THE DESIGNER AND THE "PRACTICAL MAN."

THE habit of regarding the architectural designer as a man who is not practical and of looking upon the "practical man" as one who has little or no appreciation of design is bad, though it agrees with the facts in far too many cases. This habit is bad because it tends to one-sided development, through sharply dividing the men in architectural offices into the two classes that a well-known architect used to call "the long haired department" and "the short haired department."

Specialization is necessary but it should not be carried to such a point in any man engaged in architectural work as to leave him without a well-rounded knowledge of all sides of practice and without well balanced development. It is natural and easy to keep a man at the kind of work he does best, but it does not develop the man symmetrically—this is not good for the man or the profession.

Granted, that an attempt to make all architectural men equally proficient in all branches of the work would be unwise and futile, that each man should be developed in the direction of the greatest aptitude, the fact remains that each man should have an intelligent grasp of the main facts concerning all branches of the work outside of his own specialty. With such knowledge he is able to co-operate intelligently with his colleagues, and his work is the more interesting to him because he is able to see it in relation to the whole. A man with such an understanding of architectural work is a more capable employee than the man who has specialized without having sufficient preliminary experience—he is a better man for the architect who employs him, also he is by far a better man when he enters upon architectural practice for himself.

The fact must not be lost sight of that a man who is a good designer is a practical man in the sense that he knows how the things he draws will build—there may be innumerable practical things that he does not know and that some other man in the organization does know, but the good designer knows enough of the practical side so that his designs will be free from any serious practical faults, and he is very likely to know enough of the practical side to be able to appreciate the value of the knowledge of the man who has specialized on the practical side.

The able "practical man," for his part, is a man who can appreciate the intention of the designer and help carry out that intention sympathetically, for the designer's work may very easily be spoiled in execution if it is not carried out with an appreciation of its character. The specification writer and the man on the job have more to do with the success of a building from the aesthetic standpoint than many people realize.

Often it is not until a man hangs out his own sign as an architect that he becomes fully conscious of the desirability of a wide knowledge. Of course if he is able to start with a full organization including men who have specialized in the different parts of the work, he may not experience any difficulty. But usually when a man enters practice for himself he finds that he has to take hold of sides of the work that he has had little to do with in his years of employment as a draftsman, then he has to get down and qualify.

Unfortunately, some men in the profession are never able or fully willing to overcome the handicap of one-sided development, and it is these men who give some basis of fact to the popular idea that an architect is either a builder who draws plans or a dreamer who makes attractive pictures of things that are troublesome and costly to build and inconvenient. Though these men are very much in the minority there should be even fewer of them, for the benefit of the profession. There will be fewer of them if the habit of distinguishing sharply between the designer and the "practical man" is discouraged and if specialization without a sufficiently broad preliminary experience is avoided. In this way the architect will have a higher percentage of able employees and the men who enter upon the practice of architecture will find themselves well equipped.

Living architecture, the architecture that is anything more than an exercise in archaeology, must be practical, it must express the needs, the methods of building, the life of its day. Since this is true, the architect, the intelligent draftsman and the student of architecture need to be always alert for practical information. To such men the study of human requirements in relation to architecture as a fascinating pursuit, the behaviour of people in public places and in private homes takes on new interest when viewed from this standpoint, the announcement of an improvement in plumbing fixtures, heating or lighting equipment or in building construction methods or materials is keenly interesting, not in spite of the fact but, because of the fact that they are designers.

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WORKING DRAWINGS, SCALE DETAILS
BY EGERTON SWARTWOUT

As I remember it, way back in the old days at McKim, Mead and White's, in the roaring '90's, scale details were not considered particularly important, and there were rather few of them made, and when they were made they were on a nice mounted sheet,—their white paper bills were large in those days,—and when we had made them, our interest ceased. They came then into the hands of the tracers, a motley crew of foreigners under the charge of a pantata or slave driver, who apportioned the work out to them, as I understand they now do with portions of cloaks and suits in the sweat shops. These slaves laboriously traced everything there was on the board, ink blots, erasures and all, and as most of them could read no English the legends were often weird. I remember a stair on which I had put "DOWN IIR." The II did look something like a "U" so the alien who traced it made it a "U" and naturally thought the next letter must be a "P," and the builder spent a week trying to build a double stair.

Well, we've improved since then, we have recognized that, after all, the print is the thing, and the draftsman makes his own tracings and they are beautifully done and most elaborate. In fact, we've overdone it. The pendulum has swung too far. The tracer's, a motley crew of foreigners under the charge of a pantata or slave driver, who apportioned the work out to them, as I understand they now do with portions of cloaks and suits in the sweat shops. These slaves laboriously traced everything there was on the board, ink blots, erasures and all, and as most of them could read no English the legends were often weird. I remember a stair on which I had put "DOWN IIR." The II did look something like a "U" so the alien who traced it made it a "U" and naturally thought the next letter must be a "P," and the builder spent a week trying to build a double stair.

And in speaking of figures, we always try to give all the figures the shop drawing man may need; it saves time in the end, and makes the checking of the shop drawings much easier. For example, we've done a good deal of circular work with intersections at all sorts of angles. We always figure these things out and draw all circular work quickly.

When we've finished we know the order as detailed would look, if reduced, exactly like the eighth scale, or, rather, like the design. This drawing is carefully preserved as a record, and using these figures as a basis, and generally tracing over it we make in pencil on white cloth the scale drawing for printing. I find pencil answers quite well enough; it does not make such clear prints as ink, but it's much quicker.

We generally make a separate drawing for each trade. For example, if the building is of stone, the drawing referred to above is a basis for the stone shop drawings, so we only show the stone work and the backing, and merely the steel that comes near the stone. But we figure everything, even figures that seem unnecessary, projection of bases, of caps, offsets from the building line, spacing of balusters, everything. It's much handier to have all these things on one drawing than to look through rolls of full sizes at some future time. I've had people say, "How can you be sure these figures will stand, doesn't it tie up your full sizes?" The answer to that is that these figures have to be fixed sometime. Changing on the full size is dangerous, but if it must be changed, why change it and call attention to it on the full size. I find you rarely have to change it. And in speaking of figures, we always try to give all the figures the shop drawing man may need; it saves time in the end, and makes the checking of the shop drawings much easier. For example, we've done a good deal of circular work with intersections at all sorts of angles. We always figure these things out and draw all circular work developed. It's not much of a thing to do—it sounds harder than it is—the merest smattering of trigonometry and a copy of Kidder is all that is necessary.

The same method applies to the interior. The interiors on the contract set have been drawn out say at quarter. We generally rough out the full sizes of some of them to fix the scale, and make the drawings for one trade only, unless of course two or
PENCIL POINTS

3/4" Scale Details, Marble Work, Memorial Hall, Elks Memorial, Chicago, Ill.
Egerton Swartwout, Architect.
\[\text{\(3/4\)" Scale Details, Marble Work, Memorial Hall, Elks Memorial, Chicago, Ill. Egerton Swartwout, Architect.}\]
3/4" Scale Detail of Coffers, Memorial Room Dome, Elks Memorial, Chicago, Ill.
more trades are so closely tied up that one drawing will suffice. But we show nothing but what the trades need for their work and generally only the finish line,—what is the use of showing terra cotta partitions and backing and structural steel, unless there is some particular and special construction that has to be done, or unless there is some very tight place over a duct or something of the sort,—and we make our scale details fragmentary; no parts are repeated, and the drawings are kept small, not more than 24 x 30, less than that, oftener, than not, and generally making one over the other to save laying out. I've seen scale details that were so big that they were not only unwieldy but impossible to read. I recall one case on a very large building we were doing. The marble subcontractor appeared before the Board to argue about some extras he had claimed and that we had turned down. He made a very impassioned argument and was supported by the general contractor, and there were a couple of lawyers present and a committee from the Senate, for this contractor was a power. The Board was impressed and the Senate leader, a very imposing man, in a long Prince Albert and black Stetson, said "Now, Mr. Architect, what have you to say in reply? Can you answer this honest man?" And I said no, I couldn't, and the honest man swelled with pride and the Senator was pleased and the Board of Commissioners looked pained. I had failed in a pinch. "Senator," I said, "I can't answer that because I can't understand it. This honest man is talking about one side of the chamber and pointing to the drawings of the other side." "Good Lord," said the Senator and the session was over. And yet, in a way, the joke was on us, because the drawings were at three-quarter and most elaborate and confused, and were about four feet square and there were four or five of them, and I don't think anyone thoroughly understood them but the draftsman that made them. Nowadays we could show the whole thing on a couple of sheets 24 x 30.

But don't let me give the impression from all this that I advocate incomplete or slipshod drawings. I don't. I believe in giving all information, all necessary information in the minutest detail. For example, take the ceiling here reproduced for the Grand Reception Room of the Elks Memorial. This is a barrel vault with semi-circular ends, there being no break at the ends but all the ceiling on the same face, that is to say, the stile face. You will notice
the penetrations on the circular ends are the same
width at the spring line as those on the straight
part, and the same distance apart, but that their
apices are nearer together on account of the circle,
and the hexagonal panels between them are dis­
torted, particularly the one at the start of the turn.
To overcome this distortion we shifted the axis of
this penetration toward the center of the room and
it was a very complicated affair altogether. We had
a model made in plaster of half the ceiling, run
smooth on the line of the stiles. This we checked
and changed until it scaled to a hair. Then from our
developed plan we laid out the penetrations in pencil
on the model and the modeler put in the penetra­
tions with the greatest care. We then laid out the
whole ceiling on the model and found our develop­
ment was exactly right. We took the template of
the soffits of the pendentives from the model, as
they were warped surfaces and impossible to de­
velop mathematically, and then we scaled off the
original development and established figures for
every panel, showing all the variations and adjust­
ments that had to be made. From this drawing the
modeler is working, and I don't see how he could
work without it, but I must confess I have never
made, or even seen a drawing like it. Generally
we have merely made a plan and some sections and
direct elevations, and modelled it direct at full size,
but it was an awful job and seldom worked out as
it should in the building. Here everything is de­
veloped and figured and we know it will work out.
It took some time to do, but it will save time in the
end. I forgot to say we made the original on heavy
Whatman's mounted on straw board as we wanted
to avoid shrinkage, but we found even this heavy
board shrank somewhat. I've tried heavy pattern
paper too, but it also comes and goes. I'd really
like to know something that will stay.
We laid out in somewhat similar fashion the
panels in the main dome of the Elks Memorial, ex­
cept that here the development was merely a matter
of mathematics. Note the multitude of figures we
have given; they are a great help to the modeler.
Somebody has to establish them and the architect is
the proper one. And still in the question of figures,
I have found it an excellent scheme to figure orna­
ment. In a carved marble panel for example, which
has a wreath and two swags, we locate the center of
the wreath and points of support of the swags.
This not only helps the modeler but it establishes
the location for the carver who often gets a frag­
mentary model.
I could carry this description much further in
detail, in point of fact, I've just scratched the sur­
face, but in general what we have been trying to do
is to simplify our drawings and yet make them more
complete than they have been in the past, and make
them easier to handle.

