We discourage cleaning Indiana Limestone buildings, since the venerable antique effect produced by weathering is conceded to be one of the great charms of natural stone. However, anyone determined to clean a stone building may obtain complete information on methods that will not destroy the surface of the stone, by writing to the Indiana Limestone Quarrymen’s Association, Service Bureau, Bedford, Indiana.

Whenever an unusual form of surface treatment for the walls of a building is desired, you will find Indiana Limestone readily adaptable to any one of a variety of finishes. The illustration below shows the beautiful effect obtained in the stone work in the first story walls of the Kansas City Life Insurance Company building, Kansas City, Missouri. An inch wide margin was left around each piece of stone in the rusticated work, the center being picked off by hand with an ordinary pick. The hardening of Indiana Limestone on exposure to the air assures the permanency of the novel effect thus produced.

Our handsomely illustrated booklet, “Indiana Limestone for School and College Buildings,” will be sent you free upon request.

Indiana Limestone Quarrymen’s Association
Box 764, Bedford, Indiana
Service Bureau in New York and Chicago

Detail of stone work, Kansas City Life Insurance Co. building, Kansas City, Mo.

Wight & Wight, Architects
Emblazoned with panels of brilliant polychrome Atlantic Terra Cotta, with quoins, buttresses, cornice and coping of buff-gray Terra Cotta, the Evening Post Building is the latest to conform with New York’s Building Zone Resolutions.

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Atlantic Terra Cotta in varying buff-gray is used to modify the abruptness of the setbacks required by the regulations. The polychrome treatment of the upper stories is brilliantly effective.

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The value of Northwestern Terra Cotta for trim is strikingly illustrated in this photograph.

The beauty of the design is emphasized by the trim—the trim gives added dignity to the building.

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combines the beauty of plastic design with the infinite charm of color.

For either complimentary shades and tones, or for impressive contrasting color-schemes, no material equals Northwestern Terra Cotta for trim.
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Armstrong's Corkboard Insulation
A Heatproof Lining for Walls and Roofs

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June
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a spasm of false economy—

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“Then you struck a snag, eh?”
“Just at first, yes. Somebody had a sudden spasm of economy. ‘Cut down costs’ was the war cry. Somebody else knew of a ‘fine’ roof, a few dollars cheaper. I told them a roof was a poor thing to buy on the basis of first cost.

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“So we’ve got to substitute for The Barrett Specification Roof?” asked the senior partner.
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Forty-five years of expense-free weather-tight service from a roof is a good record.

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Celotex Industrial Board offers architects and their clients unique advantages

The architects and owners of this building realized the importance of roof insulation in modern construction.

They knew that proper roof insulation would:
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- reduce dangerous expansion and contraction of the concrete roof deck
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Ramsay MacDonald, speaking in Liverpool, declared that “the architect must surround people with influences which compel them to look upward. He must put beauty into the streets and inspiration in the houses.”

In these pictures, marble is applied in ways that are quite different. Yet, in each case the quarries have helped the builders to enrich the street. Above, is the Waterman Fountain Pen Building, Boston. Imperial Danby marble. F. H. Colony and The Thomas W. James Company, architects. Below, the Owl Drug Company Store Front, San Francisco. Vermont Verde Antique marble. Oliver Duval, architect.

**Vermont Marble Company - Proctor, Vermont**
The rich effect of gumwood paneling, matched or patterned, and so-called plain wood, is a decorative triumph in these two Memphis homes. Residence of Mrs. R. L. Brown, left; Martin J. Condon, at right.

Color plates show Gumwood Finishes

Quarter sawn figured gumwood, matched for pattern, natural finish; plain sawn figured wood, natural; plain and quarter sawn figured wood, stained, in full page color plates give an accurate idea of the beautiful effects that are obtained from this exquisite hardwood for paneling and interior woodwork of all kinds. Architects will find this book, "Beautiful American Gumwood," most valuable and informative.

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Bridging

Prepared by Philip & Knapp Block Architect.

ISOMETRIC DETAIL SHOWING LINOLEUM FLOOR CONSTRUCTION OVER DOUBLE WOOD FLOOR. SCALE 1'-0".

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The large drawing indicates a linoleum floor construction of greatest strength and rigidity. This double wood subfloor is necessary only where the traffic or furniture load is exceptionally heavy. For the average residence a single wood subfloor laid at right angles or diagonally to the floor joists (see Details Nos. 1 and 3) is sufficient and saves money.

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IN THE WORDS OF "Ding", the incomparable cartoonist, "draw, draw, draw". Most of the wise men who have contributed to the advice for the young architect and artist seem to agree on this point. The schools of architecture lead the pupil to believe first of all that architecture is properly to be practiced by those who have a talent for drawing pictures and plans; second, that the basis of their education should be familiarity with classic forms and buildings and training in "design", and finally an understanding of the principles, (unfortunately not always the details,) of construction.

Mere facility in drafting, however, without imagination, the ability to conceive forms, and the generalship to carry out ideas, will not produce a real work of architecture. It is a fact that in rare instances vital American architecture has been produced by men who have little or no aptitude for drawing; these might be called "the exceptions that prove the rule". Ideas are essential; the ability to explain them by the skilful use of pencil and paper is a valuable accomplishment. In the language of the day, "be yourself". Imitate the masters to gain technique and understanding. When it comes to creating, all you have to draw on is your own personality. Unless you trust it you have little to give to the world. By accepting your individual slant upon life you pursue the only possible route by which you can add the essential factor that makes of a building an original and fresh creation.

The cultivation and development of the faculty of observation is one of the great essentials in education. If you observe with a pencil in your hand, you really see and understand the reason for specific things that have been introduced into the plan or the essential forms of the design.

Schools and colleges generally close in June, and it has become a popular idea with the student that with the closing of educational institutions, education ceases for the months during which they are closed. In some professions this may be accurate, but for the architectural student it most certainly is not. He should spend his vacation drawing. This may be recreation or work, according to his aptitude, but it is essential to his growth. He should make sketches, measure buildings, jot down bits of detail and ornament that may catch his eye—his note book should be the sketched record of his months of vacation from academic study.

The man who is through school and does not have from June to September for vacation may think, "this does not apply to me", but it does. He works most of the year expressing someone’s else ideas; when vacation comes it should be a time of re-creation, of re-exploring himself and adding up what gains he has made in the past year. The draftsman will not accomplish this by introspection—he must draw, use his faculties for all they are worth. He will, of course, find himself working "on his own," and it is in this way that he will find where he has grown into new power, overcome or out-grown old faults, and so forth.

The habit of drawing is one of immense value, as a means of developing the powers of observation, of improving the technique, and of broadening one’s horizon. It will be found that the majority of architects still do summer sketching, carrying on a custom begun in their student and apprentice days, because they find it excellent training and great fun.

Most of this issue has been planned to act as a spur to the laggard, as incentive to the industrious and a help to both. We have assembled most enticing sketches, preceded by a comprehensive and practical treatise on the making of measured drawings, to carry our point, Draw, Draw, Draw!
PENCIL DRAWING BY SAMUEL V. CHAMBERLAIN
"LA MOUFFE"—PARIS

[ 330 ]
The only way to convert an existing building into terms of drawings when the original drawings from which it was built are non-existent, is to measure the building itself and set the results down in the proper manner to allow of their study or use for other purposes.

If the student or draftsman who is about to measure a building will think of the process as merely a revision of the original procedure, i.e., the making of a set of working drawings from the building rather than the making of a building from a set of working drawings, he will be more likely to tackle the task with the necessary seriousness.

It should not be a case of getting a few general dimensions which are easily accessible and then supplying the balance and the details from a vivid imagination. If you are going to deal with concrete facts and reproduce or publish them as such, facts you must have, and the only way to obtain them in this case is with measuring tools of accuracy and precision.

The instruments necessary to execute the usual measuring job consist of the following: one fifty-foot steel tape, one six-foot pocket tape (steel), one six-foot folding rule, one three-foot folding rule, plumb-bob and line, one large (10”) and one small (4”) 45-90 degree triangle. Steel tapes are the only ones worth using, for all woven and cloth tapes stretch and become inaccurate after a little use in spite of all selling talks to the contrary. This applies to the six-foot pocket type as well as to the longer ones. Included in this list of instruments should be a camera, a good one, preferably of the film pack-plate type with ground-glass back for focussing, and it should be accompanied by a steady, substantial tripod. For making sketchy notes of interesting bits along the road during a sketching tour, the snapshot method is all right, but to bring back a real photographic record to supplement measured drawings requires more than this, of which more anon.

Notebooks for the recording of data in the field may be of almost any kind of paper or make up, to suit the personal taste of the operator. One requirement is imperative however; they should have stiff board covers to form a firm surface to draw against while holding the book in the hand, for most of the work will be done standing up, on ladders, roofs, and other precarious footholds where a floppy-back notebook is a curse to be avoided. If you prefer cross-section paper, use it, as it assists in making it easier to draw straight lines and lines at right angles hurriedly. The 8 division to the inch type seems to work out best and 8” x 10” pads of this paper can be obtained at any architectural drawing supply store. Personally, I prefer plain notebooks with blank bond-paper leaves bound in, so that the crucial sheet of a set of measurements cannot be found missing when you have returned from the field, a characteristic occurrence with loose sheets. If you wish to be particularly “Ritzy,” have notebooks made up, using metallic or “Cameo” paper. If you are a champion pencil-pusher you may get away with it and the drawings will look like steel engravings, but you cannot then make erasures, and a line put in is in to stay. Most of us, including the author, will prefer, I think, to stick to a paper that permits the referendum of the rubber, leaving the trick papers to the Chamberlains and Eggers who can draw a line once and for all time.

As my experience has been given principally to the measuring of examples of Early American Architecture for study and magazine reproduction, perhaps a description of the procedure gone through on a job of this kind will best serve the purpose of conveying any helpful hints which can be applied to measuring in general, irrespective of the subject.

First, ask permission to make your measurements, don’t assume that no one will object; if you don’t ask, some one always does the objecting. If it’s a house, ask the owner; if a public building or church, find the one in charge with authority to give the run of the premises, and seek the permission from him. I don’t know of a case where permission has been refused where a plausible reason for doing the work has been given, but I do know of an instance where no permission was asked, a course which resulted in the seeker after Colonial beauty being assisted to the street by a number ten Walkover reinforcing the foot of a very irate New England farmer.

To reach many otherwise inaccessible points on the job, ladders will be necessary. If you are lucky enough to find them on the place in the cellar or
barn, well and good; otherwise the local painter or
general contractor or carpenter will loan or rent you
one and deliver it at the job for a reasonable fee.

The first thing to do at the building is to draw, in
the notebook, diagrams of the elevations and plans
on which to enter dimension figures. Don't try to
draw them accurately to scale, just sketch them ap­
proximately, putting in dimension lines with arrow­
heads covering every figure you want, heights, hori­
zontals, small plans through offsets, and so on.
Doing this, helps at the last in checking to see that
you have taken everything, for a blank dimension
line is easy to pick up when the rest are figured.

Take the over-all measurements first. It's a great
temptation to start off with some lovely piece of
detail and leave the more uninteresting things for
the last, but to get the data completely and with
thoroughness it must be done systematically and to
a fixed schedule. After the over-alls are recorded,
take the window and door widths and the distances
between openings, then the heights. A long stick
is a help here. If you fasten the ring of the tape to
the end of the stick, many points can be reached with
it that would otherwise necessitate much climbing
up and down and moving of ladders. For heights
never depend on measuring a few accessible brick
courses and getting the upper heights by counting
courses. The assumption that all courses are uni­
form is seldom true. The same warning applies to
siding; in most early American examples the siding
graduates in width from top to bottom of the elcNa­
tion and a single course is useless as a unit of meas­
urement.

In recording old work it will be found that few
verticals are truly so; the old houses settle and lean,
door heads take on a slant, posts are out of plumb,
and many other deviations occur. In these cases it
is best to assume the building to be as intended by
the builder, i. e., truly rectangular, and so show it.
Ceilings are sometimes two or three inches lower at
one point than at another; take heights at several
points and average them. Don't measure to six­
teenths when the variations in a feature at different
points may run to half an inch. Measured drawings
of Colonial work have been published giving dimen­
sions figured to sixteenths, and on re-measuring the
job I have found that a figure for the same feature
at a point a couple of feet away would vary half an
inch from the figure given. A little common horse-sense in the person attached to the reading end of a six-foot rule is a great help. In measuring columns it is best to take the circumference, with the pocket tape if under two feet diameter, and with the long one if over, and then get the diameter by dividing by 3.1416. In cases of engaged columns or small ones the diameter may be taken directly by folding the six-foot rule into the form of a pair of callipers and measuring the distance between the tips with another rule.

When the over-alls and their main divisions are recorded, make detail diagrams, of the same type as before, of the principal features,—main entrance door, minor doors, typical window, and so on,—and measure the general dimensions of these. Take over-all heights of cornices and door heads, column bases and caps, over-all widths of trim, and similar detail, but no profiles. To take heights of cornices place a straight edge under the bottom molding at the end of the building and let it project beyond the overhang of the crown mold above, then measure down from the top.

