# An Illustrated Monthly JOURNAL for the DRAFTING ROOM Edited by RUSSELL F. WHITEHEAD

KENNETH REID & E.L. CLEAVER Published by THE PENCIL POINTS PRESS, INC. Ralph Reinhold, President, Edward G. Nellis, Vice-President, W. V. Montgomery, Secretary



## THE NATIONAL SOCIETY OF THE ARCHITECTURAL PROFESSION

THE PROPHET OF Also Sprach Zarathustra, gazing at the crystal ball, the cabinet, and the cards, foretold in 1926 in "The General Conditions" that the American Institute of Architects in convention assembled would cease to flutter away its effort in varied lines of activities. He saw that there would be fewer committees and fewer attempts to do good along less extended lines of endeavor and that the Institute would abandon its gallant efforts to

standardize earthquakes and to obtain uniform laws abolishing all extras. His dream book showed that the Institute would begin to feel and to demonstrate the feeling that it has much in common with the other arts and that it would endeavor to form as close ties with painters, sculptors, and craftsmen, as with contractors and manufacturers of building materials.

The Sixtieth Convention of the Institute, held in Washington, May 11th, 12th and 13th, proved the wisdom and foresight of the good prophet Zarathustra. This convention was designed to give a large measure of attention to architecture as an Art and to the development of a plan for bringing about real, working collaboration between the Architect, the Landscape Architect, the Painter, the Sculptor and the Craftsman, in the belief that there is need for a new vision in the practice of architecture in America today,and tomorrow, and that this vision must arise in the hearts and minds of the practicing architects and their brother artists.

The American Institute of Architects is one of the great professional societies of the country. It represents the spirit of the architectural profession and is the medium of expression for this subconscious will of the most individualistic professional men in the world. It is regretted, therefore, that the Board of Directors, in making a statement concerning Institute Membership, had occasion to inform the Delegates that the total membership of the Insti-

#### ContentsIn the Library By Walter W. Judell 333 The Matter of Sketching 336 The Architect, The Artisan,-and Bronze, I By Gerald K. Geerlings 347

2) 31/11/11/11/10/11/10	
The Diminishing Glass, III By Hubert G. Ripley	355
Publicity and the Architectu	ıral
Complex	
and the second s	359
By Charles Kyson	222
Planning Methods for Large In	sti-
tutions, III	
By George R. Wadsworth	362
Color Plates	Insert
Color Plates	Inseri
Plates	365
The Sixty-Oneth Convention	of
the I.A.I.	
By Gerald L. Kaufman	373
Whittlings	375
Here & There & This & That	385
Specification Desk	389
Service Departments	392

tute was only 3162, including Fellows, Members, Honorary Members and Honorary Corresponding Members. Of the 7000 licensed architects not now members of the Institute there must be a large number who should be affiliated with the Chapters.

The Institute standards for admission are high, but any resident of the United States, who is a practising architect, or an architect engaged in professional education, or an architectural draftsman, is eligible to membership, if able to submit the required proofs of his or her professional capacity and honorable personal and professional standing. Every architect and architectural draftsman, who is eligible, should take advantage of the privileges of membership so that the objects of the Institute-"To organize and unite in fellowship the Architects of the United States of America, to combine their efforts so as to promote the aesthetic, scientific, and practical efficiency of the profession, and to make the profession of ever increasing service to society"-may be realized.

EDITORIAL AND BUSINESS OFFICES, 419 FOURTH AVENUE, NEW YORK

EDITORIAL AND BUSINESS OFFICES, 419 FOURTH AVENUE, NEW YORK PENCIL POINTS—Yearly subscription, payable in advance \$3.00 to the U.S. A., Insular Possessions, Cuba and Mexico. Foreign subscriptions in the Postal Union, \$1.00 additional for postage; Canadian subscriptions, 50 cents additional. Remittances by International or American Ex-press Money Order or by Draft on a bank in the U.S. Payable in United States Funds. Subscribers are requested to state profession or occu-pation. TO SUBSCRIBERS: Instructions for change of address should reach us before the twentieth of the month to assure delivery of the forthcoming issue. Please give both old and new addresses. TO CONTRIBUTORS: We are always glad to receive manuscripts, drawings, etc. We will use due care with material in our hands, but cannot be responsible for damages. Copywright, 1927, by The Pencil Points Press, Inc., Trade Mark Registered. All rights reserved.



## CAMERA STUDY BY J. FRANK COPELAND IN A COURTYARD, VENICE

[ 332 ]

Volume VIIJ

June, 1927

Number 6

## IN THE LIBRARY

By Walter H. Judell

DRAMATIS PERSONAE THE BOSS THE AMBITIOUS DRAFTSMAN THE CLEANING LADY

SCENE: The library of an architect's office in a middle western city. TIME: 2:30 Saturday afternoon.

Enter architect after a somewhat heavy and

prolonged luncheon with friends. He has set aside the quiet and the freedom from interruptions of the last afternoon in the week for the checking over of the specifications for the Union Trust Company's new building.

But his enthusiasm has waned (owing to the luncheon) and, as he drops into the most comfortable chair, he picks up, with a slight twinge of conscience, a copy of "Cellini".

Silence for a while, then a knock at the door and enter AMBITIOUS DRAFTSMAN.

THE BOSS: Hello John, you still here?

A. D.: Yes, sir, I thought I'd take another fall out of the second floor of the Lovell house.

THE BOSS: I see. Having any brilliant inspiration about the owner's suite?

A. D.: Why I have an idea but I'd like to draw it out before explaining it.

THE BOSS: All right, I hope it is It. Shame, though, to work on a fine afternoon like this.

A. D.: Oh, that's all right. (He lingers.)

THE BOSS: Anything else, John, you wish to see me about?

A. D.: Why, er-Mr. Whatman, the fact is, er, -I have sometimes wondered whether you would mind having a little talk with me about, oh, you know, about things in general, just what I should

do, and not do; I mean how to get on with the work in the best way and best qualify myself for the future. That sort of thing, you know. That is, if you have the time and feel like it.

THE BOSS: (l a y in g "Cellini" face down, kindly and interested.) Why certainly, John, I should be delighted, but that's rather a tall order. There, first sit down and let's all have a cigarette. (Business of lighting up.) Now how can we start this thing? Let me see how long have you been in the office, about a year, is it?

A. D.: Yes, about a year and a quarter.

THE BOSS: If I recollect rightly you have been in a number of offices in quite a few cities, haven't you?

A. D.: Yes, I have; I wanted to get as varied

an experience as possible.

THE BOSS: Well, that's right, of course, within reason. Let me see, your home is here; I mean, you have been "born and raised" here?

A. D.: Yes sir, I have; and most of my people live here.

THE BOSS: Do you know, John, that is an asset

WALTER H. JUDELL



that you must not undervalue and should make the most of. I don't mean, of course, that you should stick in one place all the time while you are young and that it isn't a good thing to get the variety of experience, you speak of. What I mean is this: it is a long job to become acquainted in a strange town so that you really are a part of it. If I were you, I'd make up my mind now to stick right here and your relatives, friends and acquaintances will give you a certain background that is mighty slow work and hard to acquire elsewhere. Such a background is very necessary if you ever want to practice yourself, as, I suppose, you do want to, one of these days?

A. D.: Why, yes, I should want to do that sometime. Tell me, Mr. Whatman, would you object, supposing I could get a house or two to do, if I worked evenings in my own time? Of course, I should see to it that my work in the office would not suffer.

THE BOSS: John, there you bring up a question that I have never entirely cleared up in my own mind. I can quite see your point of view. You feel, of course, that the only way to ever get started for yourself is by doing just what you propose; I felt just that way when I was your age. Of course, our attitude, the employers' attitude, is that, while making every possible allowance for your needs, we want to make our business pay-which is a thing hard enough to do at times, Heaven knows. We feel that if a man has put in eight hours of more or less mental work in the office he is through, or ought to be. If on top of that he puts in two or three or four hours on his own work in the evening the chances are that he won't be as good the next day as if he had, well, used the evening for recreation. For that same reason I have never believed in overtime in the office, except when it absolutely cannot be avoided.

Then, too, there is this aspect: when you start building these houses, what will happen? You cannot very well interview contractors at your house evenings or superintend work evenings. Well, soon contractors will call here to see you about your work; they will telephone here and you will call them from here; next you will have to ask leave during working hours to look after these jobs, and all the time, no matter how good your intentions, your allegiance will be a divided one.

A. D.: Of course, Mr. Whatman, I suppose there is a lot in what you say and—

THE BOSS: And, John, don't lose sight of this: I don't believe your clients could or would get all the service and attention they are paying for and are entitled to, and instead of laying the foundation for a good business you might do the very opposite.

A. D.: Of course there is a lot in what you say and I wouldn't think of taking on any work without first speaking to you about it. But if that way isn't proper, how is it done, how should it be done?

THE BOSS: This is the way I see it, John. There

are two ways of getting into business, one by hanging out your shingle, the other by being taken into a partnership by someone already established. Both ways require the same qualifications on your part, ability to get work and knowledge to do it after you get it. Even if taken into a partnership you must be able to deliver your share of the work; otherwise your position will always remain one of dependence and, well, sort of unstable. That's why it is well to have a background of friends and acquaintances and such background you must keep on enlarging by new connections and by joining clubs and organizations (within your means, of course) and by doing the social act to a certain extent. If you don't like that sort of thing, my advice is, do it anyway and get yourself to like it. Good discipline, you know, doing things one would rather not do.

A. D.: What you say, Mr. Whatman, is absolutely true and I shall remember it. But you have not cleared up one point. Just how does one negotiate the leap from the status of a draftsman to that of an architect? Surely, if I resigned today and hung out my shingle I could not expect to make a living right off, could I? (Say, I do hope, I am not taking too much of your time.)

THE BOSS: No, no, that's perfectly all right. Well, yes, that leap, that change from the chrysalis of the draftsman to the butterfly of the architect, if it were only as simple as it is among the insects. All I can say is what Jago said to Roderigo: "Fill thy purse with money! Put money in thy purse!" In other words, save. As long as this has become a heart to heart talk, John, let me ask you, are you doing it, I mean, are you saving? You are earning a pretty good salary and are unmarried.

A. D.: Well, yes, I am saving some money, although, I suppose, I do waste a lot, too-

THE BOSS: John, get the systematic saving habit. You'll be surprised how quickly money, interest compounded, grows and that is my answer to your question. Those savings will form the bridge between the two stages of your architectural career.

#### (The telephone bell rings.)

THE BOSS: (into the receiver) A. J. Whatman .... oh, how are you? .... pretty fair for an old fellow .... yes, resting on my oars this afternoon .... yes, I took the entire quartet home with me last time .... yes, I shall bring it along this evening .... yes, as soon after supper as I can make it ..... Au revoir.

A. D.: That sounds as though there will be music tonight.

THE BOSS: Yes, a string quartet; something I look forward to all week. John, get a hobby unless you have one already. Get two, an outdoor one for the body and an indoor one for the spirit. No one should be without a hobby and music is one of the best. Listen to a symphony concert and you'll be the better architect for it. How about your general reading, are you much of a reader?

A. D.: Well, to tell the truth, most of my reading is on architectural subjects and then of course, there are the newspapers and magazines—

THE BOSS: As long as you are asking my advice, I say, cut out all the newspapers and most of the magazines, John, and substitute some real stuff. You know this of course. (*Picking up "Cellini"*).

A. D.: No, I don't, that is, I have heard of it, of course.

THE BOSS: There, put it in your pocket and when you have finished it I can lend you others just as good. John, the trouble with so many of us is we are plodders, one track minds, not well-rounded human beings. An architect should be that. Look at the most noted architects in the Country, all highly cultured gentlemen and scholars. And, believe me, to do the best work, to express our civilization in brick, stone, concrete and steel you must understand it and to understand it you must have knowledge of it and of civilizations that preceded ours. It is a large subject and one that I feel so keen about that I had better stop or I shall never be done talking about it. Let me see, John, what haven't we covered yet?

A. D.: Well, there is my work in the office— THE BOSS: Right, well, what about it?

A. D.: Might I ask, is it fairly satisfactory?

THE BOSS: (heartily) Why, yes, John, it is, as you may have noticed from the various increases in your salary during the time you have been here. While we are on that subject I should like to state, what I, and for that matter, any other employer values in his assistants. There is first and foremost initiative. I would much rather have a man make a mistake now and then (I make 'em myself) than come running to me with questions all the time, questions which he could answer himself. Then there is that subject of steady application. You may not now appreciate it, but when you have become an employer in your turn, John, you will find your ledger often unpleasant reading. I have sometimes thought that a good way for a man to go about his work is to resolve each morning to get so much of it done during the day and then try to live up to this schedule.

