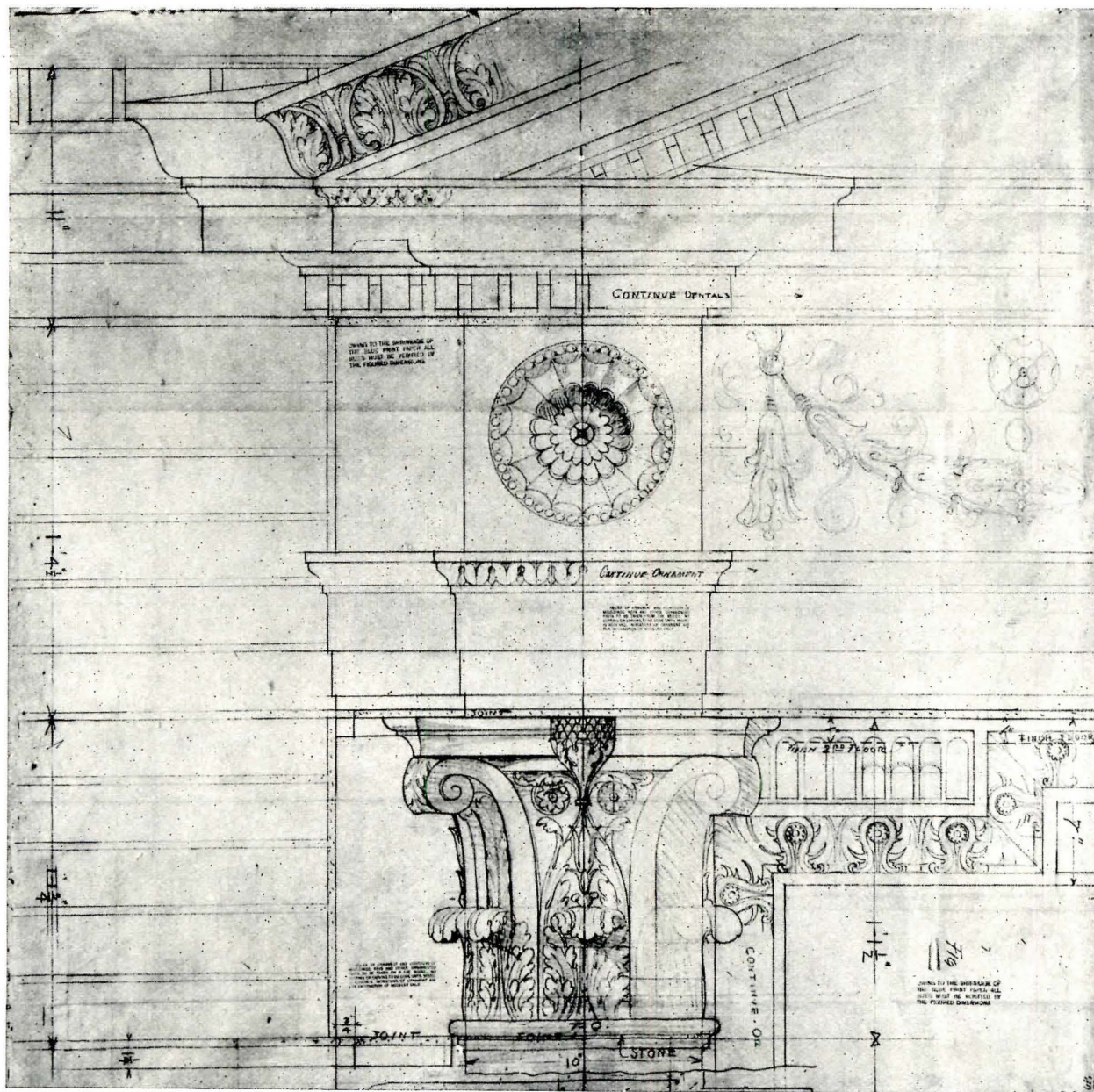


Figure 3. Part of a Full Size Detail for Stone Entrance Door Treatment, Apartment House for 46 West Ninety-fifth Street, Inc., New York City. Carrère & Hastings and Shreve, Lamb & Blake, Architects.

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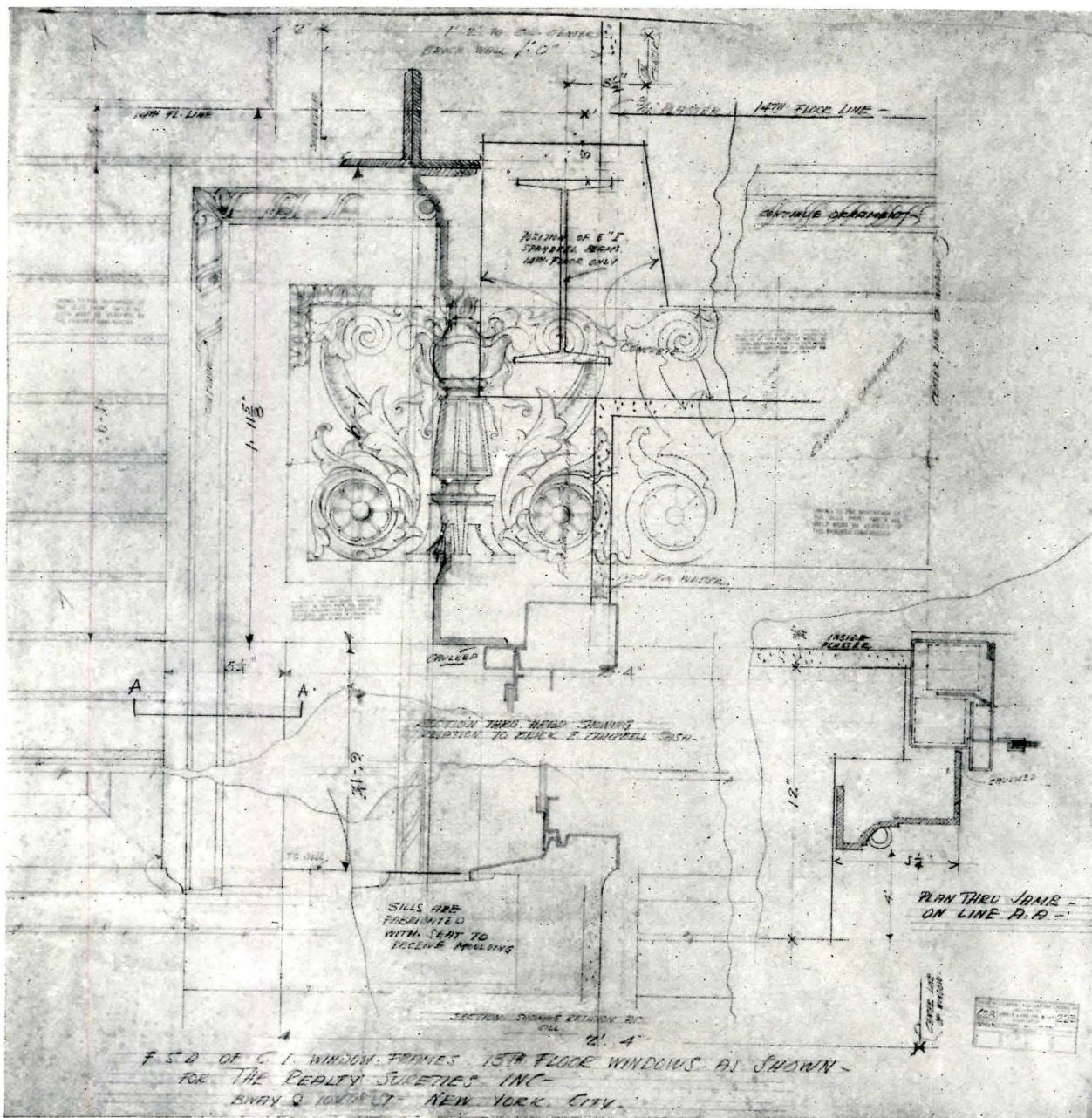


Figure 4. Full Size Detail of Cast Iron Window Frames. Non-Housekeeping Apartment Building for the Realty Sureties, Inc. Carrère & Hastings, Architects. Shreve, Lamb & Blake, Associated.

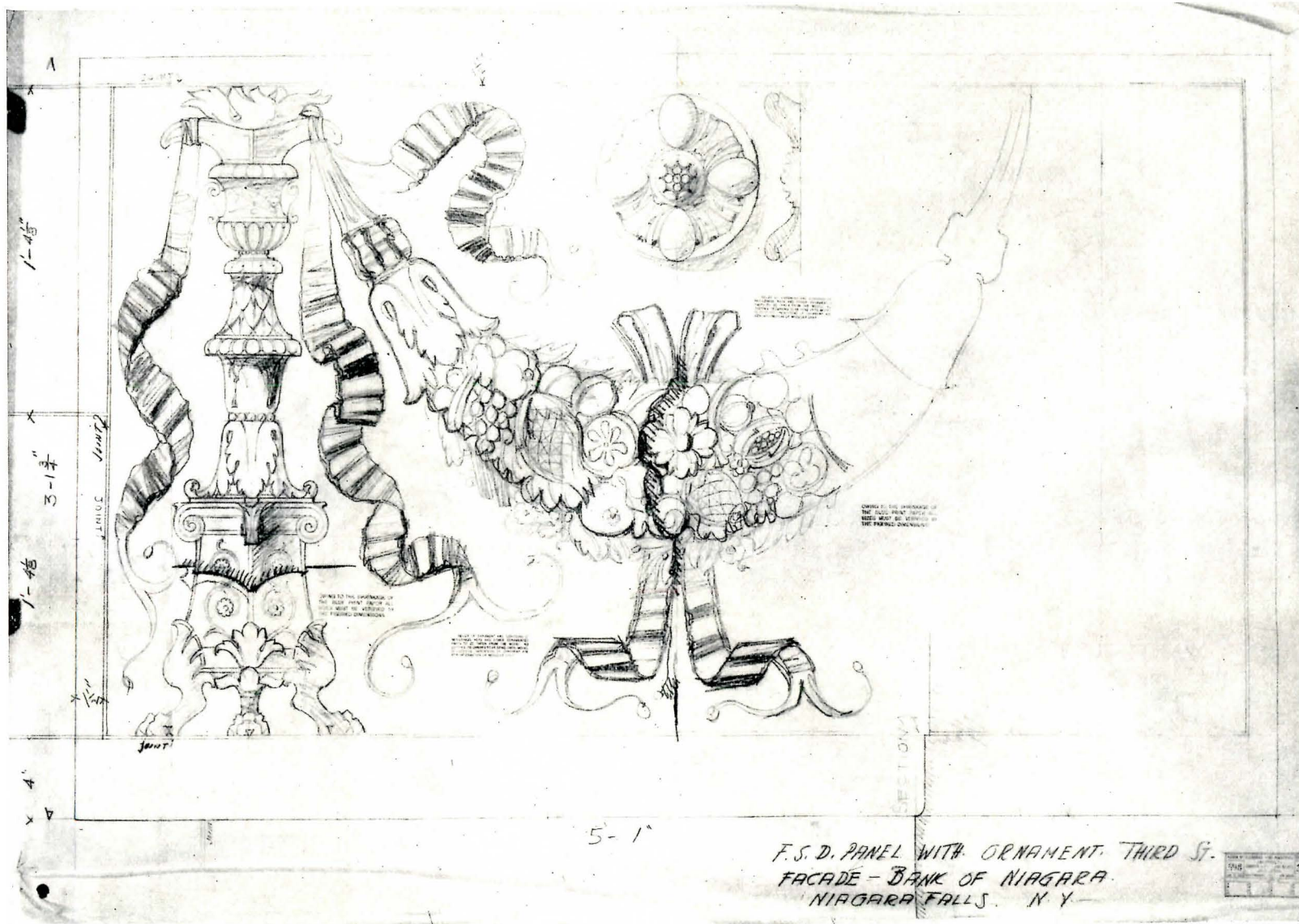


Figure 5. Full Size Detail of Panel with Ornament, Third Street Façade, Bank of Niagara, Niagara Falls, N. Y.
Carrère & Hastings, and Shreve, Lamb & Blake, Architects.

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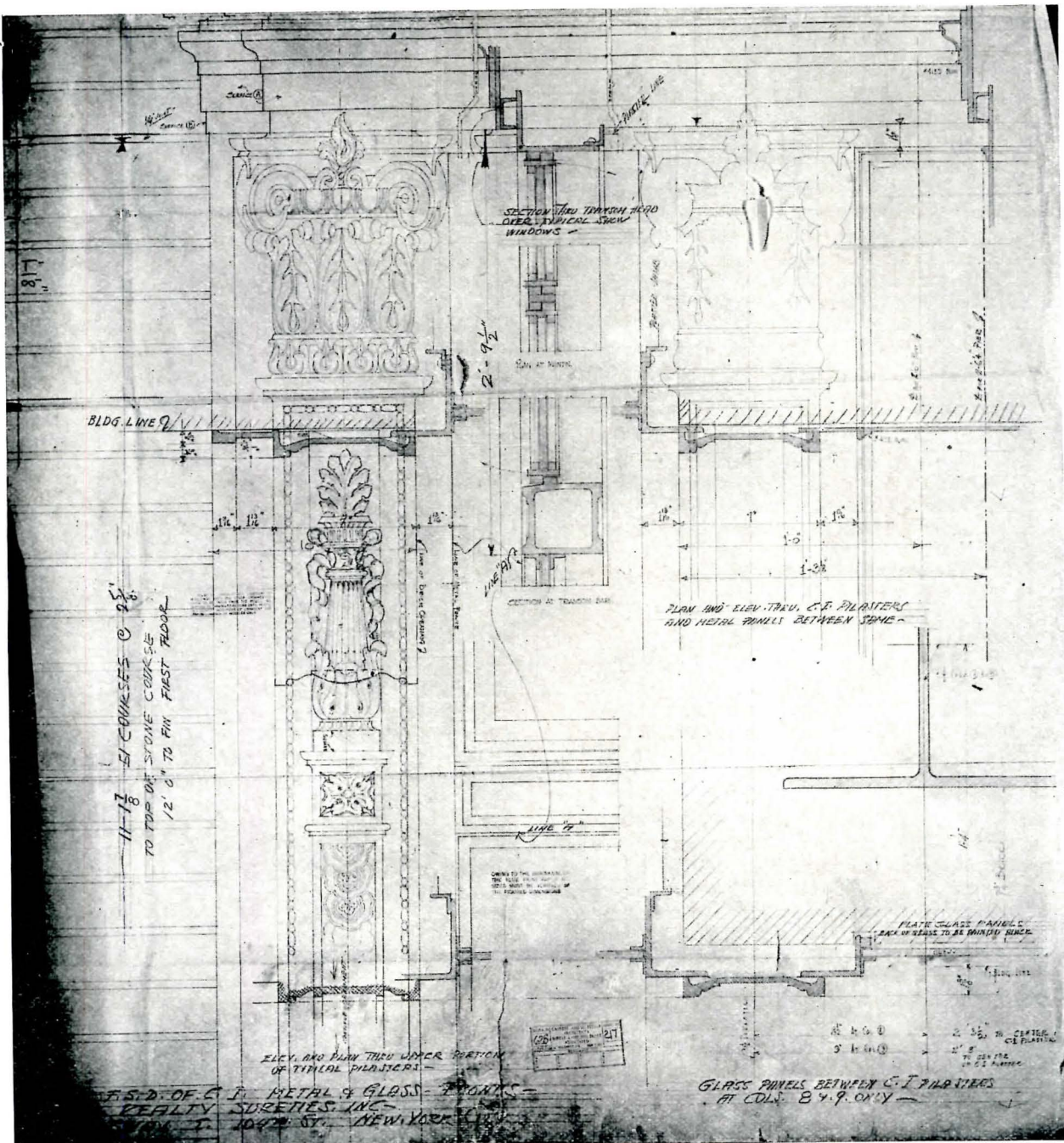


Figure 6. Full Size Detail of Cast Iron Metal and Glass Fronts. Non-Housekeeping Apartment Building for the Realty Sureties, Inc. Carrère & Hastings and Shreve, Lamb & Blake, Architects.

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represents the owner and is responsible to him alone. The architect must see and know that each specialist performs his work well and in harmony with all others.

In order that each specialist may clearly understand how to perform his particular work, all drawings must be prepared with this point in view, and especially so for full size details. The specialist who is to execute the ornamental iron work is not particularly interested in knowing how the wooden window frames are to be executed, etc.

Wherever possible, prepare details so that they apply to a particular kind of work, but show also on the same drawing such parts of other work as come in connection with, and are related to, the work which is to be executed from the particular detail. For example—in making a detail of an iron grille it is most necessary to show how the grille is related to the stone or brick opening in which it is to be placed, etc.

For small work it is very practical at times to make a complete detail including many trades—such as on a detail of an entrance porch and door, the leaded glass, metal gutters, stone or brick steps, etc., can well be shown.

As a general rule, do not show kinds of work unrelated to each other, or work widely separated, on the same sheet; as for instance, an ornamental plaster cornice of the living room has no relation to, and is widely separated from, the kitchen dresser.

The men at the job prefer as a rule to work from drawings relating to their particular part of the work and very often cut the blue prints into parts, retaining only such portions as interest them.

Blue prints of full size details are handled a great deal at the work or in the shops, and at times (owing to the size of the prints) are perhaps unavoidably mishandled; for this, as one reason, do not make drawings any larger than absolutely necessary. Also remember for the sake of economy, blue print charges run up very rapidly, and over size details are responsible for unnecessary costs.

Arrange detail sheets compactly, but do not cramp, and above all make the drawings clear and simple. Remember that "the fellow" on the job who has to read the drawing for the execution of the work, cannot always run in to see the man who made the drawing and ask questions, so let the drawing do as much of the talking as possible in clear language.

The drawings illustrated with this article were selected from the general office files of routine work and are not intended to show any standard methods of preparation or typical details of construction.

Many good works have been published, showing more or less typical scale and full size details. Reproductions of executed work and illustrations of the details, either measured from the work or of drawings used for its construction, are to be found in the library of every architect's office. Study all such works carefully. Time spent in the library for intelligent study, even during working hours, is not wasted and is for the good of the office. It is also very necessary to keep posted about materials and methods of construction from the catalogues pub-

lished by the manufacturers and dealers in building materials.

Every detail is a problem of its own to be solved by the man who makes the drawing.

The drawing and sketch illustrated by Figures 1 and 1-A have already been considered, merely as a suggestion for the arrangement of detail sheets.

Figure 2 shows a full size detail of an entrance door and porch. On this drawing the $\frac{3}{4}$ -in. scale drawings of the work have also been shown. On smaller work this arrangement is quite safe, especially if the indications of work required are clearly shown on the $\frac{1}{4}$ -in. or $\frac{1}{8}$ -in. scale general drawings. As a rule, however, it is better to make separate drawings for the $\frac{3}{4}$ -in. scale details and for the full size details. In this case the $\frac{3}{4}$ -in. scale drawings act as key drawings.

On $\frac{3}{4}$ -in. scale drawings of typical work, such as details showing types of doors, windows, running office partitions, etc., full size details can be shown to advantage, for usually sections through mouldings, rails and stiles, jambs, etc., do not require much space.

The full size detail illustrated by Figure 2 is well made and shows the result of careful study.

