THE substitution of items acceptable to the architect and approved by him in cases where the specifications contain an "or equal" clause is quite a different thing from the substitution that exists in many cases, some of which have recently come to our attention. In the cases we have in mind the architect's specifications called for a given material to be furnished by a certain manufacturer without the mention of any alternatives or any "or equal" clause. When the work was finished it was discovered that a similar material to that specified had been substituted and had been passed by the architect or his representative. In such cases as these the manufacturer of the specified material is usually powerless to secure redress. The owner pays for the specified article, which he does not receive, and the contractor in most, if not all cases, reaps a benefit from the use of an article which he obtains at a lower price. Both the owner and the manufacturer suffer and the contractor makes whatever difference there may be in price, because the architect's specifications do not mean what they say unless they are made effective, unless the representative of the architect on the job sees that they are carried out.

Now it is perfectly clear that if the closest kind of supervision is exercised such substitution can not occur. But to put the blame upon the architect entirely, without considering other elements which enter into the matter would be hardly fair.

It is well to look into some of these conditions by way of seeking a remedy. One reason it is possible for the contractor to make unauthorized substitutions is that the architect or his representative cannot be on the job continuously and when the material is substituted is not of a nature to be easily detected after it is placed in the building, substitution is comparatively easy. A certain remedy would be the employment of a clerk of the works but in the case of buildings of moderate or small size this is prohibitive in cost. It is probably true that in most such cases the architect's fee is not sufficiently large to permit as close supervision as he would like to give or as his client believes the work is receiving.

Another cause of this evil is the tendency of many owners to disregard the advice of the architect in the selection of a contractor and to let the work to someone of whom the architect knows nothing, or at least nothing favorable, because of the lowness of the estimate. When this happens it is almost impossible for the architect to watch the contractor closely enough to insure the carrying out of his specifications. When the work is done by a contractor the architect knows to be reliable, the owner may be reasonably certain of satisfactory results and of receiving the goods specified.

The most practical means of reducing this evil is naturally the marking of the goods by the manufacturer in such a way that they may be identified easily by the architect or his representative on the job. In the case of many materials this is not easy and the stamping of goods with glaring trademarks which would show in the completed work, is, of course, not to be recommended. But in most, if not all, cases some mark in the nature of an identifying design may be placed on the material in such a way as not to mar the appearance of the work, while it enables the architect or his representative to see at a glance that the articles specified have been supplied, even though they may have been installed during his absence.

This is a serious matter for when an owner or an architect expressly calls for an article it may be assumed that he has good reasons for doing so and certainly, the owner should receive what he is paying for, not something else. Some of the steps, then, which will tend to reduce this evil seem to be: the closest supervision possible under the circumstances, greater firmness on the part of the architect than is often shown in advising the client in the selection of a contractor, and the marking of items that enter into building construction or equipment with unobtrusive but characteristic identifying marks.

There are many angles to this question and we would like to have expressions of opinion and comments upon substitution from our readers. Won't you write us an informal letter about this matter as you see it?
Sketch in Semur, France, by Wilson Eyre, 1923.
Wilson Eyre, although Philadelphian by descent and by long residence in the Quaker City, was born in Florence, Italy, and spent his early years in that wonderful romantic Tuscan city. Under such good influence directing the natural instincts during the formative years, no harm could be expected to come to the spirit from future associations, however bad they might be. To one naturally endowed with instinct for the beautiful, the poetic and romantic, with an eye to the glorious and quaint in the art of the past, Florence would seem to be the ideal instructor as to the right path and her protégé be expected to hold fast to the faith early instilled into his mind by all that his eyes perceived about him, during the years when the first habits of mind were formed.

Wilson Eyre and his friends, Walter Cope, John Stewardson, and a few others, founded the most interesting architectural society in existence—the T-Square Club of Philadelphia—at a time when that which passed as "architecture", in that city, was at the lowest ebb that the tide of building design has ever reached. All about them were new, huge and hideous monstrosities, evidences of dull or callous mindedness—the very devil to the mind nurtured in Italy's most alluring city. Who that can remember the early work of the members of the T-Square Club, in its monthly sketch competitions, does not realize that out of those young, earnest, artistic efforts has developed the excellent school of Philadelphia residential architecture of today—an architecture distinctive of its locality, permeated with charm and the lovable qualities expressive of good home life? One cannot say too much of it! It is hardly necessary to mention that the influence of Mr. Eyre's work has been the mainspring of the Philadelphia movement.