3/4" Scale Detail of Inscription in Frieze of Main Order, Elks Memorial, Chicago, Ill.
Egerton Swartwout, Architect.
PENCIL DRAWING BY THEODORE de POSTELS, ST. THOMAS' CHURCH, NEW YORK.
On the opposite side of this sheet is reproduced one of the most delightful of Mr. de Pastel’s pencil drawings of architectural subjects, a spirited and sympathetic sketch of St. Thomas’s Church. The handling of a range of delicate tones in a masterly manner is one of the notable features of this drawing.
DRAWING IN GOUACHE BY EDMUND S. CAMPBELL
TOWER OF ST. GERMAIN des PRÉS
A highly effective drawing of the tower of St. Germain des Prés by Edmund S. Campbell is shown on the other side of this sheet. The drawing is admirably done in gouache and it provides an excellent example of the use of this medium. On another page of this issue is a small reproduction of a sketch of the same tower from a different point of view, also done by Mr. Campbell, but in water color. The difference in the character of gouache and water color is made interestingly apparent by a comparison of these drawings.
One of the many etchings made by S. Chatwood Burton as a result of his travels in Spain is shown on the other side of this sheet. It is well worth studying for its pictorial composition of lines and masses of tones, for the perception and skill with which the picturesque character of a complex subject has been grasped, simplified and presented in a delightful etching.
CRAYON DRAWING BY FRANCIS KEALLY
DOORWAY OF ST. MARY'S CHAPEL, AT OXFORD.
On the other side of this sheet is reproduced a crayon drawing by Francis Keally, one of the many interesting drawings he made during his two years' study trip abroad. Mr. Keally works in a broad, bold manner, using charcoal and pastel as his mediums most frequently. The effectiveness of his method is well shown in this drawing of the doorway of St. Mary's Chapel, at Oxford.
WHEN informed of the writer's intention to include Masqueray in this series of essays, Mr. Whitney Warren wrote as follows:

"He came over here, as you know, to work for Carrère & Hastings; afterward with Hunt; he was with me for four or five years.

"I know of no man that I admire more than Masqueray. Aside from his tremendous artistic savoir and technique, his devotion to his mother was something classical.

"When the Beaux Arts Society started on educational work, he founded the first atelier and only gave it up when he was called to be Architect-in-Chief of the St. Louis Exposition. Personally I feel that this country owes more to him than to any one master through the work he did in the various offices in which he was employed and for which (alas!) he got little credit, but especially through his efforts in his atelier where he formed so many of the young men who are now the backbone of the profession.

"Masqueray was a great Frenchman and did a tremendous lot for his country in his simple, straightforward way."

The letter from Mr. Warren seemed like a quotation of an oral statement of Richard M. Hunt made nearly thirty years earlier, when approached by a young student for advice as to the course to follow in studying architecture in America.

It was principally as a designer of monumental architecture and as a very able teacher of dignified planning that Masqueray was known, and will be remembered, to the architectural profession; but by all who knew his drawings he was recognized also as a master of architectural draftsmanship of a clear, expressive style and a water-colorist of architectural and landscape subjects of the very rarest talent. He cared little for technique although his own was always good and, when occasion required it, very fine and delicate. Most of the latter kind of drawings were made in his younger days. He admired and designed in big scale; thought of big, broad effects; wished to produce them with the least possible amount of work, and confined his efforts to essentials. His desire to produce as much as possible with the minimum of effort has a great deal to do with the effectiveness of his style. He had periods of great energy followed by stretches of pottering and idleness and a strong tendency with regard to detail "to leave it to George." Yet, he could draw anything and used nearly every medium with facility when he was so disposed. His interest was in design—composition. He would make a good sketch for a design, leave it to an assistant to make a finished line drawing, correct the free-hand parts and then render it with great directness and simplicity in beautiful misty or pearly greys, finishing it with touches of bright color, always well-placed.

His training was obtained at the Ecole des Beaux-Arts, first under Loisne and later under Ginain. The former was an advocate of the spirit of the Medieval and Early Renaissance—all for freedom and for the fine, light, delicate and ornate; the latter for the orderly, serious and very dignified neo-Grec. Loisne's instruction stimulated a naturally vivid imagination, Ginain's calmed and held it in restraint. Masqueray was long remembered at the Ecole as a brilliant artist—one of those who "should have won the Grand Prix de Rome." He won the Prix Deschaume at the age of eighteen years, and the Prix Chaudeau on the following year. The latter provided for travel and study in Italy. His measured drawings of the then little known Castle of Urbino gained him a medal of the first class at the Salon of 1883. In the succeeding salon he exhibited some remarkably fine drawings of the tomb of Cardinal Phocas in the Church of Santa Maria del Popolo at Rome; and the next year the Chateau de Rambures in Picardy. This Chateau, commenced in the Eleventh
Pen Drawing by E. L. Masqueray of His Conception for Treatment of Some of the World's Fair Grounds.

Crayon Drawing by E. L. Masqueray.
Gateway Entrance to an Alley.
PENCIL POINTS

Water Color Study by E. L. Masqueray. Hotel Ponce de Leon, St. Augustine, Florida.

Century but not completed until the Fifteenth, lies between Le Treport and Longpré and is considered one of the most complete examples of the military architecture of the Middle Ages. The drawings were purchased by the Minister of Fine Arts for the Commission des Monuments Historiques. His restoration of the Palais de la Cour des Aides at Rouen and drawings of Amiens Cathedral, exhibited at a later Salon, led to his appointment to the Commission des Monuments. Soon afterwards he came to see America” and was first employed in New York by Carrère & Hastings (Mr. Carrère had been a fellow student in Ateliers at Paris) on the studies of the buildings at St. Augustine, Florida; later he assisted the late Richard Morris Hunt and the latter’s sons and successors upon the study of the Metropolitan Museum and other important work. Then he went with Warren and Wetmore with whom he remained until he was appointed Chief of Design of the Louisiana Purchase Exposition and went to St. Louis.

It was while Masqueray was acting as assistant to Richard M. Hunt that he decided to establish an atelier in New York in which to train young men on the lines of the Ecole des Beaux Arts. Hunt and Carrère supported the idea and the formation of other ateliers was undertaken to create inter-atelier emulation and establish the French system of training by means of competitions. To Masqueray is due the credit of founding in the year 1893 the system of training now carried on by the Beaux-Arts Institute of Design—the nearest approach to a national school of the fine arts in the United States. As patron of the Atelier Masqueray he soon attracted the attention of architects and craftsmen throughout the country by reason of the extraordinary success of his pupils in the competitions held by the then newly-founded Society of Beaux-Arts Architects. He had the faculty of finding and quickly developing every particle of talent which a pupil possessed. His atelier at 123 East 23rd Street became a student centre in New York—even the ladies came to demand admission. Masqueray was subjected to many new experiences and was fortunate in being of a nature to take them for what they were worth. His gayety seldom deserted him but probably the shock of his life came when one of the young ladies expressed the desire to “take the course” during her summer vacation. Masqueray expressed the fear that two months might not be sufficient for a proper architectural education; to which the young lady responded, “Oh, I only want to know just a little about Greek, English Gothic and the Puff and Powder Styles—just enough to teach.”

During the time he spent in New York he made many designs, studies and sketches for other architects and often rendered perspectives in pen-and-ink and water-color. His preference was for delicate color effects in warm and cool greys. Upon one occasion a new “customer” came with a perspective to ask him to color it, and asked the price. “Zat a small drawing—I charge you twenty-five dollar,” responded Masqueray. “Well,” asked his customer, “What colors would you use?” and received the reply, “A foot red, a foot blue an’ a leet yellow an’ some grey—zat about all—I think.” “But, Mr. Masqueray, I think it ought to be a rather lively water-color—what would you charge to use more color?” “Oh!” exclaimed Masqueray, his eyes lighting up and his face beaming with a smile, “You make it twenty-five dollar more, an’ I put on all ze colours in ze box!” His inability to completely master the “Amurkun language” remained with him as long as he lived, and he never fully understood some Americans. He believed we were all humorists and always looked for a joke, while his French logic forever searched for motives or reasons for acts or comments which never existed in the American mind.

Nobody ever knew him long without having an original story about him. His good-humored, rather noisy and nasal voice speaking in pidgin English was enough to attract amused attention anywhere. He was of medium height and stocky build, had reddish-sandy hair and beard and wore a long moustache, the ends of which he curled or stroked upward anxiously as he talked; very large grey eyes with a peculiar childish innocence of expression which went strangely with heavy and intent eyebrows. He took great pleasure in “bloofing like an Amurkun” to make a great pretense of bragging about his work and his pupils and staff; but was always aware that what he was claiming should not be taken too seriously. He could always see a joke and did not mind whom it was “on,” and there were many occasions when it was on him—especially after he went to St. Louis. His advice to his assistants on the design of the exposition was continually “make it simp” (he could never pronounce the final syllable). One of the boys coined a phrase which he induced Masqueray to quote—“The principal thing is to make it simple” and Masqueray joined in the roar at his expense after repeating, a second time “Ze princip’ sing ees/Ze princip’ sing ees/Ze princip’ sing ees make it simp’ zen eet will be less troobl to build.” But, he stuck to his idea of keeping things “simp” and produced the best work at that exposition. He personally designed and made preliminary drawings of most of the buildings, including three or four fine renderings, produced in the Exposition office and took complete charge of the planting and landscape design. He became a thorough American in spirit. Although he visited France several times, he preferred the United States and said shortly before he died that he really liked St. Paul—where he went to live after the Exposition work was finished—and would rather live there than in Paris, or his native city of Dieppe, and intended to remain the rest of his life at St. Paul. He produced a great deal of architectural work while at St. Paul including some impressive drawings for the interiors of the Cathedral there and a design which he made for a proposed Cathedral at Dubuque.
PENCIL POINTS

During a summer vacation at the Bay of Fundy he made a number of water-colors of landscapes and the sea, worthy of a place in a national museum. He had in his sketches, and also in his rendered elevations, a way of indicating trees that was unsurpassable—they were conventional, almost poster-like trees, yet gave a very naturalistic effect. His rendering was the characteristic of his work that did not change under pressure of American influence. His natural love of refined things was not improved here, and his recognition of the lack of skilled workmen in our country led him to abandon refined design that would require the exercise of such skill. His work as an architect finally met the level of average educated American judgment or "taste"; but his style of presentation did not come down to the same level. His inimitable indication may be seen to be the same in the reproductions of his late drawings made at St. Paul, and in his early work in this country on the Ponce de Leon.