A. D.: I have recently joined the Draftsmen's Club and Atelier, do you think that a good scheme?

THE BOSS: I know you had, John, and I was delighted to hear of it. Especially for the man who did not have the opportunity to go to college it offers a valuable substitute; working with the boys of other offices breeds a fine *esprit de corps* and lays the foundation for a genuine liking of the other men in the profession. After you have all become practicing architects that liking will remain and will not only be one of the chief joys of your work, but will also make you all pull together for a finer Architecture and a better way of practicing it.

And remember one more thing, after which, I believe, it is time to go home. Try by all fair means to become a leader among the younger men, and it will be strange if you become not a leader among your colleagues in later years.

Enter the Cleaning Lady armed with the insignia of her profession.

THE CLEANING LADY: Oh, excuse me, I tought you'se was all gone.

THE BOSS: That's perfectly all right, going this very minute. Come on, John.

#### CURTAIN

This is the eighth of a series of short articles to appear in PENCIL POINTS on the subject of the relationship between the architect and the draftsman. Future contributions to the discussion will be made by the following: Albert Kahn of Detroit, H. Van Buren Magonigle of New York, F. R. Walker of Cleveland, Myron Hunt of Los Angeles, William A. Boring of New York, and William Emerson of Boston.



[ 336 ]

## THE MATTER OF SKETCHING

THE OLD QUESTION of sketching recurs to us all at this season. Whether we travel abroad for the summer or stay at home and work in the heat of the city, most of us feel the urge to go forth and try our hand with pencil or brush. The student needs no goad, for he is eager to learn what he can from existing architecture and to train his powers of observation. The draftsman, particularly he who prides

himself on being intensely practical, is likely to need fresh prompting to make him feel that it is worth while bothering about, though we find him indulging quietly in this hobby when we least expect it. It is worth remarking that many of the greatest of American architects have been active as well as skillful in the production of sketches. They could not have done so many or done them so well had they not made it a point, busy as they were, to find time for them. They evidently considered them of some importance.

To help furnish a stimulus, if one is needed, the following pages of sketches are presented. They are by many hands and in several mediums. They range from subjects purely architectural to landscapes, from rapid



#### PENCIL SKETCH BY GEORGE C. ANDERSON

notes to careful studies. They all possess merit though varying tastes will select some as more admirable than others. They will all repay examination, criticism, and study. Let the reader observe how each artist composed his picture, how he eliminated irrelevant details and stressed others, how he expressed the textures of stone, wood, stucco, and metal, how he made his shadows transparent. And then let him go a-sketching, determined that he will put down his own impressions in his own way, not aping anyone else's mannerisms but profiting by the group experidown the creations of the imagination so that they seem no less real.

It is not necessary to sit idly in envy of the talents of well known masters of sketching whose work is frequently published in the architectural and other magazines. Even the slightest gifts can be cultivated by assiduous practice and made to yield astonishingly good results. The thing to do is to keep everlastingly at it. Get good criticism, learn to be self critical, do not be discouraged by slow progress, and you may one day be the object of admiration yourself.

ence. His individualism is bound to come out under these conditions and his sketches will bring him pleasure if not glory.

A famous teacher of drawing and painting has for many years made a practice of remarking, after criticising a student's drawing, "Remember, it's only a piece of paper." This suggestion, when taken to heart, has had the effect of emphasizing the relative

unimportance of the drawing itself while at the same time discouraging timidity on the part of the delineator. The real value of the sketch to the architectural student or draftsman lies in the exercise of his observation and judgment and in the increase of his ability to coordinate hand and eye. After the sketch is made it may be of value as reference, it is true, or it may have merit as a picture, but the influence the making of it has had in developing the architectural corner of the sketcher's mind is worth infinitely more than these.

The ability to show creative ideas to clients by means of sketches is generally agreed to be a most valuable asset. By making many sketches of actualities on e naturally and inevitably acquires facility in putting



WATER COLOR BY ELIZABETH KIMBALL NEDVED "LISIEUX"

[ 338 ]

THE MATTER OF SKETCHING



PENCIL DRAWING BY EUGENE F. KENNEDY, JR. "salamanca"

[ 339 ]



PENCIL SKETCH BY GEORGE C. ANDERSON "down by the old mill stream," cahors, france



SKETCH BY R. J. PFEIFER TEMPLE OF MATER MATUTA, ROME



SKETCH BY MAURICE GAUTHIER OLD STREET IN QUEBEC, CANADA





PENCIL SKETCH BY A. L. WILSON FOUNTAIN, PAN-AMERICAN BUILDING, WASHINGTON -



PENCIL SKETCH BY JOHN T. BANCROFT DOORWAY, VENICE

[ 341 ]

### [342]

 SHRINE IN VENICE
 RANDOZO, ITALY

 PENCIL SKETCHES BY HAROLD FIELD KELLOGG OF BOSTON, MASSACHUSETTS









CHURCH NEAR CHÂTEAU THIERRY

CHURCH AT TORCY

PENCIL POINTS

#### THE MATTER OF SKETCHING



Detail of Portico THE, PERKINS HOUSE, WINDER, COIII. Built in 1832.

#### PENCIL SKETCH BY CHARLES DELMONT DETAIL OF PORTICO, PERKINS HOUSE, WINDHAM, CONN.

[ 343 ]



"BRIDGE OF SIGHS, VENICE"

[ 344 ]

"OLD WINDMILL"





PENCIL SKETCHES BY WILLIAM LA ZINSK OF NEW YORK LOBSTERMEN'S SHANTIES AT MONHEGAN, MAINE

[346]

-

## THE ARCHITECT, THE ARTISAN,—AND BRONZE

#### PART I

By Gerald K. Geerlings

(EDITOR'S NOTE: For Figures 2, 3, 5, 6, 7, 8, 11, 12, 13, and 14, and all technical information relative to bronze casting, the author is indebted to Messrs. Alexander H. Burgess and Wm. Donald Mitchell, president and vice-president respectively, of the Jno. Williams Company of New York.)

WHEN ONE PAUSES in this bewildering world to consider things like buildings, clients, architects, bronze foundries and their inter-relations, one arrives at a most astounding conclusion concerning bronze. Haphazardly the client and architect may assume that they are bequeathing the building and the "bronzeman" a favor by using the precious metal, but after all is it not merely paying a moral obligation to do so?

Preposterous? Not at all!

Were it not for the first bronze contractor on the job, we, sans our vaunted civilized state, might still be sending international notes on chunks of stone and wearing stone tomahawks instead of carrying "automatics". True, we might have lifted ourselves up and out of the Stone Age by means of our sandal thongs into what is darkly hinted at as a possible "Copper Age", but if that era ever existed it seems to have sunk with the lost and bemoaned continent of Atlantis. The fact remains that an enterprising soul somewhere in the foggy past decided to combine his grey matter with copper and tin, and voila-the Bronze Age started us on the road to Twentieth Century Packards and radios. Surely no client or architect has ever had a vision equal to that of the initial bronzeman. So again we repeat, since our creditable past dates to the combination of copper and tin to form what we term "bronze", that from the theoretical viewpoint of a moral obligation, clients and architects owe the bronze craft a standing order of the material!

The bronze industry seems composed of singularly talented and modest gentlemen. Their forefathers were the actual nucleus of our present-day civilization, yet their sons are not ballyhooed enough for even the architects to be appreciative. The author, as a dved-in-the-charrette architect, is convinced that the mysteries, worries, abilities and heart-breaking problems of the bronze craftsmen are not given full cognizance by the architects at large. The sentences, punctuation, photographs, diagrams, charts, drawings, etc., which follow are given with the idea of (1) describing how bronze is cast; (2) telling how the architect's drawings and specifications may best secure results for estimating and working purposes; (3) showing good examples of old and new bronze work. It is hoped that stating viewpoints of both architect and artisan may serve a useful purpose, and that the photographs of bronze work may occasionally contribute in the evolution from sketches to details.

#### THE ESSENTIALS OF BRONZE CASTING

The process of bronze casting in the grand old days when the world was youthful was not at all different from now. There have been muscle-saving devices such as the traveling crane, chain blocks, compressed air (from the foreman and otherwise), electrical and steam power, etc., but a good casting today is as much dependent upon the human factor now as then. Curiously enough, even the composition of the material has undergone no radical departures from the initial concoction. Bronze Age relics found at the bottom of the Swiss lakes and in certain European caverns, contain 90% copper and 10% tin. Recent United States government specifications have called for the same proportion of copper, but only 3% of tin and 7% zinc. A permissible change recently has been to subtract 1% of copper and substitute lead. This, of course, refers to ornamental bronze, such as goes into statues, doors, counter-screens, pilasters, and other like architectural forms. "Extruded bronze" has a lower copper content and approaches brass in color, and will be considered separately later.

As far as the architect is concerned after the client has been inveigled into signing on the dotted line and the bronze contractor has been notified of this turn of fortune, the first step is for the modeler to prepare his models. When these have been prepared in clay, cast in plaster, and seven times altered to meet the architect's final approval, they are sent to the bronze foundry as the initial step toward the casting process. At this point it may be in order to suggest that the architect in his modeling specifications make the provision that all models be properly backed so that they will not be damaged at the foundry when the moulds are made. It is a good precaution to take, or there may ensue one of those interesting but seldom fruitful wars between modeler and foundry as to who should do the backing. Assuming, however, that your bronzeman is a good-natured fellow, accustomed to swallowing his pride at this game, and accepts the models as they come from the modeler, let us continue our tale.

The preliminary job on which the bronze contractor has been working while the modeler has made merry in clay, is to prepare complete working drawings from the architect's details. As a rule the latter are complete enough where there is straight and easy



the foundry and the architect's office, and eventually demanding that the latter make final decision anyway by working out the difficult spots. For example, the diagram shown in Figure 1 indicates a problem which might arise on a counter-screen detail. For one

thing, unless the modeler took his detail at the corner, there is nothing to give the bronze draftsmen any indication as to what the intersection of ornament is to be. They can do intersections of the mouldings simply enough and would hardly question that, but unless they know the architect's propensities they will not know whether he will want a dentil overlapping the break on the corner, or prefer to have one on each side; whether he prefers a modillion at right angles to the facia or would rather see the modillion center on the, line of intersection. More important still, the bronze draftsmen will have no way of determining whether the projection of the cornice at "a" on the 45 degree corner should be the same as at "b"; if so, it means a greater break in the cornice than was shown on the architect's drawings. This latter condition arises frequently, and after the bronze is erected the architect cannot understand why the bronze contractor did not lave the sense to make the same cornice projection all around. After all, even the best bronze contractor makes no claim to clairvoyance and agrees to furnish none.

Assuming that the shop drawings have received their final red checks and rubber stamps, and the models have arrived from the modelers properly backed, the next thing in order is the making of the inside and

outside sand "cores" which, when fitted together in a so-called "flask", will allow an empty space into which the molten bronze will be poured. This can be more easily explained by taking a concrete case of the casting of a bust, as diagrammed in Figure 2; "A", (the frame termed a "flask" for some peculiar reason), confines the sculptor's model, "B", as well as the sand packed inside and outside of it, "D" and "H". The point previously taken concerning a model being well backed may be clarified by noticing that if the interior of the head or shoulders were not of a sound thickness, that when the sand, "D", is rammed around it, the model might easily cave in, much to everyone's consternation. The highly specialized work at this juncture is the forming of the blocks of sand termed "cores", at "D" in Figures 2 and 3. They must be carefully fitted around the cast in such a manner that they can be lifted out without damage to themselves. In the event of "undercutting" this may necessitate several "cores", as indicated in Figure 4. It takes a steady



#### figure 2

- "A"-Iron frames called "flasks."
- "B"-Sculptor's plaster model of a portrait bust.
- "D"-Separate blocks of moulding sand called "cores." They
- have been packed one by one around the model. "H"—Outer sand backing or outer envelope of the mould.
  - [348]

hand and a long experience to know which cores to build up first and what shape they had best take. The moulder employs a variety of attractive spoons, knives and other utensils to steer the sand where it should go, and pack it gently but firmly to form a unified chunk.