Every architect worthy of the title is primarily a draftsman and his interest in architecture usually begins by taking note of artist presentation of architectural designs. Mr. Eyre's drawing has always been of an individual and unique style. Nobody else draws like him, and none that has imitated his work has done so with sufficient success to cause him to continue. More than a few have attempted to follow his style but have, through doing so, found a style of their own and soon branched off into it. That seems to me to be the best influence possible—one that suggests and points a way to new individuality of a fine kind, rather than one that dominates and makes mere followers and copyists.

If something must dominate a student it should be scholarship—the broad copyism of the best that has been done during all time—rather than a personal influence which tends to make a mere stereotype of itself. The best influences in all matters of art are those which educate by drawing out of the embryo artist—or even the simple observer—all of the best qualities in his nature rather than by trying to cram into his mind the ideas or thoughts of another. The spirit of emulation is generated by the suggestion that some given thing is an easy path—for it is only human to seek that which seems to be the line of least resistance. How very easy it would be to make a simple drawing such as Eyre's! Every young student is sure he can—and many try, begin, and discover something! It is easy to make
Sketch by Wilson Eyre, 1923. Caudebec, France.
Fanciful Composition Sketch by Wilson Eye.
Drawing by Wilson Eyre. Interior of Living Room, Sparrows Point, Maryland.

Sketch of Dining Room Mantel for Dr. Harte, Philadelphia, Pa., by Wilson Eyre.

PENCIL POINTS

Carvings in Oak for Mantel Corbels.
Designed by Wilson Eyre.

Drawing by Wilson Eyre. Farren Memorial Hospital, Wilson Eyre, Architect.
Wilson Eyre & McIvor, Architects.
PENCIL POINTS

Proposed Garage by Wilson Eyre.

Designs for Leaded Glass Windows by Wilson Eyre.

(Continued from Page 43)

a copy of one of those simple drawings—but it must be a copy, or nothing! Why? Immediately the student discovers that the charm of the drawing depends on the charm of the design, and for further “models” there are only the other works of the same designer. All are different. Every composition is an instinctive expression. It does not admit of improvement—at least, certainly, the kind of improvement that a follower could attempt. The kind of student who is attracted to, and studies the work of Wilson Eyre, is possessed of a certain instinct himself, which is more prone to follow the suggestions of the work of another than to copy it. That which he finds in the work of such an artist is an individual expression of his own conception of beauty, and an inspiration to self-expression. It is, therefore, not easy to point out this, that and the other pupil of Wilson Eyre; but neither is it difficult to observe his influence in the work of nearly every younger architect practicing in the neighborhood of Philadelphia—and in many other places.

His work is, of course, widely known—for the press of Europe does not ignore our publications—and many are his admirers among the French and British architects. He was described in his younger days by Mr. Githens as “a polished Bohemian”—capable of singing a good song, or telling a good story worth remembering. Then I have been told a little story that is “on” him. Several years ago he altered an old house and at the time was rather proud of the results. Recently the client called upon him to make further alterations and he had forgotten the job. When he visited the building his first question was, “For goodness’ sake, why did you build that roof so high?” “You ought to know,” replied the client, “you did it!”

FRANCIS S. SWALE.
ETCHING BY EMIL FUCHS.
“THE READER.”
The delightful little etching reproduced on the other side of this sheet, at the exact size of the original, shows the ease and freedom of drawing that reveal the artist's mastery. It is remarkable for the subtlety of its line and tones. Etching is not usually regarded as a satisfactory medium for the rendering of figure subjects because of the uncertainty as to quality and character of the lines produced, but Emil Fuchs has conducted experiments which have led him to certain methods that enable him to watch the progress of the etching and control the process with unusual precision.
SKETCH BY FRANCIS S. SWALES.
GUILD HALL, GUILDFORD, ENGLAND.
The sketch by Francis S. Swales, reproduced on the other side of this sheet, represents an excellent type of sketch for the architect or student to make while travelling. It is a true sketch, embodying the spirit as well as the facts regarding the subject, made without undue expenditure of time and with skill and knowledge, as well as perception.
R. HINTON PERRY, SCULPTOR.
DAUGHTER OF PAN.
SKETCH BY HERBERT J. POWELL.
SANTA MARIA MAYOR, RONDA, SPAIN.
On the other side of this sheet is reproduced one of the many interesting sketches made by Herbert J. Powell during his travels in England, France and Spain as winner of the Shelden Travelling Fellowship. Mr. Powell has just returned to this country. A brief account of his architectural training is printed on another page of this issue.
IT IS our purpose to consider here the plain, everyday draftsman's problem, that of turning out drawings for the builder. We are interested just now in this one part of the architect's workshop, in so far as we can isolate this part from the others.

