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PENCIL POINTS Volume XIV August, 1933 Number 8

The Small Scale Study as a Preventive of "Paper Architecture" With Drawings by G. T. Goulstone of Charles A. Platt's Office By Lorimer Rich

O ne of the most difficult things for an architect to determine is how his building is going to look when it is built. In his search for the proper elevation treatment of a given problem he must continually rely upon some method of predicting the finished building. To a very great extent the success of his elevation will depend upon his ability in the drafting room to express truthfully his idea. There are a certain few architectural offices that have developed this ability to a marked degree. Such an organization is the office of Charles A. Platt.

Some years ago, upon entering this office, I was immediately impressed by the quality of the preliminary studies made here—extremely successful efforts to inquire honestly, with the aid of pencil and paper, as to just what the appearance of each building would be when completed. I had nowhere seen sketches which so carefully disclosed to the designer what he might expect if the sketch were translated into brick and stone. Regardless of whether one's individual preference is toward the more conservative or the more radical progress of architectural design, the method of study here illustrated should be of benefit. The success of Mr. Platt's work does, I am sure, warrant an examination of his method, and the draftsman will gain from a study of these illustrations.

We hear much talk of "paper architecture" and we hear it said continually that this or that architect does a clever sketch, but somehow his building never quite arrives. We all know of excellent draftsmen and drawings which represent the last word in drafting skill-carefully manipulated shades, shadows, and accents-windows not darkened in and left to look like panels, etc. The man who makes such drawings seems to concentrate his effort upon the drawing as the final end and to consider, perhaps unconsciously, that his design exists ultimately on paper alone. He is a draftsman only. The real architect uses his drawing merely as a truthful means of study, and his great effort is fixed upon the building itself. Just as the palette of the painter is paint and that of the sculptor marble and bronze; so is the palette of the architect



SMALL SCALE ELEVATION STUDY FOR A RESIDENCE-CHARLES A. PLATT, ARCHITECT



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THE SMALL SCALE STUDY



SMALL SCALE STUDY FOR WOMEN'S GYMNASIUM, UNIVERSITY OF ILLINOIS—CHARLES A. PLATT, ARCHITECT The tree shadows and the play of light across the façade have been skillfully handled to produce a close approach to the actual appearance of the completed building.

granite and stone and brick, and his work is finally expressed in these materials, not in paper. The accompanying reproductions exemplify a type of architectural study which admirably illustrates this point.

Really to design a good-looking building is a fine art and a task for an artist. One may have the most excellent graphic ability and be a veritable magician with pen and brush, but, if he has not that something which enables him to create and fashion his façade with the best taste and skill, he will never reach the heights of architectural design. This article makes no pretense of explaining how to tell whether the design is good or bad. Heaven forbid! It means to stress with the aid of these reproductions the necessity for using a technique which is truthful. In Mr. Platt's office one is continually aware that he is creating a building and not a drawing and that the studies are of service only to this end.

These drawings are all done at 1/16" or 1/32"

scale. I think it takes a good many years to realize that studies must be made at small scale. The student, in his school project, is impatient to start his large scale drawing; the younger man in the office feels that time is lost playing around with the small scale drawing; he feels that various difficulties can be ironed out at larger scale. This is the voice of the Tempter and is plain inexperience. One arrives at this conclusion only after subjecting himself to some years of discipline and application over the drafting board and a careful comparison of the studies with the finished product—and even then he may not.

The complete length of the University of Illinois Library study is 14¹/₂ inches. The Octagon study is 11 inches long. The Deerfield Academy study is less than 9 inches long. They are drawn with diluted ink on tracing paper and then colored with washes or crayon or both. Ink rather than pencil is used because of the difficulty of controlling strong enough



SMALL SCALE STUDY FOR PROPOSED DEVELOPMENT OF THE OCTAGON HOUSE-CHARLES A. PLATT, ARCHITECT



Reproduced at exact size of original drawing.



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STUDY AT SMALL SCALE FOR A RESIDENCE IN THE FRENCH PROVINCIAL STYLE NEAR QUEBEC-CHARLES A. PLATT, ARCHITECT

pencil lines on drawings of this size. Where wash is used it is put on fairly dry. It does pucker the paper some, but that only lends atmosphere and a sense of reality.

In studying the originals of these drawings one is impressed with their completeness and with the application and patience which must have been necessary to make them. At this small size defects in composition are readily discerned. You are, so to speak, standing far enough away from the building to encompass the entire facade at a glance and thus are able more easily to determine whether the individual parts of the composition take their proper places in the ensemble. There is no deceptive drafting here, there are no center lines ending in dots, there are no silhouetted shade lines. The scale is so small that one cannot be lulled into a sense of achievement by some beautifully drawn piece of ornament. Enough to tell from these drawings that the center motif properly dominates, that the fenestration is restful, that the spot of ornament relates properly to its surroundings. Such as these are the fundamentals of a good design. If they are not right, no amount of detailed study will save it.

These sketches impress you with the ease with which the integrity of the values has been preserved. The dark of the glass in the windows is shown dark. The brick is given its correct value. The stone is rendered properly and the slate makes you conscious of the great dark mass of the roof itself. Many of the faults of the building come to light under scrutiny and can be remedied before it is too late. The shadows showing reveals and breaks are drawn and colored to indicate the exact depth of the break. The introductions of the trees, vines, and shrubs all tend to place the building in its environment and allow the designer to examine it critically.

To compare these drawings with the finished work brings out strikingly the accuracy with which they portray the completed job. It seems to me that too much cannot be said in speaking of their effectiveness. Mr. Platt is said to have remarked, while looking at a most alluring drawing by one of our skilled renderers, that such a drawing was an architectural menace and that when you got a drawing that made a building look as good as that you were tempted to stop studying it. I do not believe it has ever been successfully held that our best draftsmen have been our best architects. In fact, a fair case for the reverse might well be considered. I do not mean in any sense to infer that these sketches are not beautifully drawn. They are. I do mean that they were drawn primarily in a search for the truth in regard to the design. Considered so, they are wondrously successful.