At this juncture it is of interest to know that the so-called "sand" used in cores is no plebeian article. It is most decidedly French, and to a crystal hails from the little village of Fontenay-aux-Roses on the outskirts of Paris. It comes from the one and only pit of its kind, is considered to have no equal, and is of such value that any small boy should feel driven to digging up his backyard in hopes of discovering a similar product with which to buy out Ford himself. In being used for cores this French sand is packed moist and when considered to fit perfectly with its neighbors and the model, is dried out in an oven. When dried or baked



OUTSIDE

· · · ·

its contraction

#### TION FIRST, #2 LAST. FIGURE 4

is practically negligible, yet it is so fine that when fingered it seems more like clay than sand. It is so valuable that when its job on one cast is over it is repulverized, sifted, and used over again, but not for facing.

Referring back to Figures 2 and 3, the next operation on the lady is to give her some brains plus etceteras, indicated by "E", or, technically speaking, an inner core. The culmination of all the processes is to form a space into which the metal can flow so as to produce a shell about  $\frac{1}{4}$ " to  $\frac{3}{8}$ " thick, the outside of which will be an exact replica of the sculptor's model. The formation of the aggregate sand blocks already described will form the outer confine for the molten metal, and what remains to be made is an inner core which will be about  $\frac{1}{4}$  to  $\frac{3}{8}$  of an inch smaller all around than the sculptor's model. This is achieved by making a duplicate of the model in sand, reinforced by supports like the iron bars, "F", then shaving down the surface equally all over by approximately 1/4 of an inch—in other words cutting away a thickness of sand to correspond to the thickness which the metal will have when poured, shown by "I" (unshaded portion), and then drying it out thoroughly. The inner core thus fashioned is suspended in the flask, the outer cores carefully packed around it in their respective places, and the operation is almost advanced to the pouring stage. All that remains is the forming of "gates" and "vents". Both are merely grooves, the former for letting the metal in, and the latter for letting air and gases out. "G" in Figure 3 repre-



### FIGURE 3

"A"—Iron frames called "flasks".

- "C"—Vents in mould for the escape of gases generated by contact of molten metal with the sand.
- "D"—Separate blocks of moulding sand called "cores". They have been packed one by one around the model.
- "E"-Inner sand core.
- "F"-Iron bars which support the inner sand core "E".
- "G"—Feeding channels through which the molten metal is carried to all parts of the mould (shown unshaded).
- "H"-Outer sand backing or outer envelope of the mould.
- "I"—Space between inner sand core and the mould when filled with molten bronze (unshaded portion) forms the bronze cast.

[ 349 ]



FIGURE 5

Preparation of mould in which one of the halves of the exterior doors for the Boston Public Library was cast.

sents the feeding channel or "gate" through which the molten metal will flow; these are simply made by cutting away the sand before it is baked with a spoon-like tool and painting the sand surface with "black lead" so as to prevent washing of the sand and thus offer no resistance to the flow of the metal. Smaller grooves as at "C" are cut out to the air, from the space to be filled with the metal, "G", so that collecting gases and dislodged air may have a means of escape. The various parts are assembled for a trial fit and then removed, to have themselves dusted of any stray grains of sand by an air blower, and then reassembled in the "flask". This latter is securely clamped (or padlocked like so many other flasks in this day of prohibition), and the lady is ready to have her complexion cast in bronze.

The foregoing description deals with the making of a mould for ornament in heavy relief or statues in bronze which, because of the undercutting, necessitates the mould cores being lifted from the model as described above, instead of the model from the sand. This latter method can be employed for all flat work where there is no undercutting, as in doors, pilasters, cornices, etc. Figure 5 illustrates this point. Standing upright at the right in the photograph is Daniel Chester French's model for one of the Boston Public Library doors. The imprint of it is seen on the mould for the front of the door, while the mould in the foreground for its reverse side is simply paneled. Figure 6 illustrates the same type of mould on a smaller scale. In case there is considerable repetition of units to be cast for such architectural forms as door rosettes, counter-screen ornaments, etc., a "pattern" may be made of wood or sometimes a metal die, which-ever may best suit the condition. In principle these serve the same purpose as the plaster models described, and have cores built around them to form a mould in the same manner.

For casting certain types of undercut bronze there is another method than the one described of making sand cores. The so-called "cire perdue", or lost wax process, briefly described is as follows: the surface of the sculptor's model is reproduced in wax; inside and outside this wax shell a composition is poured of the consistency of mud but of secret formula. When this outer and inner composition material is dried thoroughly by heating, the wax which formed the desired surface modeling is melted out and "lost", hence the name. If there were a form which in section were like Figure 9, it can be seen that instead of making three sand cores, A, B, and C

for each indentation, that the "lost-wax" process would be simpler to execute. It goes without further comment that for some models one method would be preferable to the other, and that sand-cores were described first merely because they follow the older tradition.

After the moulds are completed and are ready to be "poured", the exciting part of the show is in order. Crucibles made of graphite, averaging a capacity of about 150 pounds of metal (although there are Goliaths which hold 700 to 900 pounds), contain the metal ingots which have been put in and heated until



FIGURE 6 Finished small moulds.

[350]

they are thoroughly fused. At a temperature of about 1700 degrees Fahrenheit the metal is poured, but it is judged to be "right" by the foundry foreman chiefly by its color. If too red it is too cool, and if white too "thin" or "fluid". If only small moulds are to be poured the crucible is lifted by hand from the furnace, as in Figure 8, while if larger crucibles are in order, mechanical help is resorted to as in Figure 11. Assuming that a small mould is to be poured, say about the size shown in Figure 6, two men are able to do the operation under the eye of the foreman, as in Figure 12. The workman who made the mould is usually the one to engineer the actual spilling of the molten metal into the form. In Figure 12 he is the one on the right in the photograph, grasping the two handles, with his helper at the other end as a pivot man. The moulder having two handles can direct the actual aim of the spout so that it unerringly hits the relatively small funnel which opens into the feeding channels of the mould. The foreman's job is to see that the metal being poured is the

right fluidity, and with a bent bar to prevent the dross which floats on the top of the molten bronze from flowing into the mould. The excitement comes at this point, with bronze flowing like water and giving off all the colors of the spectrum. It is a good show with silent actors knowing their cues perfectly, seemingly oblivious to the deadly heat and intent of the metal. When it has filled all possible spaces of the mould the surplus metal rises in the "vents" or "risers" (described heretofore as channels for letting out escaping air and gases) and comes pouring out to produce a show of splashing gold. It signifies the end of the pouring for that particular form, and



FIGURE 7 Men at work on large moulds.



FIGURE 8 \* Lifting small crucibles from the furnaces.

the trio of workmen pass on to the next unsuspecting mould.

Where a mould requires less than one crucible of metal to satisfy its appetite, the job is a three-man affair as described. But in the case of an equestrian statue or a coffin (as a cheerful example), the process is slightly altered although the same in principle. Figure 10 illustrates a cross-section through a large coffin about 8' long, 2'4" wide, and 2' deep, ready to be poured. Directly above the mould there is erected a basin lined with moulding-sand. At the bottom there are three feeding channels leading to all parts of the mould, and at its mouth (at the bottom of the basin) a sand plug formed around a metal rod with one end extending above the top of the basin. Sufficient molten metal is then poured into the basin so that when the sand plug is pulled out the liquid bronze will flood all parts of the mould almost simultaneously. Here again the metal thickness is about 3/8 of an inch.

When the molten bronze has flooded the mould it takes but a few moments to set and harden. A small grille the size of the moulds shown in Figure 6

would be ready for cleaning within ten minutes after the time of pouring. This is because the thickness is only  $\frac{1}{8}$ to  $\frac{1}{4}$  of an inch in thickness. Perhaps the statement should be made the reverse way: the metal must be of relatively thin thickness in order that it harden almost immediately. If the metal were



[351]

poured to form a solid mass or even to be of heavy thickness, it would cool slowly and cause strains and shrinkages which would disturb the surface so that the finished product would not be a facsimile of the original model. To have the metal heavier than a



figure 10

good pouring thickness adds nothing to its strength or durability and is thus an actual liability. In general the layman probably thinks of all bronze statues as being solid, and may have a prejudice against



FIGURE 11 Lifting large crucibles of molten metal.



FIGURE 12 Pouring bronze in small moulds.

bronze doors because of their imagined solidity.

After the metal has cooled the bronze is ready for the cleaning and finishing process. First the flask is opened and as much clinging sand is knocked from the bronze as is possible. The sand has been burned to a terra cotta crispness, and what will not break off is harassed with wire brushes. The inside core is induced to part from the bronze by digging, soaking in water, and further digging. The extraneous parts of the metal which have served as gates and vents must be cut off since they come out of the mould as a unified mass with the actual portion which is wanted. The foreign residue remaining after the wire brush treatment, as well as heat discoloration, are lost by dipping the entire bronze mass in an acid bath for a brief interval, then washing off the acid in hot water before it has had a chance to etch the surface. The "chasing" part of the game comes next (Figure 13) when all excrescences and "fins" are removed by saws, files, etc. Ornament is then strengthened and cleaned up with mats, tracers, riffles and files.

The matter of how much work should be done on cast or wrought bronze at this point is a subject of some controversy, some exponents maintaining that it is not a craftsmanlike job unless the tool marks are in evidence. It is a matter for the designer to decide and does not concern us here in describing how bronze is cast. If the architect or designer has a certain effect in mind or a certain texture which he believes can be achieved only by tooling the metal, that is for him to decide.

Subsequent to the chasing and filing comes the fitting together of various parts, as would be the case



FIGURE 13 "Chasing" bronze work.

for a counter-screen. When parts are to be joined together at certain junctures it is termed "brazing" (Figure 14), a matter of applying a blow torch until the metal becomes sufficiently hot to fuse with a special alloy acting as solder. Sections may be screwed or bolted together also.

Following the fitting comes the finishing, polishing, and coloring. Samples are submitted to the architect for his selection of finish. Various agents are employed in attaining whatever surface and finish are desired. There is some latitude in both of these, but not as compared to the color. The actual color of bronze is bright and shiny, like a new penny before being handled, and is never anything else. The color one usually attributes to bronze is the weathered oxidation to a rich brown; one of the best examples in New York City being the doors of the National Park Bank, 214 Broadway. Almost any color may be obtained by various oxidizing agents, but it should be remembered that these various colors are due to the chemical change which takes place after some agent is applied. In front of the Pennsylvania Museum in Fairmount Park, Philadelphia, reposes a "Spanish Cannon from Cuba, 1743" (according to the tablet), which has taken on an unbelievable range of colors. There are salmon pinks, pale cadmium oranges, an entire palette of browns, and a long range of greens, from pale emerald to almost veridian. The bronzes in the National Museum of Naples from the excavations of Pompeii are the most rich and varied assortment of greens outside the vegetable kingdom. The bronze craftsman can achieve almost any color with patience and chemicals. Chloride of ammonia as well as common salt and vinegar will react to produce beautiful greens, while various browns can be coaxed with the application of sulphide

of potassium. But, the craftsman's instructions to the client concerning the care of the bronze should be religiously followed. A moron of a cleaner or janitor can ruin the best "patina" in about two minutes.

Treating the surface of bronze in one way or another to give a desired color, affects the surface only, and on scratching the surface with any sharp point the bright metal will shine through. There is no action comparable to rust on iron which eats away the material. Oxidation or weathering will effect the surface of bronze to perhaps a millimeter in depth but will go no further, thus accounting for the attribute of being the "eternal metal".

It might be mentioned in passing that cast bronze as compared to rolled, drawn, and extruded bronze, varies in color, and is bound to appear differently. If finesse and color are important to the architect he should not use cast bronze with the others. The author is acquainted with an over-hurried shop-front where the pilasters were made of extruded bronze and the cast ornament on them screwed in place later, the idea being that the store could not open if it had no pilasters. The final outcome is that the store has no pilasters, or at least no creditable ones. At the time it seemed a feasible scheme but as it worked out it would have been better practice had cast iron frames and supports for the show-window glass been run up first and painted for the store opening, and the cast bronze pilasters applied later. The client would have paid no more, the bronze man could have done a creditable job, and the architect would have been proud of his design.

It is interesting to note at this juncture that among the early architectural usages of bronze that it was not cast but applied to a wood surface. This is particularly true in doors, examples of which will be illustrated later. The bronze was worked on the anvil in much the same manner as wrought iron, with repousé a favorite device.