Approached from the draftsman's viewpoint or the boss's vantage point, "disadvantage," the bosses might say—the problem is the same, to turn out work expeditiously at a minimum cost, commensurate with good results. There has been much discussion recently, pro and con, in regard to efficiency in an architect's office. We can avoid argument, however, for having saved a minute we are not like the stranger in our midst who, having been hustled from the local to the subway express, didn't know what to do with the minute he had saved—we can apply it to better design. Brunelleschi had difficult problems, but they were much less intricate than ours. We may do what we please with our time, energy and money saved, use it for the butcher should be encouraged not to adapt himself to his environment. Some draftsmen are stubborn as well as some bosses. There is the fellow who simply will not make any attempt to find out the traditions and methods of the office he is in. An office force should be a unit, just as a base ball team, a ballet chorus, or an orchestra is. Some men will not letter, dimension or do anything else like the rest of the force. They will express elevations in feet and decimals of a foot even though every other drawing in the set has elevations given in feet and inches. Follow the system no matter what it is, consistently. When it comes to innovations, they should be carried out in the same way, consistently.

In every office it is a problem to maintain unified action and at the same time not to kill initiative. The draftsman should be more than a cog in the wheel. He has a close-up view of things that should make his suggestions especially welcome and if they are not, he is not in the right place. A man should choose his boss as carefully as the boss picks his men.

It must not be forgotten that methods must be adapted to the office. An "Ingersoll" and a "Waltham" are both built to tell time, but the factory methods in producing them are necessarily vastly different. We have "Ingersoll" offices, of course, and "Ingersoll" jobs as well, where an elaborate system would be superfluous. It is the intention to follow in a later number with a discussion of plans, schedules and various short cuts, which will be of interest to the younger draftsmen, and to talk of those obvious things which it is well for everyone to consider now and then.

It was the good fortune of PENCIL POINTS to be able to secure for this number some especially noteworthy drawings. As the writer has no first-hand acquaintance with the work shown or with the working of the office in which they were made, he cannot explain them as he would like to. In fact, any explanation would be unfair to the drawings and the office.

A good many times a junior draftsman has said he thinks he could do a set of working drawings, but 

**Sketch Study for Plymouth Fountain.**
*McKim, Mead & White, Architects.*
he would not know just where to start after the sketches were turned over to him (we will forget for the time being the finishing of the job). The thing that has impressed the writer most in looking at the drawings illustrated is the clear crystallization of the idea in the first sketch and the straight-a-way and thorough development of it in the working drawings and again in the details, without the usual floundering around. It is evidence of the definite thinking that obtains in few offices and is not to be mistaken for lack of study. There is a great temptation to point out in through for himself from one stage may be observed and having writ­

definite thinking that obtains in

less interesting than letting the

reader have the fun of following it through for himself from one stage to the next.

We would like, however, to call attention to such items as the ar­

rangement on the sheet, the stage of completion to which repeated motives are carried, method of showing elevations and grades, stone jointing, the extent to which the jointing of stone work is indi­
cated, the method of dimension­
ing, the various notes, such as the submission of models, reference to other drawings, work not included in this contract, the allowance of stone for carving, etc.

Were a draftsman to list up items for himself from the drawings illustrated and other drawings, not only for reference and for use as a check list but for clarification of the subject in his own mind, it would be well worth the effort. It would probably result in less foolishness and more of the essentials being put on a drawing.

In general, it is obvious that the extent to which repeated and symmetrical ways and motives need be drawn out in detail depends upon the character of the job. It certainly would be wasted effort to draw every window in an elevation for a loft building. Even some restraint was felt in the character of work illustrated when it came to the windows in the terrace wall. The words "ditto" and "repeat" must be used with great care to make sure that it is clear just what is repeated and where. A note as to sym­
metry about an axis is a great labor-saving device when applicable.

The extent to which stone jointing is to be shown can be determined by a choice between showing the complete jointings at small scale, indicating it at the one-eighth or one-quarter inch scale for the purposes of estimate, leaving the detailing of it to be done in the office or indicate it and let the stone contractor do the laborious work. The difficulty with the last method is that it requires considerably more work in checking.