For cornice or other projections, drop the plumb line over the edge of the greatest projection and measured from it back to the frieze or wall. Get all these general dimensions on paper before attempting to measure individual moldings or profiles.

All the work up to and including the last stage has been purely mechanical measuring of vertical and horizontal straight lines; now comes the recording of the curved molding profiles which is a quite different matter, full of subtleties, challenging the draftsman to show his skill and ingenuity. All sorts of strange and wonderful instruments have been devised to transfer the profile of a molding accurately from a building to black lines on paper but so far as I know all are dismal failures. Theoretically they may look perfect, but practically, in use on the job, they are pests. One method of taking profiles from stone moldings has possibilities; i.e., the lead strip. This strip of pure lead about 1/8" thick and 1/2" wide may be hammered on to the moldings so that after it has assumed the profile it may be laid down on paper and a pencil run along it to record the section. This method in theory is well enough, and some mechanical genius yet undiscovered may perfect it so that it is practical as well. To make the lead strip assume a perfect profile, however, requires not much less than a kit of tools, with snippers to cut with and hammers and chisels to force it into small crevices, not to speak of a certain amount of leadsmithing ability on the part of the user. If it sounds interesting, try it. I did, once, and the outfit still lies, I presume, in the middle of a large green field where it was heaved with great gusto followed by a heart-felt curse. The practical method and the one that seems to answer all requirements is as follows: determine by measurement the horizontal and vertical positions of the start and finish of the molding, set them out with a scale, or on cross section paper which is of assistance here, and then draw in the profile as accurately as possible by eye, noting particularly any unusual variations from the standard academic form of the molding in question.

It is remarkable what accuracy can be gained with practice. Here again the futility of working to a hair line will become apparent on the job, for even stone profiles, especially in old work, vary considerably at different points on the same molding. Furthermore, even without the variations caused by the action of time and weather, a perfect profile taken at any one point and transferred to paper with absolute accuracy would be correct at that one point only. The mark to shoot for is the general character of the profile; if this is obtained and recorded, all usual needs are answered.

In transferring profiles of wood moldings from old work, the matter of paint has a decided bearing on the result; all small fillets originally crisp and sharp have become rounded, small channels and flutes tend to fill up, and the moldings as we see them are in no way a true example of what they were originally. Allowance must be made in measuring, for these deceptive conditions. Here, as always, mix practical considerations with your deadly accuracy and get the feeling of the work as it was conceived by its designer and craftsman, rather than a painfully accurate transcription of what a molding looks like when seven coats of paint have made it appear as it was never intended to be.
PENCIL POINTS

When all figures are complete and the last profile recorded, set up the camera previously mentioned on the tripod, opposite the center and parallel to the face of each elevation measured. Level it accurately, preferably with a small pocket spirit level, and focus sharply on the building with the aid of the ground-glass back. Stop the diaphragm opening down to at least F.16 and give a full exposure, say 1/5th second for white buildings in sunlight and double or triple that for brick walls. Before exposing, attach to the building at some point near the center of the elevation, a scale, made on white paper with black ink, two feet long and divided into inches with good fat lines so they will be readable in the enlargement of the negative later. If, when you get home, any question comes up as to heights or widths, they can be verified easily from an enlarged print. With a pair of dividers and the scale on the building, measurements can be checked or missing ones obtained. In cases where an elevation above the reaching point is inaccessible, very accurate drawings can be made by this method, but the negatives must be made carefully, needle-sharp, and with a truly level camera.

To measure heights of roof ridges and points that cannot be reached with ladders, it is necessary to take a photograph of the building from an angle and to lay out the perspective points on an enlargement of this. It is then a simple matter to project heights at any point up to a plane where known vertical dimensions exist so that the missing figures can be scaled.

If a panel of ornament has to be reproduced, get the over-all dimensions with a rule, take a direct

FIELD SKETCH OF DOORWAY
MADE BY KENNETH CLARK

DETAILS OF DOORWAY, SKETCHED IN FIELD
FROM NOTEBOOK OF KENNETH CLARK
THE GENESIS OF MEASURED DRAWINGS

elevation photograph of it, and then in comfort at the drafting board make the drawing. It is much easier and more accurate to employ this method, than to attempt to reproduce the detail on the job by some complicated system of measured points, especially when you are standing on a precarious perch with hands full of notebook, rule, cigarette, and pencil, to say nothing of holding on.

The whole field of this photographic measuring deserves more investigation and utilization. Recently in experimenting I measured a building completely by taking photographs of every part, including details, profiles, and so on and reducing them to drawings. When all dimensions had been determined in this way I went to the building and checked them with rule and tape. The variations from the photograph and drawn in the spaces between the results of the two methods were not more than, if as much as, the difference that would naturally occur if the same job were measured by two individuals. To all intents and purposes one method was as accurate as the other, with the photographic method leading in the matter of speed and convenience.

Aside from their use in actual measuring, photographs furnish a quick and efficient means of securing permanent notes of a number of things that take time to draw when at the building. Such things, which can be obtained as easily and definitely from photographs as by measuring direct, include, for instance, the number of modillions in a run of cornice, the spacing of ornaments in a frieze, and the number of brick courses and vertical joints. These can be counted from the photographs and drawn in the spaces.
THE COWLES LEWIS HOUSE
FARMINGTON, CONNECTICUT
FINISHED DRAWING WORKED UP FROM FIELD SKETCHES
MADE BY KENNETH CLARK FOR GEORGE P. LINDSAY COLLECTION

[336]
DETAIL OF DOORWAY - BURLINGTON N.J.
No. 317 WOOD STREET

FINISHED DRAWING WORKED UP FROM FIELD SKETCHES
MADE BY KENNETH CLARK FOR GEORGE F. LINDSAY COLLECTION
All these uses of photographs are to be considered separate and distinct from their great pictorial value in showing the building in perspective as the eye sees it. Such photographs are always a distinct addition as supplements to a set of measured drawings, for they provide a means of studying the finished effect in conjunction with the drawings which show how it was achieved.

The ultimate use to which the drawings are to be put determines the type they shall be when drawn up in their final form from the data secured in the field. If for personal use and study they can be merely set up accurately on tracing paper to the scales desired. If for publication, the requirements of the magazine or book fix the medium in which they are to be finished. For the usual magazine zinc line cut, which is the type of illustration generally used for such subjects, a method which answers the requirements is to draw the sheet on paper and then trace it in ink on cloth, using only black ink without dilution. Line cuts cannot reproduce any variation of color in line, everything must be true black, and any variations must be made in the width of the line itself.

The illustrations accompanying this article are extracts from field notebooks and are not shown as models of draftsmanship. They merely indicate the method used by the author in field notes, which has proved, over a rather extended experience, to be satisfactory.

FIELD NOTES OF DETAILS OF CORNICES
MEASURED BY KENNETH CLARK
DOORWAY IN SALA DELL' ORLOGIO-PALAZZO VECCHIO
FLORENCE.
B. DA MAIANO FECIT.
SEE PHOTOS.

DOORWAY IN PALAZZO VECCHIO, FLORENCE, ITALY
MEASURED AND DRAWN BY ERNEST A. GRUNSFELD, JR.

[ 339 ]
SUMMER SKETCHING

(Editor’s Note: This modest symposium upon Summer Sketching was contributed by one architect, one artist-illustrator, and one editor, each of whom nurses the hope that what he has to say, reinforced by the illustrations, may serve as a stimulus to the production of more and better sketches this summer by the draftsmen of America.)

TO SKETCH OR NOT TO SKETCH?
With the advance of spring one of our great out-door pastimes, Sketching, is again at hand, and the artists are figuratively, if not actually, sharpening their pencils in anticipation of the great event. The young-and-hopefuls are wondering what kind of paper they should buy, and how many dozen sheets will be enough, while the confirmed ones are examining the sketching-stool to see whether it will bear its ever increasing burden safely for another year. At any rate we all are ready to go, with some, however, lacking just that little bit of assurance that a few words of counsel might give.

All the advice and well-wishes in the world will, in themselves, never make an artist, but there is much in being told which road to take. The sketches reproduced here, with, show what it is possible to do on a Saturday afternoon or a Sunday, and the following will in some manner indicate how they were made.

Of course, neither these sketches, nor any words can describe the various little histories connected with each. And it is really surprising how many and varied these are; strange and inane remarks by people who will have "just one little look", words of criticism cruel but sometimes only too true, from the mouths of children, or advice sought by a fond parent for a daughter who is now at a milliner’s, but who wants to make "big" money, in high art. That is the personal side of it. To the impersonal, belong the things that happen around you, and to which you become a

“MISTER JOHNSON’S HOUSE—ANN ARBOR,” BY PERCY DANFORTH
silent spectator. In the city there are often annoyances, but I can recall of no instance in which there was not some redeeming feature.

My advice is to avoid all possibility of drawing a crowd, and that is best done by going out alone or in small groups,—never more than three,—making one’s sketch not too ambitious in size or character, and having done with it in one sitting. That advice will hold, I think, even if there are no disturbing factors present. It is strange, but axiomatic, that the enthusiasm of the beginner always sets him the hardest task. He includes too much in his picture, and tries to show everything in detail.

Of materials I will say that they are not a primary consideration, except that water-colors and brushes ought to be of the best. Pencils and papers, however, often serve to best purpose when they are least expensive.

There is one plea which I should like to make with some emphasis, and that is not to treat sketching too casually after you have once decided to go out for an afternoon. I have, myself, gone out with friends who went out walking, as it were, but took a sketch book along with the idea of using it, if they happened to see something that interested them.

Needless to say, they found so many things which inspired them that they wasted most of their time trying to decide what to draw.

The best games are not played by those who carry their clubs or racquet with the idea of using them, should they happen upon the proper golf-course or tennis-court; neither are sketches produced in this spirit anything but failures or sad memories.

The best way, I think, is to indulge in a separate reconnoitering tour, to note the subjects, conditions for locating one’s self, lights and shadows, etc., and then later on to go directly and immediately, to do or die while the inspiration lasts.

Otto F. Langmann

CRAYON DRAWING BY RUDOLPH J. NEDVED
Original on light brown paper, size 10" x 14"

AN ILLUSTRATOR’S POINT OF VIEW
If anyone should ask me, “What would you rather do or go fishing?”, on the instant I would answer, “Sketching.” For it is a truism that “the joy of the sketcher no man knoweth but he who sketches.” With sketching, unlike fishing, you are always sure of getting a bite, especially in summer. You may get caught in the rain, the sun may be too hot for comfort or the mosquitoes and flies too friendly, and you may sometimes fail to catch the “moment of interest” in the mood of the day; but when you bring in a “go”, — a success, — there is a quiet and satisfied joy that has no substitute, — you have lived!

I have been out in all weathers and in all sorts of odd places, and I usually bring back permanent
impressions of them in sketch form. I therefore know the satisfaction of catching that "moment of interest" which comes at some time, suddenly and without warning, into every scene in Nature, and which the watchful sketcher seizes upon for his picture. I have caught the transient shift of the sun, that comes when the storm is breaking over a mountain, in rain and in snow. I have sat among ruffians on a knock-about boat in the tropics and have made the scene mine in a sketch. I have been in mills and shops, and on farms, following plow-horses for action. I have done figures, the sea, the shore, and the mountains with their dells and glens, in oils, water-colors or in pencil. Sometimes it's a note, sometimes a finished water-color that goes to an exhibition, and sometimes a pencil sketch that quickly records a bit of action. Needless to say, my pleasure has been intense in the doing of them all. Furthermore they have turned to profit, for I think I have made use of almost everything I have done out-of-doors to build up compositions done in the studio. My tastes have been catholic and I have chosen widely varying types of subject to sketch, but some of the things jotted down for data have been used over and over again.

I would suggest to sketchers not to use a camera. It's lazy and does not train the eye for drawing. Draw incessantly, especially when you are young, —that's the time to burn the faculty in.

Mr. Harvey Corbett said to me the other day at lunch, "If an architect is to be a master designer he must also be an artist." I realize what he meant, and one of the ways for the draftsman to become an artist is for him to learn to see accurately what is about him. He will see most keenly when he has a pencil or brush in his hand and is in the act of making a sketch. Until he does try to draw a thing he will not really see it at all.

It is not necessary for the architectural man to confine himself to architectural subjects when sketching, nor is it even advisable. In the first place, by drawing landscapes involving rocks, trees, animals, ships and any other things not entirely familiar to him, he is forced to exert his powers of observation to a much greater extent than when sketching buildings or groups of buildings with which he has become well acquainted during long hours over the drafting board. Moreover, he is forced to draw with greater freedom of line to interpret these natural forms and is thereby encouraged to extend his vocabulary of the elements of delineation beyond combinations of straight lines and geometrical curves. All of which makes him a better draftsman and a better architect. The man who has to think of architecture all day long in an office should relish the opportunity of sketching out of sight of anything that reminds him of his daily work. And where should he turn for true recreation but to Nature?