PRELIMINARY SMALL-SCALE STUDY FOR A PROPOSED BANK AND CIVIC OFFICES George T. Goulstone, Architect

Size of original, 1614" x 11"

Office Efficiency Pointers, 2

The Shop Drawing System of Shreve, Lamb & Harmon

By Irving Coryell

The habit of making prompt decisions is an excellent one for an architect to acquire; but if any benefit is to be derived from it, professionally, it must be constantly exercised throughout the life of each individual commission. Inasmuch as all work conducted by a modern general contracting firm is scheduled, and each trade has a definite date set on which to begin work, and an equally definite date on which to finish and leave the job, it will be readily seen that the lack of a decision regarding a window detail will delay not only the subcontractor who supplies this material, but will retard the work of all the trades that follow the setting of the windows as well. This leads to the job as a whole being finished behind schedule; and often cash penalties are imposed upon the general contracting firm for lateness, and all opportunity of earning a bonus is lost.

Naturally, happenings of this kind do not tend to foster the spirit of good-will and co-operation that is necessary to the expeditious erection of a building. The careful checking and early return of shop drawings will do more to promote this feeling than any other one thing. There is also another reason for promptness. The rapid return of the shop drawing

enables the contractor and his subcontractors to effect an important saving in overhead expense that would not be possible if men assigned to the job had to waste a protracted period of time in waiting for the approval of the architect. The architect who does not keep the contractor waiting soon achieves a reputation for promptness which results in lower bids and in an attendant saving to the owner.

Shop drawings should be checked to determine not only the correctness of the information shown on the drawing itself, but also to ascertain whether or not the contract requirements are being complied with; whether or not the fabrication methods shown are

THE SHOP DRAWING RECORD

sound; and whether or not the material will fit the conditions created by the adjoining trades. While in some cases shop drawings are merely forms, nevertheless the subcontractor should not proceed with the work until he has received, through the office of the general contractor, the architect's approval of the drawings.

Consequently, one of the essential functions of an architectural office is the inspection and correction of shop drawings. Lacking the intelligent correction and approval of these drawings no job could be brought to a successful conclusion. Yet many offices that ordinarily painstakingly correct shop drawings are at times lax in getting to the actual work, and dilatory in returning the drawings to the general contractor. Drawings, sometimes entirely innocent of red or yellow pencil marks and notations, are frequently found under drafting boards when a complaint is registered by the contractor. This condition is more recurrent in the average office than is generally supposed.

A system is a necessity, if prompt and proper service is to be rendered at all times. A shop drawing system, like any other system, should be as simple, as clear, and as concise as is consistent with thoroughness.

> It should require the minimum amount of time and the fewest possible number of forms to keep it in operation. There should be no red tape of any kind connected with it. It should be adaptable to the large office as well as to the small office; and it must work as efficiently on a ten-thousand-dollar house as it does on a million-dollar building.

Following a careful survey of many systems, the office of Shreve, Lamb, and Harmon established a method that definitely enables the architect to average two days from receipt of a shop drawing until it is returned to the general contractor, instead of the customary six- or sevenday average for offices using no system. Freedom from operating flaws and great latitude are proven by the fact that the system worked perfectly on a small alteration job on which eight shop drawings were submitted, as well as on the Empire State Building, on which 1786 shop drawings were submitted. Another advantage of this system is that only one form is required. This is the Shop Drawing Record—which may be typewritten, mimeographed, or printed, as desired. After the job is completed these forms may be placed in a storage file or destroyed.

An outline of this method follows-

1. The subcontractor is required to submit to the architect, through the general contractor, a number of copies of each shop drawing. This number will vary according to the set-up of the general contractor's organization, but will never be less than two prints, as one copy of each submission must be retained in the architect's file, and one copy must be returned to the general contractor. A form letter, conventional in style, accompanies the drawings from the general contractor's office to the architect. This letter reads about as follows—

"Enclosed please find two copies of the hollow metal shop drawing number ten, titled 'Store Fronts—46th Street,' for your approval."

Upon receipt in the architectural office, the name of every man who is interested in that particular drawing is inserted at the head of this letter. Each man crosses out his name on this letter when he has completed his duties regarding the drawing.

3. The contractor's letter and the drawings are now turned over to a draftsman for checking.

4. After correcting the drawings, the draftsman writes in the disposition of the drawing, whether "Approved," "Approved as Noted," or "Disapproved" at the head of the letter together with the date and his initials. He then fills out the Letter of Transmittal* that accompanies the drawings back to the general contractor.

5. The contractor's letter, which now contains information regarding the disposition of the drawing is turned over to the person who keeps the Shop Drawing Record. He transfers the information to the Record, initials the letter and sends it to the correspondence file where it is filed with any other letters pertaining to that particular drawing or subject.

The Record now contains the entire story of the submission. All dates appear in their proper columns, and "Approved," "Approved as Noted," or "Disapproved" appears under the heading "To Contractor," together with the number of the Letter of Transmittal that accompanies the drawings back to the general contractor.

6. This process is repeated until final approval is obtained. While a reliable subcontractor may be trusted to begin the work when he has a drawing returned to him marked "Approved as Noted," the drawing, as a matter of record, must be resubmitted until it is finally marked "Approved."

As may be easily perceived, this method of handling shop drawings can be used to the same advantage in either the large or the small office. In a one-man office, the system would vary only in that the architect himself would check the drawing, keep the Record, and file the correspondence.

For an office of slightly larger size, where two or three draftsmen and a stenographer are employed, one of the draftsmen would check the drawing and keep the Record. After the drawing is checked, it would be turned over to the architect, together with the Letter of Transmittal, and the contractor's letter. The architect would then countersign the Letter of Transmittal and turn it and the drawings over to the stenographer, whose duty it would be to file the contractor's letter and one copy of the corrected drawing, and to despatch the remaining corrected drawings and the Letter of Transmittal to the general contractor.

In all cases, the full details of the submissions of each drawing would appear on the Record, and a glance at this sheet would at once reveal the status of any drawing in question.

*Detailed information and an illustration of the Letter of Transmittal was published in the March, 1933, issue of PENCIL POINTS.