FIGURE 14 "Brazing" bronze work.



#### THE COLOSSUS OF RHODES

This masterpiece of Ghares of Lindus was erected in the 119th Olympiad. The Encyclopedia Britannica says the notion that the figure straddled the entrance to the port, as stated by many eminent writers, was absurd. We firmly but respectfully challenge this statement. So called errors in the writings of the Masters, from Herodotus down, have been gleefully pointed out by modern "authorities" only to discover eventually that these "authorities" have been forced to eat their words. Certain things about the encyclopedias are to our mind absurd; the turgid, ponderous, and uninspiring style in which such books are written, ruthlessly stifles all poetry and romance. A bald statement of so-called facts — frequently garbled — does not truly portray historic events. A whacking good romance or autobiography gives us a vivid picture of the times and on that account, a truer one. So we shall continue to believe that the Colossus of Rhodes straddled the entrance to the port, that his eyes flashed like a basilisk, (one with a green light meaning  $\Gamma\Omega$ , the other with a red one signifying  $\Sigma TOII$ ), that Greek fire spurted from his upraised torch, and that the four winds played on his lyre as on the strings of a lute, sounding a warning to mariners in foggy weather.

## THE DIMINISHING GLASS, III

## A DEPARTMENT FOR THE STOIC AND THE EPICUREAN

" . . . . . . e non d'arte."—Leonardo

#### By Hubert G. Ripley

Now PLINY, THE ELDER, for all his austerity, dearly loved to relate anecdotes of artists, for in his time one man might be stone cutter, philosopher, athlete, and architecton. In speaking of Praxiteles he gives the highest praise to his Cnidian Aphrodite, esteeming it superior not only to all his other works, but of any other artist that ever existed. To see this masterpiece, many persons undertook the voyage to Caria, where high up above the town, in a temple especially constructed to receive it, open on all sides so that its exquisite beauty may be seen from every point of view, the statue of the immortal goddess is placed. Pliny adds, "an arrangement

which was favored by the goddess herself, it is believed." One young Pygmalion from Ctesiphon, a youth of noble ancestry, whose name shall be withheld for family reasons, became violently enamoured of the statue, contracted an aneurism, and fell into a decline, finally passing out completely from sheer spleen. Among Horace's Noble Numbers the ode beginning, it will be remembered, "O Venus regina Cnidi Paphique sperne dilectam Cypron", testifies to the veneration in which this work was held, even after the lapse of three centuries.

The model for this celebrated statue was Mnesarete, who was born in Thespiæ, at the foot of



VIEW OF THE BATHING BEACH AT ELEUSIS DURING THE POSEIDONIA

The sketch (somewhat restored, it is true, from the descriptions of Pliny, Pausanias, Strabo, Polybius, Philios—1896— Foucart, 1900—and the researches of the Fullerton Foundation, 1926) is taken from the Acropolis, and shows in the distance the Island of Salamis. The swim across the channel was a favorite pastime among the younger set. With a strong glass (or, say, several strong glasses), Phryne can just barely be made out, entering the water, closely followed by Apelles and Praxiteles.

Mount Helicon, the ancient Boeotian town whose sons acquitted themselves with glory under Leonidas at Thermopylæ. She came to Athens a simple country girl in a gingham dress with her school books under her arm, and shortly afterwards embraced the oldest profession in the world. People called her Phryne, owing to her complexion. It was a name given also to other courtesans. She became a great favorite among the younger set, for as Pierre Louys says, "L'amour était chose sainte chez les peuples antiques". Her incomparable history gives a vivid idea of this veneration. When she walked abroad, instead of dressing like the other priestesses of Aphrodite in "cyclas transparentes",---whatever that may be-Phryne was accustomed to wrap up well in the good warm clothing of which the figurines of Tanagra have preserved for us the grace. She never even appeared in the public baths, and none save her most intimate friends had even seen so much as an arm or the turn of her incomparable ankle.

It was the festival of Poseidon at Eleusis in the second year of the 113th Olympiad. Apelles and Praxiteles were walking arm in arm on the beach, a little removed from the vast crowd of twenty thousand or so, gathered from all parts of Greece, waiting for the ceremonies to begin. It was a perfect day, and the wine-dark sea contrasted brilliantly with the shining mountains of Cithæron. The two friends were chatting amiably of their work, always, however, with the under-current of earnestness which characterizes the conversation of artists. Apelles spoke of his Anadyomene, which was going rather badly, and Praxiteles mentioned the difficulties with his Aphrodite which had been ordered by the people of Cos. Both artists complained bitterly of the lack of really first class models.

Presently they noticed that a stillness had come over the vast throng gathered on the bathing beach. " $\Omega \ \lambda 008 \ oo' \zeta \ \eta \varepsilon \rho \varepsilon$ ", said Praxiteles. " $\Lambda \eta \tau' \zeta \ \gamma 0 \ ov \varepsilon \rho$ ", replied Apelles, and hastening their pace the two men



THE VENUS ANADYOMENE, FOUND AT CYRENE, NOW IN THE MUSEO NATIONALE DELLA TERME

Julius Harder, in a letter from the Hotel Flora, Rome, date 1 January 13th, A. U. C. 2680, says: "You know how rarely that the human epidermis, especially of the female, is effectively and convincingly rendered in painting. But here it is in marble, in color and texture wonderful! Beautiful! It would be presumptuous in me to attempt to describe it. It stands in a room by itself, with seats all around and a single doorway, and lighted from above only. The marble has an eggshell polish and she is still dripping from the waves. I send a front elevation and a view from the N. E., in lieu of more wordy elaboration."

#### THE DIMINISHING GLASS

joined the crowd, which respectfully fell back as they arrived and made a place for them in the front rank of the onlookers. Wrapped only in the simplicity of the fresh morning breezes and the tangled skeins of her luxuriant Coromandel locks, Phryne, who had hitherto never been seen in public without her chiton, walked as unconcernedly down the beach as Gertrude Ederle or Mrs. Gade Corson, and entered the waves tinguished one. "Even Lais, for all her success, never attained that honor!" she thought. "Hundreds may swim the channel, but the glory is only a fleeting one; I can't even say 'I done it for the kiddies'". "My hair must be a perfect sight", she added. Thus she mused as her slaves were administering a brisk rub-down, for the waters of the Saronicus Siuus were chilly in the early spring, and Phryne was subject to

prepared to swim across the channel to Salamis, or down the coast to Megara, should the tides prove favorable. To be sure, Gertrude and Gade were thickly covered with axle grease, while Phryne, tradition states, was only slightly oiled. Apelles and Praxiteles gasped with delight at the sight of this lively vision, for they, happy mortals, could see with the artist's eye that here was the very model they had both been seeking. "Hyllo Kid", cried out Apelles as he and the sculptor followed Phryne a few paces into the water. "Acetev Δεαριε", said Prax-iteles, "How about a little chariot ride down to Peiræus this eve?" for each was extremely anxious to win this incomparable model, the one for his Anadvomene, the other for the Aphrodite, of Cos. " Σο'ς Υουρ  $\Omega\lambda\delta$ Μαν", called out



RECONSTRUCTION OF THE APHRODISION AT CNIDUS AS IT MUST HAVE APPEARED IN THE TIME OF PLINY

Even then—after three hundred years—the structure was in almost perfect condition, and Praxiteles' famous masterpiece could be seen under conditions favored, it is said, by the goddess herself. (Drawn from descriptions furnished by Pliny, Furtwangler and others and in accordance with the latest reports from the Fullerton Foundation.)

Phryne gaily over her pink shoulder as she struck out for Salamis.

The masters were too much accustomed to having their own way to be denied. They begged and pleaded until it would have been embarrassing for Phryne to hold out longer. Then, too, the glory of posing as Aphrodite for the foremost artists in painting and sculpture was a disSinope red, and the black called atramentum. Yet with these he obtained effects finer than any painter ever known to Pliny. His Aphrodite rising from the foam, wringing out her hair, is perhaps his most famous picture. It was painted on a panel of boxwood for his native city of Cos, and placed in the Coan Asklepieion, from whence Augustus obtained it by remitting 100 talents (\$105,000) of the Coan

sinus trouble at times.

Arrangements were accordingly made and sittings begun. All three, like Longfellow and the Carey sisters, soon be-came fast friends, for Apelles and Praxiteles were renowned not only for their skill as artists, but for the breadth and depth of their erudition on general topics as well. Messrs. Spafford and Esty would have been constrained to give them each high marks on such subjects as Science, Philosophy, Sport, Theology, and especially Mythology, Literature, and the Arts. Phryne, too, would have made an excellent showing, for she was noted not only for her merry sprightliness, but also for her quick wit in oriental repartee. Apelles used only

four colors in all his pictures; Melos white, Attic yellow, led atramentum. Yet tribute. Until the time of Nero it hung in the temple of Rome and Augustus, when, the wood showing signs of decay, Nero substituted for it another picture by the hand of Dorotheos.

The Cnidian Aphrodite was one of two that Praxiteles chiselled out of the purest Parian marble. He offered them for sale at the same time, the second being a draped figure, which for that reason was preferred by the Coans, with whom lay the choice. The price asked for each statue was the same, but the Sporadians flattered themselves on their Puritanical austerity in thus selecting the less famous; the other was eagerly snapped up by the people of Cnidos. Nicomedes, King of Bithynia and Paphlagonia, who achieved historical renown by bequeathing his Kingdom and all his possessions on his death, (A.U.C. 678) to the Roman people, is hardly less remembered by his offer to discharge the entire public debt of Cnidos, if they would relinquish to him the statue rejected by the Coans. The offer was refused. Pliny adds, "There are in Cnidos other marble statues by great sculptors, a Dionysos by Bryaxis, another Dionysos, and also an Athena by Scopas, and there is no more forcible panegyric of the Aphrodite of Praxiteles than the fact that among all these it alone

is remembered". The son of Cephissodotus has left a truly imperishable imprint on the history of art, to whose inspiration the little Mnesarete, whose tender feet once trod the pebbly paths of Thespiæ, contributed in no small degree, Furtwangler or no Furtwangler.

A pleasant feature in connection with the lives of these people is that an appreciative and warm-hearted world bestowed on them not only the laurels of fame, but also the material comfort that great wealth affords. Lempriere says, "Phryne became so rich by the liberality of her lovers that she offered to rebuild, at her own expense, Thebes, which Alexander had destroyed, provided this inscription was placed on the walls: Alexander diruit sed meretrix Phryne refecit." The Thebans, a stiff-necked people, either from pride or fear of ridicule, refused an offer which, some seventeen centuries later, under not dissimilar circumstances, was accepted by the grateful citizens of Florence from La Belle Imperia, whom Balzac calls "la gloire de son temps."\* Thus it was that the master-piece of Filippo Brunelleschi came to be finished.

\*V. Les Contes Drolatiques, par le Sieur De Ba'zac pour l'esbattement des Pantagruélistes et non aultres. Paris, Calmann-Lévy, Editeurs, 3, Rue Auber.



PENCIL SKETCH BY OTTO F. LANGMANN STADIUM ENTRANCE, NORTH CAROLINA STATE COLLEGE, HOBART UPJOHN, ARCHITECT

## PUBLICITY AND THE ARCHITECTURAL COMPLEX

#### By Charles Kyson

AROUND THE LOUNGE of the University Club they sat—young architects all—discussing the problems that confronted them while they waited for the chapter meeting to convene. Intently they listened to one of their members.

"But the fact remains, 'young fellow me lad', less than ten out of every hundred who build go to an architect. Now laugh that one off."

Tom Kenyon leaned back in his chair and defiantly surveyed his fellow architects sitting ringed about.

"And if we had the pep and initiative of Mary's woolly white lamb, we'd get busy and change the ratio," he continued.

"Interesting theory, Tom, old chap." J. Chesterman Heatherstone, II, knocked the ashes from his cigarette with his shapely, artistic fingers. "How are you going to stem the devastating tide?"

"Publicity, old son, publicity," Tom surveyed his friend animatedly, "You know the present predicament of the architect's profession reminds me of the old political yarn about the elderly Dutchman, who was fond of Limberger He made a Cheese. generous purchase of the beloved commodity at the country grocery. Tucking the odoriferous pack-



CHARLES KYSON

age under his arm, he started to walk homeward. The day being warm, the thermodynamics of the weather had an inspiring effect upon the cheese, and the aroma wafted heavenward.