Francis S. Scales.

Crayon Drawing by E. L. Masqueray. The Louisiana Territory Monument.
Voyage of Lief Ericson to America, Year 1,000, Cunard Building, New York City.
Ezra Winter, Painter.
THE galley was a ship the principal means of propulsion of which was by oars. Sails are shown in most representations, but are assumed to have been merely for auxiliary power. Sculptured pictures of early Egyptian ships indicate the use of both oars and sails.

Representations on coins, seals, carvings of Greek and Roman vessels, show one or more than one bank of oars. The sculptured prow of the vessel upon which is the Winged Victory of Samothrace, now in the Louvre and the mere suggestion of the prow of a Roman ship forming part of the wall at the end of the Tiberian Isle at Rome and other fragments, have served as the bases of many fanciful representations and conjectural restorations of ancient galleys. It is not very probable that any of such works by artists or archaeologists are anywhere near to the actual designs of the periods.

The classic descriptions of fabulous vessels leave much to be desired in matters of fact. Although the description given in the Odyssey of the ships in which the great Ithacan voyaged during ten years coincides rather in form and capacity notably with the actual Viking ships discovered during the last half century.

Thus M. Hulot’s splendid Greek galley shown on his drawings of the restoration of Selinunte may be said to be simply M. Hulot’s idea of how a Greek galley may have appeared in the seventh or eighth century B.C. when Selinus was at the height of its glory.

Again Mr. Patouillard’s “restoration” of the Tiberian Island the whole of which he assumes to have been originally the form of a ship, is highly conjectural, imaginative, ideal and inventive. Piranesi includes a drawing of the prow among his illustrations but did not seem to think that the embankment walls extended around the island. An “unofficial” photograph of the actual remains taken by Dr. Charles in 1892, when the Tiber was unusually low, showed nearly as much of the masonry to be then existing as was shown in Piranesi’s drawing; but that is about all that Mr. Patouillard had upon which to base his magnificent conception. We can only hope that the Greek galley and the ship of masonry of the Tiberian Isle were as fine in reality as these French artists have imagined. It is probable that representations on ancient coins and seals were conventions and that the actual design of the ships was much modified in such cases in order to adapt the representation to the circular forms.

Of the earliest sailing ships ever found, the most complete was that known as the Gokstad
PENCIL POINTS


Design by C. H. Boyd for "A Roman Pleasure Boat."

Courtesy of "The American Architect."
End of the Tiberian Isle, as Drawn by Piranesi, About 1750,
Showing Remains of the Prow Form in Masonry.

Winchellese Seal.
From the Decorations on the Ceiling of the Cunard
Building. Ezra Winter, Painter.
ship found in 1882, unearthed by Professor Nicol-
ayson from a mound near Christiana, Norway. It
is a Viking ship probably of the 10th century and
is now in the Museum of the University of Chris-
tiana. Practically the whole hull, and the steering
oar or rudder, were found intact, and the other oars,
the sails, shields, anchor, etc. The ship, which is
approximately one hundred and three feet, over all
length, and sixteen feet beam and six and one-half
feet deep amidship, was primarily a coast boat, but
capable of deep sea going, as was proved when an
exact replica was made in 1893 and sailed across
the Atlantic to become one of the most interesting
exhibits at the World’s Fair at Chicago. The head
and tail emblems had disappeared. Descriptions in
the Sagas enable these to be restored with some
degree of accuracy. The unearthing of the Oseberg
ship in 1903 in Vestfold County, on the west side
of the Christiana Fjord, added some new informa-
tion showing a canoe-like formation of stem and
stern with beautifully carved ornamentation, and
almost completing the form of head and tail as de-
scribed in the Sagas. This find demonstrated con-
clusively that the Viking Ship became the tomb of
the sea chief, and in it were buried, with his remains,
all of his earthly possessions. It also raised the in-
teresting question, because bones supposed to be
those of a woman were found in the sepulchre,
whether the prehistoric Norwegians made burnt of-
ferings of widows.

The sails and rigging of ships shown in the Nor-
man-French Bayeux tapestry of the 11th century
and on the seals of the cities of Hastings and Win-
chelsea of the 13th century and of La Rochelle as
late as 1437 A. D., are all substantially the same.
The Hastings seal shows the Kind, Noble, or captain,
seated under a castellated canopy, or pavilion in the
stern of the boat. The Winchelsea seal shows pa-
vilions both fore and aft; the former a two story
structure and the latter with a battlemented deck
above upon which two heralds stand with trumpets in
hand. All of the ships shown on the seals have but
one mast with a single yard. The sails appear to

(Continued on Page 84.)
Designs for polychrome lead-and-glass work by J. Scott Williams. The designs are delicately cut from lead and painted in polychrome. They are inserted as central motives in windows of clear, leaded glass of antique appearance. Against the light from without the designs show as effective silhouettes. When illuminated by the lights of the room they show as painted ornament in vivid, well-harmonized colors, laid on with bold brush strokes. These are two of the six designs carried out in the leaded glass window shown in the drawing reproduced on the opposite page.
Detail of Design for Panelled Room at the Grand Central Galleries, for the Eli Berman Company, Inc. Edmund L. Ellis, Architect. See Drawing on Opposite Page.
THEATRE CONSTRUCTION
BY H. ROBINS BURROUGHS

A THEATRE is one of the most, if not the most, difficult problems of design, either architecturally or structurally, due to the fact that the latitude of design is practically unlimited. It is therefore important that a close contact be maintained between the architectural and engineering design, or at least the architectural designer should be supplied with such information as will permit him to plan intelligently and produce something which will ultimately work out satisfactorily from every point of view. Even in the preliminary sketches the structural features and general idea of the possibilities of the structural design must be considered. Unless this is done it will frequently be found that the sketches will not work out and that it may even be necessary to make fundamental changes in the arrangement in order to provide for a practical structural solution. The average modern theatre is devoid of interior columns. The roof and balcony, if there is a balcony, are supported on columns or piers concealed in the walls, and consequently clear sight lines, or visibility, is maintained throughout the entire seating area. The salient structural features about which the architect is primarily concerned consist of the following:

1. Proscenium Piers: The size of these piers depends on the size and height of the proscenium opening and they are in general not less than 2 ft. thick by 4 ft. to 6 ft. long and are constructed of brick bonded in with the 16'' brick proscenium wall.

2. Thickness of the walls and supporting piers, if any: The average rear stage wall of a theatre used for vaudeville performances extends to a height of from 60 ft. to 70 ft. according to the height of the roof over the stage, which is determined by the height of the proscenium opening and is approximately twice the height of the proscenium opening plus 5 ft. These walls should be at least 24'' below the stage, 20'' above the stage to a height of approximately 35 ft. and 16'' below the roof line with 12'' parapets. At the same time piers should be provided at intervals not to exceed 16 ft. as a means of lateral support. The sidewalls of the theatre if they do not exceed 40 ft. in height may be 12'' above the orchestra floor and 16'' below. If the theatre contains a balcony and the walls are approximately 60 ft. high then it is necessary to increase the thickness of the wall from the orchestra floor to the under side of the balcony to 16''. The rear or end wall, if the height does not exceed 40 ft. may be 12'' thick and if a balcony is used it should be increased to 16'' below the balcony. This is on the basis of using solid brick walls.

3. Type of construction of the proscenium arch: The proscenium arch may be constructed of either a solid reinforced concrete girder, usually from 10 ft. to 12 ft. or more in depth according to the spans of the opening and not less than 16'' thick, properly reinforced, or it may consist of a structural steel truss fireproofed with brick, terra-cotta, or cinder concrete. The writer recommends reinforced concrete as it has been found in the majority of cases to be the most economical.

4. Required depth for the balcony construction: The proper depth to be used for the balcony construction depends to some extent on the slope of the stairways and the elevation of the balcony front, or rather the distance from the front of the balcony to the stage. In any event, consideration must be given to obtaining the proper depth for the main truss which usually spans from wall to wall as the main support of the balcony. This truss should preferably not be less than one-twelfth of the span and the location of it will depend upon the available height between the balcony stairways and the ceiling line. The usual and most economical construction for the support of the front part of the balcony is what is known as the cross-arm cantilever type, as illustrated on page 78. It is also important to provide sufficient depth for the front truss which is usually located below the

Detail of Balcony Framing, The Alexander Hamilton Theatre, Paterson, N. J.
H. Robins Burroughs, Engineer.
Details of Balcony Framing, The Alexander Hamilton Theatre, Paterson, N.J.
Details of Balcony Framing, The Alexander Hamilton Theatre, Paterson, N. J.
PENCIL POINTS

front cross-over. Unless this is given consideration in the preliminary stages it may be found that insufficient depth has been provided and that this type of construction cannot be used, or in fact any other practical type. Therefore, in order to obtain a practical design it may even be necessary to re-study the entire layout. Proper consideration must be given to the diagonal girders supporting the cantilever trusses in order to make certain that there is sufficient clearance between the ceiling line and the vomitories leading to the front cross-over. Another important consideration is the necessity of getting through the main balcony truss at the vomitory points which are usually three in number and arranged one on either side and one at the center. In order to accomplish the necessary clearance for these vomitories it is frequently found advisable to provide two columns, placed about 5 ft. from the face of the wall and along the inner edge of the two side aisles extending into the orchestra floor. This permits the truss to stop at these points and provides an unobstructed opening between the columns and the wall on the mezzanine floor. One opening is then provided at the center of the truss leading from the mezzanine floor to the front cross-over. The front truss spanning between cantilevers should not be less than 5 ft. in depth and the ceiling line should be arranged accordingly, due to the fact that it is necessary for cantilever beams to project through this truss as a means of support for the three front rows of the balcony.