J. Scott Williams
"MARKET DAY IN ROUEN", SKETCH BY SAMUEL V. CHAMBERLAIN

Drawn in Pencil on Cream Paper—Size 10½" x 13"
"WALLABOUT MARKET, BROOKLYN," SKETCH BY OTTO F. LANGMANN
Made on light brown paper with black, white, and colored pencils
"THE FISH MARKET," CHARTRES,—WOLFF PENCIL DRAWING BY SAMUEL V. CHAMBERLAIN
Size of Original 11" x 7¼"
"A BIT OF OLD ANN ARBOR," PENCIL SKETCH BY PERCY DANFORTH

A FIG FOR YOUR CAMERA!

With summer treading on the O'Sullivans of Spring, Nature has already sounded the call to sketchers, both veteran and novice, to be abroad in the sunshine, pencil, or pen, or brush, or perchance etcher's needle in hand, ready to record impressions as they may appeal. Why sketch? Well, why not? The camera, you may say, provides a much more rapid and easy way of collecting pictured information about architecture, or landscape, or ships and shoes and sealing wax, than do the implements of the artist. Granted, but is it Art? and does it satisfy? He who believes that "kodak as you go" is a slogan more conducive to pleasure and profit than that well known plea of the drawing teacher, "A sketch a day keeps sclerosis away" is, of course, entitled to his belief, and will undoubtedly cover a lot of ground and come home from his vacation with a delightful collection of snaps. If, however, a man can draw recognizably what is about him, it is the thought of this pencil-pusher that he is foolish not to develop his talent by regular and continued practice. He will at least learn to observe more closely than his neighbor the kodaker, and in the making of pictures will have the tremendous advantage over him of being able to leave out objectionable or extraneous matter and concentrate his attention on the essential elements of his composition.

The systematic sketcher may be likened unto the traveller who goes abroad and spends enough time in each locality he visits to give him a fairly thorough acquaintance with it, while the prolific kodaker is as the tourist who rushes from place to place, "covering" everything, allowing a few days to a city or town, an hour to the Louvre or the Pitti Galleries, doing Europe up brown, and returning.
SUMMER SKETCHING

home with an entirely superficial set of ideas of a number of things but no comprehensive or accurate information about any of them. Perhaps there are good points about each method of travel, possibly a combination of both is most educational. Analogously it may be best for the sketcher to have his camera at hand, loaded and ready to shoot at some transient picture, too fleeting to catch with his drawing tools. It seems to be generally accepted, though, that the more competent one becomes with the instruments of any graphic medium, the more one scorns the mechanistic method of the camera. The joy of the craftsman asserts itself in him who makes a good sketch "with his two bare hands," a joy which is infinitely keener than any which can conceivably be drawn from the routine of setting and clicking a kodak. The thing to do is to become that craftsman, and the way to do that is to sketch and sketch and sketch. The first hundred are the hardest.

Aside from the pleasure to be derived from sketching, which we will assume for the present to be its main incentive, there can be certain profitable by-products. If one is sufficiently vain of his pretty pictures, he may prevail upon his friends to accept them, suitably framed, as gifts. He may go further and, if they're good enough, achieve notoriety by having them published in Pencil Points. Having thus established his reputation he may even be able to find someone gullible enough to purchase them for real money. If the sketches won't go, it is always possible to translate some of them into etching during the long winter evenings and thus multiply their potentialities as merchandise. These suggestions are, it is true, just a little mercenary, but even a sketcher has to have pin money.

The most real value of sketching to the architectural draftsman or student is, however, not so tangible. It is based on the information accumulated and on the training of hand and eye and artistic judgment. The young man, setting out on the long road to becoming a master architect, can in no other way so successfully as by sketching learn how things are put together, how materials are chosen to produce different effects, how mouldings and cornices and the myriad details that go into buildings are designed to perform their functions of use and ornament. He learns, further, through the constant exercise of his critical and selective faculties, the principles of composition,—that fabric upon which is woven the tapestry of architecture, no less than those of all the other arts.

It is not the province of this short essay to delve into the mysteries of technique. Each man must
ENTRANCE TO THE PALACE OF THE POPES
BY SAMUEL V. CHAMBERLAIN

DOORWAY TO CATHEDRAL, HAVANA
BY OTTO F. LANGMANN

"ON THE WAYS," LITHOGRAPHIC PENCIL SKETCH, BY J. SCOTT WILLIAMS
Drawn on Cameo paper
SUMMER SKETCHING

ALONG THE OLD CITY WALL, QUEBEC
BY OTTO F. LANGMANN

THE SHAW MEMORIAL, BOSTON
BY KENNETH REID

"SOUTH STATION, BOSTON", MARKING CRAYON DRAWING BY OTTO F. LANGMANN
On Japanese hand-made silk paper
choose for himself the kind of paper, pencils, colors, and brushes most fitting for his peculiar style of self-expression, and decide how it is best for him to use them. Experimentation is good to indulge in at first but it may be carried to excess. It is better to find a satisfactory medium fairly early in the game and to stick to that until it is mastered. Then go on and find new fields to conquer. Do not strive for technique; it will come inevitably of itself as you progress. Indeed, it is most interesting to speculate upon the mysterious way in which each artist's individuality makes itself felt in even the merest sketch. Examine a set of pencil sketches by Eggers, Rosenberg, Chester Price, or Chamberlain. Each builds line upon line to produce a finished result which is a satisfying work of art, yet how differently each man speaks to us. Their work is not consciously mannered but each man's sketch is as naturally distinctive as his chirography. This distinction is born only of confidence acquired through practice, just as individual handwriting develops through repeated early attempts to follow the example in the copy-book.

In choosing your subject, the particular type of thing does not greatly matter; it should appeal to your sense for the picturesque and should not be too extensive. "Hop" Smith once laid down as a principle, that you should "confine yourself to all that the eyes see at one glance and no more, or, in other words, that portion of the landscape which you could cut out with the scissors of your eye and paste on your mind". Good advice that, and strikingly stated. Follow it and you will find less difficulty with your compositions. And remember the other epigrammatic pronouncement of that same Mr. Smith, to wit, that "it takes two men to paint an outdoor picture: one to do the work and the other to kill him when he has done enough."

Kenneth Reid
PENCIL POINTS
SERIES
of
RENDERINGS
IN
COLOR
WROUGHT IRON PRECEDENT

By Gerald K. Geerlings

(Editors Note: This article is introductory to a series on the subject of wrought iron. The author spent a generous fraction of a year's foreign travel in making photographs, drawings and notes on the subject in its application to modern practice and will present in the series much material heretofor unpublished.)

In the next era when histories have us properly cataloged and pigeon-holed we will no doubt be de­ rided for causing such bitter diversion of opinion in getting relegated to an exact age. Perhaps we shall be favorably compared with the Stone Age—or the Golden. Fragments of discovered building re­ ports will be quoted to prove we belong to the first, the Golden. Fragments of discovered building re­ shall be favorably compared with the Stone Age—or

As a matter of fact, we may as well admit in a stage whisper to each other in the building profes­ sion (architectural or otherwise) that we spend a good share of our energy making things “look like solution (architectural or otherwise) that we spend a good share of our energy making things “look like what they ain’t.” A flimsy curtain wall is palmed off on the unsuspecting public as an honest-to-good­ ness Florentine palazzo made of real stuff. The walnut paneling in its lobby is nothing more than plaster with enough faked worm holes to house a million mythical colonics. The ashlar sandstone in the monumental halls has been poured from sacks labeled “Caen Stone”, without an idea that there is any­ thing steal its copyrighted traits.

There is one ray of hope. The villain archaeolo­ gist who would despoil our vanity by perfect proof of hundred per cent use of heinous imitations, trips on a piece of a wrought iron grille. His hopes are dashed—here is a material used as it was meant to be. It is no virtue of ours, however, because for all its good-nature and accommodating spirit, wrought iron asserts a seeming puritanical conscience by looking and acting only what it is. Nor can any­ thing steal its copyrighted traits.

We may fashion plaster like Caen stone, rubber flooring like marble, composition sawdust like carved wood, but in the craftsman’s use of the term “wrought iron”, we can make nothing imitate it. In commercial efforts to be “arty” and turn out hand made articles in gross production with the much­ vaunted “American efficiency”, one sees such pathetic attempts as to make imitation wrought iron bridge-lamps out of cast iron. Thumb marks on applied putty are supposed to represent hammer marks, while a silver and black finish completes the texture. By the time that process is perfected the cost will no doubt exceed that of the genuine article. But no matter. We enjoy our little jokes.

Apparently we have no such definite ideas about wrought iron distinguished from cast iron as we have concerning the differences between stone and terra cotta. We understand the limitations of the latter well enough, both in the differences in cost and the method of deftLINING. But as to wrought iron versus cast iron, we know only that the latter is cheaper. By force of habit we decide the wrought article is a rather indefinite quantity, so why jeopard­ ize a client’s interest! And cast iron gets itself written into the building. Not that anything is wrong with cast iron, any more than anything is amiss with terra cotta. But just as stone can gain effects which terra cotta cannot because of natural endow­ ments, so also with cast iron’s cousins, wrought iron.

To define “wrought iron” is at once a simple and a complex matter. In this sense it is simple—its name is self-explanatory. “Wrought” iron is “worked” iron, which is worked on the anvil by ham­ mering while it is hot, cooling, and, sometimes, cold. “Cast” iron, on the other hand, is “cast” in moulds and not worked beyond the point of having itself poured. The more complex task about defining wrought iron lies in explaining how it can best be worked, and in what capacity it makes itself most advantageous and adaptable. Stress the latter in this age when architectural design is determined almost entirely by cost!

At the present time not a great deal is accessible either graphically, literally or photographically on the subject of wrought iron. There is the invaluable “Il Ferro,” by Giulio Ferrari, with numerous pho­ tographs illustrating the well-known iron classics, but only few drawings showing the family life of wrought iron and a tantalizing text in Italian. A. N. Prentice in his “Renaissance Architecture and Ornament in Spain” gives some excellently pre­ sented examples of the luxuriant and majestic Spanish rejas, while the comprehensive “Rejeria of the Spanish Renaissance” and “Spanish Ironwork”, both by Byrne and Stapley, blazes the glory of the coro-rejas (choir grilles). These three books on Spanish iron-work concern themselves principally with the monumental achievements in cathedrals which are on a scale in size and magnificence greater than America yet possesses. In addition there are scholarly books on Spanish and Italian details which often include a few well selected and presented examples of iron-work. Add Uhde and you have almost completed the list of usual and usable office material.

In all humility the author is therefore setting out to illustrate by photographs, known and unknown, and detail drawings of parts of many of these pho­ tographs of genuine and excellent wrought iron, which can readily be applied to modern practice.
PENCIL POINTS

DIAGRAMMATIC ELEVATION OF ENTIRE GRILLE
SCALE: 1/4" = 1'-0"

DETAIL AT FRIEZE
SCALE: 3" = 1'-0"

BASE

MEASURED AND DRAWN BY GERALD K. GEERINGS

PHOTO BY ALINARI

GRILLE IN CLOISTERS OF S. MARIA NOVELLA, FLORENCE

PHOTO BY ALINARI

[ 354 ]
WROUGHT IRON PRECEDENT

DIAGRAMMATIC ELEVATION - ½ OF GRILLE
SCALE: 3/8" = 1'-0"

2½ DOOR
2½ 1'-6"
5 UNITS

½ TYPICAL UNIT - SCALE: 3" = 1'-0"

2½ TYPICAL STILE

DOOR STILE
SCALE: ½ FULL SIZE

MEASURED AND DRAWN BY GERALD K. GEERLINGS

GRILLE TO “CAPPELLA BARTOLINI-SALIMBENI,” S. TRINITA, FLORENCE

Photo by Alinari
GRILLE OF THE PORCH TO THE MAIN PORTAL, CATHEDRAL OF BRAGA, PORTUGAL
The majority of the metal work examples will be furnished by Mediterranean countries, selected with an eye for present-day limitations of finance. No attempt will be made to compete with the publications of monumental Spanish work already on the market. The emphasis will be on the intimate types of wrought iron, rather than on the grandiose monumental.

Chaperoning the illustrations will be a conscientious attempt to discover by analyzing the best examples of wrought iron what its characteristics are. The forms best suited to the material will be tracked down and contrasted with its related arts, bronze and cast iron. Following that, the dangerous subject of wrought iron design will be attacked bearing indelibly in mind the Russian adage: "In color and design there are no friends." In the invasion of such precarious territory we trust to wound no one mortally. Under this subtitle will range illustrations from work by the Spanish, Portuguese and Italian, while by way of variety there will be a small smattering from the Czecho-Slovakian, Austrian, English and Early American. Finally there is an intended scrutiny into the subject of good craftsmanship, pursued by a finale on working drawings and specifications on wrought iron.