When it comes to the matter of careful detailing of ornament, we will always find architects who do not like to make the decision until they have to, those who can make it much better in the model and those who object to paying for the drawing of something that has to be modeled.

In draftsman ship the personal equation is bound to enter. A man is tempted to make a snappy drawing, if he knows how, rather than one easily read and definite. This applies to the line used, ar­rows, lettering, and the like. An arrow is useless unless it is defi­nite and clearly indicates the point to which the dimension is taken. Lettering should be sufficiently large and of a character to be easily legible, and this is especially true of figures.

Accuracy of drawing, within reason, is conductive to a consider­able saving of temper and time. A method, simple enough, but ap­parently not often used, is to draw elevations by scaling from datum or some datum assumed for the particular drawing. This elim­nates that troublesome accumulative error which is not only an an­noyance but a great waster of time. It is certainly a help to have the over-all dimension scale within reason and to have the proper relation of parts main­tained.

Too many dimensions are as bad as too few. Window heights must be fixed, for instance, on the exterior of the building, but the dimensioning of the same windows on the interior, unless required by the coursing of interior masonry, is dangerous business. The window detail may be settled once for all, but even then there is chance for error and unless re­quired this procedure should be avoided.

Careless work or the failure to consult all of the other drawings related to the work in hand results in some curious and, at the same time, exasperating disagreements. An example of this would be the case of fixing the pitch of a roof on one drawing as thirty degrees, on another by a note that the roof had a rise of seven inches in twelve and on another it might have a dimension of fourteen feet to the ridge with a span of forty-eight feet, four inches. The results are almost the same but not exactly—the question is, which is right, and will all the trades pick on the same pitch without correspondence.

The mere putting on of notes without thought, without reference to the specifications, other draw­ings, thought as to what the contractor wants to
Three-quarter Inch Scale Details (Contract drawings). Memorial Fountain, Plymouth, Mass. McKim, Mead & White, Architects.
Full Size Detail—Memorial Fountain, Plymouth, Mass. McKim, Mead & White, Architects.
know and needs to know is a great past-time, but is not as much fun for the man in charge of the job, the man who checks, the contractor and the boss. Very often a note seems perfectly clear to the man who formulates it but is utterly meaningless to the man who has it thrust at him. If it is something worth adding to a drawing it deserves careful framing. A draftsman should put himself in the contractor’s shoes, mentally, and see how he would interpret the words after he had twisted their meaning around a few times. It is surprising how many meanings spring from a telegraphic sentence. Then again the drawings should be carefully examined to see what additional information is required—what there is that the contractor would be in doubt about. Titles likewise require attention to avoid ambiguity and to define carefully just what is included in the drawing.

The practice of putting a partial specification on the drawing is not in conformity with the best practice, because in the first place, the note cannot usually be complete, and in the second place, one naturally expects to find it in the specification. The result is like a poorly indexed book, the information is there but cleverly hidden. Of course if one wishes “to put it over” on the contractor, this is one method. The builders will tell us in confidential moments, though, that a ten per cent item added to his total bid is his best protection.

Drawings are in the nature of things best fitted to portray to what extent a given material is used—its form and its setting; the specifications should define the quality and other physical properties of the material, particulars as to delivery and the quality of workmanship. It makes for convenience in reference to keep these two methods of definition distinct.

Another objection to the specification-like notes is the unnecessary crowding which they cause. There is enough really pertinent information to a drawing to make it interesting if not ‘busy’ if that is the effect that the draftsman desires. It is difficult and requires considerable ingenuity to so place the dimensions, captions, and the notes so they may be easily read and not interfere with the drawing itself. Dimensions should, of course, take precedence in the scheme of things as notes clearly worded and sufficiently prominent may be placed almost anywhere.

Careful arrangement of work on the sheet contributes greatly, not only to the appearance but also to the legibility of the drawing. For instance, several elevations or sections placed side by side, on the sheet, should, when possible, be referred to the same datum. Errors in draftsmanship are reduced to a minimum when elements occurring at the same level can be so drawn mechanically. For convenience the datum lines or floor levels can be carried through from one drawing to the next. This is especially of value when a whole series of small sections can be grouped together and placed at the proper relative levels. It certainly is better thus than when, in a moment of sudden inspiration or burst of enthusiasm, a draftsman decides to scatter the drawing with a new section.