The mill man cannot go wrong in cutting mouldings as detailed, and any intelligent workman can build the work as shown.

Figure 3 shows a part of a detail made for a stone entrance door treatment.

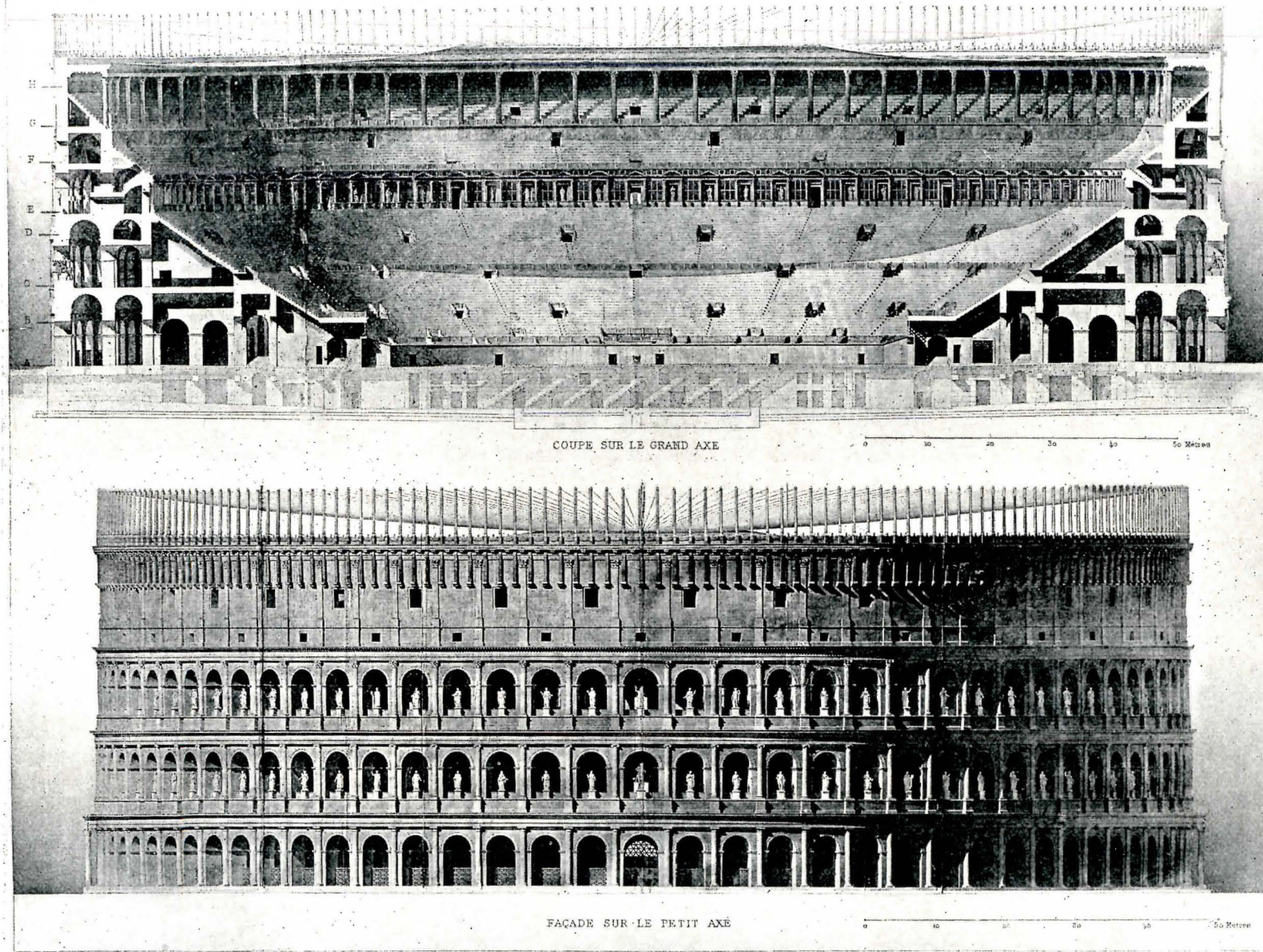
From the very character of this drawing, stone work can be clearly read and no stretch of imagination or of unnecessary words is required to say this. All drawings should, and good drawings do, indicate the actual materials which they portray, not merely by showing the cuts of properly used mouldings and ornaments, but by real technique in indication.

Note how the ornament is indicated on the above mentioned detail, the very life and motion can be understood therefrom. To draw ornament too exacting and laboriously is not necessary and also acts as a check rein on the imagination of the modeler. It is very necessary however that the general mass and character of ornament be shown and in harmony with the design.

In describing the details as illustrated by Figures 2 and 3, liberty was taken to wander a little from the drawings under consideration—first to tell about detailing $\frac{3}{4}$ -in. scale drawings and full size details, being drawn on the same sheet, and secondly to say a word about drawings expressing the material for which they are made. Just one additional remark may be allowed—when drawings are made with the clear understanding and feeling that they are the result of pure reasoning and expressions of joy from within, the outcome must be good and pleasing.

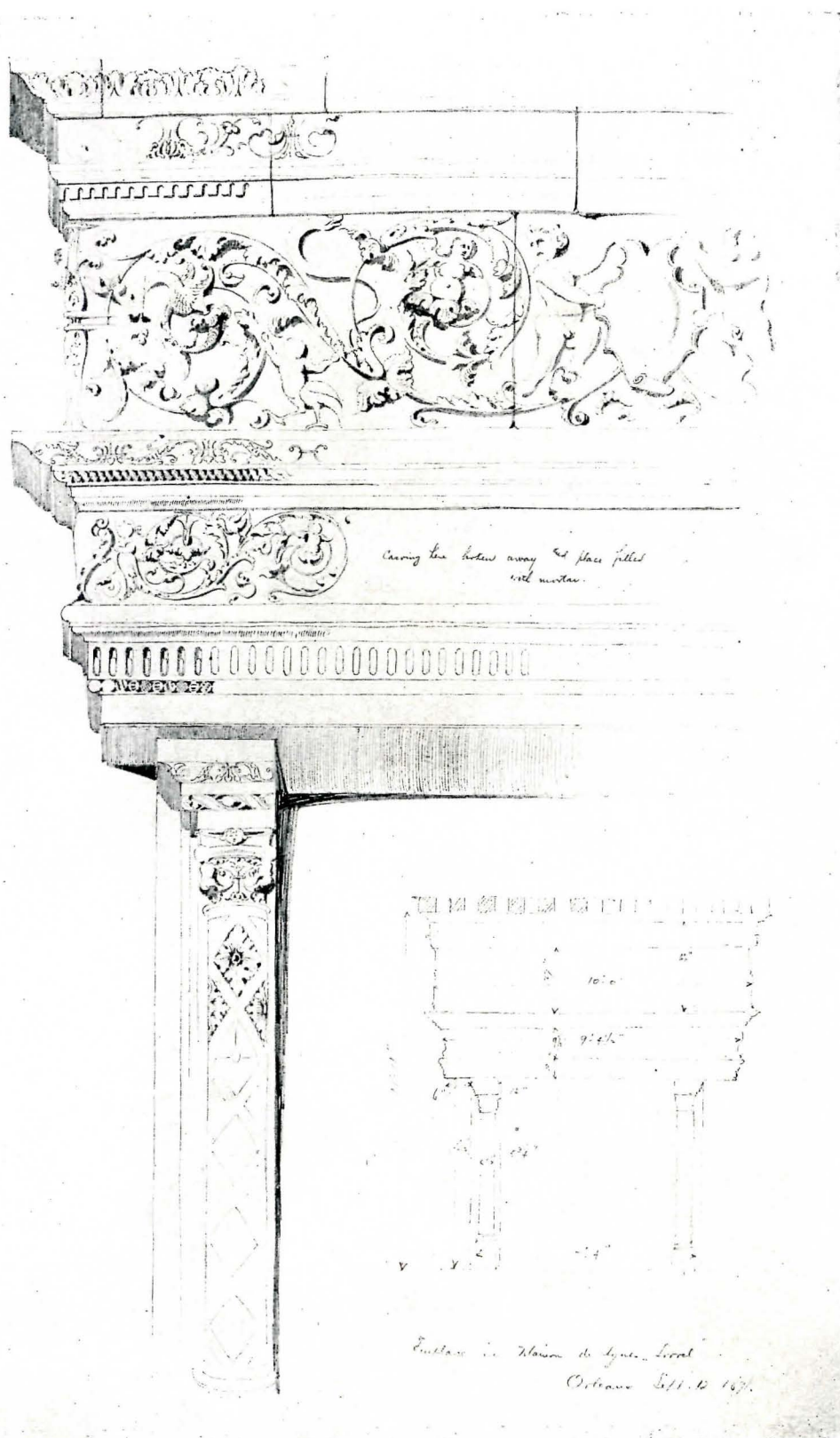
Figure 4 shows a part of a full size detail of an ornamental cast iron treatment around windows. In this case it was very necessary to indicate details of other work relating to the detail for the particular work required and such other conditions indicated then become, in equal force, necessary

(Continued on page 63)



THE COLISEUM, ROME
FROM H. D'ESPOUY'S "FRAGMENTS D'ARCHITECTURE ANTIQUE"

On the other side of this sheet is reproduced a plate showing a restoration of the Coliseum, Rome. The Coliseum was built partly by Vespasian and partly by Titus who succeeded him. Excepting the top story shown in this restoration, which is supposed to have been added in The Third Century, it is interesting to note the resemblance of the section in the upper part of this plate to the present-day type of motion picture theatre, as seen from the stage. The vomitoria, or passages for the entrance and exit of patrons at various levels, have been found the most satisfactory solution of the problem of handling large crowds at the present day as well as in the time of Imperial Rome.



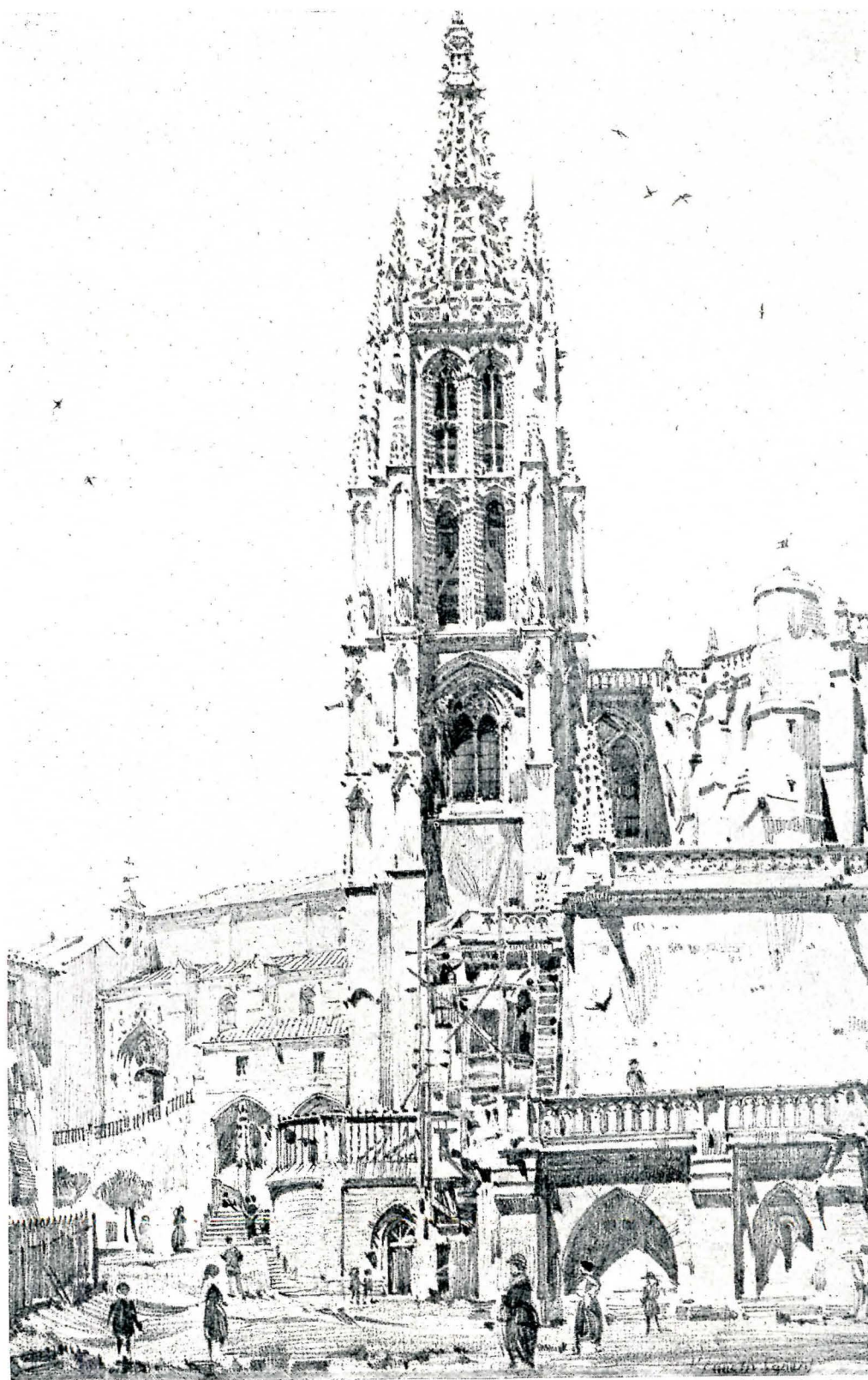
PENCIL SKETCH BY ALBERT KAHN, FIREPLACE IN MAISON
DE AGNES SORREL, ORLEANS

The pencil sketch on the other side of this sheet is one made by Albert Kahn and is an excellent example of the kind of sketch that is most useful for architects or architectural students to make of fine old detail to serve as a means of study and for preservation as a source of inspiration in their work. The care and fidelity with which the character of the original has been preserved in this sketch as well as the excellence of the pencil technique is notable.



SKETCH BY ANDRÉ SMITH. A BIT OF OLD PARIS

The sketch showing "A Bit of Old Paris," reproduced on the other side of this sheet, is an interesting example of the work of André Smith in quite a different manner from many of his other sketches which are made in fine line. This sketch shows a combination of pencil and color and a free and vigorous handling of masses.



SKETCH BY KENNETH CONANT
SOUTHWEST TOWER OF THE CATHEDRAL, BURGOS, SPAIN

A sketch, in which the pictorial quality and the rendering of architecture are combined successfully with admirable pencil technique, is shown on the other side of this sheet. This is one of the many sketches made by Mr. Conant during his extensive travels and is one of the series from which several other subjects have been reproduced in the pages of this journal.

HOTEL ARCHITECTURE FROM A HOTEL MAN'S VIEWPOINT PART II

BY ROY CARRUTHERS

This is the second installment of a serial article in which Mr. Carruthers, who is Managing Director of the Waldorf-Astoria Hotel, will tell what are the practical requirements in hotel design from the hotel man's standpoint. Mr. Carruthers will discuss design character, planning and equipment.—Ed.

THOUGH the shape of the plot upon which the hotel is to be built and the grade of the streets bounding the plot and other special conditions are important factors in determining the plan of a hotel, there are certain fundamental requirements governing the relation of the public rooms to each other and of the kitchen to the rooms in which food is to be served. These requirements are so obvious that it would seem hardly necessary to name them if it were not for the fact that many hotels, strangely enough, have been built without due regard to these very requirements. An excellent example of the proper location of the public rooms of a hotel is to be found in the plan laid out by George C. Boldt for the Waldorf-Astoria.

In this hotel the main kitchen is so located as to be directly accessible from the several dining rooms on the ground floor. It lies under the center of a great square formed by these and other public rooms. Along the Fifth Avenue front of the hotel are the Empire Room and the Rose Room, occupying a frontage of 200 feet, and each has an entrance to the kitchen. In the northwest corner of the building, on 34th Street and Astor Court, is the North Café, and in the southwest corner, 33rd Street and Astor Court, is the Bradley Martin room, or grill. Both of these rooms have direct access to the kitchen. The Garden Room and the Palm Room, where tea is served in the afternoon, are in the center of the ground floor, directly over the kitchen.

There is a battery of dumb waiters serving the rooms on the floor above the ground floor, including the banquet rooms, private dining rooms, grand ball room, concert room and the Astor Gallery. The Waldorf Roof Garden has a complete kitchen service on the roof.

The Palace Hotel, San Francisco, has a seating capacity of about four thousand on the main floor using the two grills, the Palm Court, Rose Room, Concert Room, ball room and private dining rooms. The kitchen of this hotel is on the ground floor, at one end, and these rooms are arranged in such a way that direct access to the kitchen is had from each of them. The Palace Hotel, like the Waldorf-Astoria, occupies an entire block.

In the Olympic Hotel, Seattle, plans for which have been drawn by Geo. B. Post & Sons, Architects, we have an example of a hotel of moderate size in a typical American city. Here, as will be seen by reference to the plan on page 40, the kitchen is on the same floor as the main dining room and at one end of it. The arrangement of the rooms

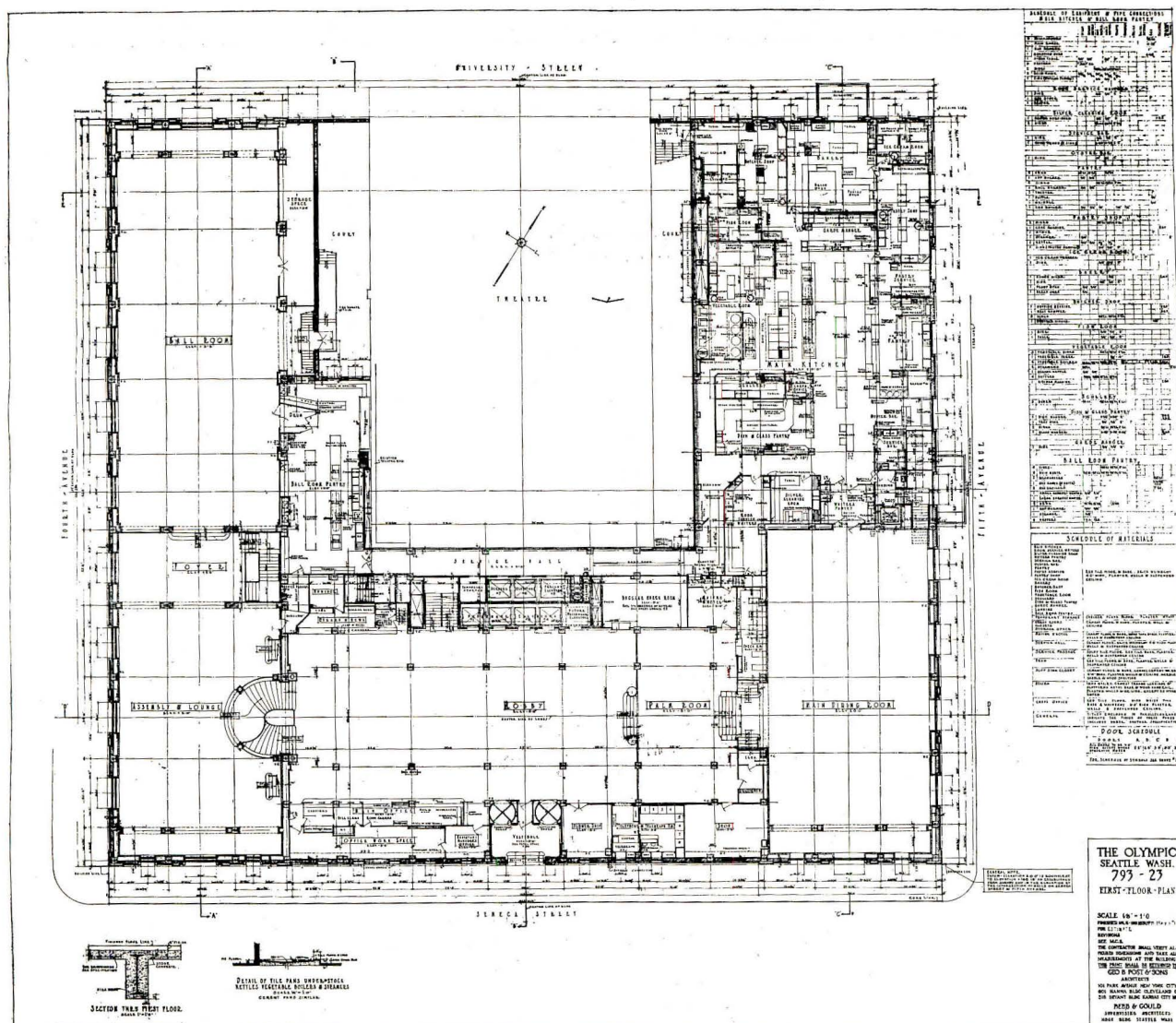
in this case was determined by the fact that the ground slopes rather sharply south and west. The first floor, upon which are the principal rooms, has been established at the level of the upper end of the plot. This gives a complete story under this floor at the southwest end of the building, for stores and other purposes. How this works out may be seen by reference to the perspective of the Olympic Hotel, published on page 25 of the June issue of PENCIL POINTS. Directly under the kitchen are the grill room, the grill lunch and the lunch counter rooms. Owing to the slope of the ground, the grill room, though in the story below the first floor, is not below grade but is on the level of the street. The whole arrangement of the principal rooms has been worked out remarkably well, giving certain differences of floor level and vistas which are most attractive.