A TREE STUDY IN PEN-AND-INK BY ERNEST F. LEWIS Size of original, $8\frac{1}{4}" \times 11\frac{1}{2}"$

Photos by Glasgow

MODEL OF HOUSE FOR PHILIP J. WARNER, ESQ., AT DARIEN, CONNECTICUT FRANK J. FORSTER AND R. A. GALLIMORE, ARCHITECTS

Ripley's Recipes, 3

By Hubert G. Ripley, F. A. I. A.

"Nectaries of balmier sweets than sips The Hymettian bee—"

"Rhododaphne," THOMAS LOVE PEACOCK.

Old Fashioned, Sazarac, and Swizzle

O ne day Napoleon remarked to the Marquis de Laplace, mathematician, astronomer, and Senator of France, author of the "Laws of Laplace," according to which Jupiter, Saturn and other heavenly bodies perform certain celestial syncopations hitherto unexplainable, "Why is it," said the Emperor, "that when I melt a lump of sugar in a glass of water, the beverage appears to be more potable than when a like quantity of powdered sugar is used?"

"Sire," replied the learned man, "three substances exist whose principles are exactly the same, viz.: sugar, gum, and starch. They differ only under certain conditions, concerning which nature guards the secret. I have a theory that, due to the shattering of the crystals by the pounding of the pestle, certain sugared portions pass to the state of gum or starch, which cause the different flavor your majesty has remarked." (Brillat-Savarin, *Physiologie du Gout.*)

The above principle is the secret of the Old Fashioned. It is also the essence of an Absinthe Sucre, that devastating beverage whose devotees imagined they were performing feats of levitation after partaking a given number. An incident that happened one evening, during the celebration that occurred after the annual boat races between two rival Universities, illustrates the potency and impelling force of this legendary tipple. On one of the many luxurious craft gathered in the bay for the fiesta, a party was in progress. Absinthe Cocktails (a barbaric concoction of Bœotian taste that once had a certain vogue, alas!) were being served freely. A robustious young Antæus who had downed glass after glass as fast as they came his way, suddenly climbed the lee shrouds, and before he could be stopped, dived gracefully over the rail. A passing launch, one of a number of patrols alert for such happenings, overhauled him in the gathering gloom just as he was heading for the open bay. "Want a lift?" the captain shouted. "Get out of my way!" cried Antæus, "I'm swimming 'round the world!"

The Old Fashioned, however, doesn't play one such tricks as that. It's probably the oldest cocktail known to man, 162 yrs., 9 mos., 14 days, reckoning old style, since first invented by Betty Allen (or Daisy, if you prefer). The so-called cocktail of today is more apt to be a "Sour" or a "Punch," or some variety of the myriads of miscellaneous fancy drinks, or mayhap a "Shrub" or "Flip." There are only a dozen or so mixes, that properly come within the category of the cocktail, which is simply liquor stirred or shaken with ice and a dash of bitters, of which there are several varieties that may be employed according to the fancy of the composer. Sometimes a few squirts of syrup or cordial are added to make a richer blend, and the glass may be dolled up like a Christmas tree with lemon peel, bits of pineapple and cherries, and embellished with powdered sugar stuck on like frosting around the rim, in which case the cocktail becomes a "Crusta." Over-scrupulous concoctors are very fussy about their bitters-for inferior bitters, or too much of certain kinds, will ruin the finest old liquor ever vatted. Professor Jerry Thomas used to make his own bitters out of raisins, cinnamon, snake-root, lemon, orange, cloves, allspice and Santa Cruz rum, using about an ounce of each (except two ounces of cinnamon and 1/4 lb. raisins), filling up the decanter with rum, and, as fast as the bitters were used, adding more rum, thus keeping a continual supply on hand. Good bitters, like the Muria and Garum of Ancient Rome, are a gift from the gods. However, those who do not care to go to the trouble of preparing their own bitters may find excellent Angostura, Pechaud's, and Orange Bitters, at most any pharmacist's. Go to the back of the store, past the club sandwiches, magazines, and kiddie-kars, and ask the grav-haired old gentleman who presides over the little drawers containing senna leaves, Fuller's earth, and cascara sagrada; he'll know what you mean and probably find it after searching ten minutes or so in the back room.

The Old Fashioned. The right glass for the Old Fashioned is essential. A squat heavy tumbler holding four to six ounces is best; one with a thick rounded bottom on the inside, and a broad sturdy base that won't tip over. We have some small tumblers with underslung bodies and little concave scallops on the lower half that fit the fingers nicely (thumb-print tumblers, some call them), bought at the five and ten, that are just the right size for nestling in the hand. When we went back to buy some more, they were all gone, just a remnant of some manufacturer's stock, I suppose. Place half a lump of sugar in the bottom of the glass, on this squirt a few drops of Angostura, a goodly piece of fresh lemon peel twisted before dropping in, a teaspoonful or a little more of cold water, one or two fairish pieces of ice and a double portion of the best old Rye or Bourbon "the market affords," as the specification writers say. Stir this softly and tenderly with an after-dinner coffee spoon, the while indulging in polite conversation and airy persiflage. Sip the nectar gently, savouring its bouquet while time stands still. The consumption of the Old Fashioned should never be hurried. Do not, as is the custom of many, crush the sugar with a bartender's pestle, for, as Laplace pointed out to Napoleon, uncrushed sugar enhances the flavor of any beverage, and this applies particularly to the Old Fashioned, whose ingredients are so simple that the greater care is essential in their preparation.

Alice uses orange instead of lemon when she makes her Old Fashioned, and while we cannot quite approve the substitution, I must say Alice is a splendid girl, and her concoctions most palatable.

There's a famous cocktail whose habitat is New Orleans called the Sazarac. It is a variation of the Old Fashioned, a second movement, so to speak, of a Symphonic Poem. Years ago a fine old Southern gentleman from Louisiana, then in his seventies (he had served with distinction in the Civil War), tall, straight as a ramrod, grav-haired and vigorous, imparted to me the secret of this notable beverage. It was during a visit to relatives in Boston, just before dinner one summer Sunday (after we had had a couple that left me tingling with delight), that the distinguished visitor, in an expansive mood, gave me his confidence. At the risk of incurring displeasure from the Elysian Fields, where he is doubtless at this very moment superintending the preparation of a round for the delectation of those unfortunate ones to whom the Sazarac was unknown during their mortal existence, the method perhaps may now be disclosed.