"Two buzzards were attracted by the redolent commotion in the upper air and commenced flying around our friend as he trudged down the country lane. One buzzard turned to the other in a puzzled manner.

"'You know, I can't understand what's the matter with that fellow. His odor is convincing, and yet he still plods along."

"The other thoughtfully regarded their quest far below.

"'I bet I know,' he was struck by an inspiration, 'the trouble with that guy is, he's dead and doesn't know it'." A hearty laugh went round the group. "By jove, Tom, that's handing a rather hot one to the dear old profession," grinned one of the group.

"When it comes to publicity, we architects are riding in the undertaker's buggy."

"Aw, really now, Tom, you don't mean that sort of publicity the movies go in for, do you?"

"Well, why not? The old fifth industry has cross sectioned, diagrammed and diagnosed the psychological set up of old man Everyman, and his wife, the

> American people, in a way few industries have ever attempted, and publicity is it's life blood. They know its value and what it can do for them."

> "Oh, I say now, Tom, you can't compare the profession of architecture with the movies, you know," protested Heatherstone.

> "Perhaps not, but we can profit by some of their methods. They've done a jolly good job in selling themselves to the public—one of the things we architects haven't. Only one out of ten of the building public thinks we are necessary, or is even aware that we exist. Our trouble is that we have failed to sell ourselves, and we are all suffering because of this lack of progress."

"After all," chimed in

one of the reactionaries of the group, "it's the public's fault. It is only half educated and more or less uncultured. It neither knows nor appreciates good architecture. Until it changes its point of view and acquires an education as to the value of artistic things, publicity would be of no avail."

"Is that so!" Tom, the champion of modern methods, looked belligerently at the last speaker. "Who's going to change it for them if we architects don't? I call that putting the differential before the steering wheel. Your solution, I take it, would be to wait until human nature changes and then start educating the vox pop. Boy, how long do you want to live anyhow?" he scoffed.

"I'll say, before you get 'em educated, you'll wait

until that trick mustache of yours grows so long you'll trip on it when you do the black bottom."

"Sic'em, Tom, you old hound of modernism," bantered another speaker.

"O.K., Methuselah," countered Tom. "The fact remains, however, that the architect is the point of contact with the public. It is up to him to educate Mr. and Mrs. Everyman to understand what good architecture is and to appreciate the value of it. Why, do you know," he continued earnestly, "I happened to be in the public library the other day, and I ran across a book entitled 'The Handbook of Real Estate.' It was the Kidder of the Real Estater. It told all about real estate operations and then it had chapters devoted to insurance, surveying, building, and so on, written by authorities in the various lines, and there was a chapter telling of the work of the architect. Well, I had to laugh. It was a longwinded, fussy, moss-grown treatise on what the public should do for the architect, and mighty little about what he could do for the public. As a selling argument, it was a complete and absolute washout. If a good salesman had read it, he would have laughed until he lost his front teeth. There wasn't one thing in it that would give you any intelligent idea as to how much the services of an architect should cost. In the next chapter, the contractor had his innings, and it told in an every day garden variety of readable English, just what a contractor could do for the public, and how necessary he was. It also told dear old friend Everyman he would have to pay friend contractor ten per cent. for his work. A straightforward statement of fact without a lot of verbal camouflage."

"Oh, but then, Tom, there's a limit. One can't commercialize architecture too much, you know," protested J. Chesterman Heatherstone.

"Oh, commercialize your grandmother's whatnot, Chet." Tom regarded the reactionary Heatherstone disgustedly. "We have the nice easy job of putting the art of architecture on a business basis and if we can't do it, we're sunk, I'll say."

"Well, Tom, what's your theory of publicity for the architect?" inquired one of the men who had been listening intently to the controversy.

"Well, Jack, it's this way. There are two types of publicity for the architect. One may be termed internal and the other external publicity. Internal publicity means the education of the architect along business lines relative to the cost of production: what items constitute his overhead, how much it costs him to make the plans for various types of buildings, the cost of supervising construction. To educate him up to the problems of selling architectural service, I want to say, is some problem. How many of you fellows ever learned anything of this in college? These are some of the most vital things that face a young architect and, as far as I know, there isn't an architectural school in the country that imparts this knowledge to

any of its students, and yet the time of the successful architect is very largely taken up with the administrative problem of the business executive."

"And what do you mean by eternal publicity?" inquired another.

"Why—external publicity deals with the problem of the education of the public as to what an architect can do for it."

"Well, Tommy, old boy,—how are you going to tell the world about it?"

"Why, by the use of modern publicity methods," continued the interrogated one. "If all of the architectural societies and organizations in the country would wake up to a realization of the value of external publicity and set out systematically to get it, the troubles of the architect would be greatly minimized and he would come into his own. Publicity has become a systematized business. There are publicity agents who will contract to get so many columninches per month in the various publications which reach the public. They approach it from the newspaper angle of the human interest stuff. Architects do not realize how interesting their work can be, written up from this angle.

"You know—I was talking to an officer of a big society of general contractors, and he said in a certain locality they had worked their publicity up to four thousand column-inches per month. That's why the public knows it has to pay the contractor ten per cent. and there's no question about it. Who knows what they have to pay an architect, I'd like to know? Huh! The architects even don't know themselves. Can you imagine a supposedly intelligent profession getting themselves into a jackpot like that?"

"Woe! Woe! Woe! unto us!" teased one of the group. "That's all right—we can laugh all we want, but

"That's all right—we can laugh all we want, but there isn't a lot of hope for a business where not one in twenty-five knows how much it costs him to run his business—figure his production costs—in our case how much it costs to produce a given set of plans and specifications."

"Why I know how much it costs me to get out a set of plans. I made forty per cent. net profit, Tom, on my business last year."

"George, I'll bet you a dinner for the crowd, you didn't make that, or anywhere near it!"

"Why I certainly did," George Clarkson defended.

"George, did you figure a salary for yourself?"

"No, I didn't."

"Well, where do you get the forty per cent. net profit stuff then, I'd like to know? You could have gotten a corking good salary working for someone else, couldn't you?"

"Surely."

"All right then, it cost you something working for yourself, didn't it? You're like the farmer who figures his time worth nothing at all. George,—your trouble is, you don't know what constitutes net profit." "And let me ask you," Tom continued, "when figuring your costs, did you take into account such little trifles as depreciation, running your auto, interest on capital invested in your business—accident insurance, for instance? Suppose you got hit by an auto. Your expense would go on, wouldn't it? Well, accident insurance is income insurance and should be figured as part of your overhead."

"No, I didn't figure those." George looked thoughtful.

"Say, George, when you figure your overhead slack times included, I'll bet if you made a ten per cent. net profit, you're mighty lucky."

"I know—but what difference does it make about figuring your salary in your overhead?" George looked puzzled. "I'd only pay it to myself!"

"Yes, you babe in the stix, but when you don't figure it, you're kidding yourself into thinking you're turning out, let us say, residence plans for three or four per cent., when they are really costing you about six per cent. You misrepresent your costs to all of us, to the public and, worst of all, to yourself as well."

"Then that's why we can't really afford to cut under the American Institute schedule of fees, isn't it?" inquired another of the listening men.

"That's it all right." Tom leaned forward eagerly, to drive his point home.

"The trouble with the Institute is, it shakes a cold, aloft, admonishing finger at the younger men in the business and says—'Naughty, naughty! cut prices now. It is very wicked. You mustn't This is our schedule-you must stick to it'. It doesn't tell us why we should not. The result,-lots of us young fellows starting in business think the Institute is using that schedule of prices to freeze us out-knowing it's easier for the older members of the Institute to get business because they are established. We think we have to cut our prices under the Institute rate to get the business, when if we only knew how to figure the overhead of our business, we could soon prove to ourselves with figures that the Institute schedule is the absolute minimum rate an architect can afford to charge and live. In many cases he should charge more."

"Tom, old chap, where did you get all this dope on overhead?"

"From dear old Hollywood, where the nuts and the movies come from," Tom grinned.

"No kidding, I'm serious," George Clarkson remarked earnestly.

"Fact, George,—those fellows out there formed the Architects' League of Hollywood. Their address is 6040 Hollywood Blvd., Los Angeles, and they published a little booklet—sells for fifty cents. They call it 'Your Profit, Friend Architect, How about it?' It tells what items make up your overhead—and there's a lot, I'll bet you never even thought of. It shows you the actual cost of getting out drawings for a large number of buildings—and those costs will make you feel like the cold gray dawn. Read how much it costs you to supervise the construction of your buildings—believe me you won't waste any time when you have figured out how much it really costs you. That booklet is worth a good many thousands of dollars to any architect. Now every one of you fellows be sure to send and get it."

A number of the men wrote down the address in their notebooks. They all looked thoughtful.

"Why couldn't we get something like that started in our chapter?" Chesterman Heatherstone thoughtfully lighted a cigarette. "I confess it's something to which I never gave much thought. I knew I wasn't making much out of my architectural practice should though, of course. Some way I never knew how to figure why I wasn't."

"That Hollywood book will set you right, Chet." Tom was delighted at the impression his argument was making.

"Well, I'll have my office head look into it."

"Yes, and I'll bet you'll find your head draftsmen and some of the others are making as much or more out of your business than you are yourself."

"Shouldn't be surprised at that," smiled Heatherstone.

"Well it's all wrong!"

"By Jove, Tom, quit glaring at me. I'm a convert, I'll bite. What do you say fellows. Let's poke up the old boys in the chapter. Maybe we can't start something along similar lines right here in the old home town."

"Great!"

"Good idea. I'm with you Chet!"

"We've apparently gotten off on the wrong foot. No one told us differently, I guess." George Clarkson spoke, crossed his feet comfortably, and lighted a fresh cigar.

And so another group of young architects turned from the time worn course of obsolete traditional thinking; and if the architectural profession is to survive, more architects must join them. Let us wake up and realize we are part of the most fiercely progressive age all history has to record—discarding the time worn and the obsolete—let us use the constellations of truth by which to steer our bark into the course of things that are, pointing its prow into the entrancingly strange waters of unknown seas, and sail courageously out of the night.



FARM COLONY-FIVE THOUSAND PATIENT INMATE HOSPITAL SULLIVAN W. JONES, NEW YORK STATE ARCHITECT

[:362,]

# PLANNING METHODS FOR LARGE INSTITUTIONS, III

#### By George R. Wadsworth,

#### Consulting Engineer: Director—Division of Operating and Planning Research, Department of Architecture, State of New York.

THE GENERAL conception of a hospital consists of one or a few buildings suitably grouped and articulated to a unit for Administration, all incorporated within an acre or two of ground. New hospitals for the Civil Insane of New York State, with a maximum capacity of 5,000 patient inmates, including farm colony and special group for tubercular patients, encompass nearly 100 separate buildings incorporated within a plot of from 1,000 to 1,850 acres depending upon acreage employed for the raising of hay and grain for stock.

The planning of an institution of such scope presents the usual problems incident to a conscientious undertaking toward the expenditure of the taxpayers' money, accentuated by the magnitude of the program. On the one hand psychiatrists and superintendents are decrying the larger institution and, from their viewpoint, the contention is perhaps undebatable; on the other hand, those who recognize the fundamental economic factors surrounding the proposition, although giving due weight to the contention of the psychiatrist, realize that larger and ever larger institutions are inevitable.

The small hospital with single rooms only, a nurse or attendant for each patient and adequate personnel and facilities for treatment and service is eminently desirable. Such a program, with funds available or in sight for its consummation, from the standpoint of the psychiatrist would provide for 100 per cent. of care for 100 per cent. of the civil insane wards of the State.

The State can sensibly finance to conclusion no such program. Such a program partially carried out to the limit of funds economically available—would evolve a condition providing 100 per cent. of care for but 50 per cent. of State Wards; 50 per cent. of those eligible for institutional treatment and care at the hands of the State would have no place in State Hospitals.

The larger institution is the inevitable compromise. In it we may provide for treatment and care 95 per cent. as complete and efficient as in the smaller institutions, to meet 100 per cent. of requirements for patient bed capacity. In other words, between a program to effect 100 per cent. facilities for 50 per cent. of the unfortunate, and one to provide 95 per cent. facilities for 100 per cent. of the unfortunate there is no latitude for choice.