The arrangement of entrances and exits for the kitchen of a hotel must be carefully worked out so that the lines of travel of the waiters will not cross each other and dishes going from the dining room will not cross dishes coming into the dining room. Adherence to this principle will save the operators of the hotel enormous sums otherwise lost through breakage. Wherever possible there should be three doors giving communication with the kitchen, namely, an egress and entrance for waiters and an exit for used dishes, which are then put on sorting tables and passed on to the dish-washing machines. A regular route should be laid out for the travel between the kitchen and the dining room and within the kitchen for everything and always along lines of least resistance and non-interference.

The architect who has not had a great deal of experience in hotel planning usually thinks too much of the bed rooms and not enough of the working parts of the hotel—the kitchens, the facilities for handling help, etc. The importance of this part of the house can be understood readily when one realizes that the Waldorf-Astoria has fourteen hundred employees, an excess of two hundred over the capacity of the house for guests. This hotel, because of the character of its patronage, has a capacity of twelve hundred guests, which is much less than that of a hotel largely for transients. The number and size of the public rooms as well as the spaciousness of the accommodations in general accounts for this difference.

Commonly there is not enough working space allowed, not only in the kitchen but elsewhere. Too often the operator is cramped for service elevators, store rooms, storage space in the kitchen, ice box

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Plan of First Floor, The Olympic, Seattle, Washington. Geo. B. Post & Sons, Architects.

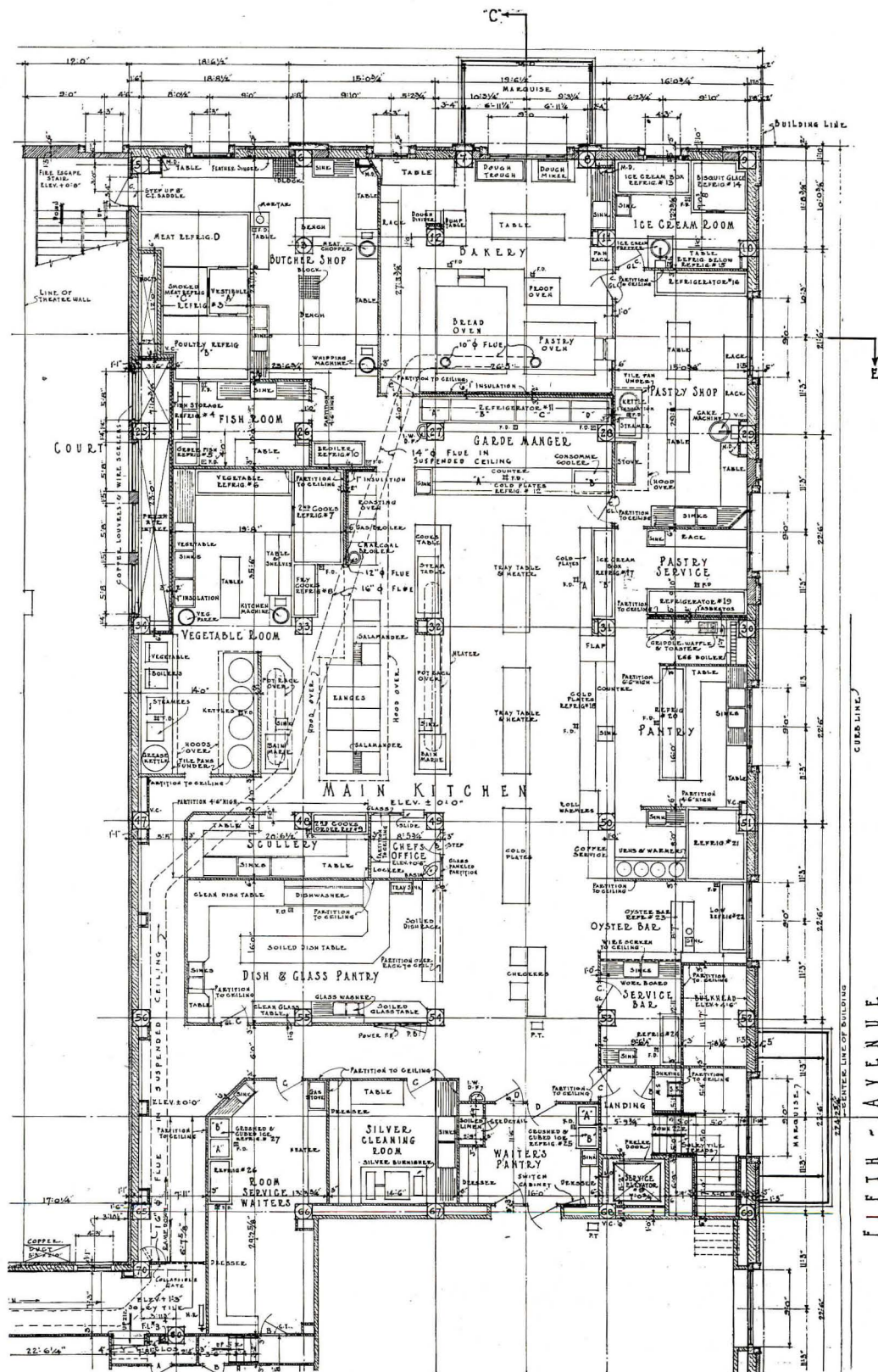
capacity, etc. Not infrequently one hears of restaurants that have a larger capacity than the kitchens are able to properly serve and all too often the kitchen capacity cannot be made to keep pace with the expansion of the restaurants and dining rooms. If the working parts of a hotel are cramped at the beginning what may be expected to happen when the house has obtained a fuller growth? It has very frequently been found that the hotel is not built large enough for the town and that it is necessary, from time to time, to put on additional rooms, sometimes doubling the capacity. If this development has not been foreseen at the outset in planning the building, there are sure to be serious difficulties in operating it as its business increases and it will be necessary to go to great expense to fit the working part of the house for handling the increased load that comes with the putting on of additions. This is a problem that should be given much serious con-

sideration and the plans should be carefully worked out for increasing the capacity not only in the rooms but in the working part of the house.

An example of provision for expansion is found in the design of the Olympic Hotel, Seattle. This is a six hundred and seven room house, but steel is going into the lower portion to later carry a superstructure accommodating three hundred additional rooms. This provision for expansion consists in arranging for the future construction of a wing on top of the portion now containing the kitchen. As first built this portion will have only one story above the kitchen, a floor occupied by private dining rooms, meeting rooms, etc., but the steel will be in upon which to erect the proposed future wing without tearing down, rebuilding or reorganizing any portion of the house.

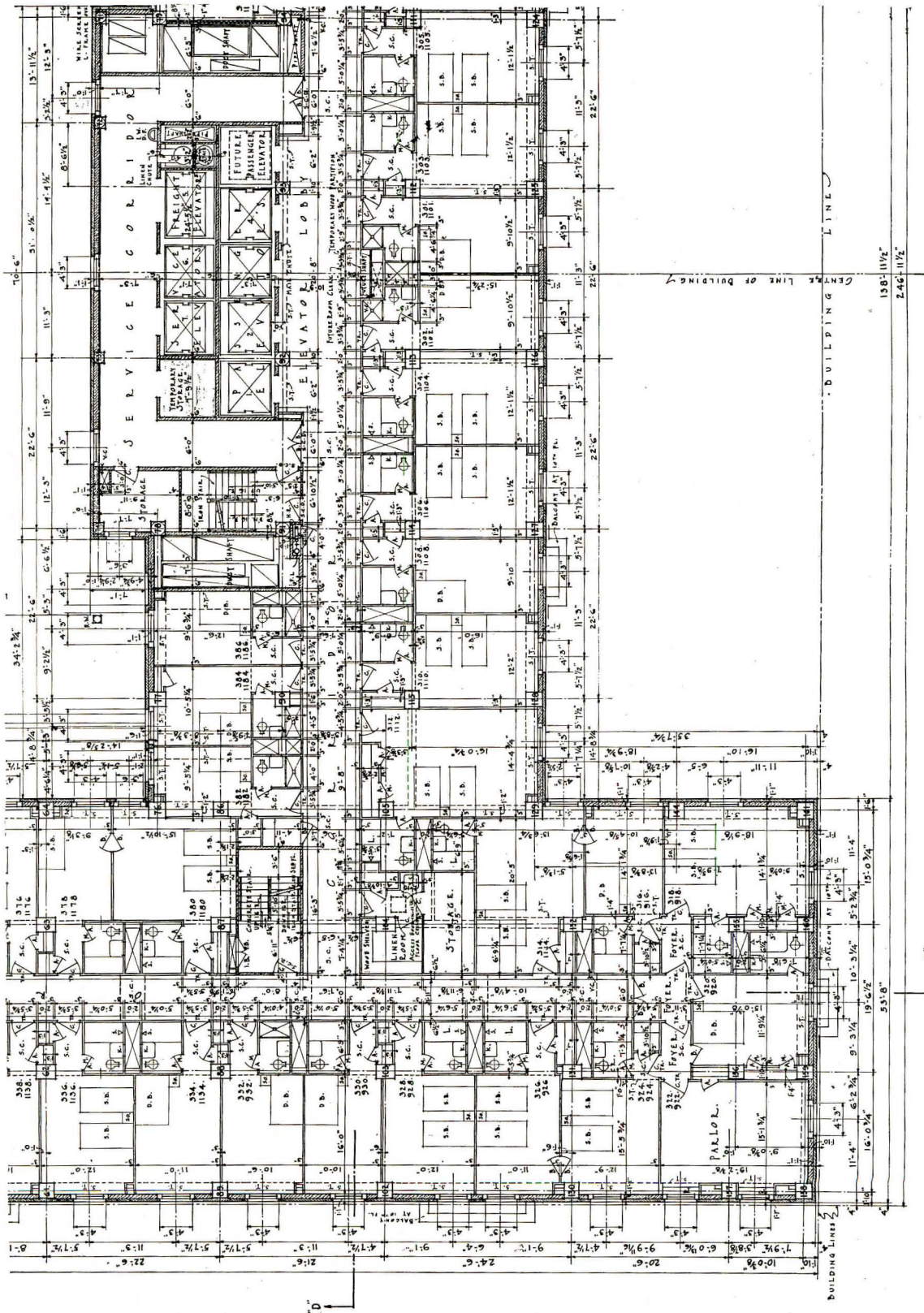
One of the most notable features of present-day planning of bed room floors is marked by the pass-

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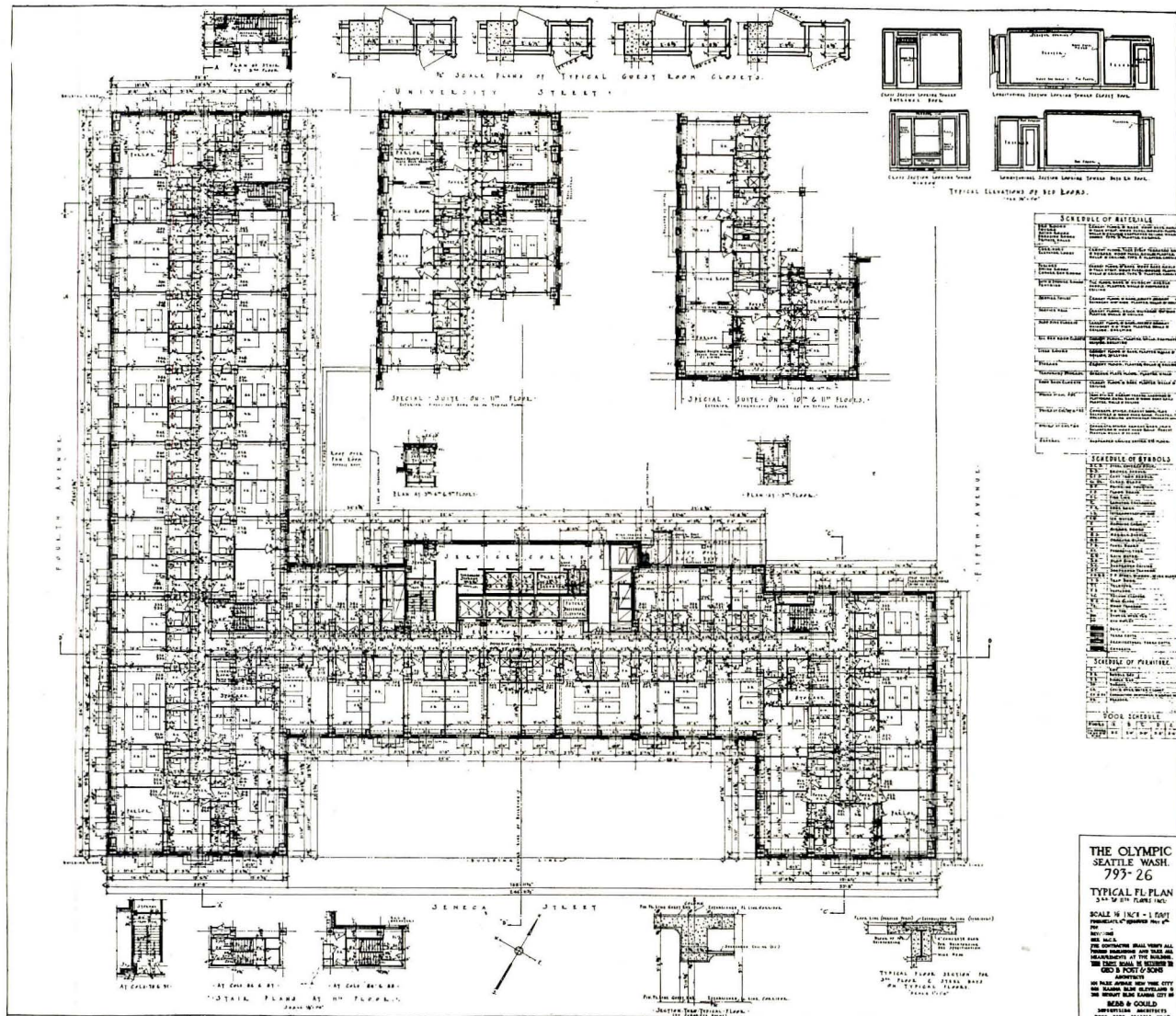
Plan of Main Kitchen, The Olympic, Seattle, Washington.
Geo. B. Post & Sons, Architects.

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Portion of Plan of Typical Floor, The Olympic, Seattle, Washington. Geo. B. Post & Sons, Architects.

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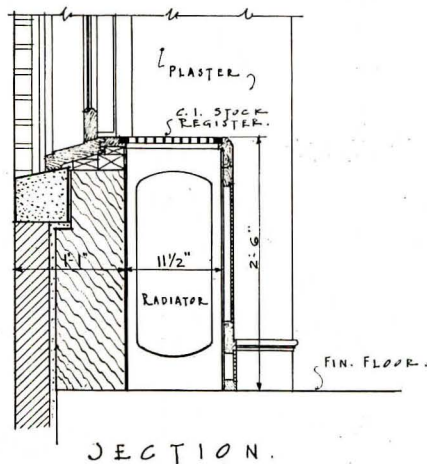
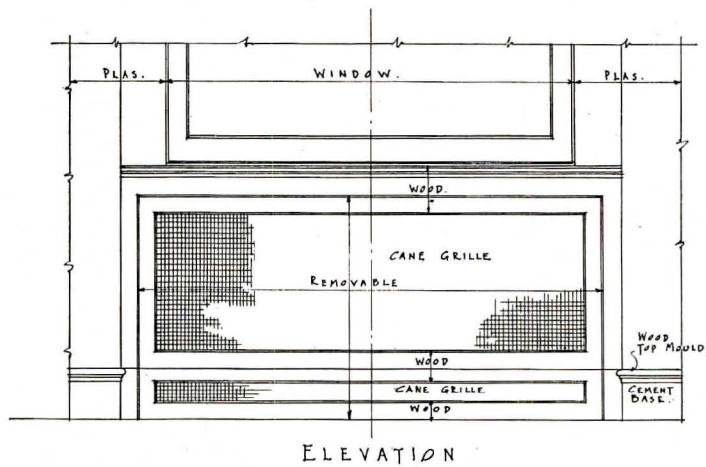
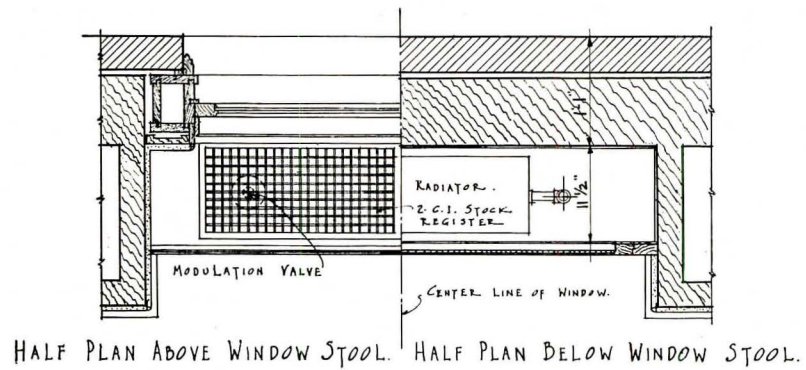
Typical Floor Plan, The Olympic, Seattle, Washington. Geo. B. Post & Sons, Architects.

ing of the vogue of the outside bathroom. With the present-day perfection of plumbing appliances and of means for ventilation there is no good reason for placing the bathrooms on the outside and the advantages that accrue from the placing of the bathrooms on the inside are very great. Chief among these advantages is the increased window space made possible in the bed rooms. With inside bathrooms the whole outer wall can be given over to the bed rooms. Another advantage is the improved shape of the room, which was unpleasantly long and narrow when outside bathrooms were placed between the rooms. With the inside bathrooms the bed rooms become more nearly square and are consequently more pleasing and are of a more practically useful shape. Another advantage of this newer way of planning bed room floors is that with the bathroom placed along the corridor, each bed room is naturally reached through a little passage of its own that serves as an entry to the room, giv-

ing both a sense of greater privacy and a real relief from any noises arising in the public corridor. From a practical standpoint this placing of the bathrooms is compact and economical, for the shaft between them serves not only for ventilation, but as a pipe shaft carrying the lines of plumbing for both bathrooms, and, where the radiators are placed against this wall, the heating pipes as well.