The construction of the balcony stepping may be made either of cinder concrete treads and risers poured as a homogeneous mass, and supported on angle iron brackets, or the treads may be made independently and should be not less than 4" thick, the risers being filled in later with terra cotta or gypsum blocks. A continuously poured cinder concrete balcony with the proper reinforcement is recommended by the writer because of the high degree of rigidity it possesses. It has a tendency to reduce vibration and very frequently the vibration of a balcony has been found to be the basis of numerous complaints by the patrons. A theatre balcony may develop a considerable amount of vibration and still be perfectly safe, but usually the lay mind does not realize this and becomes alarmed at the slightest vibration.

5. Required depth for the mezzanine floor construction: This is frequently a source of error due to the fact that the mezzanine is generally supported by the bottom chord of the balcony truss and the rear end wall. An open well is generally placed in the center of the balcony to provide for ventilation and act as a relief to the close proximity of the mezzanine floor from ceiling line to the orchestra floor. This opening adds to the complexity of design of the structural features and makes it necessary to have a greater depth between the mezzanine floor and the ceiling line—generally 2 ft. is required for the average theatre. If, however, the architectural design will permit the use of concealed hangers this construction may be somewhat modified.

6. Height of the roof above the ceiling line: This is determined by the required depth of the truss supporting the roof. If the ceiling line contains a dome, the roof may be supported on two cross trusses so arranged as to permit the dome rising between the trusses, in which case a reduction of roof line may be obtained. In any event, it is not advisable to attempt to reduce the height of the roof line beyond an economical point. Roof trusses should have an economical depth of approximately not less than one-eighth of the span. It will generally be found more economical to increase the depth of the truss and the slope of the roof so as to have an angle of not less than 20 degrees. This will permit of using a lighter live load and a consequent reduction in steel.

7. Height of the roof over the stage: This is determined by the height of the proscenium opening and the elevation of the gridiron. The elevation of the gridiron should be approximately twice the height of the proscenium opening, and the finished stage roof construction at least 5 ft. higher. The entire stage roof construction should be fireproofed. If tanks are required they should preferably be placed over the roof and near one side in order that the greatest load may be brought directly on the supporting walls and consequently effect a reduction in the amount of steel.

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House for Marsh K. Powers, Esq., at Cleveland, O. Bloodgood Tuttle, Architect.
THE AMERICAN ACADEMY IN ROME

FROM a letter recently received by C. Grant LaFarge, Secretary of the American Academy in Rome, from Gorham P. Stevens, Director, we quote the following items:

"Another Academic year is over, and a new one has started.

"All registration records were broken last year—there were no less than ninety. The greatest previous number was sixty-one. In the Mirafiori days the registrations numbered twelve. We are growing up.

"The properties are in good condition, and the Ward-Thresher Memorial completed. Mr. Davico has closed the fiscal year with a record balance. Our superintendent of Buildings and Grounds, Mr. Canziani, is again at work after a major operation as the result of a wound received in the war. All is in readiness, I believe, for a successful year.

"The Franks and the Merrill are in residence, and the other Professors, except Prof. Lamond, are on hand and ready for work. Prof. Vane Buren is not to go to the American School at Athens, but to stay indefinitely with us. All the new Fellows have arrived, except Finley who is due from Naples tomorrow. The registration of "Visitors" and "Visiting Students" is about normal. The lectures in the School of Classical Studies begin tomorrow.

"Prof. Kelsey of Michigan, one of the Councilors of the Academy, is in Rome. In a few days he leaves for London and America. He has succeeded in having the University of Michigan a large portion of a Library of Turkish MSS. His four research Fellows from the University of Michigan, who are to help him this winter in his Archaeological work, have registered at the Academy, and his research Fellow in Architecture is to arrive next week. Prof. Kelsey has shown special interest in trying to secure suitable living quarters on the Janiculum for our women students.

"The executors of Mrs. Jack Gardner's estate are trying, through the Embassy, to have her Greek statue, which has been away from the students' salon, removed to Boston. We shall be sorry to lose the statue, but, as it is to go to a public museum in America, it will do more good to American Art there than with us, where but a limited number of people see it.

"Mr. H. Nelson Gay of Rome, who owns the largest library (50,000 volumes) in the world on the Risorgimento, would think seriously of bequeathing his books to the Academy if the Academy were to agree to certain terms. Such a library would become in the future a valuable asset, as Mr. Gay has more than five thousand unpublished documents. The stirring events of the period of the Risorgimento are rapidly losing their political character and becoming historical."
THE PITTSBURGH ARCHITECTURAL CLUB

The Pittsburgh Architectural Club at the annual election appointed the following officers: Kenneth R. Crumpton, President; M. Nirdlinger, Vice-President; William H. Harrold, Treasurer; Edward H. Steffler, Secretary. Leo A. McMullee, retiring President, was elected director for a term of three years. Other directors are Henry Hunt and Thomas Pringle. Mr. E. B. Lee was unanimously elected chairman of the Exhibition Committee for the coming year. The Club by vote sanctioned the formation of a sketch class under a local artist, Cris Walter.

THE ARCHITECTURAL CLUB OF WASHINGTON

Mr. Rosenborn, Secretary of the Architectural Club of Washington, sends in the following report of the Atelier Cunningham:

The Atelier Cunningham is now a department of the Architectural Club of Washington, which hopes to foster in addition to Beaux-Arts work, water color, free hand drawing and other essentials necessary to the art.

A recent election discloses one member as a president, whatever that means, another as a vice-president and secretary, whatever that means, and another as treasurer, you know what that means.

The club has its bohemians, artists, cartoonists, and a couple of members who pay dues. Our views on architecture may be obtained at the drop of any hat and our opinion of Beaux-Arts judgments will be mailed from an Illinois Penitentiary in the near future.

Our Beaux-Arts record was very good last winter. The summer problems were a success as Esquisses go. But aside from ambition, you must remember, that we have a tin roof directly overhead, a blue print room directly beneath, and bugs flying in the windows. Add those up.

CHICAGO ARCHITECTURAL EXHIBITION

The Chicago Exhibition which has heretofore been held in the East Wing of the Art Institute will be held next year in Blackstone Hall, Art Institute, which with its rare collection of antique architectural fragments will form a distinct and unique background for the Exhibit of Architecture of today. The Exhibit will be held in February this year instead of May as formerly, in order that it may be forwarded to the National Exhibition which will be held in the Grand Central Palace in New York next April.

Drawings will be received up to December 20th. Entrance blanks may be obtained from Pierre Blouke, 721 N. Michigan Avenue, Chicago, Illinois.

GALLEYS AND VIKING SHIPS

(Continued from Page 73.)

be decorated with ornamental patterns and armorial bearings. The shape of the hull is depicted as similar to half of a melon, cut lengthwise, with a wide keel extending high above the deck at stern and stern. Flags take an important part in the effect. Apparently the ship of the Vikings was substantially the model for north European vessels until the Fifteenth Century; the hull was deepened to give greater cargo capacity and the pavilions, or cabin structures, fore and aft were more and more developed. Italian ships were larger and finer in their appointments than the English ships until late in the Fifteenth or the early part of the Sixteenth Century.

CHURCH PLANNING

"STANDARDS for City Church and Religious Education Plants." is the title of a manual published as a guide in building, remodelling or equipping a church plant or parish house. It lists 112 essential elements in an ideal church and establishes standards for each item for the guidance of building committees and architects. This book is the work of many architects, builders and religious education specialists. It is bound in boards, 73 pages, net postpaid for Fifty cents. Address Mrs. Elsie P. Malmberg, Secretary to the Dean, Boston University School of Religious Education and Social Service, Temple and Derne Sts., Boston, Mass.

JOSEPH A. COLETTI

Joseph A. Coletti has been awarded the Sachs Research Fellowship in the Fine Arts by Harvard University. The Fellowship carries an income of $2,000 annually and was established by Samuel Sachs of New York to enable "scholars of proved ability" to pursue advanced study in the history, principles or methods of the fine arts.

Mr. Coletti was born in 1898 and attended the public schools at Quincy, Mass. He apprenticed himself with the late John Evans, architectural sculptor of Boston. While working for Mr. Evans he was chosen by Mr. John Singer Sargent to assist him in the sculpture for the ceiling of the Boston Public Library. Upon completion of this work Mr. Sargent and Mr. Thomas A. Fox, Boston Architect, urged Mr. Coletti to get a university education. He prepared at Northeastern Preparatory School and entered Harvard University in 1920, concentrating on the Fine Arts. In his junior year he won a Travelling Fellowship in the Fine Arts and the following summer toured Italy, Switzerland, France, Belgium and England. Mr. Coletti received the degree of A. A. in 1924.

Mr. Coletti feels that he owes much to the late John Evans, John Singer Sargent and Thomas A. Fox and the Fine Arts Department of Harvard University.

COMPETITION OF HOUSE BEAUTIFUL COVER DESIGNS

The success of the cover competitions held the last two years, has led the House Beautiful to repeat this event and again to offer two prizes, one of $500 and one of $250 to the successful contestants. A number of honorable mentions will also be given. The competition closes February 7, 1925. Full particulars regarding the competition may be had on application from the Competition Committee, House Beautiful, 8 Arlington Street, Boston, Mass.

THUMB TACK CLUB OF DETROIT

The Thumb Tack Club of Detroit will hold its Fourth Annual Architectural Exhibition at the Detroit Museum of Arts, November 17th to 30th, inclusive. Inquiries regarding the exhibition should be addressed to Clair W. Ditchey, General Chairman, 324 McKercher Bldg., Detroit, Mich.
THE ARCHITECTURAL CLUB OF NEW HAVEN

Among the several activities of The Architectural Club of New Haven, Inc., plans for its sixth annual exhibition are claiming much attention. The exhibition will again be held in the Trumbull Gallery, Yale University, and will be opened to the public February 14th.

While there has been a steady development and corresponding increase of public interest in the club’s shows from that of its first humble beginning, the plans of the 1925 Exhibition Committee provide for a program which will indicate progress of signal importance.