As a salutary gesture it may not be amiss to say something about the "wrought-ing," and this is simplest done by begging the indulgent reader to conjure up the village smithy. The essentials are all there: the raw iron, forge, anvil, array of hammers, tongs, swages, fullers, and other tools—and the blacksmith. To produce wrought iron artistry, give the smith a vigorous imagination, imbue him with an enthusiastic love for his work and that is all there is to it.

The raw material comes in the form of iron rods of various diameters, bars square in section, or plate with a large range of widths and thicknesses. Whatever sized or shaped piece is selected to be operated on, is firmly gripped in the jaws of a pair of tongs and poked into the heart of the forge fire. A bellows or a blower contributes the forced draft which helps to bring the iron speedily to a lemon glow. Then, taking the hot member from the fire and holding it on an anvil, (the tongs contributing a certain amount of comfort), the master craftsman boldly and confidently pounds while the pounding is good. In the case of large or heavy pieces a helper mans the tongs while the master manipulates the hammer. If he is a real craftsman he has thought out in advance the several steps in the operation. Thoroughly familiar with his material, he knows just how many blows he must strike to produce the desired effect and how hard each blow must be; when he must twist or bend the iron and when he must split it to produce the multifarious leaves, rosettes, spirals, and geometric or naturalistic forms involved in the design. Merely to pound a hot bar so as to obtain a uniform effect with successive blows is itself a complicated problem, for it is obvious that while the metal is at a yellow heat a
OSSIPITE ENTRANCE TO PATIO IN CASA DEL CONDE DE TOLEDO
TOLEDO, SPAIN

DISTINCTIVE ANDALUSIAN HOUSE
RONDA, SPAIN
PENCIL POINTS

blow of certain energy will make a bigger impression than that same force spent when the bar is cooler thirty seconds later. Splitting a bar for a portion of its length and fashioning from its several parts a flower, an animal's yapping head, and an ornate widget or so, in such a way that the working of one section shall not ruin another part which is still red-hot, takes an extraordinary lot of rapid thinking. Remember that while the hammer is exerting pressure on one side of the bar, the anvil is exerting an equal and opposite force on the other, so that if, for example, one face was intended to be flat and the other side rounded or ornamented, damage would result unless the smith took into account both of the compressing elements.

The means by which various effects can be gained in wrought iron will be taken up in detail when considering the characteristics of the material. For the moment it is sufficient to remember that wrought iron is most genuinely itself when produced by working hot under the hammer, although a certain small amount of "carving" may be done on the cold metal. With that in mind it is easy to understand that though an egg-and-dart ornament is readily cast in iron or bronze, it would be a tedious and thankless task to induce eggs and darts to be chiseled into a red hot bar.

Until recently, wrought iron was mentioned only in a footnote in the social register of building materials. In the best circles it was regarded as existing but not really counting. Its European ancestry was acknowledged as being duly ancient, but perhaps was thought to be of unfashionable origin. Only in the last decade has it been permitted to timidly present itself now and again in halls of state, in counting rooms and salons. Bronze was the fashion of the day when there was money to spend. When there wasn't, cast iron was the apologetic substitute. But wrought iron, no!

The general public was scarcely aware of wrought iron until photographs of imaginative Californian and Mexican architecture became widely published. Shops specializing in wrought iron knick-knacks, hardware, and lighting fixtures also helped in press-agentizing its virtues.

At the present writing even the majority of architects are suspicious, wary, or doubtful about wrought iron, and have been little interested in considering its historic accomplishments or investigating its modern possibilities. But now Mr. and Mrs. Public have begun to ask for wrought iron.

Wrought iron is coming into its own. It has gained in wrought iron will be taken up in detail when considering the characteristics of the material. For the moment it is sufficient to remember that wrought iron is most genuinely itself when produced by working hot under the hammer, although a certain small amount of "carving" may be done on the cold metal. With that in mind it is easy to understand that though an egg-and-dart ornament is readily cast in iron or bronze, it would be a tedious and thankless task to induce eggs and darts to be chiseled into a red hot bar.

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The views on page 358 include one at Ronda, Spain,—showing the typical Andalusian house with its wrought iron grilles, balconies, and clothes-line,—and one opposite the entrance to the patio in the Casa del Conde de Toledo, in Toledo. It is noteworthy in the latter that although every feature of the patio is most charming, the center of interest has been focussed on the window grille. Inside the "J" wood-carved jamb, the "reja" is 38\(\frac{1}{2}\) wide by 56\(\frac{1}{4}\) high. All vertical bars are 1\(\frac{1}{2}\) square, twisted, while horizontal members are 1\(\frac{3}{4}\) x 5\(\frac{1}{4}\).

Top and bottom bars are 1\(\frac{3}{4}\) x 5\(\frac{1}{4}\).

Another grille is shown on page 359, that from a window in the Scuola di San Giorgio, Venice. It is a particularly typical example of wrought iron expression, as shown by the detail drawing. The parts are held together by bands, not riveted as in cast iron. The frieze between the capitals offers a pleasant variation from the lower portion, while the lunette is an achievement all by itself.

Editors' note: The next installment will treat of the characteristics of wrought iron in the forms best suited to it.

[360]
MEASURED DRAWING BY MAURICE GAUTHIER
FONTAINE DE LA CROSSE AT ROUEN

PENCIL POINTS
The measured drawing shown in this plate was made by Gautier as a student in the atelier Rédon of the Ecole des Beaux Arts.
DRAWING BY LOUIS C. ROSENBERG
NORTH PORCH, CHARTRES.

PENCIL POINTS
Louis Rosenberg's work is well known to the readers of Pencil Points and needs no comment. The sketch shown in this plate was done in 1924 on his last sketching trip abroad.
BAS-RELIEF BY EDMOND R. AMATEIS

MADONNA OF THE JEWEL

PENCIL POINTS
This piece of relief sculpture, the work of Edmond R. Amateis, was executed when he was in Rome as a Fellow of the American Academy. The panel is carved in white Serravezza marble and the beautifully designed frame, also the work of the sculptor, is in gilded and polychromed wood. The size of the panel is 21" x 29".
CHARCOAL DRAWING BY F. HOPKINSON SMITH
ST. ETIENNE DU MONT, PARIS

PENCIL POINTS
F. Hopkinson Smith, whose versatility enabled him to achieve fame both as a writer and as a painter, worked in many mediums. This plate shows one of his charcoal sketches done on gray paper with a few touches of gouache for highlights. The drawing is reproduced through the courtesy of Stanley A. Sweet.
RENDERING IN OPAQUE WATER COLOR BY HOWARD GREENLEY
Size of Original 11¾” x 10¼”
Show Room for Colgate & Co., New York
Howard Greenley, Architect
PENCIL POINTS SERIES
of RENDERINGS IN
COLOR
HOWARD VAN DOREN SHAW

MAY 7, 1869—MAY 7, 1926.

Howard Van Doren Shaw was born in Chicago, Ill., May 7, 1869, the son of Theodore A. Shaw and Sarah (Van Doren) Shaw. He received his B.A. degree from Yale University in 1890 and from the Massachusetts Institute of Technology in 1893. He married Frances Wells of Chicago in 1893, and started to practice his profession in Chicago in the same year. He was a Fellow of The American Institute of Architects, a member of the executive committee of the Art Institute of Chicago, chairman of the Illinois State Art Commission.

Upon the fifty-seventh anniversary of his natal day, Howard Shaw started on his long journey into the Beyond. He was still young—young in years and in heart; but years and heart were ripe in experience and achievement. He was in his prime, and his joy in life and his enthusiasm had not paled. Why should they pale in one who was gifted as was he, and to whom the door of opportunity was ever opening? Such opportunities as came to him, however, do not come to one who has not met halfway those which preceded; and Howard Shaw met more than halfway the duties, responsibilities, and the opportunities which came to him.

Howard Shaw was born with a sense of values and of the fitness of things which seldom lapsed and which grew in fullness with the years. He had a strong sense of his obligation to society, and he realized that from him to whom much has been given, much will be expected. Much was given to Shaw not only of the material but of the spiritual, and in both fields he gave freely to his less fully endowed fellows. He looked for good and beauty in lives as in objects; and he found beauty in life, in nature, and in the works of man. He was blessed with a fine sense of humor which helped him over many a difficult pass. For one born to, and educated in, the conventions he possessed and exercised a highly individualistic mind and mode of expression, and his work was highly characteristic. Even in his more important work he manifested his playful spirit, and in this work the evidences of his fine humor are not wanting.

Howard Shaw created many beautiful home surroundings; and his residences and gardens proclaim his joy in life, and in art as it touched the beauty of life. He had a lovely home, both in its spiritual and material aspects; a talented wife with whom he enjoyed a rare companionship, and three lovely daughters to whom he was intensely devoted. These intimate facts of his life must be noted, for they colored his work, and other and outside lives were the better conditioned because of his own happiness.

That vortex of human energy known as Howard Shaw has been dissipated; but the impulse throbs in ever-widening circles. Those who have felt the thrill of the throb will not forget but must, perforce, relay the message into other lives. The work still stands radiating the spirit of the man. They are happy who felt the emanation from the person and still can feel it in the work.

It was fitting that The American Institute of Architects, whose highest standards he upheld so persistently and manfully, should recognize Howard Shaw's merits and should have conferred upon him, as it did at the convention which was just about to close its sessions at the time of his death, the gold medal of the Institute, the highest award in its power to bestow.

Irving K. Pond
Jacobson Annual Competition for 1926

Prize Winning Design, by Alfred Kastner, New York City
REPORT OF THE JURY ON THE JACOBSON
ANNUAL COMPETITION FOR 1926

The jury felt that requirements of the program made the problem one of the most difficult to solve correctly that has been presented in any competition of this character in recent years, but as the problems involved were exactly those which are presented to the practicing architect by his clients, they felt that the competition was therefore exceedingly interesting and the number of excellent solutions presented, surprising.

It is probable that no solution can fully meet all the requirements in an entirely satisfactory manner; the necessity of two entrances to the Architectural Club as well as one to the shop and a large show window would, if carried to a logical conclusion, result in an entire first story of glass and doors, a thing which is particularly undesirable as the first story of a club of dignified character. Some compromise between the necessity of properly expressing the main purpose of the building as an Architectural Club, and the necessity of providing a shop which would be reasonably attractive to a shop keeper was therefore inevitable, and in making the awards the success of the compromise was to a certain extent the determining factor, since there were a number of plans for the Architectural Club proper which would have resulted in an exceedingly attractive and perfectly practical building.

The Jurors were surprised to find such a high average of thoroughly workmanlike solutions of the problem among the drawings submitted, and while it is not unusual to find in this type of competition many schemes of considerable merit as regards exterior, it is not usual to find such intelligent thought devoted to the purely practical side of the question. There were at least nine sets of drawings which were very seriously considered for the awards and it was by very careful balancing of the several features of façade, design of the Architectural Club, and treatment of the shop and entrances that it was finally determined to award the first prize to Mr. Alfred Kastner of New York City.

The elevation of this scheme was highly original and exceedingly interesting and, though treated with much freedom, was still of a type which the Jury felt would build in a satisfactory manner. The plan offered a complete solution to the problem, although perhaps not in the simplest manner, and the disposition of the various rooms in the Architectural Club made for convenience and pleasant occupancy of the building. The service arrangement both as to entrances and to service within the building, a very important factor, neglected in some of the plans, was in this thoroughly practical.

The second prize was awarded to Mr. James Edward Agengroad of Philadelphia, whose elevation was of good character and well composed even if somewhat too archaeological. The plan was simple and direct; the treatment of the shop was adequate although the service entrance was not considered entirely satisfactory.

The third prize was won by Mr. Alfred Thompson Granger of St. Petersburg, Florida. The design of the exterior of this building was perhaps the most interesting of all those submitted, but in spite of the Jury's admiration for the façade it was not possible to award this contestant a higher place because of certain faults in the plan and a specialized solution of the service entrance. While the program did not specifically state that no alley way could be considered, several contestants assumed an alley way for service entrance, and while it may be thought by the contestants that the Jury lays too much stress upon a comparatively minor point, it must not be forgotten that the correct solution of this minor point involved very great difficulties as to the major points, and the contestant who did not adequately provide for service was at a very great advantage over those contestants who interpreted the program in its true sense, as a building on an inside lot. Mr. Granger's treatment of the shop front was interesting but one to which all merchants would object, and for these reasons the third place was the highest that the Jury felt could be given even to so interesting a conception.

Although the program did not call for the award of mentions, there were three sets of drawings which were of such great merit that the Jury felt special attention should be called to them and for that reason have mentioned: First, Mr. S. M. Kurtz of New York City, who had a plan of usual excellence with very interesting interiors, but whose elevation did not fully express the character and quality of the building.

Second mention was awarded to Mr. Albert Sturr of New York City, whose general scheme was exceedingly good—both as to plan and elevation, although the treatment of the shop front left much to be desired, and the stairway was distinctly forced. The Jury presumed that Mr. Sturr desired to make the interior a sort of museum of Architectural styles, but felt that a club house should be of a much more harmonious character than would result from such a confusion of schemes.