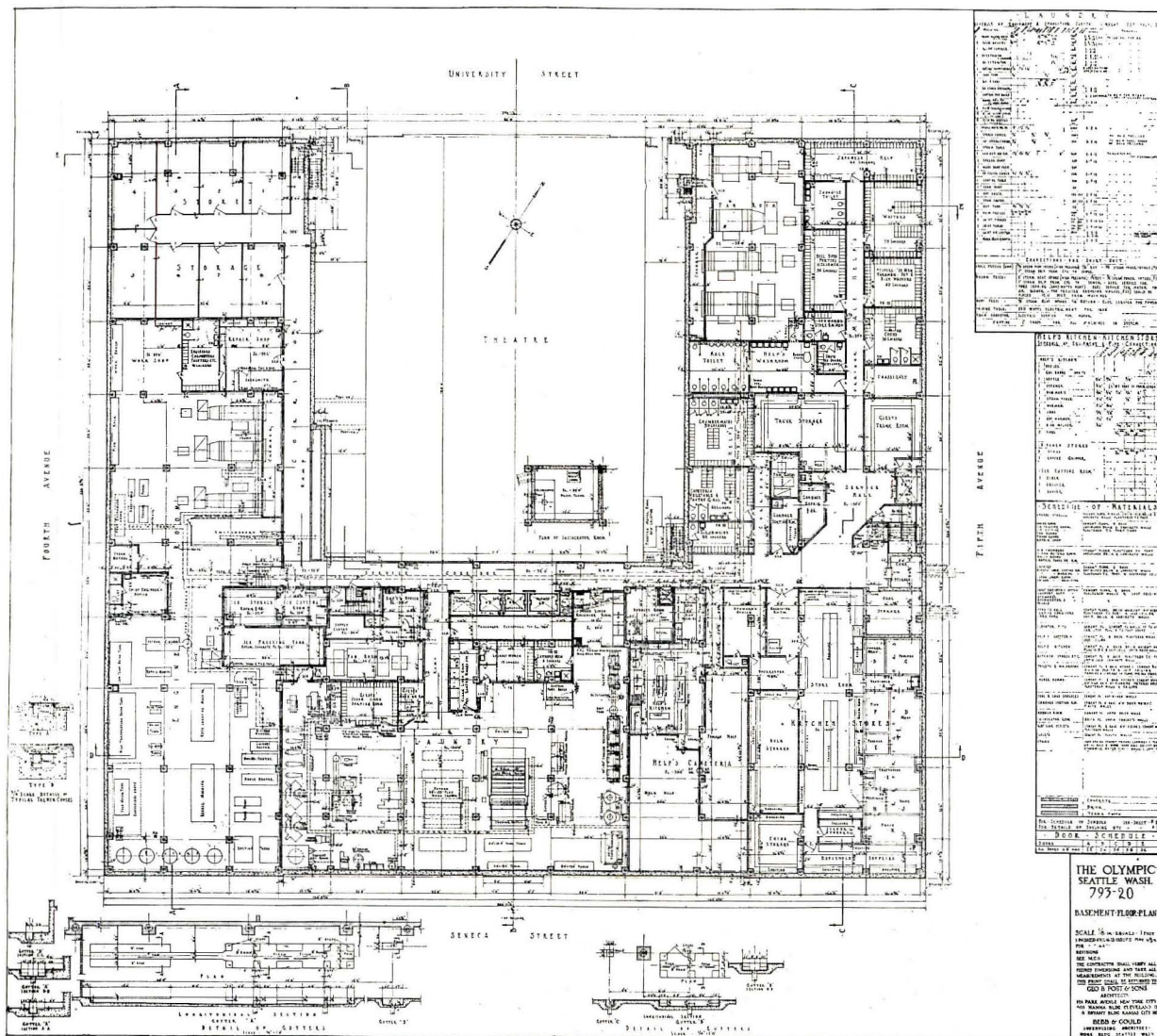
This placing of the radiators is, however, in my opinion not desirable. The radiators for several reasons should be where they do not project into the room. When placed under the windows they meet this requirement. When placed in the room they are not only more or less unsightly, but they are in the way and much damage is always occasioned by the careless striking of furniture against the radiators so placed, an item of considerable importance in the operation of a hotel. Detail of radiator enclosure for the Olympic Hotel, Seattle, is shown on page 44.

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*Detail of Radiator Enclosure in Parlors, etc.
Typical Floors, The Olympic, Seattle, Washington.
Geo. B. Post & Sons, Architects.*

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Basement Floor Plan, The Olympic, Seattle, Washington. Geo. B. Post & Sons, Architects.

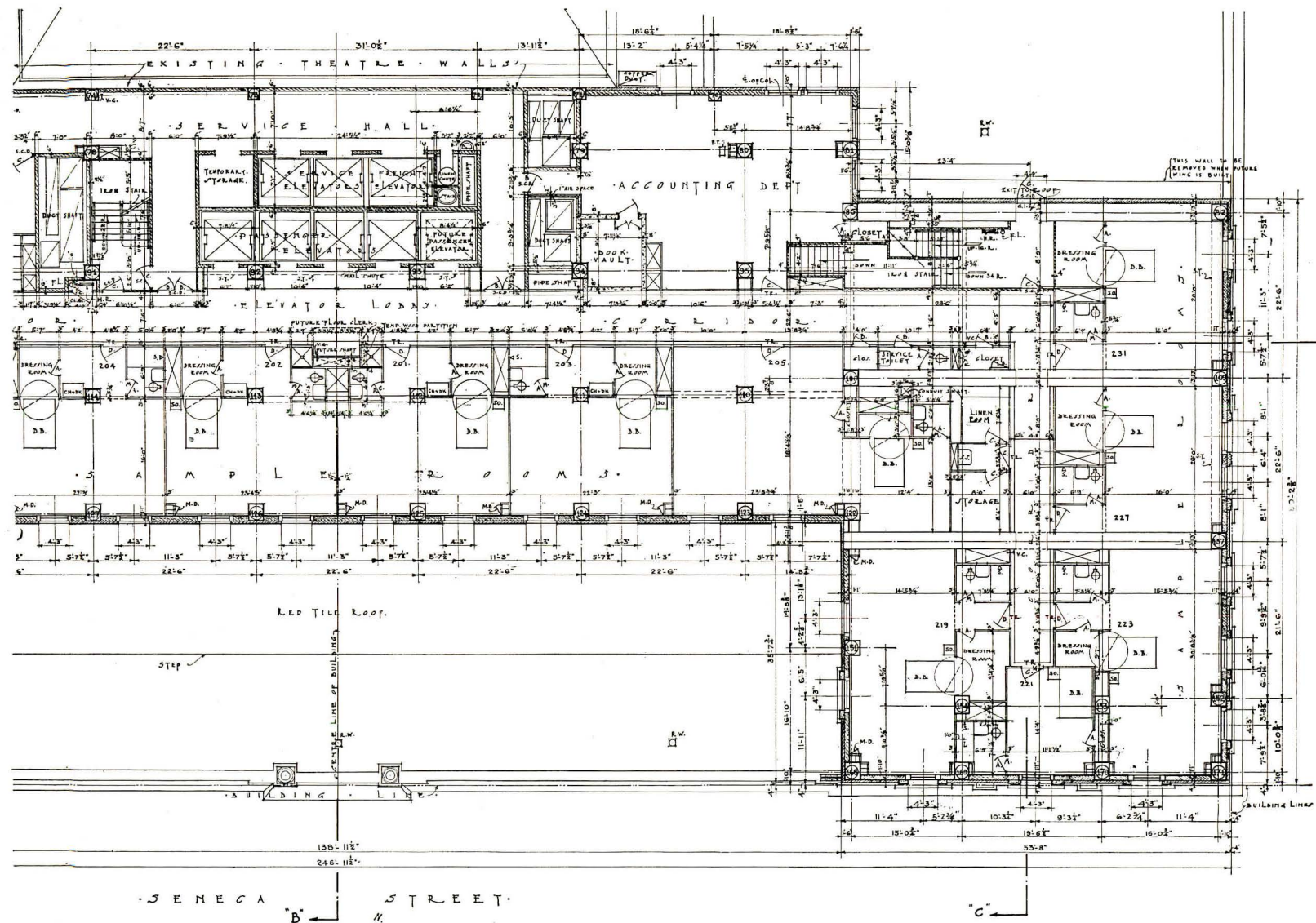
A most important feature introduced in recent years is the type of bedroom doors containing a closet-like arrangement of sufficient capacity to permit the guest to place within it clothing to be pressed, shoes to be polished, or parcels to be called for and for deliveries to be made through this same medium. This obviates the often unpleasant necessity of opening the room door to take in or hand out parcels and greatly facilitates the service of the guest. A not inconsiderable advantage lies in the ease with which clothing can be left for pressing, as this increases the volume of valet service and making this concession a more valuable one.

The sample rooms that form a necessary part of the accommodations of many hotels should be given careful consideration in the planning of the house. When a travelling salesman rents a sample room he has a right to expect a room so designed as to enable him to show his goods to the best advantage. A sample room should be light and airy and should

be provided with the necessary artificial light for the proper display of samples. Sample rooms sometimes are found under stairs, in the basement, or placed in other undesirable locations and they are not satisfactory to the salesman or to his customers.

The friendship of the travelling salesman is important to the hotel, for not only is his patronage a source of revenue, but if he is pleased with the treatment accorded him he becomes a widely influential salesman for the hotel. While it is sometimes said that a travelling man expects more than the average guest, I must say that in my experience I have never found the commercial traveller an unreasonable guest. It is only right that he should have a room suited to the proper display of his merchandise. It is desirable to have the room so arranged that the salesman may sleep in the same room that he uses for the display of his samples and it is also desirable that during the day this

(Continued on page 63)



Portion of Plan of Second Floor (Showing Sample Rooms), The Olympic, Seattle, Washington.
Geo. B. Post & Sons, Architects.

THE STUDY OF ARCHITECTURAL DESIGN

WITH SPECIAL REFERENCE TO THE PROGRAM OF THE BEAUX-ARTS INSTITUTE OF DESIGN

REVIEW

BY JOHN F. HARBESON

In this series of articles, which began in January, 1921, Mr. Harbeson has explained the method of working and how to get the greatest benefit in following the program of The Beaux-Arts Institute of Design through the Class B Problem and the Archaeology Problem. In this issue he reviews the ground covered and points the way to close co-operation in atelier work.—Ed.

THE student has now reached a stage in his career when it would be well to take account of the future—and of his success thus far.

In the first place has he any doubts as to his desire to stick at architecture? If there is any doubt about it, now is the time to thrash out the question in his own mind—with the help of any serious advice he may be able to call upon. He has already spent a considerable amount of time in studying to fit himself for his profession. This time represents money. It could have been used at times for making money, undoubtedly. Technical training and the experience one gains in working are about the only capital that many professional men have. If there is a question of going into some other calling, it must be remembered that that calling will doubtless require some training and that training will take some time; if deferred too long, it would jeopard-

ize the success of the man in that line of work.

If you decide to continue in architecture, then you must realize you should continue your training. It is a great mistake to stop your study of design

with B class work. It would be like trying to practice medicine after two years in a medical school. If B class work has made you more valuable in an office—and to yourself—that increase in value is, in reality, small as compared with the results of study in the Class A projets. As in all training, the knowledge gained is cumulative, and the ability to increase one's knowledge, the speed with which one's knowledge is increased is accelerated progressively, with each step. It is poor business to stop your study at this point.

But this is a good time to go over what you have done and see if there are any weak corners in your ability.

Early in these papers we spoke of the esquisse—of its value in

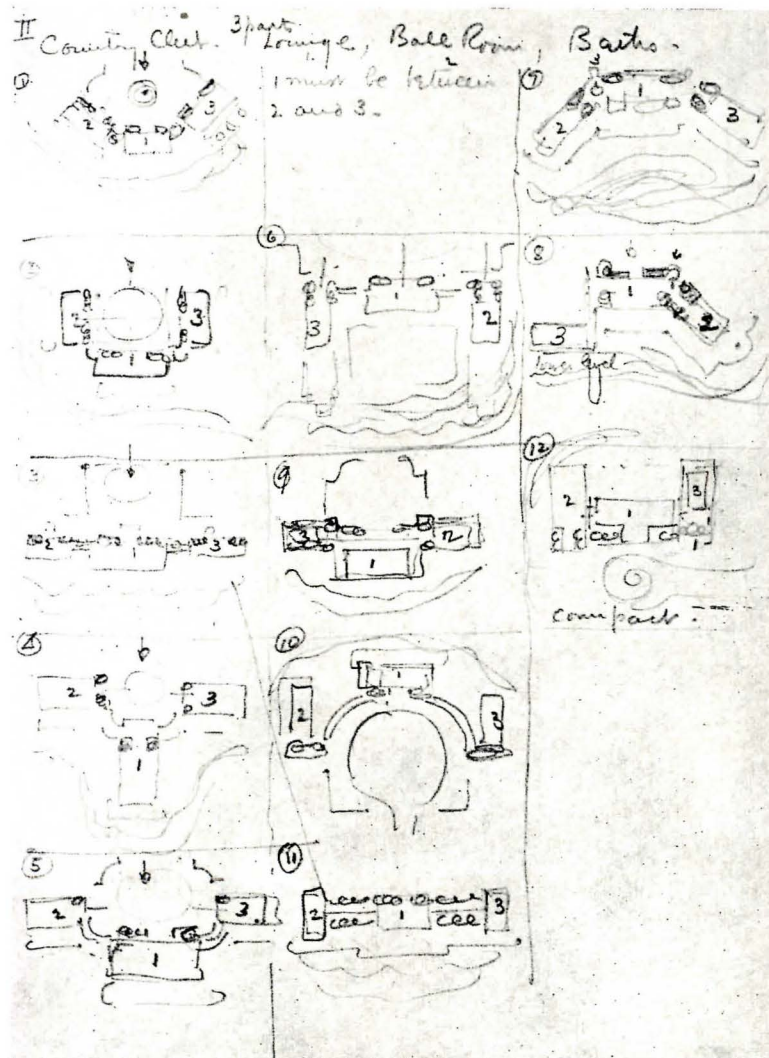


Figure 1. Diagram of Parti for "The Casino of a Country Club."

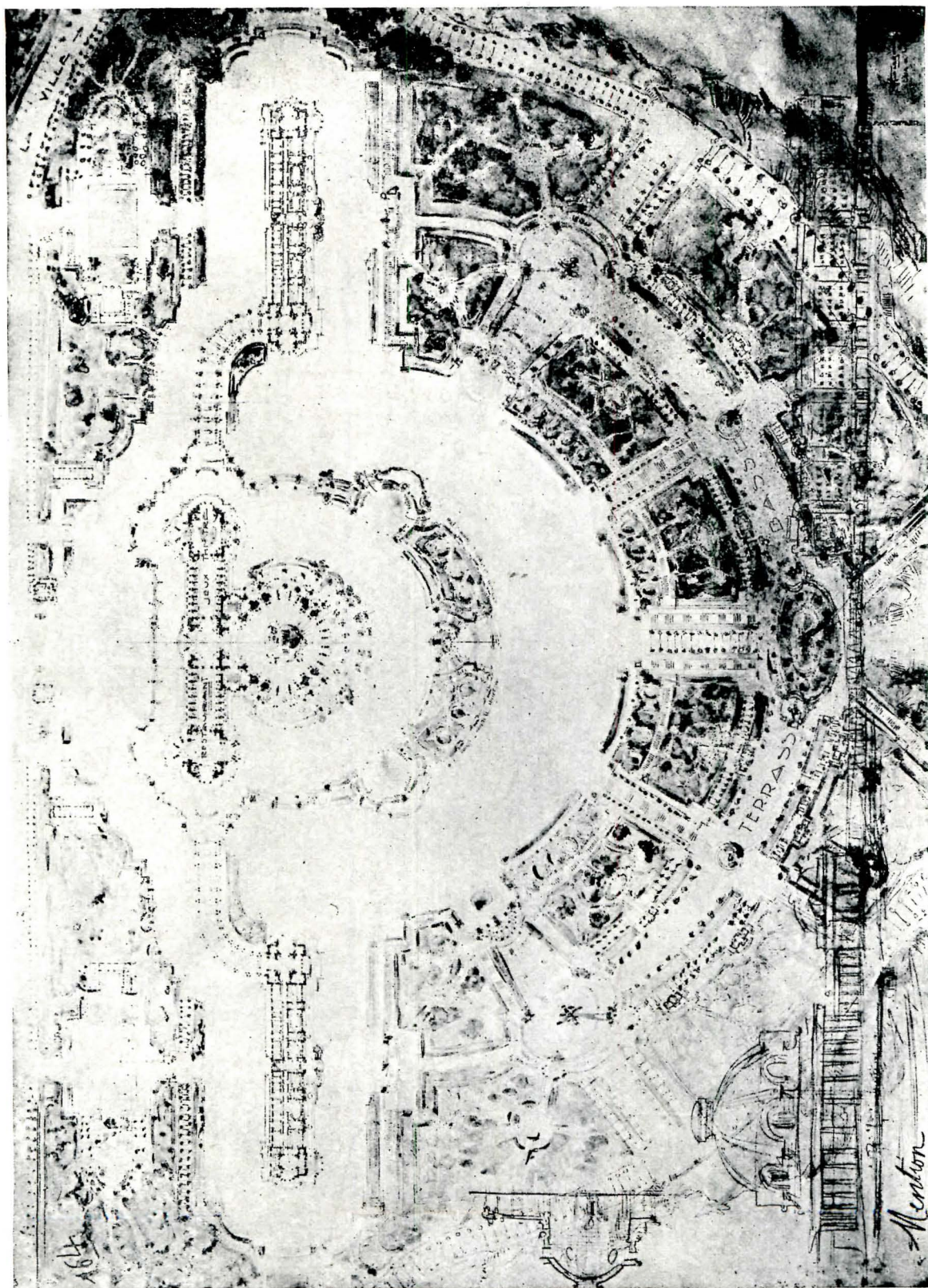


Figure 2. Concours Labarre "Un Station Estiziale." Design by M. Grégoire, Pupil of M. Paulin.