At the conclusion of this exhibition the Leoni W. Robinson Memorial Medal for excellence in architecture will be awarded for the first time. The award will be made to a Connecticut architect who is a resident of and whose principal office is in that state, and will be made on his work as shown in this exhibition. The jury of award is made up of the following named members: Major George H. Gray, chairman; Edward B. Caldwell, Jr., Bridgeport; Charles E. Cutler, Westport; W. F. Brooks, Hartford, and Dean Everett V. Meeks, School of the Fine Arts, Yale University.

The committee of which R. W. Foote, New Haven, is chairman has commissioned Louis I. Gudebrod, sculptor, of Meriden, to model a bas-relief portrait of the late Mr. Robinson, the club’s first president, which is to be cast in bronze, and from this the memorial medal will be made. Mr. Gudebrod, who was for years with St. Gaudens, is a member of the club and has a long-established reputation for his success in portrait sculpture.

In connection with this exhibition also, the 1925 Exhibition Committee will conduct a prize small brick house competition. The competition will be open to all Connecticut architects and architectural draftsmen of at least one year’s practice in this state. Cash prizes amounting to $600, for this purpose have been generously provided by The Connecticut Brick Manufacturers Association and this sum is to be divided into three awards of $300, $200, and $100, respectively.

The competition will be conducted under the rules of the American Institute of Architects and R. W. Foote of New Haven has been appointed professional advisor. The competition will begin November 1st, and will end February 1st, 1925. The purpose of the committee in conducting this competition is to stimulate an interest in the small house of architectural quality; members of the committee being committed to the idea that through the medium of the small house the best possible vehicle is provided of awakening the public to an intelligent appreciation of architecture.

Another feature of the club’s next exhibition which will be of paramount interest is the section to be devoted to the showing of work of Yale men in architecture. It is
believed that this will be the first time a collection of this kind has ever been made for purposes of exhibition, and as it is well known, some of the leading architects of America have graduated from this university, so such a show is certain to be greatly appreciated both by the Connecticut public and by the faculty and undergraduate body of the university. Already many Yale graduates prominent in the architectural profession have indicated their intention of sending their work to this section of the exhibition.

Not the least attractive features of the show will be the exhibiting of the results of the club's annual Yale Scholarship and Fontainbleau Summer School Fellowship competitions.

ARCHITECTURAL SOCIETY OF UNIVERSITY OF TORONTO

TO stimulate interest in the activities of the Department of Architecture and to keep in touch with the profession, the graduates and undergraduates of the University of Toronto by form a Branch of the A. S. C. (Architectural Club). The meetings of the club are held by undergraduates and an honorary president is elected annually from the staff or practicing architects.

THE DERBY MANSION

A VERY interesting account of the designing of one of the more elaborate of Early American "great houses" is given in Fiske Kimball's "The Elias Hasket Derby Mansion in Salem" just published by the Essex Institute, Salem, Mass.

The author points out that though the general plans, design of interiors, and detail drawings of the building are identified as Samuel McIntire's by his handwriting and signature, and there is no doubt that he was the architect of the house as described by the design adopted had an interesting preliminary development and proves to owe very much to one whose name has never been connected with it hitherto—Charles Bulfinch.

The drawings are reproduced especially interesting, including preliminary studies by Bulfinch, drawings by McIntire for the house under consideration and plates showing the sources of inspiration of features of the design of this house. It is a scholarly, readable and very enjoyable book.

OLD SHIPS

ARCHITECTS and draftsmen who are interested in old ships and in ship models, and their number is large, will be glad to know that Doubleday Page are soon to issue a notable work by Henry B. Culver, with illustrations of the drawings in color. The title of the book is "The Book of Old Ships." The book will be published at $20 a copy.

This book will supply much desired information and give much pleasure to those who have found interest in the articles on old ships that have been published in the last two issues of Pencil Points and in the article on galleys and Viking ships in this issue. Letters have been received from a number of readers asking for the names of books on old ships, and to these and to all others interested in the ships of other days "The Book of Old Ships" with its illustrations will prove a most interesting work.

ATELIER CORBETT-KOYL

ATELIER CORBETT-KOYL has reached its quota membership in Class "A" and in Class "B" Projects. Only applications for membership as analystic will be accepted. Victor Frilb, Massier.
Alphabet by Geofroy Tory (1480-1533), Calligrapher to Francis I. Reprinted by request from Vol. 1 of Pencil Points.
JACQUES CARLU

JACQUES CARLU has arrived in this country and taken up his work in the School of Architecture at the Massachusetts Institute of Technology. The M. J. T. is very fortunate in having secured M. Carlu, who is one of the most able educators in the architectural field.

M. Carlu was winner of the GRAND PRIX DE ROME in 1920 and has been in Rome for the past four years. He has made as his envoi a very remarkable restoration of Rome in the Tuscan period.

M. Carlu studied in the Ecole des Beaux Arts, Paris, in the Atelier Duquenne and the Atelier Laloux and is regarded as one of the ablest men graduated from the school in recent years.

His skill with his brush is fully equal to that with his pencil. His vigorous personality, together with his thorough grounding in school principles, gives him an excellent background for his interest in modern problems and modern solutions, as distinguished from the stereotype projet that generally represents school training.

For the past two summers M. Carlu has been head of the American School of Fine Arts at Fontainbleau, where he won the confidence and affection of his students to a remarkable degree. He will retain that position for two summers.

PERSONALS

SAMUEL M. HITT, Architect, has moved his office to 114 West Tenth Street, Kansas City, Mo.

JOHN F. HOGAN has opened offices for the general practice of architecture at Rooms 314-315 Grosvenor Building, Providence, Rhode Island.

WALTER E. KELLY has opened an office for the practice of architecture at 515 Oregon Bldg., Portland, Oregon.

FREDERICK J. GRIFFIN, Architect, has recently built a large studio and office for his own occupancy at 301 Montclair Avenue, Newark, N. J.

FRANK GRAB, Architect, has removed his offices to 1023 Broad Street, Newark, N. J.

BROOKLYN CHAPTER OF THE A. I. A.

The Brooklyn Chapter of the American Institute of Architects, Mr. Wm. H. Gompert, Pres., announces the forming of a Student Associateship with the Chapter open to men within its territory who may come properly recommended and who can qualify under any one of the following classifications:

(a) Any architectural draftsman, with at least three years' experience as such, residing in Brooklyn.

(b) Any architectural draftsman, with at least three years' experience as such, who is employed in Brooklyn.

(c) Any architectural draftsman, with at least three years' experience as such, employed by any member of the Brooklyn Chapter of the A. I. A.

(d) Any student who has satisfactorily completed at least two years' day work in any recognized school of architecture within the territory of the Brooklyn Chapter.

(e) And any student of architecture with similar training, living in Brooklyn and attending any recognized school of Architecture.

Details governing the forming of this organization (which has been under the direction of the Committee on Education of the Chapter for some months) as well as a proposed program will be printed in the next issue of Pencil Points.

Mr. Lester B. Pope, of Pratt Institute, Brooklyn, N. Y., is Chairman of the Educational Committee.

ARCHITECTURAL EDUCATION

ARCHITECTURAL education is veering from tradition, stressing less both beauty and taste, according to Prof. William A. Boring, director of the school of Architecture of Columbia University, who in a special report to President Nicholas Murray Butler just made public, records his impressions of the International Congress on Architectural Education which recently closed its sessions in London.

American architects, Prof. Boring declares, are both artists and philosophers, comparable in their cultural associations to those of Greece and Rome. Planning he
calls the basis of architecture, saying that training demands sound knowledge of construction. The keynote of nearly all discussions impressed me as an insistence on expression of modern ideas of physical needs of society, and modern methods of construction," says the report of Prof. Boring, who is Treasurer of the American Academy in Rome."

"Insistence was recorded on expressing modernity. The need of beauty was not stressed, nor was the cultivation of taste made an issue. This is, no doubt, a legitimate feeling that we are leaning too much on the use of good old forms which have been overworked, augurs something vital, but this idea alone cannot lead us to success in architectural design.

"Knowledge of structural materials and their uses, excellent craftsmanship, even good detail are not the broad basis of good design. To place these in the forefront of an educational scheme seems narrowing. The disposing of masses after analysis of the problem is more important. Planning in its broadest sense is the basis of architecture."

"The attitude of mind must be encouraged in our educational work. We must adhere to the larger aspect of design in instruction, including, of course, as a proper equivalent, a sound knowledge of construction and good craftsmanship.

"At the risk of seeming narrow, I must say that the American exhibit seemed to me a sound expression of good design, when compared with the work of other countries.

"The teaching of architecture as an art in a well-organized school seems to raise it into a higher plane than the combined efforts of the office and school working together, as followed by many schools.

"The time we have to instruct pupils is too valuable to devote to petty details of the business of an office. It seems better to inspire students to work for an ideal of beauty than to equip them to take positions as technical assistants in an office.

"Architecture as a profession should rank in the minds of the public as on a par at least with law and medicine. We cannot maintain it so by teaching the craft alone. We must turn out scholars who are masters of craft also. In America our architects of distinction move in the highest intellectual circles, as they did in Greek times. They are men of culture, of science, of good taste, and have a knowledge of building processes as well as of good design. In other words they are artists and philosophers.

"Much has been said about commencing early to learn architecture, and no doubt early familiarity with good buildings is an advantage. Our experience, however, shows that college bred men who come rather late to the study of the strongest men in the school. Learning to draw early is almost essential, and facility in this method of expression is a great advantage.

"Some students do so naturally; others must acquire it; all must master it.

"But the art of architecture is greater than its expression on paper. Only a limited number of aspirants reach the plane of real architects. Schools should teach such subjects and in such a way as to bring out and develop the natural gift of the student.

"We must recognize that a person of great talent will succeed either in or out of a school, but he will have a better basic foundation for his work if he has good school training. A school should give him those things as basic ideas which he can learn in practice only by going through and rising above the maze of details.

"Four years is not enough time for a high school graduate's acquiescence represented by a degree. If a curriculum includes general education subjects, it should be longer than four years because the professional instruction alone requires at least that much time.

"The average student who has not advanced beyond high school grade is not sufficiently developed to properly approach the major subjects taught in a professional school.

"He can very well be taught by allotting six years from high school to diploma, on the plan of a combined course which rests on the elementary subjects in his professional studies with his general college curriculum."
Details of Construction—Beach Lodge for Mrs Bernhard Hoffman, at Montecito, California.