Most design in the final analysis is laid down to

meet a compromise of desiderata, some known, some carefully forecast, and some assumed. Depending upon the ratio of future uncertainties to known conditions of the present which seem likely to perpetrate, sound design must possess a measure of flexibility.

The design of a machine tool to make a stock mechanical part of certain material and specified tolerances for dimension and of prescribed finish is laid down to rigid specification around definite functional operations. Plans for the metropolitan hotel today need possess little if any element of flexibility; there is small likelihood of any change in custom or demand which shall upset the present tenets of service for a modern city hostelry; and this state of affairs seemed just as fixed in 1910 or thereabout when the architect should have planned his bar to serve ultimately as a cafeteria and his wine vault for conversion into a mushroom cellar. You never can tell.

The element of flexibility which must be recognized in the planning of institutions for the care and cure of those afflicted with mental disease is a factor of importance. The intense and scientific study of mental ills is only just now approaching a plane which has characterized the study of physical ills for a generation and more. Within a comparatively few years our present conception of requirements for treatment and care may be changed; structures planned today must be useful tomorrow.

The illustration on the opposite page of a farm colony or grouping of farm accessories and utilities to serve an institution with five thousand patient inmates, is one of a series of tables, graphs, plans and details which set forth requirements and estimated production for average New York State acreage, as well as designs for all buildings and structures from which the draftsmen may proceed with the contract drawings.

The tuberculosis colony shown on the following page is likewise one of a series of sheets sufficient and necessary for the complete planning of this important adjunct to the hospital. These two presentations reflect determination and details of planning and design substantiated by research of wide scope in example, record and territory. The series also includes, respectively, a list of recognized authorities consulted.

[363]



TUBERCULAR COLONY-FIVE HUNDRED PATIENT BED CAPACITY SULLIVAN W. JONES, NEW YORK STATE ARCHITECT

[364]

## PENCIL POINTS SERIES of COLOR PLATES

This plate was reproduced from a rendering by Vahan Hagopian showing the new Oliver Cromwell Apartment Hotel building on 72nd Street, New York designed by Emery Roth, Architect. The drawing was first made as a lithograph so that a number of black and white prints could be obtained. One print was made in ink of a bluish gray color on paper suitable for receiving water color. This print was mounted on cardboard and rendered in water color to produce the effect shown. The sky was blown in with an air brush. This process offers an interesting variant from the usual lithographic rendering printed in black ink. The original drawing measured  $12\frac{1}{4}$ " x 25".



THE OLIVER CROMWELL APARTMENT HOTEL, EMERY ROTH, ARCHITECT COLOR RENDERING BY VAHAN HAGOPIAN


NEW YORK TELEPHONE BUILDING, MCKENZIE, VOORHEES AND GMELIN, ARCH'TS RENDERING IN OIL BY EDWARD TRUMBULL

# PENCIL POINTS SERIES of COLOR PLATES

Paintings in oil as architectural renderings are of comparatively infrequent occurrence. This plate shows that the medium has some possibilities when the subject is of more than ordinary importance and interest and a competent painter is employed. The Barclay-Vesey building, designed by Ralph Walker of the firm of McKenzie, Voorhees, and Gmelin is most certainly worthy of having its portrait painted and Edward Trumbull has succeeded in creating a noteworthy one. The size of the original is 42" x 72".



LITHOGRAPHIC RENDERING BY RODERICK SEIDENBERG THE COWAN BUILDING, NEW YORK, SUGARMAN AND BERGER, ARCHITECTS

# · PLATE XX

## VOLUME VIII

#### Number 6

In this drawing, Mr. Seidenberg deliberately set out to make a night rendering after an attempt to get a satisfactory night photograph of the building had failed. He chose the lithographic medium because of the velvety rich blacks it offered. The drawing was first made with lithographic pencil on transfer paper and then put on the stone for printing.



LITHOGRAPH BY SAMUEL CHAMBERLAIN
A STREET IN OLD PARIS

# PLATE XXI

# VOLUME VIII

# NUMBER 6

We present here another of the series of "Twenty Lithographs of Old Paris" by Samuel Chamberlain, who is still busily engaged in etching, sketching, and lithographing picturesque bits of European cities and towns, to the envy of all who must regretfully stay at home.

HOUSE AT ASBURY, NEW JERSEY

WOOD BLOCK PRINT BY ROWLAND C. ELLIS



# PLATE XXII

# VOLUME VIII

#### Number 6

This print was made from a wood block, cut on box-wood by Rowland C. Ellis from a sketch made at Asbury. It is suggestive of the possibilities lying in this medium for use in renderings of certain types of buildings. We are accustomed to lithographic renderings and have recently seen etching employed by professional renderers as a means of presenting designs. Why not the wood block print?



RENDERING IN WOLFF PENCIL AND CHALK, BY F. G. STICKEL New York life insurance co. building, cass gilbert, inc., architect

### PLATE XXIII

VOLUME VIII

#### NUMBER 6

The rendering shown on this plate was made by F. G. Stickel of the office of Cass Gilbert. It was done on detail paper with Wolff carbon pencil and the highlights were touched up with chalk. It is interesting to us particularly since the editorial office looks out upon the building in course of construction on the block between Fourth and Madison Avenues from 26th to 27th Street. The view shown is taken from Madison Square. The original drawing measures 21" x 36".

# THE SIXTY ONETH CONVENTION OF THE I.A.I.

# "DIGNITAS UBER TOUT"

# By Gerald Lynton Kaufman, D 4-S.

# PROGRAM

Headquarters:-The Pentagon House, Polk Ave. & P. Street, Washington, D. C.

Hindquarters :- The Little Green House on K. Street.

- Registration:— Delegates, Members, Clients, Prospects, and Specification Writers, should register at the Salon d'Aisance before doing any business.
- Insignia:- Delegates, Red Ribbons; Officers, Red Tape; Clients, Checked Ribbons; Prospects, Gold Ribbons; Honorary Members, Ticker Tape.

At time of registration, Members should secure the following:----

1. Luncheon Tickets, Café de l'Enfant (Major l'Enfant, Archt.); 2. Banquet Tickets, Salle de la Warehouse Bondée; 3. Pullman Tickets, to get back to Local Chapters.

- Privileges:- Delegates may have the floor for the following architectural purposes:- Drafting resolutions, drawing up rules, and giving concrete instances with re-inforcing arguments-only after an eye-beam of approval from the Chair.
- Directors' Report:-It has been decided to omit reading the Report of the Bored Directors, giving each member a printed copy thereof, instead, to be read surreptitiously during speeches.
- Addresses:— Opening Night: 1. President's Address, by Puvis de Montparnasse; 2. "Drain Design", by Max I. Cloaca; 3. "Plastic Spatteresque", by Tex Krafft. Second Night: "A Plea for Depreciation." Symposium on the Use of Less Durable Materials and Pro-

vision for Future Jobs,—in line with other modern tendencies in business.

Third Night: Advertectural League Night. Address by Pliny T. Barnum, Promoter, on "The Annual Show", advocating the entire elimination of architectural displays in the Grande Palazzo Centro.

Fourth Night: Impromptu speeches after the Banquet at the Salle de la Warehouse Bondée.

Fifth Night: (Read the Report following).

N THE SUPERB SETTING of the placid Potomac Valley, beneath the palatial portico of the famous Pentagon House, there has just been held one of the most epoch-making reunions of the Illustrious Architect Immortals. For five days and at least five nights the outstanding members of the profession assembled, greeted, handshook, re-uned, discoursed, and adjourned; for five days the Pentagon lawns and gardens were resplendent with wearers of VanDyke beards, spats, and varied intermediate sartorial coverings, garbs, and decorations. For five unforgettable evenings, and perhaps more or less forgettable nights, the air inside and around the Pentagon House was perfumed with honeyed verbiage, was vibrant with melodious discourse, was replete with cerebral out-pourings, and was sweet with the aroma of festive and furtive libations .....

It is not the purpose, however, of this report, to describe the atmosphere. Rather let us confine ourselves to the brief story of the I.A.I. activities, reports of standing and sitting committees, and the chronicling of the principal items of paramount interest.

The Convention opened with the President's address of welcome, the singing of the "Internationale", and the dispensing with the minutes of the previous Convention. The first day was given over to Committee Reports—and what reports they were! The Committee Contra Competitions reported excellent progress for the past year, and asked for a larger appropriation for the ensuing year. The Committee on Un-Comical Practices in the

The Committee on Un-Comical Practices in the Building Industry reported on last year's economies and asked for more funds to carry on the work.

The Committee on Canons of Ethics reported the discovery of forty new restrictive regulations and requested a greater financial allowance for the purpose of putting these into new folders.

The Medals Committee reported the founding of new prizes as follows:---

1. The Roxy Medal for distinctive use of Gilt Ornament; 2. The Set-Back Medal for Pen-House Apartments; 3. The Harris-Jacobs Medal for Traffic Congestion Schemes; 4. The Bragwyn Medal for Projective Symmetry; 5. The Raymond M. Wright Medal for Verticality; 6. The Frank Lloyd Hood Medal for Horizontality.

This Committee further reported, in connection with the above, that an augmentation of its working capital was necessary to take care of expenses in awarding of the prizes.

The Committee on Public Erudition reported an increase of one person per thousand over the previous year, who knew what an architect was, and asked for additional resources for its educational work.

Several other Committee reports were read, mostly

consisting of the usual routine requests for increased appropriations. The Convention took a rising vote of acceptance of the reports, and then sat down, renewing the previous year's budgets without reduction. An increase was proposed, seconded, and carried, however, for membership dues in the I.A.I., to be used for alterations to the Pentagon House, following designs submitted and approved for an additional wing, making the building a hexagon.

The Second Day of the Convention was given over to a debate on the merits of the Small Architects' House Service Bureau, the Jersey Farm Bloc taking the negative. It was pointed out that architecture was too good for the working classes, and that six room houses were beneath the dignity of the profession. However, the Convention's approval of the Bureau was railroaded through, it being agreed that Bureau members were to continue giving professional advice to "small fry" home-builders at a fixed personal loss of not less than \$4.00 per hour.

The Third Day of the Convention was the Sine Qua Non, Ne Plus Ultra, Dolci Far Niente, Dernier Cri. It was a Day out of the Millenium; in fact it was out of sight. Though no one knows what started the whole thing, it is supposed that the address of Mr. Fuller Hoakem, of Readham & Weap, Architects, was responsible. He was telling the story of their design and construction of the famous No-Room, Bath, and Kitchenette Apartment. He had gone so far as to describe the preliminary conferences in which his firm had convinced the promoters, Gypp & Skipp, of the efficiency of the No-Room type of plan, when he was interrupted by Henry Killam, of Ketcham and Killam.

Mr. Killam arose in a high dudgeon, asking the Chair for the floor. His address, in part follows:----

"Fellow Architects, Gentlemen, and Mr. Hoakem: The time for oratory has passed ... (applause)... the time for Action has come... (snores). We are gathered here to rescue the Profession ... (sobs), from certain architects ... (snickers). The trend of modern building is toward larger and larger structures, with smaller and smaller fees;—er, I mean, rooms. What are we going to do about it? There is a crying need for legislation, for concerted action; I might even go so far as to say, for Advertising,—"

At the mention of the tabooed word "Advertising", the Convention stampeded. Dignity, culture, poise, tradition, were thrown to the winds; coats, collars, and tempers, were torn to shreds; the scene resembled a session of Congress .... But out of the storm came sunshine,—and a rainbow of Resolutions:—

It was Resolved, First, to instill high ideals in the

Younger Men; Second, to instill high ideals in the Public; Third, to revise the Canons of Ethics, especially regarding minimum charges, unauthorized competitions, and the ethical commandment about coveting one's neighbor's client; Fifth, it was resolved, to raise the dues once more; Sixth, to carry on the work of the Immortals, exactly as before...

A suggestion was also made that the Committee on Public Erudition report all fires to the local chapters, to enable member architects to get into immediate touch with the Owners, for the good of re-building. Furthermore, that this Committee broadcast a series of talks for the Younger Men, on "How Not to Get Jobs", to prevent their falling into the pitfalls of their own ambition, and taking work away from the more competent firms. Finally, it was decided to curtail the enlightenment of the Public as to What Architecture Is, on the theory that "The Greater the Mystery, the Larger the Fees".

And the evening and the morning, were the Fourth Day. The I.A.I. was warming up; everyone was warming up; there was an abundance of good spirits. The time had come for the recognition of genius; every Delegate had a mirror in his other hip pocket.