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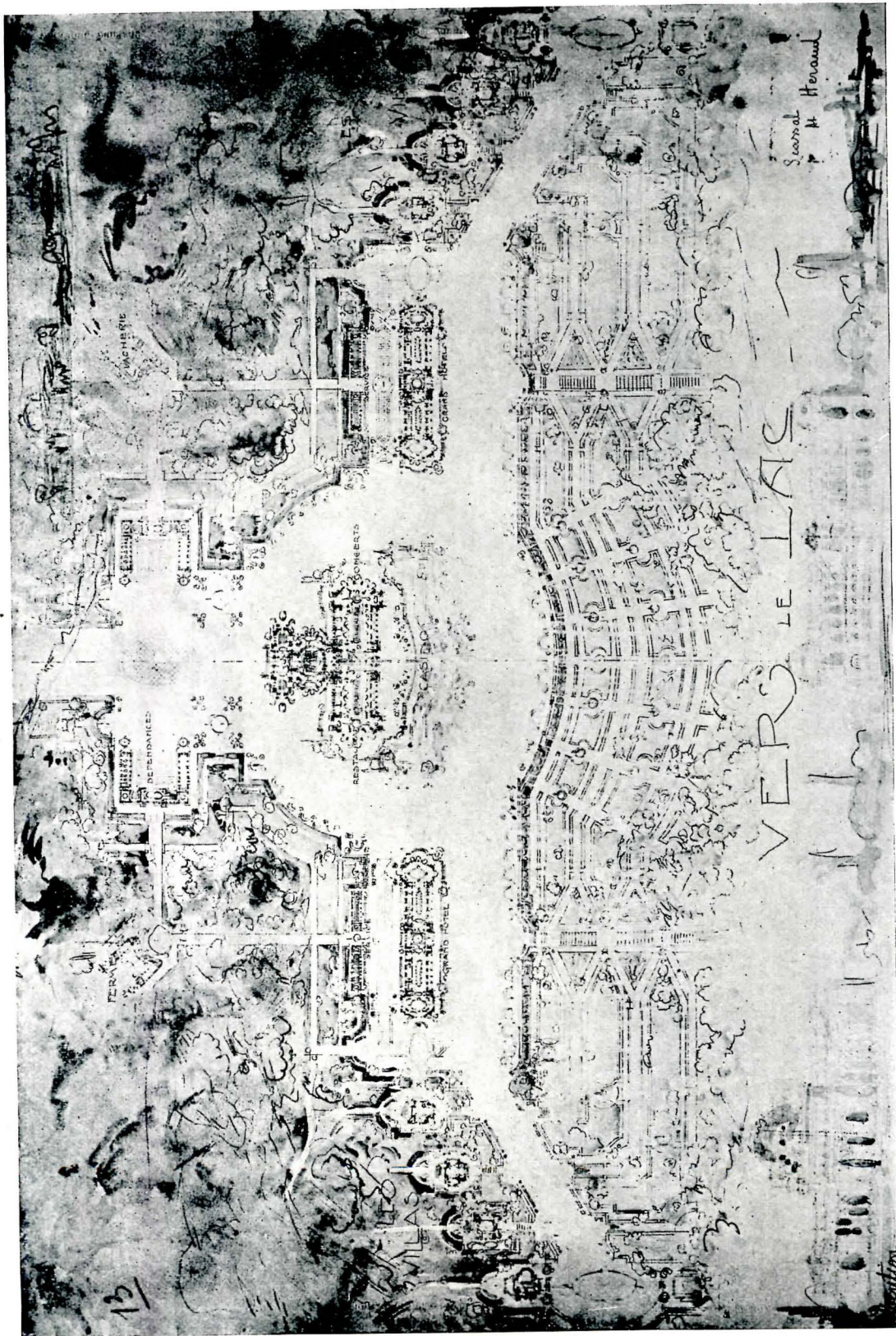


Figure 3. Concours Labarre, "Un Station Estivale." Design by M. Séassal, Pupil of M. Héraud.

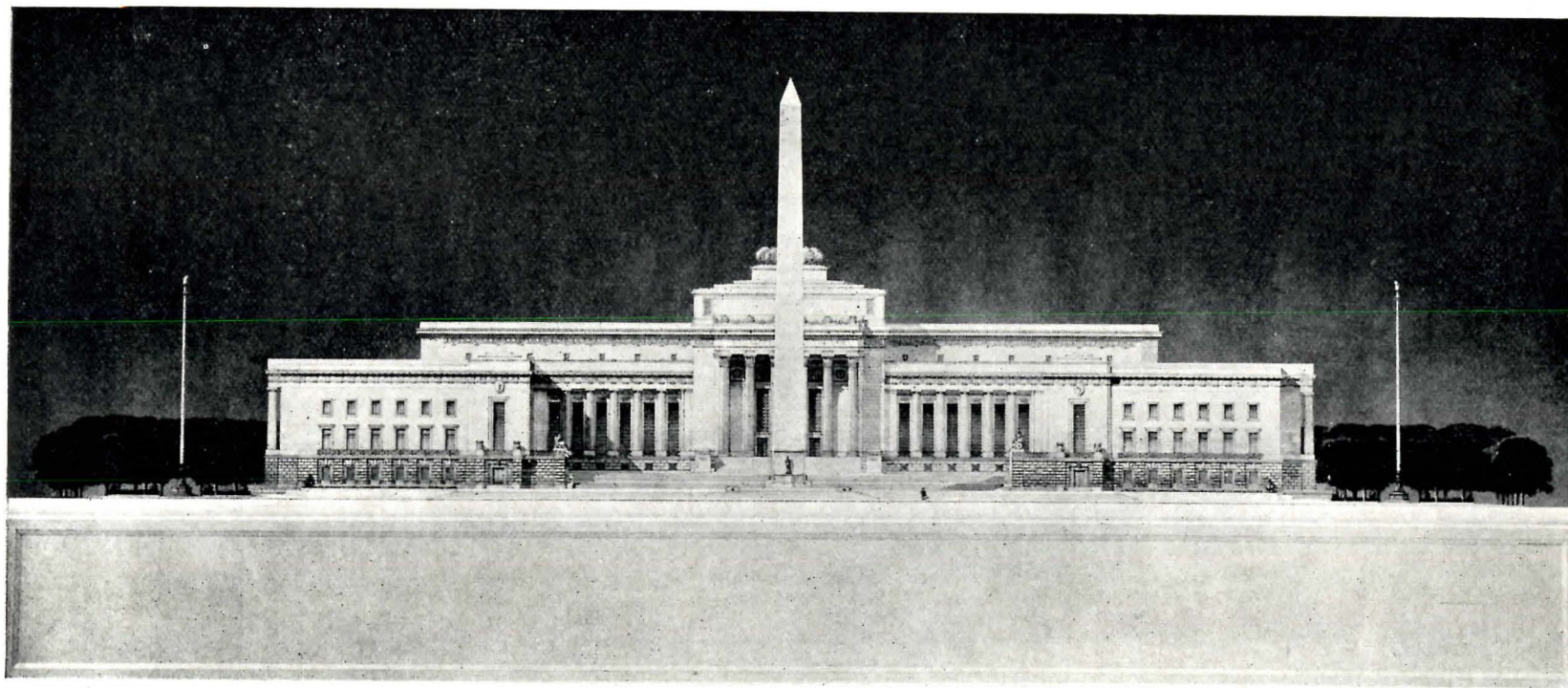


Figure 4. Competition Design for Nebraska State Capitol Design. By Paul P. Cret and Zantzinger, Borie & Medary, Associated Architects.

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mental training. Do you make a good esquisse? Or do you find yourself often struggling through a problem, trying to make something out of a poor esquisse—an esquisse that really does not solve the problem?

If so, it would be worth your while to make a real effort to improve in this direction. One way to do so is to take every esquisse—whether B or A class—archaeology or prize problem, simply for the training to be had in thinking out a parti.

After the others have turned in their esquisses discuss your solution with them. Make a little diagrammatic note of the different solutions as in Figure 1. If you live near New York, go to the exhibition after the judgment of these problems and add to your diagrams the new solutions you will see there, noting especially the premiated design. If you cannot see the exhibition, watch for the publication of the premiated drawings and then add these solutions to your diagram. If you do this for a number of problems you will see that the programs call for a "three-part scheme"—meaning there are three important divisions—or a "four-part scheme" or a scheme in which there is only one dominant part, etc., etc., and that in each of these divisions there are several different arrangements that it is well to know.

Another similar scheme for improving one's ability at finding a parti was suggested by the late John Wynkoop, one of the early winners of the Paris Prize. It was to take one of the programs in a volume of "Les Concours d' Architecture de l'Anée Scolaire 19 -19 " and try in the same way to form a solution for it, or several solutions, and choose that which you feel to be the best; then turn over to the plate pages where the solutions are shown, and note the premiated parti. For this purpose the Annual Competition for the Prix Labarre is particularly good, for it is a sketch problem principally in the finding of a parti, and usually ten or twelve of the solutions are reproduced. Figures 2 and 3 are two such solutions for a Summer Health and Amusement Resort. To do this, one must have some knowledge of French, to be able to read the programs—or have some lessons in grammar and the use of a good dictionary.

If you ever expect to do competition work, it is well to remember that your success will in large measure depend on your ability to find a "parti."

Aside from the esquisse, have you studied your problems well? Have you planned your time so that you were able to make a good presentation? Did you get the most possible out of your critic? Do you present your thoughts to him as complete ideas—plan, section, elevation, even if only in sketch form?

Do you study a problem logically? Do you try out many ideas or keep in a rut on the first one that suggests itself to your mind? Do you confine your thoughts at the beginning of a problem to study of the big idea, and then gradually work to the detail

**The work done at the Ecole des Beaux Arts in Paris, published each year at inexpensive prices by A. Vincent, 4 Rue des Beaux-Arts, Paris, and obtainable by mail without the payment of duty, being entirely in a foreign language.*

at the end, or do you think about details from the start and thus cloud the big ideas?

Do you use documents in studying your problems, to give new viewpoints, to build up a vocabulary of forms, of ideas, of schemes? Do you note what gives character to plans, elevations, sections and details?

Can you draw well enough to express your thought—render well enough to present it to best advantage?

This is a good time to put such questions to yourself. If you find weak spots, concentrate on them at this time so that when you go on to class A you may not be handicapped in competing with others who are well prepared.

And do not forget that one of the greatest advantages of studying in an atelier is the spirit of co-operation—the give and take, the willingness to help others, whether higher or lower in the scale of attainment. Do not avoid "niggering" for the A class man, or for one of your own class, who has fallen behind. The atelier's good will be your good—its success will be your success; if you can win the prize yourself, well and good—but at any rate, *try to have some one in your atelier win it*. If there are three prizes, try to have your atelier win all three—it may not do so, but this is the spirit that will bring success to the atelier, and to you.

Do not think that "niggering" is doing a favor to someone else. The good in it is largely to you; if you have any doubts about it, try it in your office. Ask if you can help with a big perspective,—stay after hours and ask if you may help with a presentation drawing. Do you know someone who is expert at rendering? Ask him if you may run some small washes,—put in small shadows, and put in the ruling pen shadows, under his direction. When you make your next problem you will see just what it has done for you. Figure 4 is such a rendering, by Paul Cret, in which the ruling pen shadows, small washes, etc., were done by young men who wanted to "nigger" on this competition drawing. Doing team work is the means by which many successful men have made their own place in architecture. Try it for yourself and see.

THE NEW HAVEN EXHIBITION.

THE Year Book of the Architectural Club of New Haven and Catalog of the Fourth Annual Exhibition, is an interesting volume. This year's exhibition was given jointly by the Architectural Club of New Haven and Hartford architects and included work from New Haven, Bridgeport, and other parts of the state, also from New York and Boston as well. Among the most interesting exhibits were those of the work of students of the Yale School of Fine Arts, exhibited under the direction of Professor Stevens. This exhibit included some fifteen drawings by Connecticut boys who have taken high medals in the judgments of the Beaux-Arts Institute of Design.

The exhibition was held in the public library and completely decorated the entire exhibition room on the second floor of that building.

THE SPECIFICATION DESK

A Department for Specification Writers

SPECIFICATIONS FOR CRITICISM.

ACTING on the suggestion of one of our readers, Mr. M. N. Nirdlinger of Nirdlinger and Marlier, Pittsburgh, we have secured a set of architect's specifications for a brick and hollow-tile residence and we are printing this set of specifications in order that they may be criticised by our readers. Last month we printed the third installment and in this issue we continue. The object in doing this is to provide material for a discussion that will be helpful to all who have to do with the preparation of specifications by showing up the weak points in this set of specifications.

You are invited to join in and help rip up these specifications. We are withholding the name of the architect from whom we borrowed these specifications and he has entered into the spirit of the thing so you may feel at liberty to criticise them as severely as you like. We hope that you will also present many suggestions for improvement. The good resulting from this discussion will be in proportion to the number of men who join in with criticisms and suggestions, so we ask that you do not depend on the other fellow doing it but write us yourself, then the thing will be a success. Here is another portion of the specifications—let's have your criticism.

ELECTRICAL WORK.

(Continued)

OUTLETS:

Aside from the outlets and switches specified a center distributing point is to be located in basement, at which point, an approved tabletboard is to be erected; the circuits on said tabletboard to have E— Plug fuses. Tabletboard also to have main switch, which is to be protected by new code enclosed fuses. There are not to be more than eight sixteen candle power lamps on any one circuit.

Tabletboard to be contained in proper steel cabinet and to include door, hinges and snap lock.

This contractor will include an extra circuit from tabletboard out through rear wall 5'-0" including cable. The above line is for the proposed garage.

FIXTURE SUPPORTS:

Where no stationary supports for fixtures are provided, such as gas pipe, etc., the contractor shall erect at all ceiling and side outlets, a suitable foundation consisting of a wooden block firmly secured between joist or studding, allowing an air space of one-half inch to inside of lath line. This block to be of sufficient dimensions to properly support fixtures in place.

SWITCHES:

Switches for first and second floors are to be flush push and are to be of "H—" or "D—" H— make or approved equal. The finish of flush push switches to be brush brass excepting at bath rooms which will be N. P. and dining room which will be silver.

Where more than one switch is placed together, they shall be mounted in a gang, there being one plate used.

Switches to be placed at locations shown on accompanying plans. Snap switches to be used exclusively in cellar and attic. 3" space to be kept between trim and switch plates in all cases.

RECEPTACLES:

Flush plug receptacles shall be s. & h. C— or M— Manufacturing Co.'s make or approved equal, and shall be placed in floor and baseboard at locations shown on drawings. The plate of receptacle to be finished to match the hardware in same room.

The flush plug receptacles in the building to be connected on separate circuit, and to be controlled from the tabletboard.

PROTECTION:

The contractor, on completion of his work, shall use such precautions as deemed expedient for the protection of wires and appliances from mechanical injury throughout the building.

BELLS AND BELL WIRING:

Wiring for electric bell system to be of approved materials and workmanship and in no manner to come in contact with electric light or telephone wiring. Furnish and install at kitchen Numbered annunciator No. 125 type as manufactured by E— & Co., Inc., it being understood the size of annunciator to be governed by requirement of the following specifications; said annunciator to be finished in light oak. This contractor will count on bell from kitchen door to kitchen, from main entrance door to kitchen, from cellar entrance door to kitchen, from dining room to kitchen, at this point he to count on floor push complete with floor and cord extension. He will also count on bells from two second story bed rooms and second story bath rooms to kitchen. Bell from owner's bed room to kitchen will also ring in attic hall with cut-off switch at second story hall. Dining room call shall be on a separate buzzer located at kitchen. If possible buzzer to be directly over annunciator. All bells to be operated by approved type bell ringing transformer.

TELEPHONE WIRING:

Contractor will drop wires from points of location for telephones at first and second stories where marked on plans so that telephone for the ——— Telephone Company can be installed without inserting wires after completion of building and as above mentioned in these specifications.

CERTIFICATES:

The contractor on award to furnish a copy of these specifications to the Board of Fire Underwriters of ——— County, and to file with it a corresponding application for inspection; said contractor to reform any infraction of the rules of the said Board of Fire Underwriters promptly on notice, and on receipt of final payment under said contract, to furnish a certificate of approval of said Board of Fire Underwriters, also Electrical Department of the City of ———, to the owner. All fees in connection therewith to be assumed by the contractor.

DROP CORDS:

This contractor will figure on furnishing neat drop cords with sockets and shut-offs on sockets for all cellar outlets.

UNDERGROUND CONDUIT WORK:

This contractor will give a separate estimate for running light and telephone conduit in from nearest light and telephone poles but not counting on crossing the street. Said price to be submitted per running foot.

He will also include the cables required in the conduit or the charges made by the respective companies for their own installation.

PLASTERING:

Lath all stud partitions, walls and ceilings throughout first and second floors and attic excepting storage space in attic and down cellar stairway to first floor line with the best No. 1 spruce or hemlock lath, well nailed and otherwise prepared for plaster, same to be plastered with good common plaster, 1/4" space to be left between all lath.

All lath to be free from bark and selected dry lath. No piecing will be allowed. Joints to be broken as is customary. 26 guage herring bone metal lath to be used

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where necessary to cover pipes, pockets, at the joining of frame partitions and brick work, furring at arches, etc. On all the above work, as well as on all chimneys, brick walls, and the entire interior of building excluding cellar, lay two coats of mortar as hereinafter specified. All the above work to be carried down close to floors, behind all stair strings, wall base, etc., and join up close to all jambs, making all corners and surfaces plumb and square. This contractor will not figure on any lathing or plastering in bath rooms at second floor below 4'-6" from floor or on walls around shower bath as said rooms will have 4'-6" tile wainscots and shower will have tiled walls.

On the above work, place a skim coat, making a smooth, glossy and even surface. Said finishing coat must be kept clean and free from marks. Plaster arches, where shown, to be in keeping with drawings and full size details. Straight edge must be used freely, grounds will be put in place by general contractor.

This contractor will return before the completion of building and repair all cracks, etc., and leave the work perfect in every respect.

MORTAR:

Mortar shall be made up of the B—— Brand or approved equal hydrate of lime, long cow and animal hair and clean, sharp, river sand, properly mixed and tempered from beds made up at least three days before being used. Skim coat to be composed of white sand, white lime and plaster of paris in the usual quantities. (No wood fiber will be allowed in the above mortar.)

EXTERIOR STUCCO WORK:

This contractor will figure on exterior stucco work at main entrance hood and at circular insert in arch shown on side elevation. He will count on two coat work, the first coat being made up in proportion of 1 to 3, counting on either A——, A——, V——, L—— or U—— Portland cement and sharp river sand with 5% lime mortar mixed in same. The second coat will be similar to the above mix finished with a sanded finish and left ready for painting contractor.

CELLAR CONCRETE FLOORS:

Entire cellar to have concrete floor 4" thick, laid in the following proportions: one of A——, A——, L——, V—— or U—— Portland cement to three of sharp river sand and five of clean washed gravel; all to be thoroughly mixed dry then moistened and put in place, same to be well tamped. The finishing coat, which must be 3/4" thick, to be one of the above cements and two of Ligonier or line stone screenings, troweled to a smooth finish and even surface. Above floors in cellar to slope to bell traps at the rate of one inch to five feet. The bell traps to be flush with finished floors.