Winsor Soule, Architect, Santa Barbara, California.
Details of Construction—Design for Gate for Henry W. DeForest, Esq., Cold Spring Harbor, L. I.
Olmsted Brothers, Landscape Architects, Brookline, Mass.
THE heading reproduced above, placed fourth in the competition, was submitted by Mr. John P. Morgan of Pittsburgh.

The ten dollar prize for the best contribution to this department for October goes to William Moyer of Boston for his drawing entitled "The Draftsman's Dream." Come again Bill!

Mr. W. C. Callahan, Columbus, Ohio, one of our valued subscribers, does not like this department one little bit and says so like a man.

"I, as one of your subscribers, enjoy Pencil Points, not thoroughly, however. Can you not spare us that department known as 'Here and There and This and That' with its cheer-leader enthusiasm and slang, its doggrel verse, and high-school cartooning? If it cannot be omitted I would suggest placing it at the middle of the magazine that it might be lifted out without damage to the valuable material. "

"Really, as it is, I do not let my Pencil Points be where friends can find it and this department for fear of losing their respect.

"It is as incongruous, shaming and disappointing as an idiot's shriek and grimace would be from a beautiful woman."

Now maybe a lot of other people don't like this department any better than Brother Callahan does. And if so please step up and say so just as frankly. Yes, we admit we have published some doggrel, but we are lowbrow enough to admit that much of it has amused us and so we passed it on to the rest of the folks, some of whom have been kind enough to say that it amused them. Slang? Yes, we admit that too. We think largely in terms of slang and when we lock the door and bring together the material to appear in each issue of Pencil Points we write just as we think, and let the chips fall where they will.

But we don't want to hurt anybody's feelings and we don't want anybody to be ashamed of Pencil Points and feel obliged to tuck it into the desk or cover it up with a bunch of papers when a caller comes in.

Let's stand up and be counted! Who likes this department and who doesn't? Brickbats are as welcome as bouquets.

Our thanks to Mr. Callahan.

Sketches and more sketches have been coming in increasing numbers from day to day for entry in the Pencil Points Sketch Competition for 1924, so that by the time the competition closed, noon October 20, a quantity had been received that will give the jury plenty of work. We are greatly pleased with the enthusiastic response from widely separated places. The judgment will take place shortly and the results will be announced in the December issue.

The mystery surrounding the identity of Oong Gow is beginning to clear up. To date our detective bureau is able to report that he mails his communications from Oakland, Calif., and we are confident that we will soon be in possession of his real name, local address, etc. And just as soon as we secure this information we will forward that ten dollar check coming to him for his verse printed in the September issue, and in the meantime here is another one which came in the mail this morning:

**LAMENT OF A CASUAL**

In this corral they like to dwell
In days gone by when Gink and Guy
Would sit and gloat,—another bloke
Had left the town!

But which would cheer when they would hear:
Some other man arrived to plan
On this same staff? Would either laugh?
Not Smith nor Brown.

These uncouth hicks would never mix
Nor compensate at proper rate
His work as soon as they gave at noon
The up and down.

Oong Gow.

And now we have another mystery on our hands, and this time its all the fault of the careless editor of this department. Last month we received a sketch, reproduced below, signed L. F. C., and on a separate sheet was the name of the contributor. This got lost in the shuffle and we do not know to whom to credit it. Will the author kindly step forward so that we may print his name in the next issue of the paper?
HERE is a letter from our faithful contributor, Ernest O. Brostrom of Kansas City, which, together with a reproduction of the book plate mentioned, tells its own story. Rather a charming idea, say we.

"Dear Mr. Editor:

"Last Xmas I was the recipient of an unusual gift from one of my draftsmen, J. Leland Benson. He presented me with a cut and proof of a very charming book plate. I am sending herewith enclosed a copy of same, believing that it might contain some suggestion for some draftsman to give pleasure to his 'boss' in this very thoughtful and beautiful manner.

"It so happens that the name 'Brostrom' literally translated, means 'bridge-stream'. You will get the connection with the picture instantly.

"Mr. Benson did not tell me the significance of the arch nor of the turrets, neither did he indicate any special symbolism for the two lean foliage looking trees. "The symbols in the borders explain themselves."

AND here comes the culprit himself, J. Leland Benson, with a reproduction of a linoleum block which he did last year and had printed as a Christmas card.

CHRISTMAS GREETINGS

Here is what he says about it: "It was cut on a sample of linoleum left in this office by a salesman. It was then fastened to a wood block with Higgins' Drawing Board Paste and printed on an ordinary job press. Anyone who contemplates doing the same thing this year should choose the size more carefully than I did because I was forced to make my own envelopes."

We will pay 25c. each for copies of the July, 1924, issue of PENCIL POINTS delivered to this office in good condition.

THE PENCIL POINTS PRESS, Inc. (adv.)

LAUREN V. POHLMAN, architect, 58 Broad Street, Newark, N. J., desires to secure volumes 1, 2, 3 and 4 of the White Pine Monographs and Numbers 1, 2, 3 and 4 of Volume 9. He would like to hear from anyone desiring to dispose of these items.

F. L. Brown, 537 Linden Street, Scranton, Pa., offers the following issues of PENCIL POINTS: December, 1921, all of 1922 except May and July, 1923 complete, 1924, January to September.

Thomas Raad, 44 Court Street, Brooklyn, N. Y., care Selig & Finkelstein, wants to secure copies of PENCIL POINTS for March and October, 1922.
six inches of the vase and falls over in a faint. When the pile of moths gets high, they are readily swept up, as the vase along with the brush is.

To prevent this, get the ordinary gargling strength carbolic acid solution 10% carbolic, 10% alcohol, and balance water (I guess) and place about five drops of this on the dampening blotters, cloths or whatever is used to keep the colors soft.

Another one. When pans get too darned hard. Place open dried-out pans of color in Mason jar, together with a split potato, and a few drops of carbolic. They will soften up to the right consistency.

One more. Lost a peach of a brush once, due to moths; now I keep my oldest, most robust cob pipe in the brush vase along with the brushes. Mr. Moth gets within about six inches of the vase and falls over in a faint. When the pile of moths gets high, they are readily swept up, as the lack of consciousness on the moth's part is permanent.

Best one of all. To keep tubes of color from drying out. Dip the ends of the tube after using, in glycerine—just a wee drop, and screw back on, they will hold tight for years.

Yours till the tubes break,

NAT PIPER.

The St. Louis Architectural Club sent us on September 27th, a notice of their evening courses in architecture. This was too late for the October number and now the time for registration has passed, but we are printing it just the same to let our readers know about these courses and with possible reference to next year.

Washington University and St. Louis Architectural Club. Evening Courses in Architecture, beginning October 3, 1924. In the Club House, 514 Culver Way. Registration at the Club, September 27th, 2 to 5 p.m., and September 29th and 30th, 7:15 to 9:30 p.m.

Courses offered and fees for the entire year:

Any number of these courses may be selected by the student for an annual fee of $30.00. Payable in full in advance. Any single course, excepting design, may be taken for the annual fee of $15.00.

*A Life Class will be held on Monday evening; fee $20.00. Not given for less than twelve students.

For further information call Prof. G. Ferrand, Washington University; F. Ray Lemmuehler, Chairman, Atelier Committee; Mauran, Russel & Crowell.

EMIL MONIER of River Edge, N. J., sends us a neat little sheet showing a method for drawing an Ellipse. The diagram is reproduced herewith, the accompanying explanation, which was nicely lettered, being set in type to save space.

Draw the longitudinal and transverse axis as required. Draw lines a and b. Divide a b and b c into three equal parts. Draw 1d and 2d as shown, 3e and 4e prolonged until it meets d b, giving the center of the arc f d at g. Draw f g and f k. Bisect f k by a perpendicular line prolonged to m giving the center of k f. Draw k m giving the center of b k at n.

For the third other sides: Draw a circle using c as a center and c m as the radius. Find centers p q r with the T-square and triangle. Draw g o through r and r t through s. That's all.

FROM THE OFFICE OF PIPER AND KAIRS
LONG BEACH, CALIF.

ABOUT so often we have to "bust" into print, and following you will find several things about water colors that I have learned from artists, that will be of the greatest help to "archies"!

In damp countries—water colors in pans, when kept in a moist condition—ready for quick use—as in the color box will mold. To prevent this get the ordinary gargling strength carbolic acid solution 10% carbolic, 10% alcohol, and balance water (I guess) and place about five drops of this on the dampening blotters, cloths or whatever is used to keep the colors soft.

The Public is especially invited to attend this meeting. Be prepared to vote on the referendum in November. This is the biggest question you have been asked to decide since the world-war came early unless you wish to attend. See you at the club.
NEW YORK'S PROPOSED ARCHITECTURAL CLUB

THE EXECUTIVE COMMITTEE of the Architectural Bowling League of New York are keenly interested in the request of the editor of PENCIL POINTS for information concerning the organization and growth of architectural clubs and the resulting response. These answers are coming in at an extremely psychological time for us.

To organize a club which will fill the needs of all Architectural men in the largest city in the world and environs is a job which obviously cannot be turned out over night. Many worthy men have tried to put it over in years gone by but the history of their efforts usually showed that they had been handicapped by the activities of radical obstructions, agitators, seekers for personal glory, and labor organizers. A few of these last mentioned were undoubtedly men who truly and conscientiously felt that they were aiding their fellowmen by proposing By-Laws and other safeguards to save them all from becoming "slaves to capital" and other such high sounding phrases, but the most of them were just plain sore-heads. However, call them what you will, the fact remains that they always succeeded beautifully in throwing a monkey wrench into the works, with the result that the present day still finds our great city without a club.

Even today a few well meaning individuals have seen fit to criticise the present organization of bowlers which is sponsoring the club movement, because the same officers were elected together as a team, owing to the imagination of the men and spurring them on to work for a club of their own.

The bowling tournament is now in full swing at the Shelton, every Monday, Wednesday and Friday from 6:00 to 10:00 p.m., and the pleasant surroundings of this most splendid of modern club hotels is already reflecting itself on the imagination of the men and spurring them on to work for a club of their own.

Mr. Lloyd H. Smith of Warren & Wetmore team holds the high score at the present writing of 225, but he will have to top that if he wants to keep the honor, for there are a fine lot of crack bowlers out to take his scalp.

The dates of our proposed games with the Detroit League will be announced in the December issue of PENCIL POINTS.