The evening Ceremonies commenced with the Presentation of Medals and the extemporaneous speeches of acceptance. Only Sixty-Four awards were made, there being no prize in the remaining class, for Third Avenue Alterations; the local Association having reported the discovery, just in time, that the best alteration of the year for that district had been made by a draftsman. Six Delegates did not receive medals, but were elected to Fellowships instead, and given framed parchments to hang in their office vestibules next to the rendering of that Big Job (which did not go ahead).

Finally, Came the Pageant,—and the Photograph. All Members and Delegates gathered upon the Pentagon lawn, dressed in full regalia;—some fuller than others;—resplendent in flowing robes of colored silk, flushed faces, and combined air of comme-ilfaut-ism and je m'en foutism. The Procession formed, as Processions will, marching slowly and solemnly around the Pool while the photographer got his focus. Will Rogers was of course roped in for a few informal words, and then, just before the touch of the flashlight, there came into the midst of the Pageant, the next President of the Republic, Senator Borer, carrying a phial of water...

On the closing day, every Illustrious Architect Immortal signed his name in the Pentagon Book, and received a postcard set of a dozen views of the Pageant to send home to Prospects.

# WHITTLINGS

#### DR. S. PARKES CADMAN,

Noted pastor of the Central Congregational Church of Brooklyn, discussing the power of imagination before the Travel Club:

"In nothing except architecture is America doing proper work in imagination. We have no great poets or artists, but business men using the power of imagination are creating beautiful works of art in skyscrapers and business buildings.

"There may be great artists in this modern age, but if there are I don't know them. We flay the Victorian, but we cannot produce as they did."

#### HORACE W. PEASLEE,

Chairman of the Committee on the plan of Washington and its Environs, of the A.I.A., in a circular letter sent to citizens' organizations:

"Most people will identify ugliness at a glance—but too late to correct it; but trained architects can detect the potential ugliness in blueprints and it may be eliminated from every proposed building before it is too late."

#### W. S. Aldrich,

Architect, appeals to the civic pride of the Co-operative Club of St. Joseph, Missouri:

"If all persons living in a community could confine themselves to a good standard taste it would be a commercial asset, as the buildings of a city convey the same impression to a visitor as a good or poorly written letter."

#### JOHN TAYLOR BOYD, JR.,

Chairman of the Committee on Education of the New York Chapter of the A.I.A., in a recent report:

"We are convinced that a constant effort must be made to assure contact between draftsmen and craftsmen, in order not only to maintain the vitality of our art, but to prevent a vast amount of wasted effort in the drafting room, due to a lack of understanding of the possibilities and limitation of materials and workmanship.

"The ignorance of the average draftsman of such operations as the sawing, planing and polishing of stone and marbles, the modeling and casting of bronze, or the forging of iron is abysmal, and is expressed in many an expensive detail drawing."

#### CLAUDE BRAGDON,

Architect and Stage designer, lecturing on "Architectural Masks and Face." at the Roerich Museum in New York:

"Not the architect but the American engineer is responsible for any advance, or any essentially 'American' values in skyscrapers of America.

"The American architect, as a whole, has been content to imitate the past in his work. Where the skyscraper could be a development of unique beauty it is in most cases only, architecturally, an imitation—and it is only the skill of engineers which gives the skyscraper its newness. Most of our architects are content to go back to the past—to the 'glory that was Greece and the grandeur that was Rome' without thinking that our new day demands a new expression and a new decorative art, essentially ours."

#### GEORGE WHARTON PEPPER,

Former United States Senator from Pennsylvania, speaking at a meeting of the Philadelphia Chapter of the A.I.A. and the T-Square Club:

"Architecture has a great opportunity to give the people an insight into the relation of the beautiful and the useful and to teach them that beauty is the sum total of all that is desirable in life. Yet in proportion as it realizes those ideals will it become intensely practical."

#### Editor

Of the Oswego (N.Y.) Palladium fills an odd corner of his sheet with a timely observation on a recent architectural curiosity:

"A French architect has built a house on a turntable so that it may always face the sun. Some over here still get the turntable effect with Scotch, and sunburn, too."

#### ALEX GUTH,

Architect, of Milwaukee, speaking before the Optimist Club of that city:

"If you want to appreciate pictures more, whether they be old masters or newspaper comic strips, learn to draw.

"If you want to have a pleasant form of recreation, which is not manufactured somewhere else, but is the result of your own ingenuity, learn to draw."

#### DAVID TISHMAN,

Vice President of a New York building concern, writing in The New York Times:

"It is the inclination and habit of mind of the architect to create the beautiful, just as it is the intent of the owner and builder to erect structures that will best meet the needs and comply with the standards of those who are to use them. Where the result of an architect's work is reflected in a building that apparently indicates a lack of appreciation of the place and importance of proper architectural treatment, it is probable that he was compelled to design a building to order not only in its interior planning, where the owner is presupposed to know what is best, but in its exterior, where the owner can and too often does impose unwise restrictions, both physically and financially."

#### HUGH TAYLOR MILLER,

Of the Michigan Society of Architects, writing in the Grand Rapids Herald:

"The English know of what value to tradition and their consciousness as a nation have been their cathedrals and their universities. Take away a score of these architectural gems and England would be a poorer place. In America we've got to come to the same viewpoint, not merely with regard to our architects, but with regard to our creative thinkers generally.

"It may be that the time will come again as it was in the seventeenth and eighteenth centuries—when a knowledge of architecture will be part of the mental equipment of every gentleman; and when his esthetic impulses will not be exhausted by the lines of a car or the range of a radio set."



Section

DESIGN FOR "A WAR MEMORIAL", COLLABORATIVE PROBLEM, AMERICAN ACADEMY IN ROME; 1927 CLARENCE D. BADGELEY, ARCHITECT

[376]



ONE OF THE FOUR PANELS FOR THE FRIEZE, A. CLEMENS FINLEY, PAINTER

#### "A WAR MEMORIAL", COLLABORATIVE PROBLEM, AMERICAN ACADEMY IN ROME

(EDITOR'S NOTE: The American Academy in Rome presents each year a six weeks' collaborative problem which is undertaken by teams consisting of an architect, a sculptor, a painter, and a landscape architect. The competition is held at the Academy and a prize of \$150 is given to the winning team by the American Institute of Architects. This year the winning team is as follows: Clarence D. Badgeley, architect; A. Clemens Finley, painter; Walker Hancock, sculptor; and Richard K. Webel, landscape architect. Reproductions of the prize winning drawings and details are reproduced herewith and a description of the design follows.)

THE MONUMENT IS conceived as commemorating the spirit of sacrifice in the World War rather than as serving any utilitarian purpose or suggesting a "victory memorial".

The plan, which when seen from the air forms a sword, is presented only in part. The building and reflecting basin are placed upon a level higher than that of the surReconstruction and the restoration of family life are represented in the group by the well, laborers at work upon new buildings, and the farmer plowing the scarred fields followed by the sower.

The sculpture takes the form of a cenotaph borne by four figures, each carrying the symbol of one of the four

rounding park and so arranged that while the monument is easily accessible from all sides, there is no direct central approach from the front. In this way the basin is kept an essential part of the composition, adding significance to the architectural scheme, and preventing a too close approach to the central group of sculpture (shown on the following page).

Easy circulation through the entire building is provided for. The painting, in four long panels, forms a frieze for the central walls. One of these panels is presented above. This panel, on the right, is purely allegorical and depicts the four Horsemen of the Apocalypse. That on the left, indicated in the elevation drawing on the opposite page, treats the subject in modern terms: a riderless horse, a soldier's grave near a ruined Cathedral, the Fates, and mourning From the ruins soldiers. rises the Spirit of Sacrifice, bearing the lamp of honor.



PLAN FOR "A WAR MEMORIAL" RICHARD K. WEBEL, LANDSCAPE ARCHITECT

branches of the service land, air, navy and marine. The figure of Heroism stands in front, and, behind, the bereaved mourns the valiant dead.

In the brief time allowed, many details were necessarily sacrificed to the study of the idea and to the effort to combine the three arts harmoniously.

The program called for a memorial to be erected by an important American City to commemorate its citizens who died in the Great War. The requirements were: first, either the classical or Renaissance style be used; second, that the memorial be placed in a park; third, architects, painters and sculptors be employed and a landscape architect consulted; fourth, each member of each team, landscape architect excluded, present an adequate detail. The problem was treated as a work combining, as essential parts, all the elements of architecture, sculpture, painting, and landscape architecture.



DETAILS OF CENTRAL GROUP, "A WAR MEMORIAL", COLLABORATIVE PROBLEM, AMERICAN ACADEMY IN ROME, 1927. Walker hancock, sculptor

#### ELEVENTH INTERNATIONAL CONGRESS OF ARCHITECTS

AT A RECENT MEETING of the permanent committee of the International Congress of Architects held in Paris, it was decided to hold the 11th International Congress in Amsterdam and The Hague from August 29th to September 4th. This will be the first truly International Congress of Architects held since the war.

The 10th Congress, held at Brussels in 1922, although international, was confined to the allied and friendly powers but to the coming Congress Germany and Austria, in fact all of the countries of the world, are cordially invited. Five of the subjects thus far decided upon to be discussed are:

1. International Competitions; 2. Legal Protection of the Title of Architect; 3. Architectural Copyright; 4. Architecture as Practiced by the Architect and by the Architect-Builder; 5. Artistic Development of Architecture since 1900.

The International Congress of Architects was organized in Paris in 1867, where the first three meetings were held. The fourth was held in Brussels in 1897, the fifth in Paris in 1900, the sixth in Madrid in 1904, the seventh in London in 1906, the eighth in Vienna in 1908, the ninth in Rome in 1911, and the tenth in Brussels in 1922.

These great international gatherings have brought architects together from all parts of the world to discuss matters of great importance to the entire profession. They have lasted from a week to ten days and, although not unlike our Institute conventions, are naturally on a much larger scale and, being in countries of great architectural interest, the visits and excursions to architectural monuments and the brilliant receptions and entertainments offered by the various governments—for these congresses are always under the auspices of the country in which they are held —make these gatherings of thrilling interest to all who are able to attend. These meetings are truly inspiring and all American Architects are urged to attend the coming Congress.

Those expecting to be present will kindly communicate with the Secretary of the American Section.

American Committee, International Congress of Architects: Cass Gilbert, *Chairman*; William A. Boring; Glenn Brown; J. Monroe Hewlett; William Rutherford Mead; C. Howard Walker; C. C. Zantzinger; Geo. Oakley Totten, Jr., *Secretary*, 808 17th St., Washington, D. C.

#### ROTCH SCHOLARSHIP AWARDED

E. D. STONE has been awarded the Rotch Scholarship for 1927. Photographs of the winning drawings were received too late to be reproduced in this issue, but will be published in the July number of PENCIL POINTS.

Sixteen competitors were admitted to the preliminary tests, which comprised a ten-hour sketch where the interest was centered in the elevation, and a ten-hour sketch where the interest was centered in the plan. Four contestants making the best showing in these preliminary efforts were selected to proceed with the final competition. As the result the following four were chosen: E. D. Stone, B. S. Gruzen, Miss Marjorie Pierce, and H. Perrin. These students then proceeded to make a sketch which they developed in the two weeks immediately following.

The subject of the program was An Architect's Office, the assumption being that he was a man with some fifty million dollars' worth of work in hand, employing 250 draftsmen, who had selected an isolated piece of property with ample space for gardens and garage in addition to all the other normal facilities of an architect's office.

The jury of award was composed of Ralph T. Walker and H. O. Milliken of New York; and William G. Perry of Boston. The design of Stone was placed first, that of Gruzen second, and that of Miss Pierce third.

#### EXHIBITION OF PARIS PRIZE DRAWINGS

AN EXHIBITION of all the winning designs for the Paris Prize of the Society of Beaux-Arts Architects, from the time of its inception to the present year, is being conducted, in conjunction with the Beaux-Arts Society, by the New York Architectural Club, 118 East 42nd Street.

Owing to the large number of exhibits, it has been necessary to present the collection in two sections. The first section, shown from May 16th to June 1st included the winning designs from the first competition in 1904 up to the beginning of the World War.

The second section will be on exhibition from June 6th to June 25th and will include all the winning designs made since the ending of the war.

The exhibition is open to the public and all architectural men are cordially invited to take advantage of this important showing.