Great care must be used to trowel the cement up to the surface of the floors as a hard, glossy surface will be insisted upon. Put 3/4" cement finishing coat on stone walls at cellar windows at 45 degree angle which will form the inside window sills.

Cement floor similar to above specifications 3" thick will occur at all cellar window areas and will have a fall to drain outlets.

REINFORCED CONCRETE AND CEMENT WORK:

Steps and landing at main entrance, entire entrance and kitchen porch floor and front terrace will be built of reinforced concrete as hereinafter specified. The facing of concrete slab at entrance porch consists of brick which will be taken care of by brick contractor.

NOTE:

Entire front terrace cost shall be submitted by this contractor in a separate estimate.

The above entrance steps at main entrance and steps to kitchen porch to be built of design shown; this contractor to furnish necessary forms. He will also include triangular metal reinforcement. Concrete to be of mix hereinafter specified and this contractor will include a finishing coat troweled to a smooth and even surface in proportions of 1 to 2, counting on either A——, A——, V—— or L—— Portland cement and lime stone screen-

ings producing a granolithic surface. Above finishing coat to be 1" thick.

Entrance porch floor slab to be 6" thick reinforced with 1/2" and 3/8" twisted or other approved cold rolled steel bars spaced 6" on o. c. with proper bearings at the ends. Furnish and install five rows of said 3/8" rods equally spaced and run parallel with building. Above reinforcement to be kept up 1" from bottom of floor slab. The concrete for above floor slab to be of mix hereinafter specified and finished with a 1" finishing coat marked off in 12" squares, counting on a neat "V" cut joint free from feather edge. This contractor will allow off-set as required for brick facing which will be installed by brick contractor. Kitchen porch slab to be reinforced with triangular mesh reinforcement and shall have plain finish (no marking).

Floor slab at front terrace, cost of which is to be submitted under a separate estimate, will be similar to above specification for porch floor except that facing of terrace will be cement finish instead of brick.

Terrace slab will be reinforced, etc., as noted on plans and similar to above specification for porch floor.

Concrete for the above work to be made up in proportions of 1, 2 1/2 and 4, counting on either A——, A——, V—— or L—— Portland cement, sharp clean river sand and medium size gravel. Finishing coat to be similar to above specification for finishing coat for steps.

This contractor will furnish all necessary form work or will arrange with general contractor to furnish same for him and he will leave the above cement work free from stains, uniform in color and free from defects.

It will be noted by reference to drawings that porch floor slab except portion occurring over coal cellar and front terrace slab will occur directly on the ground.

CARPENTER WORK:

NOTE:

General contractor will make thorough inspection of pavements, streets curbing, etc., before the starting of work under this contract as general contractor must make good damage done by him or his sub-contractors to the above pavements, curbs, etc., before final acceptance of the buildings.

NOTE:

All finishing hardware will be installed by carpenters.

All interior finish to be properly sandpapered and cleaned in addition to that done at the mill as same must be left in a perfect condition ready for painter. All frame lumber work not otherwise specified to be No. 1 hemlock, together with all other lumber perfectly sound and well seasoned. All exposed pine lumber to be clean and kiln dried lumber, same to be kept clean for finishing. Furnish all boards for pipes, doors, trim, etc., for tablet-boards, etc. Furnish all paper (good weight) required to cover finished floors, stairs, etc., to protect same from injury until owner takes possession.

JOIST, RAFTERS, ETC.:

All joist on first, second and third floors, ceiling joist and rafters to be of sizes marked on drawings and to be of No. 1 quality material. All joist to be of No. 1 quality long leaf yellow pine. Ceiling joist and rafters to be first quality hemlock. All above material to be of full sizes marked on drawings. Floor joist, rafters and ceiling joist shall be spaced 16" o. c. unless otherwise marked. Ceiling joist and rafters to be well braced and stiffened with 2x4's where necessary. All floor joist shall have cross bridging counting on one row every five feet or less with 1x3" stuff well nailed. All joist on first floor to be backed and sized to width. Joists that rest on plates, etc., are to extend 12" over same and shall be well spiked together.

Joist in second story bath rooms to have chamfered tops and to be prepared for tile floors counting on nailing 1x2" stuff at the sides of joist, then nailing 7/8" sub-flooring on top of strips so that the top of rough floors will be 3" below the top of joist.

All joist to run three abreast unless marked otherwise under all partitions that run parallel with same and

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around all stairways. Joist shall be doubled around hearth and wherever else required.

All tail joist and trimmers to be framed in approved manner. Build trimmers for brick arches under all hearths.

General contractor will keep floor joist at kitchen, pantry and back stair hall at first story $\frac{1}{8}$ " above other first story floor joist to make up the difference between the single and double floors.

SPECIAL NOTE:

Furnish all rough hardware for the above building. Also furnish grounds for plastering at baseboard, at window and door openings, and wherever else required. (Note: Cast iron weights to be used throughout for double hung windows.)

STUDDING:

All studding to be $1\frac{1}{8}$ "x4", same to be spaced 16" on center. Trusses over door openings to be properly framed. Studding to be doubled around all door and window openings where required. Second floor studding will run down between joist and will rest on plates which will be on top of first floor studding. This same construction will apply at first floor. All above studding to be sound, straight and free from loose knots and to be dry lumber. Studding in partitions at soil lines - to be increased accordingly. Care to be taken so that studding is so placed, especially at corners, so that all lath work will start and end on a solid foundation.

SHEATHING:

Entire main roofs, roofs and sides of gables and dormer windows, roofs of porches, decks, etc., to be sheathed with hemlock surfaced boards 1"x8" or wider, well nailed in place. Same to be sound lumber, No. 1 quality.

FRAMING:

All lintels over windows and doors to be of sizes as marked on drawings and to be well trussed and framed. The lintels to be 10" longer than the openings over which they occur. Extra care to be taken of the lintels over wide openings. All the above work to be in strict accordance with drawings and directions of architect.

Care to be taken so that the tops of joist will be at least 3" above top of all girders and where possible at "I" beams and that the strip that is nailed on side of girders and 2x4" stuff on "I" beams come up to underside of joist. See details.

CORNICE, CORNICE MOULDINGS, ETC.:

All cornice, cornice mouldings, brackets, etc., at main cornice, gables, dormer windows, side and rear porches, breakfast room bay and wherever else noted on drawings to be made up per details, counting on $\frac{7}{8}$ " material for plain work and not over $1\frac{1}{8}$ " for moulding work. Soffits to be $\frac{7}{8}$ " thick and where practicable of one width. Cornices will be provided with bed mould, frieze, etc., as shown. This contractor to include soffits and inside frieze, angle moulds, etc., at side and kitchen porches. Porch plates will be built of 2" material as shown on drawings, all to be well blocked and framed. This contractor will count on No. 1 white pine material of good length.

PORCHES, ENTRANCE HOOD, ETC.:

Hood over front entrance is circular in design and consists of circular cornice, frieze and architrave forming the entablature. The hood to be supported on cut brackets as shown. The soffit of hood will be lined with double beaded $\frac{3}{4}$ " yellow pine, tongued and grooved, material running from building out. The above hood to be in accordance with drawings and full size details and erected in a substantial manner. Brackets to be of sizes shown and per details.

Side entrance porch will have ceiling of double beaded yellow pine $\frac{3}{4}$ ", tongued and grooved, material with angle mould at intersection of walls and ceiling.

Kitchen porch ceiling will be similar to the above. At kitchen porch this contractor will include cornice and beams as above specified under heading of Cornice, square column with moulded cap and base, balustrade, frame

steps, lattice work, newel posts, etc., as shown. Floor at kitchen porch to be white pine or cypress, 2" on face, tongued and grooved, laid with white lead at joints said white lead being furnished this contractor by painter. Porch flooring to have nosing around outer edge with bed mould under same. Above frame steps to be well framed together and to have $1\frac{1}{8}$ " treads with moulded nosing and mould underneath. Risers to be $\frac{7}{8}$ ". Count on $\frac{7}{8}$ " thickness for the material at kitchen porch. Handrail and bottom rail and balusters to be of stock pattern but similar to that shown.

TRELLIS WORK:

This contractor will furnish trellis work where shown on elevations including fan shape trellis at chimney breast shown on side elevations. Trellis work around windows to be made up of $1\frac{1}{2}$ "x $\frac{7}{8}$ " material coped together at joints and shall be fastened to building with screws including metal washers or pipe cuttings which will be placed between trellis and brick work so that trellis will stand free from face of wall $\frac{3}{4}$ ". Said trellises to be screwed on brick work at short intervals so that firm installation is obtained. Fan shape trellis to be bolted at base and to be provided with 2x2 locust peg 2'-0" long that will be sunk in the ground as this fan shape trellis stands free from building. Above will be clearly shown on details. All above trellis material to be No. 1 grade white pine.

FLOWER BOX AND BRACKETS SUPPORTING SAME:

Flower box at dining room window and brackets supporting same will be made up of design shown on drawings, counting on $\frac{7}{8}$ " material for flower box and cut brackets of sizes shown. Flower box will be lined by sheet metal contractor including falling bottom and drain outlets. The above material to be white pine and as above stated in accordance with drawings and details. Flower boxes at entrance porch are not in this contract.

CELLAR WINDOW FRAMES:

All one light window frames in cellar to be solid frames made of $1\frac{3}{4}$ " clear white pine with mouldings on the outside. Said frames to be rabbeted for hinged sash, and to have sills $1\frac{3}{8}$ " thick also moulded sash $1\frac{3}{8}$ " thick which will be provided with wood muntins where shown on drawings. Said sash to be hung on butts and secured with strong bolts.

DOUBLE HUNG WINDOW FRAMES:

Double hung window frames will be built as per elevations and details. The pulley stile to be $1\frac{1}{8}$ " thick, and to be yellow pine; balance of frames to be $\frac{7}{8}$ " thick and to be white pine framed together per full size details. Outside mould to be $1\frac{3}{4}$ " thick and to be white pine. The frames are to be provided with $\frac{1}{4}$ " parting strips in boxes to separate weights. The sills to be $1\frac{3}{8}$ " thick and to be white pine.

CASEMENT WINDOW FRAMES:

Casement window frames will be built with $1\frac{3}{4}$ " frames moulded on the outside, double rabbeted for hinged sash and where shown to be provided with mullions, transom bars, etc., per drawings and details. Sash to be $1\frac{3}{8}$ " thick and sills to be $1\frac{3}{8}$ " thick. All to be white pine. Moulded drips to be provided on all sash and the above work to be in accordance with drawings and full size details.

DORMER WINDOW FRAMES:

Dormer window frames and sash to be similar to specifications for double hung and casement windows and constructed in accordance with drawings and full size details.

FLOORS:

Kitchen porch floor is specified with porches.

All rooms, halls and closets at first story, excepting kitchen, pantry and backstair hall, and the entire second story excepting bath rooms and back stair hall shall be laid with 6" or wider surfaced sheathing boards well nailed in place which will act as a sub-floor for $\frac{1}{8}$ " hardwood floor.

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Flooring at kitchen, pantry and back stair hall at first and second stories shall be No. 1 grade long leaf yellow pine flooring, tongued and grooved $2\frac{1}{4}$ " on face, $\frac{7}{8}$ " thick, secretly nailed, planned at joints and left in smooth and clean condition at completion of building.

All flooring to be of good lengths.

Flooring for attic to be No. 1 grade yellow pine flooring, $2\frac{1}{4}$ " on face, tongued and grooved, secretly nailed with all bad knots cut out. No dressing will be required at attic floors.

Where tile floors occur at bath rooms nail 1×3 " strips on the side of joist and put false flooring in between joist keeping same 3" below top of joist. The top of joist to be chamfered.

$\frac{3}{8}$ " flooring will be let under a separate contract.

MINERAL WOOL:

General contractor will figure on 3" thickness of mineral wool in between floor joist where floor is exposed at entrance porch.

DOOR FRAMES:

All outside door frames to be constructed out of $1\frac{3}{4}$ " material, moulded on the outside with rabbet cut in the solid. Refrigerator door frame to be made out of $1\frac{3}{8}$ " material with rabbet cut in the solid. All frames to be of necessary width.

DOOR JAMBS:

All interior door jambs to be made out of $1\frac{3}{8}$ " material with $\frac{3}{8}$ " moulded rabbet of necessary width.

DOORS:

Main entrance door, doors from living room to side porch and front terrace, dining room to side porch, outside kitchen door and rear entrance door shall be of designs shown and shall be 2" thick excepting the kitchen and rear entrance doors which will be $1\frac{3}{4}$ " thick. Said doors to be provided with panels, wood muntins, etc., per drawings and full size details.

All doors on first and second floors to be $1\frac{3}{4}$ " thick.

All attic doors to be $1\frac{3}{8}$ " thick.

All interior doors on first and second floors shall be the M— D— as manufactured by the P— L— Company represented in the P— District by the P— Door & Sash Company. Where solid panelled doors occur use No. 700. Where glass panelled small light doors occur use No. 705. The small lights to be divided per architect's drawings. Where special sizes are found for doors requiring doors to be built special they shall be of same design and construction as above mentioned doors.

All attic and interior cellar doors to be 5-cross panel stock pattern doors.

All doors to be of woods called for under heading of "Kinds of Woods To Be Used Throughout Building".

Closet doors to be of same woods on both sides regardless of the woods used in closets.

Include $\frac{7}{8}$ " panelled doors at clothes chute, at pipe pockets, etc.

Outside icing door for refrigerator to be a double baton door with paper in between and stile around entire outer edge the thickness of the double baton panel.

THRESHOLDS:

Thresholds to occur at all outside doors, between bath rooms and hall, servants' entrance hall and main halls and allow three extra ones to be located later.

MAIN STAIRWAY:

Build stairs as shown. Horses to be 2×10 ", counting on two for each flight, well braced where possible. Risers to be $\frac{7}{8}$ " thick and treads to be $1\frac{1}{8}$ " thick. The treads to have moulded nosings and moulds under same. Treads and risers to be well plowed and glued together and housed into wall string which will be similar to baseboard. As indicated on the drawings, face strings will be open and will have balusters running down into treads

where they will be dove-tailed into same. Handrails to be moulded 3×4 ".

Where balusters occur they will be $\frac{7}{8} \times \frac{7}{8}$ " square, and spaced as shown. Newel posts to be of designs shown and to be panelled and shall have moulded base, cap and ornamental drops. Handrails where shown, to have casements, goose necks, etc. Where possible the treads for the above stairway shall be of one width.

Side of stairway back to hall shall consist of panelling counting on three-ply veneer panels of designs shown, $\frac{7}{8}$ " stiles, mouldings around panels, all of which shall be well blocked, glued and clamped together and left ready for painter.

This contractor will include strings, soffit moulds, etc., completing the main stairway as shown on the drawings, complete in all respects.

Stairway will be built with red birch treads, wall strings, handrails, and newel posts.

Balance of the work will be poplar.

Where door occurs under stairway same will be furnished by door contractor.

All the above work as above stated shall be figured according to design shown on drawings. The work shall be well glued and blocked together and left in a finished condition.

SERVANTS' STAIRS:

Servants' stairs, including stairs from first floor to cellar and from first floor to third floor, to have 2×10 " horses and 2×6 " for platform. Treads to be $1\frac{3}{8}$ ". Risers to be $\frac{7}{8}$ ", newel posts where required to be 4" square. Handrails to be 3×3 " moulded. No casements or goose necks to be considered for these stairs. Wall string for the above stairs to be moulded the same as base.

Above servants' stairs will be built of No. 1 quality yellow pine.

INTERIOR FINISH OF DOORS, WINDOWS, ETC.:

Finish of doors, windows, etc., to consist of moulded architraves $3\frac{3}{4}$ " wide and $\frac{7}{8}$ " thick, mitered at upper corners. Architraves at windows to run down and rest on moulded sills $1\frac{1}{8}$ " thick with moulded apron and mould under sill. Finish of doors to rest on 6" plinth blocks. Base to be 6" high which includes separate cap mould. Base will be $\frac{7}{8}$ " thick. Provide cove floor mould at floor. Said cove moulds shall not be put down in rooms at first and second stories until after floors are finished and hardwood floors are laid. Include $1\frac{3}{8} \times 1\frac{1}{8}$ " moulded back bands for finish at second story bath rooms and at main entrance door trim.

KINDS OF WOODS TO BE USED THROUGHOUT BUILDING:

Living room to be finished in poplar enameled ivory, excepting floor moulds, window sills and doors which shall be birch.

Doors opening to the outside will be white pine doors veneered with birch on the inside.

Dining room to be finished in poplar enameled ivory, excepting window sills and floor moulds, which will be birch.

Main hall and stairway to be finished in poplar which will be enameled white excepting window sills, baseboard, floor moulds, treads, handrails, and newel posts which will be birch stained mahogany.

All second story bed rooms and bath rooms to be poplar enameled various tints, excepting doors, window sills and floor moulds which will be birch.

Den to be finished in cypress which will be burnt with plumber's torch, then scraped and stained per painting specification.

Kitchen, pantry and cold room to be finished in Georgia yellow pine natural finish.

Attic and entire back stairway to be finished in Georgia yellow pine which will be stained.

Breakfast room to be finished in poplar which will be painted in colors.

Basement to be finished in white pine which will be painted.

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BOOKCASES, MANTELS AND SEAT:

Living room mantel to be built of design shown and per full size details. Same consists of moulded mantel shelf supported on moulded brackets, moulded frame around stucco facing, return jambs at either side of mantel, plinth blocks, etc. The above material to be well blocked and glued and the mould around stucco facing to be loose so same can be installed permanently after stucco facing is applied. This contractor to include one heavy coat of oil paint on the back of mantel at the mill.

Bookcases to be built where shown per drawings and full size details. Count on $\frac{7}{8}$ " tops with moulded edge and bed mould under same. Plain stile work to be made out of $\frac{7}{8}$ " material. Lower part of bookcases to be the continuation of base as shown on drawings. Doors to be $\frac{7}{8}$ " thick with loose wood moulds provided which will be set in place after glass is set. Count on $\frac{7}{8}$ " shelves with moulded front edge and include metal pins as the shelves must be adjustable. Above cases to be lined with $8 \times \frac{3}{4}$ " material with $\frac{1}{4} \times 2$ " strips to overlap the joints. The above work to be constructed in a first class manner, to be well blocked and glued where necessary and to be of designs shown and per full size details.

Seat to be built between bookcases at den as shown on drawings and shall consist of a moulded seat top with bed mould and apron under same. The seat to be provided with soffit ready for galvanized iron lining which will be put in by heating contractor. The seat to be supported on turned balusters with square tops. Space between seat, top and window sill will be panelled as shown counting on three-ply veneer panelling and $\frac{7}{8}$ " stiles. This panelled back to receive a coat of oil paint at the mill.

Mantel at den will consist of a moulded shelf, blocked and glued with moulding around mantel above shelf. Mantel will also be provided with moulded architrave around tile opening, $\frac{7}{8}$ " stiles with returns, plinth blocks, etc., as shown. The above mantel to be well blocked and glued and to be in accordance with drawings and full size details and shall receive one coat of oil paint on the back at the mill.

(To Be Continued)

PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER.