Saturday afternoon, October 18th, saw the defeat of our baseball team by only one run by the team of the Mutual Welfare League, Sing Sing Prison. The score was 4-3. Our opponents are indeed deserving of their title, "The Leading Intra Mural Semi Pro Team of the World." Of 109 games played they won 81, lost 23 and tied 5. A very good record when one takes into consideration the fact that many of those 23 games were lost to such teams as the N. Y. Giants, 11-4, N. Y. Red Socks, 10-3 and other professional teams.

Considering the small amount of practice our boys havetrad together as a team, owing to the short time of their organization, even the most uninitiated could see the possibilities of an unusually fine team for next season.

It was indeed a red letter day for the Architectural Bowling League of N. Y., under whose auspices the baseball team has functioned, and as the one hundred and twenty-five Fans and Fannies who went up from the city shouted their approval of the splendid team work which our boys displayed, President Capel, flushed and happy, beamed his well earned satisfaction. Once again the Bowling League was responsible for a gathering of architectural men in the bonds of fellowship, this time accompanied by their wives and sweethearts on a twenty-five mile jaunt out of the city.

Herrick guarded 1st base like a veteran and with his cool, deliberate catches, clipped the wings of many ambitious one-baggers. Shouldn't be surprised if we heard a lot from that young fellow next year. Early and Keppler, pitcher and catcher, respectively, worked in that perfect union which one might see in a well made machine and it was a pleasure to watch them.

Anderson, our stalwart blonde short-stop, was given credit by the pitcher of the opposing team for being able to find every ball that he could send over, and his two drives over the left field wall were the home-run sensations of the game. This feat has only been accomplished three or four times during the entire season. When it comes to foot work though we will have to hand the laurels to Forester. Every right field drive found him right on the job, picking them out of the ozone as easily as plums off a tree. He not only got under them but he also knew how to hold on to them for the required length of time.

Well take it all in all, Pop Scheffer can certainly feel proud of his boys. Every one of them worked hard and well to bring that game home to us, and the other members of the Architectural Bowling League owe Mr. Scheffer a vote of thanks for his work in getting such a splendid team together.

N. T. VALENTINE
Hotel Shelton, N. Y. City. Secretary.

J. J. TUBBY, architect of our town starts an interesting little thought in submitting a snapshot of an old New York doorway taken under the elevated structure on Greenwich Street, near Trinity Church. It is reproduced herewith:

Now with sketch pad or pocket camera we can pry into lots of out-of-the-way corners and drag out into the light of day interesting bits that have heretofore escaped publication.
THE SPECIFICATION DESK
A Department for Specification Writers

STEEL COLUMN BEARINGS FOR REINFORCED CONCRETE GIRDERs, BEAMS AND SLABS

BY OTTO GAERTNER

THE more extensive use of reinforced concrete for buildings makes it more and more necessary to study out ways of overcoming difficulties in connection with increases in the sizes of girders, beams, etc., over the sizes used in structural steel work and in some of our institutional work, commercial buildings usually having spaces especially provided for concentrated mechanical equipment and generally not being so exciting from the architectural point of view. Therefore, it is in such buildings as first mentioned that reinforced concrete girders and beams must be supported without the supporting bearings occurring on the columns being apparent. In such buildings also the architectural requirements would demand that the columns be made as small as possible in cross section to enable them to be placed within partitions and to escape attention. Therefore it is necessary to have the columns made of reinforced concrete but of steel fireproofed with concrete and the load must be transmitted directly to the steel column. Such columns may be built up of two girders placed in the shape of a cross with equal legs and fastened together by means of plates spaced vertically as may be required and riveted to the legs of the two angles alternatingly, one leg of each angle being riveted to each plate.

Also the columns may be rolled H columns, or they may be built up of plates and angles, or other rolled sections to any required strength. Sometimes a cast iron core is used, but although it is more economical than steel it is not so dependable and does not lend itself so easily to providing girders bearings. When the concrete covering is made heavy enough it may take part of the load, the whole acting like a reinforced concrete column. It is seldom however that the concrete covering of these columns is made to receive any of the load, the steel generally being figured to take it all, especially that of the reinforced concrete girders and beams. Of course the smaller the column sections the more difficult it is to cover any steel girder bearings fastened to them and it is generally in the buildings where the smaller sections occur that it is most important to hide them. They may be hidden in furred ceilings, in the concrete column covering if it can be made thick enough they may be hidden in ornamental caps at the tops of the columns, or they may be hidden by building them into the girders enough to be covered. In commercial buildings, moulded ornamental caps generally occur on columns and they may readily be made large enough to cover the beams supports since these columns are generally large on account of the superimposed loads.

Beam bearings may be cast as part of the cast iron columns but not be expensive on account of the varying conditions that may occur, necessitating numerous patterns. In connection with steel columns, the bearings are made of plates and angles. This is easily done when the beam columns at least, but when there are plate must first be fastened to the column to get the necessary offset.

There are several ways of making the bearings. Their size and stiffness depend on the load which they must sustain. Since angles may be had up to eight inches, a bearing surface of eight inches in a simple bearing or bracket may be had. At the same time the thickness of the metal is often sufficient to prevent the bracket from bending without complicating it by adding stiffness. Such a bracket, riveted to the column with one leg turned up and one turned out to form the bearing surface may be entirely encased by the beam which it supports and by the fireproofing on the column without increasing their thickness. Another type of bracket consists of an angle applied as above with another angle riveted to the column and to the above angle with its one leg turned down and its other leg turned out. The thickness of the bottom leg together with the projection of its rivet heads must be added to the thickness of the fireproofing on the side of the column on which it occurs. The bearing surface may be increased by placing a flat plate on the upper angle, so that the plate will project beyond the bearing surface of the angle.

Another type of bracket is made by taking an angle and cutting of a center section of one of its legs so that the angle may be bent into a U shape. The leg of the angle which has not been bent is the one that projects from the column and forms the seat for the beam. The angle is riveted to the column through the two remaining portions of the leg of which the portion has been cut out. Since the cut out portion of the leg occurs at the bottom and the two remaining portions form the vertical legs of the U and occur on the inside of the U, there is no part of the bracket which necessitates increasing the fireproofing on the beam or on the column in order to do so. In buildings that are not strictly fireproof and where no building code demands a minimum thickness of fireproofing, the fire-proofing is sometimes carried up beyond the fireproofing in the one angle bracket mentioned above the bottom leg and rivets are covered in with a little less fireproofing than is the column itself. The above brackets are the ones that should be used if possible both for economy and for appearance. If the bracket must be offset from the center of the column so that a plate or angle bracket must be riveted to the column to receive the bracket to support the concrete beam, care should be taken to design it so that it may, if possible, be hidden in furring or in a partition. In a beamless and girdelless reinforced concrete floor system similar brackets to the first two may be used, but of course they would be placed on the sides of free standing columns. Such systems are generally used in connection with commercial buildings where the floor loads are heavier and the brackets must necessarily be heavier and stiffer. In such buildings however, the upper parts of the columns may be flared out to form plain, moulded, or ornamental capitals which can hide the necessary stiffening angles of the brackets.

KEEPING BUILDINGS DRY

By Cecil Fisher

THERE is no doubt that in the past the importance of flashing in building construction has not been fully recognized. It has long been the custom to fasten gutters and to use flashing at the junction of roofs and parapets, but it is only recently that designers and owners of buildings have begun to realize that flashing is necessary especially on the uppermost and rear surfaces of exposed architectural features. It is now becoming evident that more attention must be paid to the protection of parapets and copings, the top of cornices and the floor of balconies.

An extensive examination of buildings erected in the last thirty years shows conclusively that the saturation of cornices and parapets is a very prevalent condition. In some cases the water enters at the mortar joints in the top of the coping. In other cases rain beats in and soaks in at the joints in the back of the cornice. Very frequently the mortar joints in the wash of the cornice are so cracked and porous that water that runs down the parapet or falls...
on the top of the cornice finds its way into the interior of the wall.

Many architects and owners find that they have been placing too much reliance on the mortar joints. Having prophesied that waterproof building materials, such as tar-cotta or hard stone, and having specified mortar of tested ingredients and approved mixture, they supposed that their buildings would be water-tight when erected. They are now finding that many buildings are not water-tight, and on searching for the cause, they usually discover that the water is getting in at the mortar joints in the wash of the cornice and parapet coping.

At first glance it might appear that by carefully caulking or grouting the joints in the wash of cornices, parapets, and balconies, it should not be very difficult to make them water-tight. But a great many of these features proves that for one reason or another, washing or grouting the joces are not being obtained. This condition may be attributed to improper grouting, as for instance, poor workmanship, poor mortar, disintegration by frost, or cracking of joints due to thermal expansion and uneven settlement.

Many kinds of elastic cement and various caulking compounds for the protection of mortar joints are on the market and some of them remain impervious and somewhat elastic, but none of them appears to retain its original qualities indefinitely. Protection by means of caulking compounds involves periodical examination and costly maintenance.

The results of poor joints are far reaching. The most common visible damage due to leaky joints in washes is unsightly staining and streaking on the face of the building. This staining and streaking is often extensive enough to destroy the beauty of a costly building. Frequently the stains and discolorations clearly indicate that soluble portions of the mortar are seeping out at the beds and joints and are being deposited on the face of the building. Such a condition as this, if allowed to continue, will rapidly bring about the disintegration of portions of buildings on which it occurs.

Another serious result of leakage at joints is damage to plaster ceilings and walls within the building. Cases have been known where the water entering at leaky joints in the washes of cornices and parapets has penetrated the walls to the depth of several stories below, causing considerable damage to the balconies and balustrades. The presence of moisture leads to rapid corrosion of the steel members and may eventually render projecting features unsafe.

Architects and owners of buildings also have to consider the effect of dampness on steel framework within cornices, balconies, and balustrades. The presence of moisture leads to rapid corrosion of the steel members and may eventually render projecting features unsafe.