The secret is in the happy blending of four different bitters. First, a drop of absinthe in a cocktail glass. Roll this around so as to spread it out delicately. Second, a piece of lemon peel rubbed around the edge of the glass and then place the peel in a large bar glass on a few rather large pieces of ice, one or two drops of Angostura, a small coffee spoonful (or maybe a little less) of Pechaud's bitters, a few squirts of simple syrup to soften the harshness of the liquor and a generous dram of Old Bourbon. (Our old Southern families, it will be remembered, were as jealous of the reputation of their Bourbon, aged in the wood in their cellars for years and years, you know, as the connoisseur is proud of his wine cave.) Stir this slowly and thoughtfully with a silver spoon to mix thoroughly all the ingredients, until the ice is reduced about one-half. Strain into the previously prepared cocktail glass and serve. Springtime and the sweet odors of incense breathing morn, twilight and the twittering of birds,

frankincense and myrrh and young roebucks—all these and a host of vivid imagery delight the soul. As the old gentleman always remarked on setting down his empty glass, "That's mah drink!"

Envoi. The Rum Swizzle deserves to be included in this group as the third leg of the Bacchie tripod that stands before the shrine of Gambrinus. Certain implements are absolutely necessary for its composition. The swizzle stick is practically unknown in these portentous days, although some "Supply" houses carry them. It is a piece of wood, mes enfants, about nine or ten inches long and about the diameter of a Corona corona. On one end is a flattish disk, some two or so inches across, carved with blades something like a gyrocopter, or the propeller of an outboard motor. Below the propeller the stem forms a button or acorn to keep the blades from scraping on the bottom. This is held upright and rolled rapidly between the palms of the two hands to agitate the mixture in the container, just as one whips cream. The container should be a glass jar or small pitcher with bulging The sides and narrow top to obviate slopping over. snout of a pitcher is a convenience in serving. The A. and P. carry a smallish jar of marmalade, that, when its original content is emptied, makes an ideal size for a round of four. A young friend of mine named Dick, a most lovable chap, quick of observation and with a delightful faculty in experimentation, brought back this recipe from the Dry Tortugas. He has also invented a swizzle stick that is a distinct contribution to the paraphernalia for mixing drinks. Cut off the stem of a birch sapling the proper size and length, leaving the little branches on the lower end, an inch and a half or so long, peel off the bark and set it away for a while to dry, and there you are.

Rum Swizzle. As for the swizzle itself, put one drop of Angostura together with a jigger of rum and a jigger of Vermouth for each portion, in the container, fill the container about two-thirds full of finely cracked ice, and swizzle until the ice is all dissolved. If the rum is strong and dry, use Italian Vermouth, if the rum is sweet, French Vermouth. This is a very pretty process to watch, and induces a pleasurable relaxation among the spectators, even before partaking.

Why Not Broadcast the Architect's Story?

By Eugene Clute

Interest in building and remodeling can be greatly stimulated through broadcasts by architects from the local radio stations in their communities, and at the same time a more just appreciation of the value of the services the architectural profession has to offer can be developed. It is easy; it costs nothing and it can do untold good.

Architects here and there have been giving radio talks from time to time, but the number of these talks might well be increased a hundred fold and more. Every part of this country should be covered frequently with broadcasts by architects. The radio is used extensively by just about every other important factor in modern life: religion, medicine, law, and even the White House. It seems to be high time for architecture to go on the air in a big way, not so much through broadcasts on the great networks, though they are important, as through countless broadcasts from local stations. Architects nearly everywhere can talk to the people living within a radius of a hundred miles or so. Such broadcasts, coming from their own professional men and suited to the local needs, can have a peculiar value for the people and an intimacy and effectiveness that talks coming over the networks from metropolitan centers can never have.

Most architects will probably agree in principle with what has been said above, but when it comes to stepping up to the "mike" themselves, that is different. Modesty has something to do with this reluctance, but it seems to be hardly a virtue when it deters an architect from doing what he can to increase activity in the building industry, putting more men to work and helping along the general business recovery, while he is advancing the interests of his profession.

Much of this reluctance is due to unfamiliarity with the details of broadcasting and a consequent exaggeration of its difficulties, a tendency to shy at the microphone. Of course, broadcasting does focus public attention upon one more than any other thing, perhaps, excepting getting on the front page of the newspapers. There is this difference, however-that broadcasting brings favorable attention, if one does it well. Probably the fear that they may not do well is what prevents most people from attempting it. Usually this fear is groundless. If one passes the simple voice test given in advance at the broadcasting station, there is nothing to fear. There seems to be no reason why most architects should not qualify. It is much easier than addressing an audience. No effort is needed to make oneself heard, the apparatus takes care of that and the engineer in charge can do wonders in getting the best results out of the speaker's voice through the adjustments he can make.

The first step is for the architect to write to the manager of a broadcasting station in his locality. If there is no station in his own town or city, there is likely to be one in the nearest large center. In writing, the architect should offer to give a talk on home building, remodeling or some other topic of general interest upon which his professional experience fits him to speak. He should state that he appreciates the importance of not giving a technical talk to a popular audience and that he will endeavor to present information of practical value to the average radio listener. The number of architects and students who would appreciate a learned discourse is very small in proportion to the others in the area covered by any station and radio must, in fairness to its public and itself, present programs of general interest. This fits in perfectly with the purpose of the architect in broadcasting, for he wishes, naturally, to talk to the laymen of the community, rather than to the members of his own profession.

Such an offer is likely to be welcomed by the radio station and a date set for the broadcast. A voice test or audition is usually required, but this is not so formidable as its sounds. One is merely asked to read into a microphone for about five minutes while a radio engineer listens at a loud speaker. The apparatus operates just the same as it does in a broadcast, excepting that the talk does not go on the air. This enables the director to judge whether or not one's voice is suitable for radio broadcasting, and to make helpful suggestions. Some otherwise perfectly good voices do not work well on the radio, but the chance of this is small and it can do one no harm to find out.