Any publication mentioned under this heading will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing the publication. When writing for any of these items please mention PENCIL POINTS.

Armstrong's Linoleum Floors.—Portfolio of specifications, detail drawings, color plates and full information properly presented covering the subject. A. I. A. Classification 28 il. $8\frac{1}{2} \times 11$ in. Loose-leaf with heavy portfolio cover. Armstrong Cork Co., Lancaster, Pa.

Published by the same firm "The Story of Linoleum" and "Detailed Directions for Laying and Caring for Linoleum" Two extremely interesting illustrated booklets.

Pumping Bulletin.—An attractive loose-leaf binder containing specifications, drawings, tables of sizes and capacities of various types of centrifugal pumps for use in buildings. A valuable handbook on the subject. $8\frac{1}{2} \times 11$ in. 60 pp. Chicago Pump Co., 2320 Wolfram St., Chicago, Ill.

Marble Portfolio.—Loose-leaf portfolio showing forty different varieties of marble in their natural colors. Color plates 6×8 in. A copy of this portfolio handsomely bound in leather will be sent only to architects applying for it on their letterhead. Tompkins Kiel Marble Co., 505 Fifth Ave., New York City.

Zinc Roofing (Spouting).—Booklets and Specifications concerning Zinc Spouting and Horse Head Standing Seam Zinc Roofing. Published by The New Jersey Zinc Co., 160 Front St., New York.

Painting Specifications.—Specifications covering new and old work; exterior and interior work; plaster and cement surfaces; cement or concrete floors. Published by The New Jersey Zinc Co., 160 Front Street, New York.

Book of Fireplaces.—Illustrated booklet, 16 pp. Large detail sheet showing various types of modern fireplaces. Donley Bros. Co., Cleveland, Ohio.

Elevator Door Closer and Roller Bearing Hanger.—Technical bulletin illustrating and describing the devices indicated. Sectional drawings, diagrams showing methods of operation, etc. 24 pp. $8\frac{1}{2} \times 11$ in. Elevator Supplies Co., Hoboken, N. J.

Building for Comfort and Economy.—Booklet showing proper construction with reference to insulation against heat, cold and sound. Complete specifications for one- and two-story house. Samples of Flaxlinum. Flaxlinum Insulating Co., St. Paul, Minn.

Published by the same firm "Comfort and Economy with Stucco," covering entire subject of stucco construction with samples.

Spiral Fire Escape.—Detail sheet showing construction of this type of fire escape suitable for schools, institutions and various types of buildings housing large numbers of people. The Dow Co., Louisville, Ky.

The Kozy-Kitch Kitchenet.—Booklet showing improved type of refrigerator and kitchen cabinet combined, suitable for many kinds of residences and apartments. Sections, dimensions and full information. La Grange Fixture Corporation, La Grange, Indiana.

Architectural Uses for Wood.—Series of nine booklets, handy pocket size, covering in an attractive manner, various phases of the subject. Southern Pine Assn., New Orleans, La.

"Expansion" Metal Trim.—Four-page detail sheet showing application of metal trim for buildings of various types. Milwaukee Corrugating Co., Milwaukee, Wis.

Hollow Tile Construction.—Bulletin No. 174 containing over 30 pages of building details showing application of hollow tile in floors, walls and partitions. Extremely valuable book for architects, draftsmen and builders. 32 pp. $8\frac{1}{2} \times 11$ in. National Fire Proofing Co., Fulton Bldg., Pittsburgh, Pa.

Sheet Metal Building Specialties.—Catalog showing complete line of range boilers, pantry sinks, drain boards, gasoline storage tanks, etc., 32 pp. $5\frac{1}{2} \times 8\frac{1}{2}$ in. John Trageser Steam Copper Works, 447 W. 26th St., New York.

Weisteel Compartments.—Catalog No. 11 describing compartments of all types. Blue prints showing construction and method of erection. Specification, including hardware. A useful book to all in any way interested in industrial buildings, public buildings, schools, hospitals, etc., 32 pp. $8\frac{1}{2} \times 11$ in. Henry Weis Mfg. Co., Atchison, Kan.

Hot Process Water Softener.—Booklet describing chemistry of water softening as well as equipment and services. Graver Corp., East Chicago, Ind.

Everson Filters.—Bulletin 501, correct filing size. Eight pages, giving full information regarding Everson non-clog filter. Made in all sizes for various types of buildings. Everson Filter Co., 70 W. Lake St., Chicago, Ill.

Metal Shelving and Racks.—Illustrated booklet showing full line of metal shelving, racks, lockers, sanitary drinking fountains and other metal specialties. Manufacturers Equipment & Engineering Co., Framingham, Mass.

Cypress Pocket Library.—Convenient library covering more than thirty different subjects. Some of the titles are Bungalows, New Insides for Old Houses, Exterior Trim, Barns, Sun Parlors, etc. A very valuable library for any architect and draftsman. Apply to Southern Cypress Mfrs. Assn., New Orleans, La.

Hotel, Club and Institution Installations.—Attractive illustrated booklet devoted to the complete furnishing of hotels, clubs and similar buildings. Many full page engravings. 6×9 in. 32 pp. Albert Pick & Co., 208 W. Randolph St., Chicago, Ill.

Published by the same firm, "School Cafeterias" covering subject of cafeteria planning and equipment and "Kitchens" a practical book dealing with the layout and complete equipment of various types of kitchens.

The Control of Lighting in Theatres.—Attractive booklet illustrated in color covering modern theatre lighting. Specifications, tables and much useful engineering data. 32 pp. $8\frac{1}{2} \times 11$ in. Frank Adam Electric Co., St. Louis, Mo.

Also published by the same firm Bulletin No. 29 describing full line of standardized panel boards. 16 pp. $8\frac{1}{2} \times 11$.

Slate—Consider Its Uses.—Attractive booklet showing the many architectural uses for slate. Roofs, walks, floors and many special uses are attractively set forth. 32 pp. National Slate Association, 757 Drexel Bldg., Philadelphia, Pa.

Six Quick Steps.—Attractive eight-page data sheet with blue prints and specifications showing installation of wood floors over concrete. All details carefully worked out for the drafting room. The Fireproof Products Co., 257 East 133rd St., New York.

QUALIFYING FOR REGISTRATION

BY EDWARD STOTZ.

Mr. Stotz recently delivered the address printed below. Believing that the message it contains is highly important we obtained Mr. Stotz's permission to publish the address in this journal, in order that it might be given the widest possible circulation among the men who can derive help and inspiration from it. Mr. Stotz speaks out of the fund of experience he has gained in his important work in connection with the registration of Architects in the State of Pennsylvania, as well as from his experience as an architect.—Ed.

THE ultimate goal of the architectural student is independent practice. Many of the states now have, and the remainder will have, registration or licensing boards, before whom it will be necessary to appear for an examination of some character, in order to be permitted to use the title "architect."

As I have some knowledge of the operation of the "Act" in the Commonwealth of Pennsylvania, I felt it a matter of duty to accept your invitation and endeavor to set forth some points of qualification for your consideration, which may possibly be helpful to at least a few.

So many papers are prepared that seem to deal with such simple and obvious facts, that it makes one feel as though it were merely a pawing of the air or a determined effort to further deplete the fast vanishing supply of print paper to contribute more, and while I shall only be able to advise you of what you are already aware, yet the manner of presentation may cause sufficient local irritation for a time to keep you from neglecting to use your perhaps too obvious knowledge, which has to do with that great event, "Opening an Office of Your Own."

The casual and unbidden convictions that impress one amid the hurry of the daily routine, or in those treasured periods of quiet study are the indexes to what we are and shall become, and as from time to time you feel a sense of duty well done or of an opportunity passed up, the degree of complacency, in either case, will surely leave its mark and affect your career. You will find the study of men and affairs creeping into your life, and will be required to relate your work to the views of those who see results with a vision that, distorted as it may seem to you, is stern reality to those whom you are anxious to serve.

To keep the balance that requires your feet to be firmly planted on the ground while your aspirations rise among the silvery clouds will oftentimes be a Herculean task for which you should begin fitting yourself as soon as possible.

The habit of thinking of your work rather than yourself and of excluding the delusions of Fame and Wealth from the active imagination is productive of good results. These are not *goals*, but *results* of honest effort and they are like barnacles that attach themselves to solid breakwaters under favorable conditions of time and tide and *not* to shifting sands.

Despite whatever skill, taste or constructive sense you may be endowed with, if you disregard the exercise of that clean, honest courage that goes to make up a man fitted to deal with complex prob-

lems such as will confront you, the courage that will enable you to secure and maintain the trust and confidence of your client, the contractor and the artisan, your work will lose much of its value.

To client and contractor alike, you are a force of some kind and you will either register a negative impression that will later send you afield for new opportunity or you will establish that much more desirable situation of the client coming back with confidence and the contractor proving glad to do another job, being sure of two equally important things, namely, that he will be compelled to execute his contract faithfully and will receive prompt and courteous treatment, also that he will not be made the subject of your whims or penalized for your errors.

To your brothers in the profession show forbearance and courtesy and adhere to the most comprehensive Code of Ethics ever given to man and to which all the words in the language cannot add—"Do unto others as you would that they should do unto you."

For those who think little, act quickly in their own interest and are continually beset by doubts as to just what is right and what is wrong, when they feel that they really need the money, the Code of Ethics of the A. I. A. is a safe guide and they should commit it to memory, as every phase of avoidance of possible wrongdoing is there fully set forth, so that the most obtuse may know what is "*verboden*."

I mean no disrespect to the Code of Ethics. I subscribe to it, but deplore the seeming necessity for its existence when we have had so much more beautiful and comprehensive a one for so long a time.

You wonder perhaps what all this sermonizing has to do with registration for practice; to me, it is fundamental.

"The applicant shall be of good moral character," a moth eaten phrase in print, but the foundation of success in the final analysis.

The graduate of an accredited school of architecture is required to show proof of three years actual employment in a reputable architectural office. The presumption is that the school experience has inculcated a knowledge of the fundamentals of both design and construction, although its application in reality is practically nil. The office experience is calculated to pick up the thread where the school dropped it, at least you are so inclined to think until you leave one to enter the other, when you find that a gulf sometimes exists. This gulf is a mark of the assininity of those who do not believe that theory and practice are interwoven, but have a

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distinct line of cleavage—a fallacy which unprejudiced contact is slowly clearing away.

The initial years in an office are of vital importance to the student, and fortunate is the young man whose environment is such as to give him the opportunity to bring his fresh imagination and high hopes from the school to the office and find there a sympathetic attitude, and to be himself open minded and willing to recognize that a ladder has rungs at the bottom as well as the top, that achievement is not a series of "stunts," and that "getting away with it" is the mother of later misfortune.

I am inclined to think that the schools do not indicate clearly to the graduate what will be required of him, with respect to the cold world in general or the registration in particular.

The system that not only advises, but definitely requires actual working in an office during vacation periods and visits of students to buildings under course of construction, is of great value if approached by the student in a frame of mind conducive to trying to give, as well as to get.

Should a man enter a large office where the various subdivisions of the work are segregated, and prove himself of value in design, and feel that it is by this means alone that he shall enter the "Hall of Fame," the average result at the end of three years will be, that having progressed in one direction, he has actually retrograded in others. What is still worse he has, perhaps, even lost sight of the theoretical value of such prosy things as loads, stresses, weights and values of materials.

He begins with the inscribing of a sign language, pleasing to the eye, but most of which he cannot decode.

With an engineer in the next room, a practical "grubber" on the other side of the office who patches things together, and a specification writer to make all ship shape, our prospective architect has become truly a skin specialist and again more woe!—he is proud of it, believing that he can later "buy" on the "Big Business" idea, what he is either too indolent or thoughtless to acquire.

He intends embarking with several partners, one of whom is a "shark" on construction, the other a business man, and by this balanced organization achieve success.

I do not assert that this obtains generally, but there is a tendency in that direction and it is the "few" to whom these words may be helpful.

The desire of young men to gratify their vanity by being connected at once with a large, well known organization—whose force is split into controllable units for expeditious handling of the work—results in a conscious or unconscious, but nevertheless actual exploitation of the outstanding and best developed characteristics of the young man. In most cases he develops into a decidedly lopsided state, unfit to assume the exacting and manifold duties which he must take up in independent practice, unless by great effort and sacrifice he has preserved his equilibrium by seeking the other line of development outside of office hours.

It is true that through association these conditions can in a large measure be overcome, and it

would be certainly a distinct loss to attempt to make a second rate constructor out of a gifted designer, or the reverse. It is equally true, however, that no man should neglect any phase of his development which is a vitally necessary part of the service which he engages to perform for his clients.

The law in Pennsylvania deals with an individual and not with firms or associations; every man stands upon his own personal qualifications and knowledge, not upon the qualifications of those whom he may readily hire or associate with himself. The answer, "I knew that in school," or "Our office always has an engineer figure everything," will not satisfy an honest board that a man should, under the seal of the state, proclaim his unlimited right to the use of a title which implies that he is capable of actually designing, describing and superintending the construction of any building that he may be intrusted with, including the knowledge that will enable him to protect his client from loss and his buildings from condemnation by failure to observe the requirements of the law and ordinances of his community.

The public takes registration seriously and will continue to do so and they have a right to be protected against the possible employment of a man who not only does not know, but thinks it an imposition to ever be expected to know the elements of the science of safe building.

It is an unfortunate delusion to suppose that registration is a "joke."

It is to be deplored and may not be avoided or denied that many old practitioners must be admitted under other provisions of the Act, where their attainments are not what they should be, but these are of long standing, their status is clearly fixed, but they shall pass on.

You younger men should welcome the attempt to raise the standard of requirements for the practice of your chosen profession, than which, if faithfully carried on, none is more exacting or requires so many sided a development.

The continuous growth and development that the earnest lover of his work may enjoy is never ending. The law of compensation works here as elsewhere and should you elect to despise the little things of practical and constructive value, they will repay you in your own coin, as surely as an unstudied line in your façade will annoy you in the future, when your growing taste shall have caused you to exhibit that healthful sign of regret and the determination to avoid the same error in the future.

However, for every non-technical critic of the skin of your building, you will have a dozen critics of its anatomy. The average mortal does not enjoy a leaky roof, a shaky floor, a cracked wall, a chimney with a down draft and the feeling that the mortgage will outlast the house, despite all the evidence of your best art and skill upon the surface.

How, then, shall you cultivate that constructive sense and learn all the little things that go to round you out so that you may be useful and safe as well as a dispenser of beauty in mass and detail.

(Continued on page 62)

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*Ten-minute Life Study in White Chalk on Black Paper by Miss Elizabeth Whittingham,
Winner of Scholarship Prize for First Year Life Drawing at New York School of
Applied Design for Women.*

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THE AMERICAN ACADEMY IN ROME

FROM a letter recently received by Mr. C. Grant LaFarge, Secretary of the American Academy in Rome, from Mr. Frank P. Fairbanks, Professor in Charge, School of Fine Arts, we quote the following items of news:

"The month of May has been distinguished for an almost complete absence from Rome of the Fine Arts students. At one time or another all but three of our twelve men have travelled. The Orient and Greece have been the objectives of five of the men while northern Italy has beckoned the others.

"The cessation of students' activity in both schools has worked in very conveniently for the resident faculty and permitted them to take a deep breath before submerging under the details of the spring exhibition.

"The principal activity in the School of Fine Arts has very naturally fallen on the Department of Music which has the fine opportunity of bringing a work of Leo Sowerby before the Italian public. Sowerby's *Ballad* for two pianos and orchestra was rendered to a large, distinguished and cordial audience at the Augusteo. For the concert Col. and Mrs. McClellan and Their Excellencies The Ambassador and Mrs. Child were the guests of Director Stevens. Albert Coates, who conducted the interpretation of the *Ballad* and has been a guest of Prof. Lamond during his stay in Rome, promises to be a very important factor in the activities of our Musical Department for he has taken upon himself the task of presenting the first performance of Hanson's next Symphony "*North and West*," which is to be given in London and Rome next season. Coates will also undertake the rendering of the first work that Thompson completes.

"Prof. Manship has gone to Paris and will later go to London to execute some portraits in Sargent's studio.

"Prof. Faulkner is spending a few days taking the Manship car back to France and has taken Griswold with him for company.

"The University of Cincinnati is to acquire the copy of the model of St. Peter's dome by our second year architect Hafner, and has already sent us the funds for its execution.

"Stevens and Floegel, first year sculptor and painter respectively, have just returned from their travels and are full of enthusiasm for what they saw in Egypt and Greece. Both men are recasting their first year work in consequence and we look for some promising results."

THE ARCHITECTS' DANCE AT UNIVERSITY OF MICHIGAN

THE Architects' Dance, started four years ago, has become one of the chief social events of the season and in decorative setting easily takes the lead. The latter is due to the handling of the entire decorative scheme by the students who do it as a problem in design. The design is selected on the basis of competition and is then carried out by various groups in order to distribute the work without undue interference with regular class work. This dance is the chief "outside activity" of the year for architectural students.

The background of the party this year will reflect the interest taken in Egyptian exploration and will be more ambitious than any thus far attempted. Egyptian art is full of material peculiarly appropriate for a decorative scheme for an architectural, or, for that matter, any other dance. From this rich store the students have adapted compositions showing the arts of Egypt, particularly building, sculpture, and painting. In the broad frieze running around the gymnasium will appear various steps in the making of brick up to its laying in the wall, the finishing of a sphinx by sculptors, the making and painting of pottery and terra cotta; metal workers and other craftsmen are shown at work, some of them still doing much the same as they are in building and associated crafts today.

There are Egyptian musicians with the harps of the Nile singing the praises of art, and Egyptian goddesses pointing in pride to the tomb of Ti, the famous Egyptian architect whose mastaba or tomb stood near the pyramid of his ruler.

There is also a lighter side. In one panel a large Egyptian boat sweeps along under full sail with the Temple of Art as its cargo, on its sail as an escutcheon the symbol of hope. Art's argosy here sweeps surely forward despite the rocks and hills beyond. In another panel the Pharaoh, mounted in his chariot, is attacking a fortress before which many have fallen and over which appears a dome reminiscent of State capitols. In another panel two winged goddesses point to a stone bearing a bilingual inscription. The character and arrangement of the writing is quite in Egyptian manner, and the meaning can be made out by the initiates. Another panel of peculiar interest is one in which the Sphinx towers high above the horizon and distant pyramids. Between her great paws rises the building of the Mother Art and about her are multitudes in an attitude of supplication before the great mystery of the Unknown.

Around and over this frieze is a wealth of color studied from Egyptian documents in the Architectural and General Library.

Ann Arbor will thus have an opportunity to gain a hint of the richness of Egyptian decoration. The effect promises to be one of extraordinary interest and beauty.



*Egyptian Setting for Architects' Dance
at the University of Michigan*

PENCIL POINTS



PERRY COKE SMITH

PERRY COKE SMITH, who has been awarded the McKim Fellowship in Architecture, was born in Lynchburg, Va., in 1899, and is a son of Bishop H. Coke Smith.

Mr. Smith entered Newberry College, Newberry, S. C., as a Sophomore in Engineering in 1914. He left in 1916 to study Chemical Engineering at the University of Wisconsin and went through Junior year there 1916-17. He enlisted in the Army in October, 1917, and served fourteen months in France with the 1st Gas Regiment, Chemical Warfare Service. Mr. Smith received the Croix de Guerre. He taught mechanical drawing in John Marshall High School, Richmond, Va., in 1919.