Third mention was awarded to Mr. F. J. Lippell of Buffalo, who presented perhaps the best treatment of the store front, and the difficult problem of service and club entrances, but the Jury believed that the plan of the building beyond the entrance was far too complicated especially in the arrangement of the stairway.

There were many other schemes submitted about which the Jury would have liked to speak, but since space does not permit, they desire only to express to the contestants as a body, their appreciation of their intelligence and ability.
SECOND PRIZE DESIGN, BY JAMES EDWARD AGENGROAD, PHILADELPHIA, PA.
REPORT OF THE JURY

JACOBSON ANNUAL COMPETITION FOR 1926

THIRD PRIZE DESIGN, BY ALFRED THOMPSON GRANGER, ST. PETERSBURG, FLA.

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PENCIL Drawing by Louis Hechenbleikner
Site of Madison Square Garden As It Appears Today
THE NEW YORK ARCHITECTURAL CLUB, INC.

Some very important decisions were made at a recent meeting of the Board of Directors, among which, one in particular, should be of interest to all members, and especially to prospective members.

The Board, after considerable deliberation, has fixed an initiation fee of $5.00 for all new members making application for membership in the club on and after July 1st, 1926.

There seems to have been some misunderstanding among the club members as to when their dues went into effect and for what period of time they applied. In order to clear up this point, the Board has gone on record with the following decision, and we hereby notify all our members to please note same, and be governed accordingly:

The fiscal year of the club is from July 1st to June 30th of the following year. The membership dues are $10.00 per year, payable in advance either quarterly, semi-annually or annually. A quarter year will be the minimum time period in calculating dues. All members will pay dues starting with the quarter in which their membership application is dated, and will run from then on continuously on the same day of the month. No membership, regardless of when the fiscal year begins and ends. Any of the present applicants who shall not have paid in at least a part of their dues by July 1st, 1926, after having been notified to do so, will be considered as new members after July 1st, 1926, in which case they will have to pay the $5.00 initiation fee.

The club rooms are fast nearing completion. At the present writing, the lounge room and entrance foyer wall treatment is finished, and the result is surprising, to say the least. The walls are done in "Craftex," finished with a very effective Spanish plaster texture. A coat of very light yellow paint was applied over this as a primer, after which the glaze was applied, starting at the base of the wall with a warm reddish-brown, fairly dark, and grading lighter in tone toward the ceiling, where it finishes in a very light yellow-pink at the cornice, giving the room a very cozy and warm feeling. In the very near future, everything should be finished, when we look forward to some sort of a house warming party, and some very enjoyable times thereafter.

The Atelier part of the club is coming along in good shape, about everything that may be required having been contracted for and being delivered right along, so that by the time this number of the magazine is issued, we expect the Atelier to be complete in every detail, making it the best equipped Atelier in New York, where it will be a decided pleasure for our boys to work, nothing having been spared, and practically everything in it brand new. In previous numbers we have given quite complete accounts regarding the management of the Atelier, the Patrons, the ideals and aims.

BOWLING LEAGUE DIVISION

The Architectural Bowling League of New York finished the tournament schedule for 1925-26, on Thursday, April 29, ending with the 3-man team tournament. This tournament ended in a close first place between the offices of Donn Barber and William H. Gompert, each team having won 16 out of the 19 games scheduled. To decide the championship in this class, it was decided to have the Atelier to be complete in every detail, making it the best equipped Atelier in New York, where it will be a decided pleasure for our boys to work, nothing having been spared, and practically everything in it brand new. In previous numbers we have given quite complete accounts regarding the management of the Atelier, the Patrons, the ideals and aims.

THE ARCHITECTURAL TENNIS TOURNAMENT OF NEW YORK

Arrangements have been made to reserve courts for the first round matches, which will be played on the 19th of June.

The Championship Singles for the William Adams Delano Trophy is limited this year to sixty-four entries.

The draw in the Championship Singles will be seeded with Kayser, Lawson, and McBurney, semi-finalists in the 1925 singles.

Entries close Monday, June 14th, at 5:00 P. M.

The winner will obtain possession of the Delano Trophy for one year and will receive a 14 kt. gold filled medal. Gold filled medal to runner-up.

2 sterling silver cups to winners of qualifying round.

2 bronze medals to 2nd place.

2 bronze medals to semi-finalists.

2 bronze medals to finalists.

2 bronze medals to winners of qualifying round.

Consolation Singles

All those losing their first round matches will be automatically entered in the Consolation Singles.

Sterling silver cup to winner.

Sterling silver medal to finalist.

2 bronze medals to semi-finalists.

Any players defaulting their first round matches in the Championship Singles, will not be eligible for the Consolation Tournament.

Additional entries in the Consolation Tournament will be $2. per man.

These entries close Monday, June 21st, at 6:00 P. M.

Doubles

Prixes—2 sterling silver cups to winning team.

2 sterling silver medals to finalists.

4 bronze medals to winners of qualifying round.

Consolation Singles

Teams to be composed, where possible, of two men from the same office. Where this is impossible, an individual entry may be made, and a partner assigned by draw from the other individual entries.

Entries for doubles close July 6th.

Fees—Entry fees—$3.00 per team.

Individual entry—$2.50.

The draw in the Doubles will be seeded with Kayser and Faulkner, and, McBurney and Terhune, finalists in the 1925 Doubles.

The cups and medals will be displayed in the lobby of the Architects' Building, 101 Park Avenue, through the courtesy of the Architects' Samples Corporation.

Address inquiries and checks to: A. F. Darrin, Chairman Architectural Tennis Tournament of 1926, Room 1406, 247 Park Avenue, New York City.
PENCIL POINTS

THE AMERICAN ACADEMY IN ROME
From a letter received by C. Grant La Farge from Gorham P. Stevens, Director, we quote the following:

"OUR LARGE CLASSICAL SCHOOL has shrunk to just one student in Rome; all the rest, professors included, are away traveling. Professor Van Buren and his party are now in Greece, and about half of the members of the School of Fine Arts are also traveling.

"The list of our visitors is, on the other hand, unusually large, for this is the height of the season for American travelers. Mrs. Prentice of Princeton, of the Garden Club of America, is here; she is the chairman of the committee which is trying to raise an endowment fund to maintain a second Fellow in landscape architecture at the Academy. A brother of Ex-President Taft has called, and so has Professor George H. Chase, of Harvard, and Mrs. Hawes who conducted important excavations in Crete some years ago. Then we may mention the visits of Mr. Abraham Flexner of the Rockefeller Fund, of the sculptress Mrs. Vomloh, and of Mr. and Mrs. Herbert L. Satterlee.

"Mr. William R. Mead is in Northern Italy, on Lake Garda.

"Among the last lectures in the Classical School was one of especial interest by Miss Lawler, Fellow of the Academy. Her subject was the Greek dance; and a few days after the lecture she favored us with a physical demonstration at the Villa Aurelia. The dance, which she herself had reconstructed from a study of Greek sculpture, vases etc., was exceedingly interesting and graceful.

"The Academies in Rome affected by the proposed new taxes have made a combined protest. The American Ambassador sent an excellent note verbal to the Ministry of Foreign Affairs.

"Mrs. Stevens and I expect to leave for an archaeological congress in Syria on Friday next. We have received reassuring telegrams from both Jerusalem and Beirut. We expect to see everything on the program, with the exception of Damascus. Palmyra and Baalbek are the chief places of architectural interest to me."

THE T SQUARE CLUB OF PHILADELPHIA
The Annual Meeting of the T-Square Club was held at the club house Wednesday evening, May 5th, 1926. Before the meeting, dinner was served and as our guest we had present Mr. Howard Strong of the Regional Plan Federation who, after the business session, engaged in a most helpful talk on Regional Planning and its growth. After the talk a lively and helpful discussion ensued making the evening one of note for those present.

The following officers were elected:
- President Paul P. Cret
- 1st Vice-President Roy F. Larson
- 2nd Vice-President Louis F. McAllister
- Treasurer Roy Barwell
- Secretary Henry G. Rieker
- Director George Daub

The club is looking forward to an active year with increased activities in all fields. The Grub Club continues to serve excellent lunches daily which are well attended.

The Atelier which is the most important field of club endeavor has, through the able leadership of Mr. Grant Simon, nearly completed a most successful year and we hope to find in its list of members for the coming season many interested young men ready to take up the work and carry on in the usual fashion.

The present year showed an increase in membership greater than for many years past and the award of scholarships to four students of the University of Pennsylvania.

The Exhibition Committee, with Harold M. Saunders as chairman, showed the club what could be done in the way of many and varied exhibitions which decorated the club house walls throughout the entire season.

BOOKS WANTED
The Publishers of Pencil Points would like to hear from those prepared to submit manuscript for books suitable for publication in the Pencil Points' Library. It is not necessary that the author have an established reputation as a writer as we are quite as willing to consider copy from those who have never had their work published as from those who have.

What we especially desire are books which will primarily be helpful to the great body of architectural draftsmen of the country. So if you have a book entirely or partly completed, or even an idea and outline for a book not yet started, we shall be pleased to consult or correspond with you concerning its publication.

A CORRECTION
The sketches published on pages 316 and 317 of the May issue were made by Mr. Chrystie Douglas of Montreal, Canada, and not by Mr. Ralph Warner Hammett to whom they are erroneously attributed.
EXHIBITION OF THE ARCHITECTURAL CLUB
OF NEW HAVEN

CURRENT CONNECTICUT ARCHITECTURE was representatively presented in the Seventh Annual Exhibition of The Architectural Club of New Haven, held in the Trowbridge Mansion, New Haven, for two weeks beginning April 17. Work lent by thirty of the leading architects of the state was on view. Despite the rather closely circumscribed area from which exhibits were available the show was amazing in its appeal to both the public and to members of the architectural profession.

Spacious, high studded rooms, and the wide halls of a fine old city residence provided a setting of unusual charm in which to hang the collection. The opportunity all this afforded was made much of in the arrangement of the exhibits, for they were so grouped as to sustain interest throughout.

While the annual shows of the New Haven Club are primarily designed to exhibit the work of Connecticut architects it should be made manifest even to the casual visitor, that in this one at least, some effort was expended toward achieving educational value. For example, in addition to the work of the Connecticut architects there was on view some typical designs and photographs of completed buildings by such well known architects as Delano & Aldrich, John Russell Pope, Thomas Hastings, and Taylor & Levi of New York, which offered a logical basis of perspective in viewing the other exhibits.

Of distinct educational value too, was the large and varied collection of decorative elements and material shown. This included stained glass windows, mosaics, hand forged iron, pottery, tapestries and other fine fabrics from the ateliers of such representative houses as: Willet's Studios, Philadelphia; Charles J. Connick, Boston; Tiffany Studios, New York; The George Hardy Payne Studios, Paterson; Ravenna Mosaics, Inc., New York; Fulper Pottery, Flemington, and Heinek & Smith, New York.

Stressing the importance of architectural quality in designing small houses the Exhibition Committee again this year conducted a competition for small house plans in which prizes amounting to $800 were distributed. It was provided that the designs entered be for houses of concrete wall construction, and the collection of plans obtained formed one of the interesting features of the exhibition. For the second time since it was established by the Club, the Leoni W. Robinson Memorial Medal for excellence in architecture was awarded. This year the jury, headed by Prof. Sheppard Stevens, Department of Architecture, Yale University, was unanimously of the opinion that the medal be given Orr & del Grella, architects, of New Haven. The award of the jury has the general approval of both the public and of the local members of the architectural profession. The jury also unanimously recommended that Honorable Mention be given Theodate Pope, (Mrs. John W. Riddle), Farmington, for her work as shown in this exhibition, Avon, Old Farms, and Wallingford, for her Hinks Bros. Banking House, Bridgeport.

Among others of the architects whose work was on view were: Delbert K. Perry, New Britain; Charles S. Felton, New Haven; W. F. Brooks, Hartford; Butler & Provost, Stamford; Alfred W. Boylen, New Haven; A. Raymond Ellis, Hartford; Brown & Von Beren, New Haven; Lorenzo Hamilton, Meriden; Joseph W. Northrop, Bridgeport; Joseph A. Jackson, New Haven; Sunderland & Watson, Danbury; Whiton & McMahon, Hartford; Norton & Townsend, New Haven; Charles Wellington Walker, Bridgeport; Theodore O. Appel, New Haven; Raymond Percival, Forestville; R. W. Foote, Jacob Weinstein, Walter R. Shiner, Harold H. Davis, New Haven.

The collection of designs by students of the Department of Architecture, Yale University, many of which had been awarded medals by the Beaux Arts Institute, contributed interest to the exhibition.