In order to do as well as possible in the audition one should select a magazine article to read from that is more or less of the character of the talk one expects to give and should read the chosen portion of this article aloud at home often enough so as to know it almost by heart. This prevents stumbling when one comes to read before the microphone and leaves one free to put the requisite degree of expression into the reading.

It should be read as though one were talking to someone at a distance of four or five feet, in a natural conversational tone. To read as though making a public speech is the worst possible approach. It should sound like a talk, not like reading, and thorough familiarity with the text is essential to this end. The rate at which one should read depends largely upon one's usual manner of speaking and ranges from, say, 115 words a minute to 130 words a minute or more. If one naturally talks rapidly and can speak distinctly at a fast clip, the interest of the listener is more likely to be held than if the talk seems to drag. The radio has a tendency to make the voice sound slightly deeper than it really is and this effect should not be accentuated by adopting an especially low tone. The tone of voice should be natural, not only for the best effect but for ease and comfort since the reading must be continuous for 121/2 to 123/4 minutes, if the period of the program is 15 minutes. The fifteen-minute period is probably best suited to the purpose of an architectural talk.

One should not talk directly into the microphone, but should place it at one side instead of directly in front, and turned so that the voice strikes it at an angle. The distance varies greatly in different cases. The determined distance should be maintained fairly well, unless the microphone is of the new dynamic type, which is highly sensitive and allows a great deal of latitude. Usually, if one leans forward the voice is likely to go past the microphone instead of into it and to become indistinct. If one leans back and the distance becomes too great the voice will have a hollow sound that radio people call "roomy."

The microphone has a curious way of picking up the sound of one's breathing, which, of course, does not contribute to the pleasure of the listeners. If the speaker becomes short of breath they can hear him pant in Pittsburgh and points west, or east. Reading too fast; not pausing properly at the commas, semicolons, and periods; and nervousness are the common causes of audible breathing. Usually it is nervousness.

While the manner should be natural and conversational, the tone should be held and there should be enough up-and-down to prevent monotony. Attention should be centered upon expressing one's thoughts and this cannot be done unless the text has been practically memorized. While there is considerable detail about all of this, there is nothing difficult. There need be no fear of wandering in one's speech, for one reads when broadcasting, just as in an audition.

All that has been said above about taking the test applies to broadcasting. No one without experience in talking on the radio should go on the air without a rehearsal at the radio station, in addition to the voice test, using the manuscript of the talk that is to be broadcast. This is important in overcoming nervousness and becoming familiar with the studio routine. Also, it permits the radio people to time the reading and advise the speaker how much needs to be added to or cut from his "script" to make the talk fit the allotted time. The rehearsal affords an opportunity for valuable coaching of the speaker in the art of broadcasting, so that his performance may be creditable both to himself and the broadcasting station.

When possible, the rehearsal should take place immediately before the broadcast, as it tunes the speaker up for the actual delivery of his talk. If the studio is available a half hour before the broadcast, this can be done very well and a few minutes relaxation can be enjoyed before going on. This is not always practicable, however, and the rehearsal must be held at some other time. If the thought of the listeners makes the speaker nervous, as it often does, he should make believe that he is speaking only to the engineer in the control room.

Besides the speaker, the people taking part in the broadcasting of a talk such as an architect gives are usually as follows: a production man, in charge of the program; an engineer, stationed at the apparatus in the control room adjoining the studio; an announcer, who introduces the speaker and makes the closing announcement; and a pianist, who fills in with a little music at the end, making an agreeable closing.

Shortly before time for the broadcast to go on, everyone takes his or her place; the speaker seated at a table, on which is a microphone; the announcer, standing in the center of the studio at a microphone that is either supported upon a floor standard or hung by guy ropes from the ceiling; the pianist at her instrument; and the engineer in the control room. When only a few minutes remain before time to go on, the large loud speaker on the wall begins giving forth the end of the program that is preceding one upon the air. The closing sentences of the talk or the last strains of music are heard and the closing announcement. The long, red second hand, that sweeps around the face of the big studio clock once every minute, swings upward and just as it reaches the dot over the XII the announcer begins. Radio works on split seconds. As soon as the announcer finishes the introduction, the speaker should begin, waiting only long enough not to seem to tumble over him. Then it is a steady grind for $12\frac{1}{2}$ to $12\frac{3}{4}$ minutes, doing one's level best, slowing down a little on the last paragraph or so and dropping one's voice a little towards the end of the last sentence, so as not to stop with a jolt. Then the announcer and the pianist do their stuff and the broadcast is over, just on the dot.

Many are deterred from talking on the radio by a fear that they cannot write a suitable talk. This is not difficult, if the architect will only write the things he wants to say as though he were giving advice to a client in his office. A natural conversational style is best, there should be nothing savoring of a public speech about it. The "script" should be read aloud to discover any awkward spots, for some combinations of words that are perfectly good when read silently are unpleasant sounding or cause one to stumble in reading aloud. The necessary revisions for ease should be made. The manuscript should be typewritten on opaque white paper with a double space between lines, so that it may be read without difficulty. The sheets should not be fastened together, but left loose so that each sheet may be laid aside as it is read without any crackling or rustling sound that might be picked up by the microphone. About 1760 words will be required, it is easier to cut than to add to a script. There should be two carbon copies of the script which should be turned in at the radio station, preferably a week in advance of the talk. The original manuscript should be retained by the architect to read from in broadcasting.

If the architect's talk is to do the greatest amount of good the largest possible number of people should know about it in advance, so that they may tune in. In addition to the announcement that will be printed, as a matter of course, in the lists of radio programs for the day in the newspapers, notices should be sent out to boards of trade, civic organizations, women's clubs, and to real estate developers and others who are likely to be especially interested. It is well, also, to send copies of a short advance item to the newspapers and to have another item appear after the broadcast. This puts architecture in the minds of the people.