As impervious joints are difficult to obtain and expensive to maintain and as neglected leaks result in damage to valuable buildings, it is advisable to cover wash surfaces with an impervious and permanent coating. Sheet metal is a suitable material for this purpose. It can be carried over the top of cornices and in most cases should be turned down over the nib far enough to form a drip and allow the water that runs down the wash to fall clear of the moldings. In this way the face of cornices may be kept clean and free from stains of any kind. When the top of a cornice is flashed, it is advisable to carry the flashing entirely through the base of the parapet and connect it with the cap flashing at the back of the wall. In this way water which enters at the top of the parapet is prevented from getting down behind the flashing and the back of the wall and is also prevented from getting underneath the flashing on the top of the cornice. The backs of parapets should be flashed whenever possible and the flashing should be laid on the top of the cornice and be laid in the bed joint immediately below the coping. Then, if there is any leakage at the joints in the wash of the coping, the water cannot get behind the flashing, as it can with flashing in which the flashing is applied only to the back of the wall.

The unsightly discoloration that is so much in evidence on the underside of balustrades indicates the necessity for better protection of these features. It is almost impossible to make the deck of a balcony water-tight by means of a cement or tile finish. A covering of sheet metal should be used in all cases. In flashing the tops of balcony slabs with sheet metal it is necessary to run the flashing out to the nib if the best results are to be obtained. Quite frequently the floor of a balcony is built of hard stone and is covered with a hardwood threshold which terminates in raglets in the base of the balustrade. This practice almost invariably results in the saturation of the balcony slab by water which finds its way through in the balustrade and runs down behind and underneath the flashing. By carrying the flashing underneath the base course, water that enters at the joints of the balustrade cannot penetrate to the balcony slab, and the soffit of the balcony is kept dry and unstained.

The washes of pediments and dormers should be completely flashed if staining and other evils of saturation are to be avoided. While the use of sheet metal for the protection of mortar joints in washes may entail some slight additional expense at the time of the erection of the building, it will be found more economical in the end because the cost of maintenance will be saved. Moreover, a building that is properly protected at the beginning will retain its original beauty and value.

**PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER.**

Any publication mentioned under this heading will be sent free, unless otherwise noted, upon request, to readers of *Pencil Points* by the firm issuing the publication.

When writing for any of these items please mention *Pencil Points*.

**Eight Periods and their Modern Adoption.**—Illustrated brochure showing some of the principal periods of interior decoration adapted to modern specifications for the finish of woodwork and fixed decoration. Hallman, Ruble, and Stuart, William and Mary, Queen Anne, Adam, 18th Century French, and American Colonial. 50 pp. 8% x 11. Murphy Varnish Co., Newark, N. J.

**The Waterproofing Handbook, 6th Edition.**—Covers subject of waterproofing as applied to modern building construction. Specifications and instructions for flashings and waterproofing joints, all with full description, illustrations showing various methods, and detail drawings covering the subject. 16 pp. 8% x 11. General Fireproofing Co., Youngstown, Ohio.

**Drawn Materials, 18th Century and Later.**—Describing everything required in the drafting-room, with new list prices. Fully Indexed, cloth bound. Eugene Dietzgen Co., 138 West Monroe Street, Chicago, Ill.

**Specimens of Bronze Work.**—Brochure showing American name plates, tables for business buildings, memorials, etc., and a selection of architectural bronze features suitable for banks and many other types of modern buildings. 32 pp. 7% x 9%. Chicago Architectural Bronze Co., 4740 North Clark St., Chicago, Ill.

**Paint and Varnish Products.**—Catalog No. 53 covers in concise form complete line of paints, varnishes, stains and enamels for all uses. Complete directions, specifications, suggestions, etc. 110 pp. 6 x 9. Devore & RAYNOUS Co., Inc., 163 Fulton St., New York.

**Beautiful Birch.**—Brochure in Sepia with color plates showing application of this wood to many conditions and various types of buildings. 28 pp. E. 12. American Century French and American Colonial are covered. 50 pp. 8% x 11. General Fireproofing Co., Youngstown, Ohio.

**Waterproofing Concrete.**—Illustrated booklet covering both fixed and movable seating suitable for all types of Lodge rooms, auditoriums, etc. 24 pp. American Seating Co., 14 East Jackson Blvd., Chicago, Ill.

**Bucco Solid Steel Sash, Catalog F-24.**—Many sectional drawings and much data on the window hardware showing application in many types of buildings. 36 pp. 8% x 11. The Vitrify Co., 612 W. Randolph St., Chicago, Ill.

**Furnishings, Equipment and Supplies for Public Service.**—Catalog E-26. All types of supplies required in the hotel, club house, restaurant, office, etc. 50 pp. Albert Pick & Co. 208 W. Randolph St., Chicago, Ill.

**Artists' Materials Catalog.**—Covers a wide range of supplies and equipment for artists and draftsmen. 132 pp. 6 x 9. B. K. Elliott Co., 126th St., Pittsburgh, Pa.

Suggestions for Architects and Their Clients—A series of booklets on the installation of high-class equipment for the bathroom. Suggestion No. 5 has just been published. Crane Co., 830 So. Michigan Ave., Chicago, III.

Windows for Better Built Houses—Brochure illustrated in color showing distinctive designs and patterns, containing much useful data on widths, thickness and other matters dealing with correct flooring practice. 24 pp. 8 1/2 x 11. E. B. Root Co., Memphis, Tenn.


Recent and Drainage Fittings, Catalog F—Covers F & W line completely. Handy pocket size. The Central Foundry Co., 41 East 42nd St., New York.


Furnishings for the Fireplace by Mr. B. F. Aniss—Attractive booklet showing designs of andirons and other fireplace accessories conforming with the important periods from the year 1400. English, Italian, Spanish, Gothic, Flemish, Dutch and American Colonial are covered. 24 pp. Chattanooga Roofing and Painting Co., 414 South Chattanooga Ave., Chattanooga, Tenn.

Just Inside Your Threshold—Just off the press. Attractive booklet with floor plans, colors and design patterns, containing much useful data on widths, thickness and other matters dealing with correct flooring practice. 24 pp. 8 1/2 x 11. E. B. Root Co., Memphis, Tenn.

Bath, Shower and Lavatory Fixtures, Catalog S—Loose-leaf book and filling complete line, together with necessary specification data. 20 pp. 8 1/2 x 11. S. Roys & Son, Inc., 360 No. Franklin St., Chicago, III.


The Vent idol—Data sheet describing a ventilating panel, described. Complete Fairfacts line including medical cabinets and price lists. 16 pp. 5 1/2 x 11. Van Zille Ventilating Corp., 229 Madison Ave., N. Y.

"White" Efficiency Homes—A. I. A. standard classification 131945. Attractive和技术 diagrams and plans, including floor layouts, and specifications and other useful data. 20 pp. 8 1/2 x 11. Philip Carey Co., Lockland, Cincinnati, Ohio.

Blast-Proofing for Modern School Buildings—A. I. A. standard classification 155546. Booklet covering subject illustrated by 58 examples of modern school structures of various types and sizes. Specifications and other useful data. 66 pp. 8 x 11. V. G. Nelson, 10 East 24th St., N. Y. C.

Chinaglass Bathroom Accessories—Catalog F—Illustrated and descriptive complete Fairfacts line including medicine cabinets and price lists. 16 pp. 5 1/2 x 11. The Fairfacts Co., Inc., 224 West 14th St., N. Y. C.

Published by the same firm, "The Perfect Bathroom" describing most modern conveniences and necessities. Uniform and standard throughout.

Distinctive Houses of Indiana Limestone—Volume 12, section on 1400-1924. Selected wide range of residences designed by many architects interpreted in limestone. 24 pp. 8 x 11. Indiana Limestone Quarries' Assn. Box 784, Bedford, Indiana.


Saving Home Construction Costs—Technical booklet on the important subject Long-Deil Lumber Co., 1601 East 9th Ave., Kansas City, Mo.

Architects' Handbook—Illustrated showing how to select and installing San Onyx in bathrooms, and for many other uses. Specifications. 8 1/2 x 11. The Schwartwout Co., Cleveland, Ohio.


Lighting Service for Banks and Insurances—Catalog No. 425. Illustrates the type of equipment required in these buildings for lighting layouts and installation of fixed and portable lighting units. Much technical data on modern lighting. 32 pp. 8 1/2 x 11. L. P. Frink, Inc., 2438 24th St. & 11th Avenue, New York, N. Y.

Brass Pipe for Water Service—Bulletin B-1 monograph on the subject, typical layouts and valuable engineering data for architects and others. 8 1/2 x 11. 32 pp. The American Brass Co., Waterbury, Conn.

Anderson Window Frames—Illustrated booklet with drawings covering design and construction of window frames. 24 pp. 8 1/2 x 11. Andersen Lumber Co., Bayport, Minn.

Specifications and Working Details—Covers stucco, stucco base, plaster base, wire lath and insulating base. Instructions for mixing and applying, details, drawings and specifications. 4 full page plates. 20 pp. 8 1/2 x 11. The Bishophig Mfg. Co., 110 East Ave., Cincinnati, Ohio.


STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC. REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912.

Pencil Points, published monthly at Stamford, Conn., for October 1, 1924.

State of New York. I hereby certify that the following is, to the best of my knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the above named newspaper:

1. That the name and addresses of the publisher, editor, manager, and business managers are:

   Name of Post office address

Publisher, The Pencil Points Press, Inc., 19 East 24th St., N. Y. C.
Editor, Eugene Cleave, 10 East 24th St., N. Y. C.
Managing Editor, None.
Business Manager, W. V. Montgomery, 19 East 24th St., N. Y. C.

2. That the owners are (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent. or more of the total amount of stock):

   The Pencil Points Press, Inc., 19 East 24th St., N. Y. C.
   Ralph Reinhold, 19 East 24th St., N. Y. C.
   F. W. Robinson, 19 East 24th St., N. Y. C.
   E. C. Nells, 19 East 24th St., N. Y. C.
   Marion S. Carpenter, 920 Fifth Avenue, N. Y. C.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent. or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders appearing upon the books of the company, but also, in cases where the stockholder or mortgagee appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing all information and knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company, but a statement containing a certificate of the officers of the company, that they have not to the best of their knowledge and belief, or any other fiduciary relation, the name of the stockholder or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing all knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company, but a copy or specification of the books of the company shall be examined for any such stockholders or security holders except as to the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner: and this affidavit has been made under oath to the person making this affidavit. This affidavit has any interest direct or indirect in the said stock, bonds, or other securities than as stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is: (This information is required from daily publications only.)

W. V. Montgomery, Business Manager.

Sworn to and subscribed before me this third day of September, 1924.

G. H. Skeels,
Notary Public.