In the second competition for small house designs conducted by the Exhibition Committee, The Architectural Club of New Haven, as a feature of the Club's annual exhibition, distributed cash prizes amounting to $800. The jury of award was made up of the following named architects: Horace B. Mann, New York, Theodate Pope, (Mrs. John W. Riddle) Farmington, Conn., and Charles E. Cutler, Westport, Conn.

Robert L. Walldorff, New Haven, was given first place, H. Story Granger, New Haven, second, and Elbert J. Richmond, third. The four remaining prizes were awarded without place.

Mr. Walldorff, whose design sent to the Club's competition of last year was given an Honorable Mention, is a native of Olean, N. Y. On completing his studies in the department of architecture at Syracuse, Mr. Walldorff entered the office of Dwight James Baum, New York, and continued there for two years.

On severing his connection with the office of Mr. Baum, Mr. Walldorff went to New Haven, Conn., where he is now associated with the office of Charles Scranton Palmer.

ROME PRIZE COMPETITION IN ARCHITECTURE

IN THE PRELIMINARY COMPETITION for the Fellowship in architecture the problem was the designing of buildings for a School of Fine Arts in a University. As a result of this competition the jury selected the following as final contestants: C. D. Badgeley (Columbia), D. V. Freret, (Cornell), H. F. Pixler (Yale), P. F. Taylor (Princeton), V. Viscariello (Armour Inst.), J. W. Wood, Jr. (Harvard).

The final competition will close on May 15th.

Fellows appointed in other branches this year are the following: in classical studies, John Day, Frederick La Motte Santee and Lillian Starr; in musical composition, Robert L. Sanders; in painting, Deane Keller; in sculpture, Joseph Kisielewski.
THE UNIVERSITY OF MICHIGAN

THE STUDENTS OF ARCHITECTURE at the University of Michigan gave their Annual May Party on Friday, May 7th, in the Barbour Gymnasium. William E. Preston's design—an under-sea dream world—won the competition for the decorative scheme for the party. The design was selected as the best from a score or more by the architectural faculty and the idea was carried out by the whole student body working under the direction of Ben Wyatt.

GEORGE G. BOOTH FELLOWSHIP AWARDED

The George G. Booth Travelling Fellowship in Architecture of the College of Architecture, University of Michigan, has this year been awarded to LeRoy E. Kiefer, '25A, William A. Turnbull, '25A, and Livingstone H. Elder, '26A, dividing the honors of second place. The income of the Fellowship is $1200, the winner being given considerable latitude of choice as to itinerary and the use of his time.

THE SAN FRANCISCO ARCHITECTURAL CLUB

A BANQUET FOR THE MEMBERS of the Club, as well as members of the profession not belonging to the Club, heralded the opening of the new quarters of the San Francisco Architectural Club at 523 Pine Street. A comparatively large attendance was enjoyed, and an evening was spent of which might be said, "a good time was had by all." This evening was the initial opening of the Grand Opening Week, the remainder of the week being spent in educational and social affairs, climaxd by a dance given for the members of the Club and their friends.

A quit" was given in our Atelier. The members are taking advantage of our new quarters, and will, no doubt, all be humming throughout the season. With the results of this season's work, we hope to have a greater number of "Class A" men in the beginning of the Fall Season.

The resignation of two of our active students was necessitated by their leaving San Francisco. Ed. K. McNinch, one of them, is now in Sacramento where he has joined Starks & Flanders, former members of our club, who are now the correspondents for the "Beaux Arts," Fritz Kruger, the other member, left to join Fred Kramer in New York, where he is developing skyscrapers for York & Sawyer.

News from two of our former students has been received lately. Jack Gcering, who is employed by the Peruvian Government, developing Peruvian school buildings in that country, has reported that he is thoroughly enjoying his experience in South America. Word has been received from Orin Bullock, who is studying at Harvard, to the effect that his studies there are most advantageous and that he is getting the most out of them.

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The George G. Booth Travelling Fellowship in Architecture of the College of Architecture, University of Michigan, has this year been awarded to LeRoy E. Kiefer, '25A, William A. Turnbull, '25A, and Livingstone H. Elder, '26A, dividing the honors of second place. The income of the Fellowship is $1200, the winner being given considerable latitude of choice as to itinerary and the use of his time.

PERSONALS

Leo Stillman, Architect, has removed his offices to 1993 Jerome Avenue, New York City.

Walter Earl Hort, Architect, has removed his offices to 201-203 Tucker Building, Clinton, Iowa.

Charles Wellford Leavitt & Son, Civil and Landscape Engineers, have removed their offices to 285 Madison Avenue, New York City.

Stansley Moyer Patterson, Architect, has removed his offices to 251 17th Street, Wilmette, Ill.

Frank A. Moore, Architect, has removed his office to 607 Fifth Avenue, New York City.

Frank A. Roote, Architect, has removed his offices to 12 East 41st Street, New York City.

May & Hillard, Architects, have removed their office to 607 Fifth Avenue, New York City.

Rosario Candelã, Architect, has removed his office to 157 Madison Avenue, New York City.

Isadore E. Alexander and Robert L. Brandt have opened an office for the practice of architecture under the firm name of Alexander and Brandt, 332 State-Lake Building, Chicago, Ill.

Fred Fornoff has opened an office for the practice of architecture at 88 North Front Street, Columbus, Ohio.

Lawrence A. Korth has removed his offices to the Bailey Building, Hendersonville, N.C.

Frederick Wallick, Architect, has opened a new office at Haines City, Florida.

M. C. Kleuser, Architect, has opened a new office at 590 Republic Bank Building, Dallas, Texas.

Harbin F. Hunter, Architect, has removed his offices to 1111 Paden Pelton Building, Los Angeles, Calif.

H. P. Kolliner, Architect, has removed his offices to Miami, Florida.

Sidney H. Kitzler and Leo M. Zamory have formed the firm of Kitzler & Zamory, Architects, 4046 Broadway, New York City.

Ritchie & Wakeing, Architects & Engineers, have opened an office for the practice of Architecture in the Coachman Building, Clearwater, Florida.

Paul Gasser has removed his office to 13 Real Estate Building, Miami, Florida.

Paul J. Duncan has opened an office at 703 Pacific National Bank Building, Los Angeles, Cal.
HOUSE FOR CHARLES J. TULLY ESQ., NEW ROCHELLE, N. Y.
EDWARD F. FANNING, Architect
Things are pretty nice around here this month. Just about the right proportion of good sketches, amusing cartoons, verse, etc., together with quite a flock of letters from subscribers all around the place telling us that they like Pencil Points better than ever and bidding us, each in his own way, to keep up the good work.

All of which makes us feel very expansive and mellow. There are so many days in the publishing business when things get all mixed up, not to say up-side-down, that we sympathize with the fellow who said that an optimist is a poor fish who doesn't realize how rotten everything is." But we don't feel a bit like that today and we can just let our optimism bubble up and sprinkle around until something goes wrong which, experience leaches us, is likely to happen almost any moment. So we draw a line right here and now!

The prizes this month go as follows:
Class 1. M. H. Gambee
This little item appears where the name of the winner in Class 2 ought to be. Our hands are up and we are calling loudly for mercy. All of which means that Howard D. Plary, Chicago, Ill., was duly awarded the prize for verse this month, but the copy got lost somewhere between the office and the printshop and cannot be found. We hope to print the poem next month.
Class 3. Walter J. Campbell
Class 4. No award

We have had several contributions come to us recently where the name of the competitor has appeared neither on the outside of the package nor upon the inside thereof. It is far safer to do both, for the cover is sometimes roughly handled in the mail and it is true that the envelope and contents are sometimes carelessly separated in this office. And then somebody feels that we have been discourteous or worse, which is not the way we want anybody to feel. So please mark everything plainly and we will do our best to keep things straight at this end.

Roger B. Davis of West Durham, N. C., evidently has a flair for painstaking investigation for he sends us this:
Even in the sixteenth century one had to be careful of bootleg stuff—if the terra cotta frieze of the Ospedale del Ceppo, representing the Seven Acts of Mercy, is to be relied upon.
The sixth panel is entitled, "Thirsty and Ye Gave Me Drink," and the seventh, "Burying the Dead".

The drawing shown on Plate XXI, page 367, of this issue came to us entitled "The Glory of Chartres." It is, we think, really a sketch of a door of the church of St. Etienne du Mont in Paris. Can any of our travelled readers corroborate or confute our theory?

Why is it

After you've labored
And plugged
And sweated
And scrubbed
To produce your neatest job
Why does the boss do this??

This cartoon by Walter J. Campbell, Danbury, Conn., wins this month in Class Three
I find it convenient to rule in trimming lines on tracings and also indicate binding margin and perforations. To trim, lay the dry print on a strip of glass or zinc, then a red devil glass cutter and straight-edge make a fine trimmer.

S.L. Hatfield, Wagoner, Okla.

Peter S. L. Hatfield of Wagoner, Okla., does his bit this-wise. Little useful suggestions like this may be valuable to many a draftsman so if you have discovered a better way of doing some little thing just make a note of it or a drawing, or write some kind of a piece about it and send it along to us.

We have all heard about architects doing work at home. Here is a picture by our staff artist, Don Goss, revealing the true situation.

Charter subscriber Sten Anderson, Lincoln, Nebraska, in renewing his subscription for three years expresses his feelings in the manner shown above. Thanks for the ad, Brother, but we hope Pencil Points will never compete in size with Sweet’s.


Pen and Ink Sketch by W. Honack
"Monterey, Mass."—Sketch by M. H. Gamber
(PRIZe—Class One, May Competition)

"Old Hotel and Market, Dallas"—Sketch by E. M. Schiwetz
HERE AND THERE AND THIS AND THAT

Sketch by Ralph Warner Hammett

Sketch by M. H. Gambier

Sketch by Arnold R. Southwell

Sketch by Robert Mosley Williams

(Actual size of original—One of a collection for an historical record.)
We think it is a very good thing for the producers of the various materials required in building construction to establish and maintain cordial relations with the men in the architects' offices whose daily task it is to decide what materials shall be used and how they shall be employed in order that the best results in the finished building may be secured. The New Jersey Terra Cotta Co. evidently feels the same way about this for they recently invited a number of men from the New York offices to visit their plant. Here is a little story of what happened, together with a group picture of the crowd. We are sure that a good time was had by all and only regret that it was impossible for us to be among those present.

On Saturday afternoon, April 10th, approximately forty draftsmen representing various offices in New York City gathered at the offices of The New Jersey Terra Cotta Company where a buffet lunch was served; after which, they left New York in a sight-seeing automobile to visit the plant. During the inspection trip much interest was manifested by all in the manufacture of the material. After the inspection, the visitors together with the heads of the various departments reported at the Raritan Yacht Club, at which place a banquet had been prepared. A number of speeches were made by the visitors in which they expressed themselves as having had a wonderful afternoon of instruction and pleasure. William Tennant acted as toastmaster.

SECOND ARCHITECTURAL EXPOSITION

The officers of the Architectural League of New York have announced that the annual League Exhibition next year, to be known as the Second Architectural and Allied Arts Exposition, will be held in the Grand Central Palace from February 21st to March 5th 1927. The exposition will be held in the interest of architecture and the allied arts and trades and will be confined to highly selected exhibits.

THE NEW YORK PUBLIC LIBRARY, 476 Fifth Avenue, E. H. Anderson, Director, needs, to complete its files, all the copies of PENCIL POINTS, Volume 3 (1922). Anyone having these copies available is invited to communicate with Mr. Anderson. Here is Mr. Anderson's letter:

We are in receipt of your letter of April 29th stating that it is impossible for you to send us any issue of the "Pencil Points" earlier than that of the present month. As we feel, however, it is most important that we should have a complete file of your publication on our shelves, we are venturing to write again.

We do not wish to annoy you, but as it is our intention to preserve the file permanently, we feel that no effort should be spared to complete it. Do you think that an appeal through the columns of the "Pencil Points" to your readers might be successful in bringing us these numbers? Many people who subscribe for magazines and papers save their copies until for lack of space or for other reasons, they are glad to dispose of them, particularly if they can find a depository where they will be used and appreciated. As a result of this habit of saving publications, many old files come to the Library as gifts, both solicited and unsolicited, and it is seldom that publishers make an appeal for us to their readers without satisfactory results. Anything further you may do towards supplying us with the missing issues of "Pencil Points", will, I assure you, be highly appreciated.

Very truly yours,
(Signed) E. H. Anderson,
Director

COPIES OF PENCIL POINTS
WANTED AND FOR SALE

Henry A. Martin, 466 Garson Avenue, Rochester, N. Y., wants January, August, November 1924; January 1925.

Oscar A. Bayne, 84 Tooronga Road, Hawthorn, Victoria, Australia, wants a copy of April 1925.

Mr. O. A. Yuenken, c/o A. & K. Henderson, 352 Collins St., Melbourne, Australia, wants a copy of November 1925.

Arthur P. Moody, 4046 Charlotte St., Kansas City, Mo., wants a copy of January 1926.