Proper cooperation with the people at the broadcasting station is only fair. If an architect is given an apportunity to broadcast a talk, he is in duty bound to prepare a good talk and deliver it well and without failure, at the appointed time. Postponement is not to be thought of; it would cause the station great inconvenience and, perhaps, a serious loss. The radio people should not be left in doubt whether or not the speaker may be relied upon. It is important to be on hand at the studio as long in advance of the broadcast as the station management may desire, usually from fifteen minutes to a half hour. While radio is an amusement to the general public, it is a serious business to those who put it on the air. An appreciation of the importance of the time element and of the complexity of the system in broadcasting is due the people who contribute their facilities. Radio station people are delightful and an atmosphere of friendly courtesy prevails throughout the offices and studios. It is a pleasant, interesting experience and it is worth while, so why not broadcast?

Here and There and This and That

The Producers' Council Meeting Chicago, June 26, 27, and 28, 1933

We departed from HERE with a group of members of The Producers' Council bound for Chicago. THERE we were among those present at the Tenth Annual, or as we would enjoy calling it, "the Century of Progress Meeting" of The Producers' Council. It is of great assistance in our work to know what men like F. P. Byington, Johns Manville Corp.; J. C. Bebb, Otis Elevator Co.; F. R. Gilpatric, The Stanley Works; and A. B. Tibbets, National Lead Company, are doing and thinking. We received special instruction at "The House of Magic" in the Fair Grounds as the guest of J. J. Matson, General Electric Company. Before and after the Construction Industry Banquet held at the Blackstone Hotel, presided over by Robert D. Kohn, F.A.I.A., Chairman of the Construction League, many architects, friends of PENCIL POINTS, bade us welcome to the city which is celebrating its one hundredth anniversary of Progress.

Reunions with I. K. Pond, Henry K. Holsman, George C. Nimmons, Richard E. Schmidt, William Jones Smith, Clarence Farrier, and C. Herrick Hammond added pleasure to the evening.

Eugene H. Klaber, President of the Chicago Chapter, A.I.A., made the address of welcome to The Producers' Council Meeting when it opened at the Architects' Club of Chicago.

To Members of the Architectural Profession

The Treasury Department calls on private architects and engineers throughout the country to participate in the large Federal building program! We quote from a letter from L. W. Robert, Jr., Assistant Secretary of the Treasury:

"In order to spread employment as much as possible during the present emergency, it is the purpose of the Treasury Department to engage outside architects to prepare plans and specifications for buildings coming under its jurisdiction.

"So that the Treasury Department

may be informed as to the professional ability of firms or individuals to furnish these services the Department is sending out the enclosed questionnaire to the members of the profession. The American Institute of Architects is cooperating in this general procedure.

"If you desire that your name be placed on file, it is requested that you fill out the questionnaire at once and return it to this Department. This should be done even though you may be well known to the Department and even though you have an application already on file. It is requested that where the business of your office is under the direction of a firm, each member of the firm fill out a similar statement.

"Selection is generally made from architects maintaining an office in the city in which the building is to be constructed, and in some cases it has been found advisable to make it a condition that they associate with architects of wide experience in monumental buildings. This has prompted inclusion of Item No. 9 in the questionnaire. Any information you furnish will be held in confidence."

If you have not received your prequalification form, a "questionnaire" which should be filled in and returned to Room 171—Office of the Supervising Architect, The Treasury Department, Washington, D. C., write at once to Mr. Robert. He asks your prompt cooperation.

Joseph Urban

1872—1933

It is with deep regret we record the death of Joseph Urban, architect, artist and scenic designer, which took place on July 11th in New York. He was a genial man, large in avoirdupois and in the number of his accomplishments. Versatility was more than a habit with him; it was a consciously desired rotation of interests. "Versatility aids fertility; it keeps the gray matter in working condition," said Urban, and proceeded to design everything from trunks and motor cars to silks.

Urban was the holder of many medals in Austria, before he first came to this country in 1901, engaged to decorate several pavilions for the Saint Louis Exposition. Upon his return to Vienna he worked as an illustrator, although yearning to practice architecture. His desire was realized when he received the Vienna town hall commission.

The Boston Opera Company engaged Urban as art director in 1911, after which began his association with the late Flo Ziegfeld. Most of us are familiar with his richly-colored stage designs which served as a background for the beauties—and the beasts—of Ziegfeld Follies. The color scheme of the Century of Progress Exposition in Chicago was his last big commission. He died without seeing the completed work.

We are told that he always called his draftsmen and the scene painters working under him, "My Children," and with his penciled criticisms of their work he frequently added the admonition: "Love your papa." Mr. Urban is survived by his wife, the former Mary Porter Beegle, who has been arduously working as a member of the Women's Committee of the New York Architects' Emergency Unemployment Committee.

Comparative Details Omitted This Month

The comparative details which have been running since last October have proven a popular and useful feature of PENCIL POINTS. Henceforth until further notice they will be run in alternate issues. The principal reason for this decision is that in issues containing The Monograph Series there is less space to devote to the other regular PENCIL POINTS features and, furthermore, in the Monographs themselves there are provided some good construction details. This month we have included also two plates of garden details by Pitkin & Mott of Cleveland, so that we do not feel that the construction detail side of our activities has been unduly slighted.

The subject of the next set of comparative details, which will appear in September, is *Exterior Steps*. For November the subject will be *Eaves and Gutters*.

Paris Prize Drawings

In order to present adequately the winning designs in this year's Paris Prize Competition more pages will be required than are available this month for the purpose. We will therefore reproduce the Paris Prize drawings in the September issue and will include an account by Lloyd Morgan, who coached the winners of the first three places, of the progress of the competition and its salient features.

Modern Air Conditioning, 3

Continued Discussion of Equipment

By Harold L. Alt

n homes having, or which can be equipped with, warm air pipes one manufacturer is offering a complete gasfired air conditioning unit which may be used as an adjunct to a warm air furnace or to supplement hot water or steam systems. This apparatus, which is illustrated in Figure 14, consists of an air filter, motor driven fan, air

FIGURE 14

washer, and gasfired steel furnace which warms the air during the winter season. No refrigeration is used in connection with this equipment, the idea being to use the air washer in the summer during the

daytime when the air is hot and of comparatively low relative humidity and to run the apparatus without the air washer in service at night when the outside air is cooler than that in the building but more heavily humidified. This arrangement, while giving more comfortable conditions inside of the building, does not claim to dehumidify the air but does claim to accomplish, largely by natural means, a great deal that is necessary to secure more desirable conditions during both summer and winter.