Mr. Smith entered the office of Wickham C. Taylor, Architect, Norfolk, Va., the same year and worked five months tracing. This was his first contact with architecture. From then to the fall of 1920 he superintended buildings for private builders in Norfolk, Va.

He entered as a freshman in architecture at Columbia University in the fall of 1920 and graduated in June, 1923. For the past year he has been assistant instructor in Elements of Architecture (Orders), Freehand Drawing, Mechanical Equipment of Building, Building Materials and Construction and Architectural Engineering in University Extension at Columbia. He has done notable work in Beaux-Arts Institute of Design Problems,—won the Second Municipal Art Society Prize 1922—Second Warren Prize 1923—First Municipal Art Society Prize 1923, and the McKim Fellowship in Architecture 1923.

Some of Mr. Smith's sketches of pre-revolutionary houses were published in "Country Life" for April, last.

Mr. Smith feels that he owes much to F. C. Hiron, H. W. Corbett and Maurice Prévôt, critics at Columbia University.

Mr. Smith is now connected with the City Planning Commission, which is making studies for the replanning of New York City.

SAN FRANCISCO ARCHITECTURAL CLUB

THE winner of the Paris Prize Competition in 1919, Ernest Weihe, has returned to San Francisco after an absence of three years spent in study at Paris, in Italy, and in other countries of Europe. Upon his return he was welcomed at a banquet given by the Club in his honor on June 1st, at which a large number were present, and all proclaimed the event a decided success.

The regular monthly business meeting of the Club was held on June 6th. One of the outstanding features of this meeting was the interesting and instructive lecture given by Mr. Stockwell, Illuminating Engineer of the Pacific Gas & Electric Company, on the subject, "The Architect as an Illuminating Engineer." The strict attention given during his talk, and the interest manifested in the form of questions by which Mr. Stockwell was bombarded mercilessly for an hour thereafter, showed that his message had been brought home to the boys and that he had accomplished his first purpose, that of arousing their interest. He has offered his whole-hearted assistance to anyone desiring further information, and has also expressed his intention to mail printed matter on the subject to all club members.

The Pacific Sanitary Manufacturing Company has extended an invitation to the Club for its members to pay a visit to their manufacturing plants at Richmond and San Pablo, and the same has been gladly accepted as it should prove both instructive and entertaining. The date has been set for Saturday, June 30th when representatives of the company will conduct the members through their plants. Luncheon and refreshments will be served. The members will assemble at the Ferry Building in time to take the 8:40 A. M. Southern Pacific boat, from which time they will be in the keeping of the Pacific Sanitary Manufacturing Company which will see to it that all their wants are provided for until they are again released at the Embarcadero in the evening.

Nominations for Treasurer and two Directors were made at the last meeting. They were as follows: Treasurer, Lawrence Keyser; Directors, John B. McCool and William Rowe.

WORK OF PRATT INSTITUTE IN ARCHITECTURE RECOGNIZED BY REGENTS

A LETTER was recently received by Walter Scott Perry, Director of the School of Fine and Applied Arts of Pratt Institute, Brooklyn, New York City, from Augustus S. Downing, Assistant Commissioner and Director of Professional Education, State Department of Education, Albany, N. Y., advising him that the Board of Regents, at a meeting held May 5, 1923, formally registered the Department of Architecture of the School of Fine and Applied Arts, Pratt Institute, under Section 441 of Regents Rules. This is a recognition of the results obtained in the course of intensive training given by Pratt Institute.

ART EXHIBIT ON MILLION DOLLAR PIER

AN ART exhibition arranged by the Fellowship of the Pennsylvania Academy of Fine Arts was opened recently in the Temple of Art on the Million Dollar Pier at Atlantic City, N. J. A committee of local women, representing 6,000 clubwomen in Atlantic City, is actively interested, as it is the first move in their drive for a fund of \$50,000 to establish a woman's club in the city. Half of the proceeds of the affair will go to the clubhouse fund.

PENCIL POINTS

QUALIFYING FOR REGISTRATION.

(Continued from page 58)

Realize keenly your moral obligation to society, which is just being true to yourself and despise not the treasures of knowledge that the builder and superintendent have.

Because they discourse not in high sounding phrases of the atelier do not miss an opportunity to cultivate them.

Did you ever ask for a specification and spend on it some of your midnight oil and then slip around when chance presented and see those unprosaic words exemplified in the unfolding of concrete, steel and masonry and realize that the beauty of the finish would be but a sham, a stage prop, without the cunningly contrived construction that makes the beauty possible and ministers to the safety, health and welfare of all who live within the walls.

Should your tailor fail to know the value of the cloth he puts into your coat, use rotten thread and linings that rip and shrink, and you shortly found yourself in possession of an ill-fitting, faded rag, would you mention the matter to him? Certainly! and with a just sense of outrage!

A small building, a cottage, sometimes represents the united savings of a family for twenty years. They engage an architect. They know less of the real construction of a house than you do of a coat.

Should you not know enough about the bearing value of the soil, the proportioning of the footings, the tying together of the walls, the simple calculations whereby beams may be figured, the installation of a sanitary plumbing system, and the other essentials so as to honestly feel that it is your house, every bit of it? Should you not feel that your next commission will be the easier obtained as well as the more pleasurably and expeditiously performed, if you have truly rendered the full service which your title implies?

Should you not face the work with an inquiring mind and eager ear and an eye to serve truly, your art, your profession and your client, for this trinity is never dissolved?

The study and the attempt at specification writing should not be a piece of plagiarism, but done on the principle of amplifying your drawings by a simple, direct story, the meaning of which is clear to you, and in the telling of which words convey information more expeditiously than drawings. Secure a copy of all the Building Laws and other pertinent legislation and seek the reason for their existence.

You will, of course, find many of these regulations a vexation, but that will only increase your knowledge and perhaps some day you may secure that high distinction of being appointed a member of a "Commission to Revise the Building Code," then you will realize what you do not know and renew your youth in the search for knowledge, or perhaps resign.

These are things you should know, and you can know them. The literature of the day is available in such volume and so easily obtained that one is appalled by the mass of it. The simple engineering problems that are being published in our technical periodicals are of splendid value, and the application of construction knowledge is, after all, not complex if taken piece by piece. Should you find that you are unable to take any interest in the subject and that you believe that construction and design are things apart and that you shall always so regard them, my sincere advice is—*quit!*

In the great world outside there are many opportunities where your fancy may find outlet free from the oppression of the manifold complexities of construction and administration.

It is not supposed that you are to design the steel frame for a mammoth building or lay out in detail a complicated mechanical plant, but you must have an in-

telligent appreciation of its value, understand its functions in principle and be familiar enough with the technique of the several parts to be the resourceful guide who shall see that the right trails are followed and all converge to one point at the finish.

I believe one of the best tests is to try to make a complete section through every part of a building, vertical and horizontal, and also make sketches of buildings under course of construction, and then describe the materials and indicate why they were used. This backward motion of analysis will move you forward.

It is surprising what a number of things lurk within a wall. If you cannot put it together try to take it apart.

When one realizes the importance of a thing, it is usually attained, and I am sure that some systematic effort to get into sympathetic touch with the practical side of your office work, will unfold itself. By all means miss no opportunity to examine every piece of construction work you can find, and ask! ask! ask! for here is a realm of reality where theory, fads or fancies do not enter. So long as construction remains to you a mystery, so long will you be a lopsided pretender and the dupe of many a salesman who induces you to accept the wonderful "engineering" service of his company for some untried exploitation that will shortly be followed by a dozen more that come and go to trap the unthinking dreamer.

The study of design, after all, cannot be forced, it is a gradual growth in appreciation and culture that is not interfered with by other studies, and to use some of the precious time in thought and investigation should not harm the average aspirant who indeed might produce better work by more thought and less drawing.

In the selfish workaday world, none of us is free from error, a partially imaginary necessity drives us to that horrible efficiency which, if carried too far, will take all the joy out of life, leaving unbalanced entities, warped by over use of part of the faculties at the expense of the others.

It is the age of so-called specialists in our profession as well as in the practice of medicine. The rush of completion dates, the lack of time, the desire to do "Big Stuff" to meet exacting requirements of commercial work tend to make the men in an office cogs in a great machine, the intricacies of which they never comprehend and the prime mover of which is surrounded by mystery back of doors marked "Private."

Specialization in architecture is largely a matter of propaganda, a talking point, rarely producing work of increasing real value, and tending to commercialism, quantity production and rubber stamp results. Names that we revere come to mind, men who have left or are leaving their impress upon the art of the new world and how few there are that you think of as specialists even though, perforce, much of their work was in one line. You know them as architects, pure and simple.

There is, or may be, justification for some in later life to follow one phase of practice, but surely the young practitioner should not carry this tendency to the extreme of divorcing the elements upon which all structures are made safe and beautiful and feeling that to others may be delegated all these tasks, excepting that of dealing with surface effect. Tapestry is wonderful and its art is enhanced by the fact that it is a fabric with a structure that endures.

As I began, so shall I end—nothing has been stated that you do not know, but I hope that a few will be benefited by a searching for their old textbooks, by the revival of the thought that to have and to hold knowledge we must seek to use it and by the realization that as a study of anatomy is essential to the sculptor, so is a knowledge of construction necessary to the architect. The nation needs to be served from every standpoint and art is dignified when put in enduring and useful form. An intimate knowledge of construction cannot but strengthen the confidence and increase the skill of the designer.

PENCIL POINTS

THE MAKING OF WORKING DRAWINGS

(Continued from page 30)

information to be given. Metal window frames and sash are shown, the supporting lintels for the brick work are shown. Sections are taken, showing the relation of interior plaster to the window frames, etc. A drawing of this kind combines ornamental work with absolute practical conditions.

Figure 5 shows a full size detail of an ornamental stone panel. The motif selected to be executed is derived from a well-known architectural detail document.

When good architectural motifs and details are employed, and are used in a proper way and place, this is not a misuse, but a good use thereof, and is ever new. This drawing is an excellent example for the indication of ornament—again stone can be felt. From this drawing the modeler can well work and the motif will again live. It may be of interest to refer to page 25, Figure 2, of the May issue of PENCIL POINTS. The detail above mentioned is a development of the ornament indicated on one of the elevations and for which this detail was made.

Figure 6 shows part of a full size detail of a glass and iron building front. It may be said that this detailed sketch also served as a shop drawing and was made partly in conjunction with the contractor who was to execute the iron work.

A key drawing drawn to the scale of $\frac{1}{2}$ -in. to the foot was also made with this drawing, to be used as a shop layout. Upon drawings of this character, very little is left unsaid. In fact all the models and shop patterns for the execution of the work were directly taken from this detail. This also is a drawing where the ornamental treatment for design and purely practical parts are combined for the result as a whole.

The preparation of models, shop drawings and the general co-ordination of work will be taken up in a following issue of PENCIL POINTS.

In the proper study and analysis of one's work, thinking in a clear way, finding good in all work—perhaps (using the words of a friend), "We do not take possession of thoughts, but thoughts take possession of us." The influence of the masters is ever present.

HOTEL ARCHITECTURE FROM A HOTEL MAN'S VIEW POINT

(Continued from page 45)

room shall not have the appearance of a bedroom. The type of wall bed that swings into a closet in the day time solves this part of the problem and the provision of a dressing room and bathroom between the bedroom and the corridor, with an entry of ample size complete the layout. A portion of the plan of the second floor, upon which the sample rooms are located, in the Olympic Hotel, is shown on page 46. The sample rooms should be provided with a dado or base of wood extending from the floor to the height of a table or trunk, as this will prevent the scarring of walls during the moving of trunks or setting up and taking down of sample tables. The walls should be painted some quiet color that will not clash with any merchandise that may be shown, and at the same time this color should not be of a dull or muddy kind which is sometimes used when a "neutral" color is called for. It is not necessary to have either these dull uninteresting colors or the kind of wall treatment that I have seen in the sample rooms of many hotels that would make any line of merchandise unbearable when shown in conjunction with the crude coloring and the hideous pattern of the walls. A buff color that has a suggestion of sunshine yellow in it is a good color.

It is well to locate the sample rooms on one of the lower floors of the building. In the Olympic Hotel in Seattle, as has already been mentioned, they are on the second floor, in order to facilitate the handling of trunks

to and from the sample rooms by means of the freight elevators and to provide the best possible elevator service for the salesman's customers.

(To be Continued)

PERSONALS

R. BERNARD KURZON, Architect, has removed his offices to Suite 1210-30 North Dearborn Street, Chicago.

LANG, RAUGLAND & LEWIS, Architects and Engineers, have removed their offices to 412 Essex Building, Minneapolis, Minn.

YORK & SAWYER, Architects, have removed their offices to the Pershing Square Building, 100 East 42nd Street, New York.

RANDOLPH F. WARE, Architect, has removed his offices to 341 York St., Newport, Ky.

F. E. JOHNSON and GEORGE R. GRISWOLD have become associated for the practice of architecture under the firm name of JOHNSON & GRISWOLD, Architects and Engineers, Suite 31-39 Wisconsin Block, Superior, Wis.

I. ALBERT BAUM and A. B. BOYER have dissolved their partnership. Mr. Baum has opened a temporary office in the Columbia Mutual Tower, Memphis, and Mr. Boyer is continuing the practice of architecture in St. Louis.

NOTICE TO OWNERS OF "GOOD PRACTICE IN CONSTRUCTION" BY PHILIP G. KNOBLOCH

THE Hydrex Asphalt Products Corporation, of New York, calls our attention to the fact that "The Membrane Method" of Waterproofing is a registered trade-mark owned by them. The words "Membrane Waterproofing" are inadvertently used on plates 1, 2 and 29 of "Good Practice in Construction."

In all fairness to the Hydrex Asphalt Products Corporation we are glad to bring this matter to the attention of those who have purchased copies of Mr. Knobloch's book.

THE YEAR BOOK OF CARNEGIE INSTITUTE OF TECHNOLOGY

THE year book, entitled "Review of the Department of Architecture" just issued by the Architectural Society and the Scarab Fraternity at Carnegie Institute of Technology, Pittsburgh, was prepared almost entirely by students, and is an unusually attractive and interesting publication.

The volume is dedicated to Henry K. McGoodwin, the first head of the Department of Architecture, and who was recently appointed Chairman of the Faculty of the College of Fine Arts and Head of the Department of Architecture.

Most of the pages in the book are given over to reproductions of prize drawings and designs executed within the past few years by students in the department. Among the group are the prize drawings of Paul F. Simpson, winner this year of the LeBrun Travelling Scholarship; Otto M. Olsen, winner of the Stewardson Scholarship this year; Russell F. Simpson, winner of the Stewardson Scholarship in 1921; H. L. Rubin, who won the Stewardson Travelling Scholarship in 1916.

Perspectives; rendering in pencil, charcoal, crayon, pen-and-ink, water color; interior decoration, designing. Twenty years' experience. Emil Lowenstein, Room 1410, 25 West 43d Street, New York City. Tel. Vanderbilt, 8656.—Adv.

PENCIL POINTS

A LETTER ON DRAFTING

IN response to our request for time savers in the drafting room, we have received the following letter from Mr. R. B. Wills, Melrose Highlands, Mass.:

By far the greatest losses and the most exasperating delays are caused, not by the draftsmen but by the squad leaders or Architects as the case may be, who transmit the information to the men. All too often, they think it is up to them to impress the draftsmen with their importance rather than to carefully lay out the work so that each man knows ahead of time just what he is expected to do and in a general way how he is to do it. I talked with a draftsman a few days ago who has been working in a certain office for over a year and in that time has never been told even in a general way what was expected of him. He just drifted from one piece of work to another, doing what other men had left undone or in some cases doing what had already been done by others. More credit to him who got his head down on the table and worked than to the method of planning work in that office.

To get down to a few time saving ways.

(1) Arrange drawing tables with reference table as shown below.

(2) Use straight edges instead of T squares for horizontal lines.

(3) Use so called automatic fillers to fill drawing pens.

(4) Tie penwiper, sandpaper, and scratch pad on separate strings under the table where they can be found.

(5) Keep drawing instruments clean and sharp. A drop of oil saves a lot of cussing.

(6) Wash out your ink bottle once in a while. All the dirty ink bottles are not found in the Post Offices.

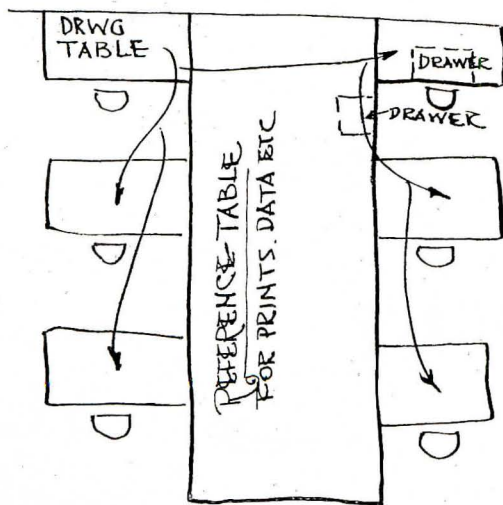
(7) Get in the habit of dropping your tools in a certain spot on the table, where you can find them.

(8) Don't be fussy. Determine the amount of accuracy required and gauge your work accordingly. Speed depends more on quick judgments and right methods than on gyrations of the pencil.

(9) Do everything freehand that can be done neatly even unto crosshatching.

(10) For fast slant lettering use Esterbrook 312 Judges Quill.

(11) When penciling a drawing make it complete. Get in the habit of making quick legible notes on drawings. Draw all dot and dash lines in full. Put the dashes in when inking.



Suggested Arrangement of Drafting Room Tables



"After all the old pep is what gets the work out"

(12) Have drawing approved in general by squad leader before inking.

(13) "Group your inking."

We learned this in school but most of us have forgotten it.

a. Work down across the drawing from left to right, this saves the smears.

b. Ink circles and curves first.

c. Then horizontal followed by vertical dimension lines.

d. Then horizontal followed by vertical lines taking them by sizes, thinnest first, they dry quickest.

e. Then lettering.

(14) Here's a help when tracing a blueprint. Use the plate glass from the boss's desk as a table, the ends being supported on wooden horses. Place an electric light underneath. This sharpens up the lines of the blueprint wonderfully and makes the tracing comparatively simple.

(15) In making perspectives. After determining the vanishing point, use railroad curves for converging lines.

CORRECTION

WE HAVE received the following letter from the National Terra Cotta Society:

"Will you be kind enough to publish the following correction of an unfortunate clerical error in the advertisement of this Society appearing in the June issue of your magazine whereby the Chapel of the Carmelite Convent, Santa Clara, California, was erroneously credited to Albert M. Cauldwell as Architect.

"Maginnis and Walsh, of Boston, are the Architects of the Carmelite Convent and the beautiful chapel featured in our advertisement.

"We deeply regret the circumstance which led to its authorship not being correctly credited. By giving this announcement every prominence that may be agreeable to you, we shall be greatly obliged."

JOHN E. RHODES.

THE death of John E. Rhodes, Secretary-Manager of The Southern Pine Association occurred Saturday, June 2, 1923. His loss is keenly felt by his former associates and many friends.