J. Sandberg, Drottninggatan 32, Linkoping, Sweden, wants a copy of January 1926.

L. H. Levander, 14138 Young Avenue, Detroit, wants a copy of March 1926.

Mr. Lee Fuller, 387 West 38th Street, Los Angeles, Cal., wants a copy of March 1926.

The University of Cincinnati, School of Applied Arts, Cincinnati, Ohio, is anxious to secure whole or partial volumes of Pencil Points, bound or unbound, from the beginning to the present year. Address to the attention of Miss E. Abbott, Librarian.

Very truly yours,
(Signed) E. H. Anderson,
Director

The text includes a group picture of the crowd and a drawing or diagram with the words "HELLO GIRLS! MILADY'S VANITY DRAWING BET. (DRAFTSMEN BEWARE)".
SPECIFICATION DESK
A Department for the Specification Writer

SPECIFICATION WRITERS—PLEASE LET US HEAR FROM YOU ABOUT THIS PLAN

EVER SINCE PENCIL POINTS WAS started we have had a constant stream of requests from our readers to "do something" about specification books. Most of those who have communicated with us have wanted a book on specification writing or some other reliable guide which would assist them in the preparation and checking of this most necessary document.

We have, from time to time, considered publishing a comprehensive and exhaustive work dealing with the whole specification problem, but frankly, when subjected to analysis, this has proved to be such a gigantic and complicated task that we have never been able to make arrangements to compile or secure the material for a satisfactory book. There are so many different ways of writing specifications, so that we differ in types of buildings and materials and conditions to be considered that a work on this subject, which could be depended upon to cover any considerable percentage of the information which might be required at any time, in any office, would have to be so extensive and require so much time in the making that we have never gotten anywhere. Recently another plan of dealing with this matter has come to our attention. The plan is to publish a comprehensive and exhaustive work dealing with the whole specification problem, this has proved to be such a gigantic and complicated task that we have never been able to make arrangements to compile or secure the material for a satisfactory book.

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The following types of buildings have been considered for a place in this series: a bank, a hospital, a church, a school, a large commercial building, a small commercial building, a theatre, a hotel, a large residence, a medium size residence, a small house, a large apartment, and a smaller one. Later on in the series, should there be a demand for them, specifications for other types of buildings such as country clubs, large public buildings, prisons, railroad stations, and others will be added.

What we are especially anxious to know at this time is what the specification writers of the country think of this plan. In preparing and checking your own specifications would it be valuable to you to have on your shelves the actual specification documents which prominent architects are using in their work today? All of the architects with whom we have consulted, and of whom we have requested specifications for publication in this series have (with one exception) offered us the use of their specification documents, at the same time realizing that they are by no means perfect and that in permitting their publication their work would be open to the criticism of their brothers in the profession. Nevertheless they are so much interested in seeing present day specification standards improved that they are willing to place themselves in this position for the good of the cause.

It would be our plan to publish these specifications in book form with large and clear type and at a moderate price. Before publishing the first book, say a hospital or a bank specification, we would like to get a general idea how this plan is regarded by those of you who read this department of their work as time goes on. It is also probable that the architects who permit us to publish their specifications will profit from the broad minded view they are taking of the matter. It is quite to be expected that suggestions will be made to them for the improvement of various clauses, which will in turn lead to a higher standard than they have been able so far to attain.

So please sit down and tell us frankly what you think of this idea. How else is improvement in specifications to be brought about? How else may an architect or a specification writer who wants reliable information secure it on short notice? Almost everyone agrees today, so far as our experience goes, that the step taken in all of the specification is the least satisfactory and most troublesome part of a building operation, considered from the standpoint of the architect's office. Much of the trouble arising on jobs comes from a poor, incomplete, vague, or carelessly prepared specification. It would seem to us that a careful study and comparison of the specifications tentatively listed above would be useful in many offices and would tend in the long run to bring about greater satisfaction and greater economies in connection with most jobs.

We are just as anxious to hear from those who see no value in this plan as from those who think well of it. You cannot hurt our feelings by criticising what we propose to do. If this series of specification documents is not required by our field we certainly have no desire to go forward with the work, but if on the other hand it is felt that the step we propose would be in the nature of a valuable service we are right here to go ahead with it.

SPECIFICATIONS
By W. W. Beach

PLUMBING AND DRAINAGE, PART XX

PENCIL POINTS FOR MAY CARRIED the specifications for steam heating for our imaginary "consolidated district school" building. Next in natural order is the division of Plumbing and Drainage.

Approaching this subject, we find no single feature of building construction more circumscribed by local ordinances and State laws and none more intimately concerned with trade union regulations. To each of these must the designer and specification writer on a particular job pay the most meticulous attention in order that they may avoid subsequent discomfiture. Nor is it sufficient to declare that the work shall be done in accordance with best standard practice and in strict compliance with local ordinances and State laws, although this is obviously necessary. But one can easily delineate a construction or stipulate a condition not in such accord, thus creating a desirability potential with all sorts of trouble.

Again, it is "a little knowledge a dangerous thing."

True, one can nearly always get out of a difficulty, either by "trading" or by use of "the big stick". But, however honest such procedure may be, both in intent and practice, however prevalent they may be alleged to be in ethical offices, nevertheless they are dangerous business, especially if noted by a too suspicious owner.

Many architects do not appear to realize how sensitive a thing is reputation, both as it attaches to the individual and to the profession at large. One cannot be too careful—and the time to begin is when the drawings and specifications are in preparation.
If one is rewriting a school specification from a previous issue, which, we will say, for example, was governed by conditions in a village in which plumbing installation was unregulated and where, for economy's sake, standard soil pipe under the basement floor must be "extra-heavy"; it goes without saying that "trouble lies in the offing".

But, having made the mistake, how is one to proceed? Is the architect really entitled, (if the contractor tries to take advantage) to seek refuge either in the specification clause or the code that designates that drawings and specifications must be turned over to the architect for decision, or the one which insists that the contractor shall comply with the local code in every particular? Supposing the contractor, not having previously done work in that bailiwick, actually failed to discover the error (assuming that the architect knew his business) or that, being aware of it, took it for granted that the school district could "get by" with a deliberate evasion of the code? Assuming any one of several reasons why the contractor might have originally based his bid on the cheaper material (whether he did or not), to what extent should he be made to suffer for a palpable oversight on the part of one who should be infallible? It's a mooted question.

The most uncomfortable phase of it is that, propounded to the bidders of the present project, the answer will almost invariably be "No one but the architect should be assumed to pay for mistakes emanating from his own office." In the abstract, this is harsh, but true. Then where shall one draw the line in this "give and take" policy?

To this, there is but one answer (from the outsider): "So prepare one's contract documents that there will be absolutely no need for giving or taking." Impossible? Perhaps, but one can at least make it a policy to take sufficient time in the checking of both drawings and specifications, and the one against the other, to approximate perfection. This should be done to such a degree that contractors can be positively forbidden to do any trading with the contractors or their sub, insistence being made that the architect alone will take care of all doubtful points.

Prevention in this fashion of even the slightest inclination on the part of a superintendent to "let down the bars" will greatly increase his efficiency, as well as add materially to his respect for his employer and the product of the office. Discussion of this subject with the average experienced hired superintendent would probably disclose a surprising unanimity of opinion to the effect that no job can be superintended without a certain amount of give and take. This is neither true nor complimentary to the sins of the outside world. What eventualities may arise, if for any reason the superintendent is not assured that his continuance in the service is his own to decide, or the one which insists that the architect alone will take care of all the smaller numerical designation. That merely needlessly increases the bulk of a specification—and boots nothing, unless it be to save the sending of catalogs to superintendents. But the latter is less troublesome—and simpler for the man on the job.

Naturally, this opens up again the whole subject of the propriety of using "or equal" privileges in one's specifications, as what has been said applies as well to other factory products, such as hardware, steel furniture, lighting fixtures etc. And, in the last analysis, it must be up to the individual architect to decide whether or not he wishes to entertain the substitution of "or equal" or "or equivalent" privileges in one's specifications or not. Nothing can be gained by incorporating in the specifications the verbatim copy of a manufacturer's specification in lieu of the shorter numerical designation. That merely increases the bulk of a specification—and boots nothing, unless it be to save the sending of catalogs to superintendents. But the latter is less troublesome—and simpler for the man on the job.

It is true, doubtless, of almost any rush job, in which, as is often the case, the owner should have implicit confidence and have it made clear that the practice of architecture is so involved as to render it peculiarly susceptible to mistakes, serious as well as inconsequential. If the work is exceptionally high class and his client is depending upon him to get the best regardless of price, has implicit confidence in him to do so, then certainly the architect is justified in making up his mind that certain goods will be united, but not promised. For this reason, it is important that the architect or manufacturer have additional assurance that they can be considered common to all producers. On small work, for individual clients who take direct interest, one is accustomed to give the owner opportunity to assist in the selection, or to receive specific instructions that the architect is to use his best judgment.

But, on the ordinary run of work, where economy is an important factor, the simplest method, least expensive for both architect and client, is to specify catalog numbers and give the contractor permission to submit equivalents. Nothing can be gained by incorporating in the specifications a list of all the things and paraphrasing them in the verbatim, as a manufacturer's specification in lieu of the shorter numerical designation. That merely increases the bulk of a specification—and boots nothing, unless it be to save the sending of catalogs to superintendents.

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It is equally true that many things appearing to be equal, and emphasized or alleged to be so, may not be, may not even have the same market price. Again, it seems necessary for the poor architect to be almost omniscient. If he doesn't know, he must find out. Perhaps he can make money for the owner by permitting the substitution of something as good for the purpose as what is specified. Should he?

Our work is evolutionary. Why should not an improvement take place in a job under way instead of waiting to better the next one?

Supposing one had specified a large quantity of a certain bronze-body door-check for a building and a dealer wished to fill the order with another make which catalogued nothing better than a cast iron body, though the service and nothing was better than a cast iron body, though the service and none others will quite fill the bill. Even so, he should be just as sure that his exclusive requisition of the article desired does not affect its price to the contractor. Building materials are especially subject to competition and it is dangerous to eliminate it entirely.

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DIVISION F. PLUMBING AND DRAINAGE

Note. The Contract and General Conditions of these specifications including the Supplementary General Conditions, govern all parts of the Work and are parts of an apply in full force to these specifications for Plumbing and Drainage. The Contractor shall refer thereto as forming integral parts of his Contract.

ARTICLE 1. Scope of work.
(A) THE ITEMS under this Division include:
   (1) ALL PLUMBING, SEWERAGE and WATER SUPPLY, hot and cold.
   (2) ALL DRAINAGE.
   (3) ALL EXCAVATING and BACK-FILL in connection with plumbing and drainage.
   (4) ALL GAS-PIPING within the building.
   (5) STAND-PIPE and FIRE-HOSE as stipulated.
   (6) SUCH OTHER WORK as is herein set forth.

(B) OMISSIONS.
   (1) FARM-DRAIN TILE system for the purpose of carrying surface water away from footings and foundation walls is not included in this Division.
   (2) TEMPORARY TOILET FACILITIES for the use of Workmen on the job are provided for in the General Contract and not in this Plumbing Division.

ARTICLE 2. General Description.
Note. Under the headings of this Article, there is given for convenience to Contractors a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications beginning with Article 3.
(A) ALL PLUMBING shall be in accordance with best standard practice and in strict compliance with the provisions of the local plumbing ordinances and State laws governing same. The drawings, diagrams and specifications, insofar as they apply to plumbing and sewerage are intended to comply in like manner and the Contractor shall carefully check same, one with the other and call the attention of the Architect to any apparent discrepancies and secure interpretation and decision on same before proceeding with work affected thereby.

(B) SEWERAGE shall consist of a complete system of gravity drainage connecting all plumbing fixtures and floor drains throughout the building with City sewer. All soil, waste and drain pipe and fittings for same in and under the building shall be hub and spigot vitrified or enameled cast iron. Outside shell and spigot, vitrified tile.

(C) ROOF DRAINAGE shall consist of a complete system of gravity drainage connecting all roof outlets to City storm-water sewer, with piping as for sanitary sewer specified in preceding paragraph.

(D) TWO MANHOLES shall be provided, one in sanitary sewer line and one in storm-water drain line; each located as shown on plot plan.

(E) WATER SUPPLY shall consist of complete systems of hot and cold water supplying all plumbing fixtures as required, including beater, tank and recirculating piping for hot water system.

(F) FIRE-PROTECTION shall consist of a complete system of stand-pipes and hose reels, hose and fire extinguishers, located as directed.

(G) COMPLETE PLUMBING FIXTURES shall be provided and installed as shown and described.

(H) NECESSARY CONNECTIONS shall be provided for kitchen and laundry equipment, boilers and hose-bibs.

(I) GAS-PIPING shall consist of a complete system, extending from gas company's meter to each emergency bracket-light and to gas-stove supplies.