#### WE ASK OUR READERS' ASSISTANCE

READERS OF THIS magazine who are acquainted with the best practice in the execution of architectural metal work, wrought iron, bronze, brass, copper, lead, tin and so on, can help us greatly, if they are so minded, by sending in material which might be useful in a book devoted to the subject. Gerald K. Geerlings, whose articles on "Wrought Iron Precedent" have been appearing in PENCIL POINTS during the last year, and who contributes a discussion of bronze casting in this issue, is preparing this book which we expect to publish in the fall. The work will cover the methods of preparing metals for architectural uses with special reference to the influence of these methods on design, and will contain drawings and photographs illustrating the most representative work in various historical styles as well as current workmanship. Information concerning the crafts will be supplied which will be of use to architect, designer, and specification writer.

The more suggestions we can get from architects, craftsmen, draftsmen, teachers, or advertisers concerning the best practice in preparing drawings and specifications for each craft, the better will be the book produced. We will also welcome illustrative material in the form of photographs with over-all dimensions or drawings. Material sent should be addressed to the attention of the Metal Book Editor, PENCIL POINTS, 419 Fourth Ave., New York, and should have the owner's name and address legibly inscribed on each piece of copy. We will take the best of care of material submitted and will return it promptly. Any of the material used in the book will be credited to its proper source and author.

#### A NEW SPECIFICATION SERVICE

FRANK B. STEVENS, JR., has opened an office at 1629 Capital Building, Chicago, under the name *Stevens Specifications*, and is conducting a business of writing specifications for architects and engineers, furnishing inspection and supervision for structures during erection and preparing catalogs for manufacturers of building products.

# THE ARCHITECTURAL LEAGUE OF NEW YORK

AT THE ANNUAL MEETING of the Architectural League, held on May 5th, the following were inaugurated:

President, Kenneth M. Murchison; First Vice President, Eugene Savage; Second Vice President, Chester Beach; Third Vice President, A. F. Brinckerhoff; Fourth Vice President, Leon V. Solon; Secretary, Walter D. Blair; Treasurer, F. Livingston Pell; Executive Committee, term expiring May, 1930, Alfred Geiffert, Jr.; C. Paul Jennewein; Francis L. S. Mayers.

Mr. Murchison, the new President, is also the President of the Society of Beaux-Arts Architects.

# THE ST. LOUIS ARCHITECTURAL CLUB

AT THE REGULAR bi-monthly meeting of the St. Louis Architectural Club held on the evening of May 5th the following newly elected officers were formally installed: *President*, John A. Bryan; *First Vice President*, Harry F. Westerholt; *Second Vice President*, Edward Brueggeman; *Secretary*, Arthur T. Grindon; *Treasurer*, Richard S. Johnson; *New Members of Executive Board*, Wm. H. Packer and Clarke F. Sanford; *Trustee*, William A. Hirsch. The meeting was preceded by a dinner held at the Clubhouse, at six-thirty.

Following the installation of officers, Mr. George H. Pring, Horticulturist at Shaw's Garden, St. Louis, told cf his experiences on his most recent orchid hunt in the jungles of Panama. Mr. Pring has made several trips to Central and South America in quest of rare orchids, and his perseverance has brought the orchid collection at Shaw's Garden up to first place among all the collections in the world. He is a comparatively young man and his talk entirely disproved the prevailing notion that Englishmen have no sense of humor.

In connection with this meeting there was a small exhibition of photographs showing work by various St. Louis architects in the designing of solariums, conservatories, and architectural features for gardens, playgrounds and parks.

On the first floor of the Club's Dormitory at 3964 Washington Avenue, there was an exhibition of students' work from the School of Fine Arts at Washington University. This exhibition remained in place over the following Sunday and was opened to the public on that day.

#### BANK VAULT PROVES TO BE TOUGH NUT TO CRACK

IT USUALLY TAKES longer to build something than to tear it down, but the reverse recently proved to be the case when a competent crew of house-wrecking persons found themselves face to face with the vault in the Mechanics and Metals National Bank Building in New York.

As so frequently happens these days, the old structure was being cleared away to make room for a new one and we are told on reliable authority that it took just seven weeks to demolish the vault in this old building. Crow bars, sledge hammers, acetylene torches, thousand ton jacks and even an oxygen lance were used before any progress could be noted.

The FERROX plates furnished the stoutest resistance and it was the opinion of engineers who examined this vault during the progress of its demolition that burglars would find it a tough proposition to crack.

Blue prints showing the construction of this vault may be secured by applying to the American Abrasive Metals Co., 50 Church St., New York, N. Y.

# THE ARCHITECTURAL BOWLING LEAGUE OF ST. LOUIS

THE ARCHITECTURAL BOWLING LEAGUE of St. Louis celebrated the closing of its first season with a banquet at the Melbourne Hotel on April twenty-sixth.

From the pep displayed at the banquet, the outlook for next season is very promising. It is our hope that other offices of this City will join us next season.

The league opened at the Congress Alleys on the fourth of January, giving us but a half season with six teams for the year.

The following are the results of the past season:

	w.	L.
Wm. B. Ittner, Inc.	35	10
Jamieson and Spearl	26	16
Aegeter and Bailey	28	17
Mauran, Russell and Crowell	19	26
Maritz and Young, Inc.	18	27
Klipstein and Rathman	6	39

The presiding officers of the past season were: *President*, Otto Schwalb; *Vice President*, Richard Ferry; *Treasurer*, Dennis Donovan; *Secretary*, Roy Schoening.

#### DETROIT ARCHITECTURAL BOWLING LEAGUE

ALTHOUGH OUR active bowling season has closed, we have decided to keep up interest in the League during the summer and have planned several golf and tennis matches for our members. We also have an embryonic magazine called *Scraps* which promises to develop into something worth while.

Our annual banquet on April 12th was quite all that was expected—and perhaps a little more. We had about 150 in attendance which included several well-known Detroit architects and contractors as guests.

Donaldson & Meier won the roll-off of the tie for fifth place in the season's standings from F. H. Nygren, and consequently finished in the "first division".

We note with a slight show of interest the birth of an Architectural Bowling League in Cleveland. Detroit is ever showing the way to her fair neighboring city! Whenever this new league reaches a higher state of maturity and can promise to furnish us with at least as much competition as the New York boys gave, we will be very glad to arrange a meeting.

Our officers for 1927-1928 are: *President*, E. Keith Fraser, (D. & M.); *Vice President*, C. C. Bradshaw, (L. K.); *Secretary*, C. L. Toonder, (S. H. & G.); *Treasurer*, Geo. H. Michla, (A. K.).

#### THE ARCHITECTURAL BOWLING LEAGUE OF NEW YORK

THE ARCHITECTURAL BOWLING LEAGUE of New York wound up its activities in the 1926-27 bowling season on Thursday evening, May 12th, with the usual grand annual get-together dinner, which this year was held again in the Grand Ball Room of the Pennsylvania Hotel.

This has been an extremely busy year for the league, what with a lot of extra bowling in tournaments, additional ladies' nights and a little set-to with our good friends in Detroit. In connection with the last named, we might mention "sotto voce" that we've had a most terrible time of it in trying to induce them to play with us again, after giving them an unmerciful trouncing two seasons ago. Of course we were somewhat rough with them at that time, but we did not think it would take them two seasons to get over it. However, by applying genius of a high order, with very clever manouvering, we managed to inveigle them into playing us three games this year, and so the event took place on April 1st, with the scores being transmitted between the two cities by telegraph as the games were going on. We gave them Hail Columbia in the first game, just to prove that we could, and then diplomatically let them have the next two, so as not to scare them off for two more seasons. We are therefore quite sure that they will come back for more next season.

This year's winners are as follows: Five-man Tournament—Office of Cass Gilbert; Three-man Tournament— Office of Cass Gilbert; Two-man Tournament—Office of John Eberson.

The final standing of the teams in the five-man tournament is as follows:

1.	Office	of	Cass Gilbert
2.	"	"	Guilbert & Betelle
3.	"	"	Warren & Wetmore
4.	"	"	McKenzie, Voorhees & Gmelin
5.	"	"	William H. Gompert
6.	"		John E. R. Carpenter
7.	"	"	James Gamble Rogers
8.	"	"	Thomas W. Lamb
9.	"	"	William Whitehill
10.	"	"	Peabody, Wilson & Brown
11.	"		Starrett & Van Vleck
12.	"	"	Schwartz & Gross
13.	"	"	John Eberson
14.	"	"	McKim, Mead & White
15.	"	"	Andrew J. Thomas
16.	"	"	Alfred C. Bossom
			HENRY SASCH,

Secretary.

#### CLEVELAND BOWLING LEAGUE

Is BOWLING A DISEASE? We are inclined to think it is. Beginning last summer symptoms appeared, gradually growing stronger through fall and early winter, until they had reached such alarming proportions that we realized unless something was done immediately, Cleveland draftsmen would degenerate to howling, glecful brutes throwing composition spheres at the poor defenseless, deformed Indian clubs.

With this in mind an informal meeting was held, at which representatives from the various offices were present, to discuss ways and means of combating this impending disaster. Among the many remedies suggested was one from a bright lad (posing as a master of psychology) suggesting that we start one of those peculiar organizations called a Bowling League. The standing of the offices that joined this League are as follows:

	Won	Lost
City Architect	17	4
Walker & Weeks	12	9
Small & Rowley	12	9
Charles S. Schneider	12	9
Warner & McCornack	11	10
Corbusier, Lenski & Foster	9	12
Hubbell & Benes	6	15
Howell & Thomas	5	16
High Scores for the Season.		
J. Boenisch		227
		220

Charles S. Schneider .	 220
W. Schafer	 216

J. Boenisch																								
Wm. Hogue	•					•	•	•		•	•	•	•		•	•		•	÷		•	•		213
L. Kiester	•			•		•	•	•		•			•	•				•		÷	•		•	211
Robertson	•																				•			210
W. Rose	•					•												•						209
W. Stukbauer		•		•		•				•							ł				•			207
A. Carey		•		•	•	•					•	÷	•		•	•		•	•	•	•		•	205
Nocar		•		•		•	•	•								•	÷	•	•			•		204
R. H. McNaughton																								202
Blaha		•	•	•												•		•						202
Pond		•	•	•	•	•	•	•	•							•		•					÷	201
R. H. McNaughton		•	•	•							•		•				•				•			200

Four more teams have joined the bowling league and expect to be in the thick of things next season.

The new teams are as follows: Meade & Hamilton; A. Garfield; The Frank W. Bail Co.; Walker & Weeks, Team No. 2.

#### ATELIER HIRONS

AT A MEETING April 27th, the annual election of officers was held by the number of members who were present.

Andy Euston, Logist for 1927 Paris Prize, resigned as Massier, and was succeeded by George Rustay, and Frank Dyer, Sous-Massier. Samuel Baum, winner of one of the Fontainebleau Scholarships for 1927, resigned as Treasurer, and W. J. Gregson became his successor; Secretary, N. J. Sapienza; Librarian, G. W. Sommer; Chef-de-Cochons, Cl. H. Johnson.

At the close of the meeting all members were satisfied and the new Massier at once indicated what duties were in store for all new members.

The Atelier has had one of its best years of existence and it is hoped that next year will be bigger and better than ever.

All former members of Atelier Hirons are requested to send their names and permanent addresses as soon as possible to the Secretary, 769 First Ave., New York, so that they may be kept on record for all future events.

ARCHITECTS AND ENGINEERS SQUARE CLUB THE ARCHITECTS & ENGINEERS SQUARE CLUB OF New

York will hold its last regular meeting of the season June 22nd, at 71 West 23rd Street, New York.

This meeting will be of a social nature, and those interested are cordially invited to attend. Business will be resumed in September. For particulars address Frederic Sutton, care of York & Sawyer, Pershing Square Bldg., New York.

#### FRENCH TRAVELLING FELLOWSHIP AWARDED

MARCEL GOGOIS of Paris has been selected as the first holder of the French Travelling Fellowship of the American Institute of Architects.

M. Gogois, a native of Amiens, received his architectural education in the Ecole des Beaux Arts, Atelier Deglane, and won the diploma in architecture from the French government.

The annual value of the scholarship, the donor of which is Julian Clarence Levi of New York City, is \$1,500. Paul Leon, Director of Fine Arts at the French Ministry of Education, was chairman of the committee which appointed the Fellow, who will spend part of his time in travel and part in employment in the offices of prominent American architects.