A co-ordinated central direct fired unit making use of the counter flow principle has been developed by another manufacturer in which the gases from the burner flow upward through passages surrounding the air ducts through which the air is circulated, transmitting the heat direct to the air by this means. This unit, which is either oil or gas fired, has an air filter, a stainless steel humidifier, a hygrostat to control the humidity, and a thermostat to control the fuel according to needs. In this unit, the fluid fuel (gas or oil) is never closed off entirely, the thermostat simply increasing a small gas flame to a large one when more heat is called for by the thermostat. Air movement is assured by a small motor connected to double fans with backwardly curved blades. This blower unit delivers the air through a system of supply ducts similar to those

FIGURE 15

employed in the ordinary warm air furnace. Positive circulation is developed to permit proper distribution in those houses where the trend toward distinct architectural types often involves widely distributed floor areas.

Another design of basement equipment, also suitable for warm air furnace installations or used as an accessory in hot water and steam heating, is given in Figure 15. This consists of a large semicylindrical screen filter on the top of the housing through which the air enters, the screen being of fine copper wire mesh. The bottom of the housing consists of a cast iron basin which catches the water from the water sprays.

FIGURE 16

The operating fans and motors are located under the filter screen and discharge through a solid partition down into the spray chamber where the air is washed and from which it passes through eliminator plates and out of the discharge into the furnace for heating. Water is sprayed in the spray chamber by nozzles-see cross section of this apparatus shown in Figure 16. In the summer, if cooling is desired, cooling coils may be added with a small refrigeration unit to operate them.

A somewhat similar idea is used by another manufacturer who has developed the design shown in Figure 17 which is primarily for a warm air furnace and will filter the air and deliver it under fan pressure to the furnace in which an automatic humidifier can be located. When equipped with the necessary controls, this equipment will deliver air at any temperature and automatically maintain that temperature; deliver air with automatically controlled humidification; deliver cleaned air; and, in summer, will deliver cool air during the night if an outside air connection is provided. No attempt is made in this apparatus to do cooling either with refrigeration or cold water.

On the device shown in Figure 18 a novel type of filter is used, this being of the cloth bag design. The pparatus here shown is for both heating and cool-

ing and usually has a double heating element, one portion of which is located above the humidifier connection and the other section below the humidifier connection. In summer, cooling water is run through both ele-

FIGURE 17

single cooling and heating elements, if desired, in order to reduce cost, and when so outfitted will de FIGURE 18 everything that the double element equipment will do except that the cooling in summer is somewhat curtailed by the lesser amount of surface available. Humidity is provided for by spraying water in the space between the two elements; to climinate noise the bed plate for the fans is mounted on rubber pads with a canvas joint between the fans and the casing for the elements. Figure 18 is shown with the outside casing removed so as to indicate the interior ar-

rangement. A somewhat different arrangement-but with the same essential elements of filtering, forced air circulation, warming and humidifying-has been used by another manufacturer in the application of oil burning to air conditioning. This is illustrated in Figure 19 where an oil-fired heat exchanger takes the place of the warm air furnace, the air being supplied to the base of the heat exchanger by a power-operated fan which draws its air supply through an air filter located just above the fan. A cooling section may also be installed between the fan and the heat exchanger and ordinarily, when this is done, cold water from the street service is used, but an artificially cooled water circulation with mechanical refrigeration may be employed if desired. This equipment is completely automatic and is controlled from a thermostat, generally located on the first floor, which starts the oil burner whenever the room temperature falls. The building up of heat in the exchanger casing causes a second thermostat to start up the motor on the fan; as soon as temperature conditions are restored in the house the oil flame is reduced and the fan is stopped.

The apparatus shown in Figure 20 takes air from the rooms and also from the outside, utilizing hot water for heating in the winter and refrigerated water, either ice

FIGURE 19

or mechanically cooled, in summer. The air is filtered and humidified or dehumidified, as the case may require, and the boiler may be coal, oil, or gas fired. The same element is used for both heating and cooling, the piping being cross connected as shown in the illustration.

Ceiling Air Conditioning Units Air conditioning units

ments, either from installed on the ceiling are feathe street main or tured by another from a mechanical refrigeration coolmanufacturer, although these units ing tank. In the may be placed at winter, hot water any convenient is supplied from point and the air a hot water boiler piped to the deusing the same sired locations of clements. These outlets. The units equipments are also consist of a small supplied with air washer with the usual water sprays,

FIGURE 20

eliminator plates, and an air circulating fan. This unit does not attempt to supply any heat but, instead, is installed where it can recirculate the air in the room indefinitely, adding humidity by means of rotating the air through the spray in the winter time, and cooling from a refrigeration machine in the summer (see Figure 21). The refrigeration machine may be placed in any spot where it will be out of the way and with the unit on the ceiling so that no valuable floor space is lost on account of air conditioning. Where the appearances of the unit on the ceiling would be objected to, the unit is placed out of sight—usually in the same room with the compressor—and the air is piped

FIGURE 21

through ducts to the register outlets. Of course, return air to the unit must also be similarly piped back with this arrangement.

A second type of ceiling unit is indicated in Figure 22, this being built along the lines of the well known unit heater. It consists of a motor, propeller fan, extended-fin heating and cooling element, drip pan, and a double louvre arrangement, the vertical louvres being formed by condensate eliminators. This is illustrated in section "A-A" (see Figure 23). The whole is enclosed in a furniture steel cabinet and is supported by a substantial hanger on each side ready for attachment to the ceiling. The horizontal louvres are adjustable so that the air may be di-

rected downward, horizontally, or upward, as desired. During the winter this unit can be used the same as a unit heater when properly supplied with steam and in the summer may be used as a cooler and dehumidifier if attached to a refrigeration plant or supplied with

FIGURE 22

MODERN AIR CONDITIONING, 3

FIGURE 23

the ornamental type is specially designed for offices, residences, and similar locations. As an example of the industrial type, the unit shown in Figure 24 may be taken as more or less typical. It consists of a galvanized iron casing, enclosing a heating and cooling element below, and with the fans mounted above the element. At the top 90-degree elbows deliver the air in a horizontal or slightly upward direction, the operating motor for the

fans being carried on a bracket at the side where it is readily accessible if necessary. At the lowest point a drip pan is provided for condensation occurring on the cooling element and the space between the motor bracket and the drip pan on the side of the unit is used for the placing of traps, valves, etc. This unit is only 18" deep and does not attempt to wash or filter the air. It will heat the air when supplied with steam and will cool and dehu-

FIGURE 24

midify the air when connected up with a refrigeration machine or well water of sufficiently low temperature.