(J) TESTS. All piping shall be tested before being covered with view and shall remain uncovered until approved under test. All water and gas pipe and fittings shall be tested by the Contractor under the supervision of the City Inspector and job Superintendent and as the latter may direct, subject to his certificate of acceptance, to be deposited with the Architect. All water pipe and connections, including valves and faucets, shall be tested under City water pressure and corrections made as required. All gas-piping shall be tested as directed by the local gas company, from which a certificate of acceptance shall be obtained and delivered to the Architect.

(K) SHOP DRAWINGS AND SCHEDULES covering every feature of the work included in this contract shall be submitted for approval as specified under General Conditions. Pipe plans shall show runs of all pipe, with details of all which vary from locations shown on Architect's drawings. With schedules of fixtures, there shall also be submitted Maker's illustrations and descriptions of all items differing from those specified. No fixtures or other items will be accepted at building unless in exact accordance with specifications and approved schedule.

(L) PLUMBING PERMIT shall be secured from the proper City Official by this Contractor and the cost of same included as part of his contract price. The Architect will provide the necessary diagrams and make required corrections in same, but the Contractor shall attend to the filing and all subsequent dealings with the City Department, including all notifications to Inspectors incidental to the work.

MATERIALS

ARTICLE 4. Purchase and Delivery.
(A) ALL MATERIALS shall be of quality and make herein- after specified, or equal materials approved by the Architect. Unless the Contractor makes written claim as to the unsuitability of any materials it is understood he agrees to produce first-class work with what is specified and will have same delivered at the building in ample time and in sufficient quantities so that neither this or other work will be delayed thereby.

(B) ALL DELIVERIES will be made in such manner as to properly maintain protection of all materials until installation. All items shall be properly labeled or marked for identification, which indentifications shall remain until ordered removed by the Superintendent. Proper storage space shall be provided for material ready to be installed, but it is not intended that more than half the total requirement shall be stored on premises at one time. Fixtures and finished equipment shall not be delivered until building is ready to receive same.

ARTICLE 5. Materials for Manholes and Outside Sewers.

(A) COMMON BRICK shall be whole, sound, hard, well- burned, of even quality and free from lime, checks and culls. They shall ring clear when struck together. A dry brick, soaked in water 4 hours, shall not show increase in weight of over 15 per cent.

(B) ALL CEMENT shall be fresh Portland, of approved brand, and capable of meeting test requirements of the American Society for Testing Materials. It shall be delivered in original cloth bags, bearing name and brand of Maker, and shall be properly stored in water - and weather-proof shed, with floor 12" above ground. Cement in damp, damaged or caked bags will be rejected.

(C) SAND shall be medium course, composed of clean, hard, durable, uncoated granite or quartz and shall be free from injurious amounts of dust, lumps, soft or flaky particles, shale, alkali, organic matter, loam or other deleterious substances.

(D) RINGS and COVERS for manholes shall be of best quality gray cast iron, free from defects, and of weight and design stipulated for the purpose by the City Sewer Department. Ladders in manholes shall be steel as specified.

(E) OUTSIDE SEWER PIPE shall be vitrified, salt-glazed, hub and spigot tile, well-shaped, hard-burned and free from chips, cracks, checks or other defects. Necessary fittings and proper bends shall be supplied for all locations, and no cutting will be allowed, except by permission of the Superintendent.

(To be continued in the July Issue.)

PRODUCERS RESEARCH COUNCIL

THE PRODUCERS' RESEARCH COUNCIL held a meeting in Washington D. C., on Tuesday, May 4th, the day before the opening of the Convention of the American Institute of Architects. The opening address was given by D. Everett Waide, President of the A.I.A. Mr. Waide stressed the desirability of close cooperation between the Council and the Institute. The Council was also addressed by several architects including Emery Stanford Hall of Chicago, representing Illinois Society of Architects; Sullivan W. Jones, New York State Architect; D. Knickerbocker Boyd of Philadelphia, and Mr. H. B. Wheelock, President of the Chicago Chapter.
PUBLICATIONS
INTEREST TO THE SPECIFICATION WRITER

Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of Pencil Points by the firm using them. When writing for these items please mention PENCIL POINTS.

Steel Moulding.—New Catalog No. 25, A.I.A. File No. 15. This Catalog has been compiled to be of the greatest value to the user designing ornamental iron work. 11 pages of illustrated ornamental iron work. 12 pp. 8½ x 11. Williams Oil-O-Matic Heating Corp., Bloomington, Ill. A. I. A. File No. 39-G-1.

Metal Work in Color.—Handsome brochure with three color reproductions of ornamental iron work as produced for the Griswold National Bank of Detroit, Messrs. Smith, Hinchman & Moxey, Architects. Chicago, Ill. Contains the complete catalog of Curtis Woodwork as designed by the firm. Complete detail drawings, tables, construction details and much information on the lighting of banks and co., Curtis Lighting Inc., 1119 W. Jackson Blvd., Chicago, Ill.

What It Means to the Architect.—Descriptive and specification portfolio covering the question of heating with fuel oil primarily from the standpoint of these architects designers. The April issue uses much information to all interested in this subject. Standard filing size 8½ x 11. Withil Oil-O-Matic Heating Corp., Bloomington, Ill. A. I. A. File No. 15.

Eye Comfort.—Monthly publication issued in the interests of good design. The Vol. 12, No. 1 includes many illustrations and much information on the lighting of banks and co., Curtis Lighting Inc., 1119 W. Jackson Blvd., Chicago, Ill.

Rolling Wood Doors.—Data sheet showing equipment suitable for driveways and openings in garages, ware­houses, etc. When writing for these items please mention to many different types of work and for many purposes. Crane Co., 803 No. Franklin Street, Chicago, 111.

Blasted Bull Nose floor joinder and Flat Top floor joiner. Blasteste, Inc., Kansas City, Mo.

Show Window Lighting.—A. I. A. File No. 312. Hand­some catalog in color covering this most important subject. Contains mechanical stapled plans, pen and ink sketches of many interesting buildings, pen and ink sketches. 8½ x 11. Pittsburgh Reflector Co., Bowman Bldg., Pittsburgh, Pa.

Pease Junior Blue Printing Machine and Pease Junior Sheet Washer.—Booklet describing this unique machine especially designed for the moderate user of blue prints. Quick and satisfactory results at a low cost. C. F. Pease Co., 803 No. Franklin Street, Chicago, 111.

Roddis Doorman.—Illustrated booklet describing the use of Roddis Doorman for residences, clubs, hotels, etc. 12 pp. 7¼ x 10¼. Roddis Lumber & Veneer Co., Marsh­field, Wis. Standard filing size 8½ x 11.

Cotswold Casements.—Brochure showing casements and leaded lights in standard sizes and designs. Exterior views of many of these products, hardware details and 12 plates of details useful in the drafting­room 8½ x 11. International Casement Co., Jamestown, N. Y.

Self Stream Water Heater.—Leaflet showing design and construction of this most important item of equipment. Marion Machine, Foundry & Supply Co., Marion, Indiana.

Crescent Elastic Tile Floors.—Booklet describing this flooring with color plates, charts and views showing different uses and installations. 8¼ x 11. United Cork Companies, Lyndhurst, N. J.


Holmes Crescent Beds.—Booklet describing this space saving equipment with necessary instructions for providing for it in the designs and bids. Covers sheet metal, and much other useful information. 40 pp. Concealed Bed Corp., 38 E. Washington St., Chicago, Ill.

Corton Heating Equipment.—Catalog No. 92, just off the press and descriptive of the Corton line of specialties which will be of interest to all who are engaged in the field of heating. 80 pp. Convenient pocket size. Corton & Sturtevant, 96 Liberty St., New York.

Research Bulletins.—These documents published by the Producers Research Council, affiliated with the A. I. A., are available to all who request them. They cover research on concrete, architectural terra cotta, metal casements, and many other items of building equipment. Also cover research on concrete, architectural terra cotta, metal casements, and many other items of building equipment. As well as, 30 pp. 8½ x 11. Scientific Research Dept. of the A. I. A. 19 West 44th St., New York City.

The Dunham Hand Book No. 314.—A very useful book for all architects, draftsmen and specification writers. Convenient pocket size, completely indexed, 190 pp. All on the subject of heating. Dunham Co., Dunham Bldg., 456 E. Ohio St., Chicago, Ill.

Atlantic Terra Cotta.—Monthly magazine for architects and draughtsmen and contains details of interesting buildings designed by Mr. George B. Post. Atlantic Terra Cotta Co., 25 Broadway, New York.

Grading Rules for Maple, Beech and Birch Flooring.—Booklet containing this useful information, Maple Flooring Mfrs. Assn., Stock Exchange Bldg., Chicago, Ill.

The Insulation Bulletin.—Ohio Technical.—Technical treatise on this most important subject which will be found interesting by all who are concerned with industrial buildings and in many other types of buildings as well. Detail drawings, equipment and much other useful information. 56 pp. 7½ x 10½. Armstrong Cork & Insulation Co., Pittsburgh, Pa.

Doorways.—The May issue shows attractive picture of Moorish architecture and contains much practical information as well. Richards-Wilcox Mfg. Co., Aurora, Ill.

Color Chart of Decorated Vitrolite.—Four pages in full colors showing thirty different ornamental motives together with blue prints. A. I. A. File No. 22-F. Vitrolite Co., 123 W. Washington St., Chicago, Ill.

Planning the Small Bathroom.—Booklet on facts about plumbing for the home owner. Many interesting plans, useful in solving many difficult problems. Crane Co., Chicago, Ill.


Surfacmg Concrete with Contex.—Illustrated brochure on the subject showing how to do different work with many different types of work and for many purposes. Specifications. 20 pp. 8½ x 11. Concrete Surface Corp., 342 Madison Ave., New York City.
Sketching with The Master Drawing Pencil

The artist rarely finds his composition "ready-made" for him. It is seldom that he can copy the tones of the subject as the camera does. The dark and light masses must be placed according to his sense of design. Dark areas of the subject frequently are made light in the sketch for the sake of pattern interest. The device employed in this study, called "path of interest," is often useful. (See Eldorado Page No. 9 of this series.) Notice how drawing is vignetted at the right.
The microscope proves that
DUROCK
is truly sanitary

This ware is
sanitary

COMMON POTTERY

DUROCK

YOU have noticed so-called porcelain ware in which the surface had become criss-crossed with fine web-like cracks, such as are shown in the illustration above. This is called "crazing," and results from the use of a glaze that does not expand and contract equally with the underbody.

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<tr>
<td>Agreement and General Conditions</td>
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<td>General Conditions without Agreement</td>
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<td>Cover (heavy paper with valuable notes)</td>
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Young man wishes position in architect's office. Newark Technical School student. Laurence McGrath, 495 Chestnut Street, Kearny, N. J.

Other items on Page 80
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on duty
for 37 years
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Should you return it in five days your money will be refunded

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In the preparation of this, the second part of "Good Practice in Construction," the aim has been to present further useful details in a convenient form for use in the drafting room. Details that the architect and draftsman are most likely to have occasion to employ in their work have been selected rather than those of a special character. Though many of the plates embody special knowledge, such as the details for theatres, store fronts, log cabins, etc., all are for buildings that are constantly being built in most, if not all, parts of the country and that may well come within the practice of any architect.

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IN NEW YORK


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Annual Cost of 6 in. Diameter, 6 ft. Radius
Bend Installed from Boiler to Main Steam Header

<table>
<thead>
<tr>
<th>Cost of Standard Steel Pipe</th>
<th>Cost of Wrought Iron Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>$37.50</td>
</tr>
<tr>
<td>Labor</td>
<td>$12.00</td>
</tr>
<tr>
<td>Total Cost first 8 years</td>
<td>$49.50</td>
</tr>
<tr>
<td>Brazing threads at joints</td>
<td>8.00</td>
</tr>
<tr>
<td>Labor, taking out and replacing</td>
<td>24.00</td>
</tr>
<tr>
<td>Total Cost additional 10 years</td>
<td>32.00</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$81.50</td>
</tr>
<tr>
<td>Annual Cost</td>
<td>$4.32</td>
</tr>
</tbody>
</table>

Mr. Moranz informs us that his figures on the cost of steel pipe are not theoretical. In 1916, some steel pipe was installed in the power plant at the hospital. Owing to the trouble this pipe has already given, Mr. Moranz feels that 18 years is a generous estimate of its life.

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PART II. Chapter I.—Architectural Considerations; II.—Starting the Work; III.—Individual Styles; IV.—Methods and Lighting; V.—Composition and Drawing from Photographs; VI.—Graded Tones; VII.—The Representation of Small Buildings; VIII.—The Representation of Details; IX.—Interiors and Furniture; X.—Outdoor Sketching; XI.—Accessories; XII.—Decorative Treatment; XIII.—Large Buildings; XIV.—Conclusion.

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ARTHUR L. GUPTILL

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The student should practice pencil technique directly upon these sheets, using the printed lines as a guide for proportion and referring to the corresponding illustrations in the book for suggestions as to the quality and direction of the pencil strokes themselves. The text of the book makes clear the best types and grades of pencils for such work and explains the method of procedure.

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