An ornamental air conditioning unit involving a quite similar arrangement is shown in Figure 25. It will be seen that the chief differences consist of having the casing cover the drip pan and all pipe connections, and also of having the air discharge upward through a grille in the top of the cabinet. These units vary from 8" to 18" in depth, 27" to 48" in width and 26" to 38" in height,

FIGURE 25

well water of sufficiently low temperature.

Floor Standing Units

Floor standing air conditioning units are of two general classes, the industrial and the ornamental. The industrial type is used in shops and commercial buildings such as work rooms, etc., while signed for offices.

FIGURE 26

according to size required. They are finished ordinarily in natural walnut grain and the cooling and heating element is suitable for circulating either hot water or refrigerated water but not direct expansion refrigerants. This, however, does not necessarily follow in all units of this type although it does for the particular one (Figure 25) selected for illustration.

A floor standing unit involving a different arrangement is shown in Figure 26. It will be noted that in this unit the fans are placed below the elements and that separate heating and cooling elements are used. The fans deliver the air against deflector baffles which distribute the air entirely across the cooling element and the usual drip pan for coil condensation is provided. Where the unit is installed for cooling only, the heating element is omitted. This arrangement has the advantage of permitting the steam and return piping to be coupled up to the heating element and the refrigerant suction and discharge line connected to the cooling element without involving any valved cross connections between the two systems. The heating capacity of the unit may be in use in the morning and the cooling capacity may be in use in the afternoon if the outside or inside conditions justify such a changeover. In this unit the refrigerant is used directly in the cooling coil without the necessity of any cold water circulation.

The unit shown in Figure 27 also has the fans located at the bottom and is arranged for cooling only. The cabinet is specially insulated to prevent sweating on the outside and has eliminator plates which collect the condensation forming on the cooling coil and drain this water

to a pan connected to waste. The cooling element is of copper in the ordinary installation and may be supplied with cooled water or refrigerant direct. When water is used it may be cooled by icing or by mechanical refrigeration, or it may be taken direct from a well or the city main. When desired, a heat-

FIGURE 27

[379]

FIGURE 28

ing feature may be added by cross connecting the same cooling surface to the hot water or steam mains with suitable valving so that either may be used.

In Figure 28, a unit with the novelty of pro-

peller fan is shown. Here, the air enters from the side in a horizontal direction, passing through the propeller fan and then changing its direction to vertical as it flows upward along the deflector plates. It then enters the cooling and heating elements from the bottom and passes out into the room through a grille on the top of the cabinet. Separate elements are used for heating and for cooling so that no valves need be operated in transferring from one service to the other. The cooling surface in this unit receives the refrigerant direct and F-12 is used for this purpose on account of its safety. Waste on the cooling water is prevented by means of a solenoid valve on the water which closes whenever the fans are stopped.

Still another manufacturer presents the unit illustrated in Figure 29 which shows how this unit is connected up to the refrigerating machine and the refrigeration piping as well as the electrical circuits for control of the compressor. It will be noted that the arrangement of the unit itself varies very little from that shown in Figure 25, but there is the essential difference that the unit shown in Figure 29 is using the refrigerant directly in the cooling coil, while that shown in Figure 25 requires the circulation of cold water. In the smaller sizes this unit is operated with isobutane as a refrigerant while, in the larger sizes, menthol chloride is used. The unit for an ordinary-sized office or residential room is 39" long, 34" high, and 14" deep, while the compressor installation occupies a space 48" long, 30" high, and 24" deep.

A unit which embodies radical departures in design and which contains a miniature air washer (although of the floor type) is shown in Figure 30. As will be noted, the interior arrangement consists of a fan set in the top part of the unit and blowing downward toward the floor. This fan can take its suction either from the top of the

FIGURE 29

unit, or from the side, as indicated by the arrows. In the bottom of the unit the air is deflected in a horizontal direction and passes through a water spray, after which it is turned vertically upward, passes through the eliminator plates, the cooling coils, the acoustical baffles, and across the heating element which may be placed as shown

FIGURE 30

for reheating or placed over the intake for preheating, as needed for winter operation.

This unit will supply complete air conditioning when properly connected up to the heating and refrigeration systems to supply the surface contained. With steam or hot water connected to heating coil, tempered water to sprays, and refrigerated water or directly expanded refrigerant to the cooling coil, this unit gives controlled humidity, air purification and air motion in winter, plus cooling and dehumidification in summer. Air washing is continued in summer, when cooling, to remove odors otherwise accumulating in occupied areas. Water condensed from the air goes to waste with spray water. Every effort has been made to eliminate noise, as will be seen by the use of acoustical baffles on the outlet and the covering of the interior of the fan chamber with an acoustical lining.

Portable Air Conditioning Units

Portable air conditioning units possess some desirable features where a house or building is not cooled in all rooms and where the demand for cooling varies from room to room. For example, a living room or study might be cooled by day but the bedroom is the room desired to be cooled at night. Either two stationary units must be installed, at double expense and short operation periods when they will be in use, or a portable unit, which can be shifted as desired, can be used. To meet this need, one of the largest electrical manufacturers in the country recently has placed on the market a unit which is described as follows: the unit will cool the air and dehumidify the air to a proper degree circulating the treated air throughout the room; it is mounted on rubber-tired wheels so that it can be shifted from room to room; it is equipped with a rubber hose line 15 feet long for connecting to a water faucet and with 8 feet of electric cord which may be

connected to the nearest electric outlet. The unit itself is 43" long, 33" high, and 13" deep from the wall; its total weight is 500 lbs.

Besides these portable units, the same manufacturer has developed stationary units followed along lines similar to that already described; that is, the unit

(Continued on page 24, Advertising Section)

FIGURE 31