(Continued on page 87)
Three-quarter Inch Scale Elevation, Cloth. Washington Heights Educational Building. 
McKim, Mead & White, Architects.
Three-quarter Inch Scale Elevation. The Butler Art Gallery, McKim, Mead & White, Architects.
Full Size Detail. The Butler Art Gallery. McKim, Mead & White, Architects.
HERE and THERE and THIS and

The PITTSBURGH

DEPARTMENT

The Silhouette of Pittsburgh, Pennsylvania, on one of its 365 days of sunshine

The Pittsburgh Architectural Club and The Pittsburgh Chapter, A. I. A., at a joint meeting, Carnegie Institute of Technology, May 19th, 1925. Photo specially made for PENCIL POINTS.
THAT for JULY CONTRIBUTED by

ARCHITECTURAL CLUB

CONDUCTED BY R. W. R.

Built by the Pittsburgh Architectural Club Members, but not yet entirely finished.
The PITTSBURGH ARCHITECTURAL CLUB

PENCIL POINTS has opened its pages of this issue to the Pittsburgh Architectural Club. What is the Pittsburgh Architectural Club? It is an association, a gathering, a caucus, a conglomeration of men, presumably architects or draftsmen, with here and there a stained glass man or a material man to liven up the mass and add that variety which we are told is the spice of life. It is incumbent upon an American Club to be of life. It is incumbent upon an American Club to be full of bustle, to have great undertakings, to pervade the atmosphere surrounding it with the continual news of its activities. The Architectural Club does this to the best of its abilities. It maintains an exhibition of architecture in which each year the people of Pittsburgh are afforded the precious opportunity of surveying the marvelous advances in architecture which have been made by the profession in the city and elsewhere. We have had good exhibitions; we have had not so good, but they have done something. It has afforded us an opportunity to chatter, to see somebody’s else work, to get riled over this, to wax enthusiastic over that, and generally refresh our minds.

We have also endeavored to kick up a racket aimed at that vast and impenetrable mass called the outside public, and register at least a dim impression upon it of such a thing as an architectural profession. Like every other club, we have been torn at times with divided counsels, the variety of opinions held in the club being as numerous as the members. There has been much squabbling, much argument, some agreement, some violent quarrels and from time to time one party or another emerges from the yeastly stirring to voice the opinions of its crowd as to how the Architectural Club should impress public life and shed honor upon the noble profession to which we belong. In brief, the Pittsburgh Architectural Club is like every other professional club that ever was. With a carefully managed publicity we could pose as a most four-square organization solidly planted behind continuing balances, well meditated and divinely inspired, but we do not wish to pose thus. We prefer to look the facts in the face. When we dig into the minds of people and reflect on the way our slow and imperfect civilization has developed, common honesty requires us to recognize that the purpose of a club is not primarily to present to the outside world the front of a highly developed and efficient organization—relentlessly pursuing chosen ends to a certain consummation—but rather a means whereby many minds can clash, rub against each other, stimulate each other and so reflect itself in less direct but more substantial ways upon the profession itself. At least the most fundamental justification for the future of architecture does not lie with propaganda but with that which the propaganda is supposed to benefit, namely, the architects themselves. For this and other reasons which, chased down to their sources, come back to the same thing, we have published for several years The Charette, and styled in its first issue, the “Official Wurlitzer” of the Pittsburgh Architectural Club, a brand of humor which every architect will recognize affectionately, and later the “Official Vehicle”, and finally, “A Little Journal of Rejuvenation”. In this little paper much nonsense has been published, some fun, here and there a grain of sense, but altogether it has provided a place where the members can moderately abuse each other or express their dogmatic opinions about the theory, the practice, and the prospects of this so-called profession to which we all are bound.

The Pittsburgh Architectural Club sketches; it picnics; it draws from life; it listens to lectures. None of these activities perhaps as whole heartedly attended to as the eating of dinner. But what would you? It is said on high authority that man does not live by bread alone, but we are an improved people. Does this tell you anything about the Architectural Club? We fancy not more than could be told by any Architectural Club throughout the land. Ups and downs, successes and failures are a portion of all of us, but the Pittsburgh Architectural Club has one expressing faculty, one gorgeous characteristic, one indomitable fact in its makeup—it will persist in being, come up, come down, slow going or fast going; the Pittsburgh Architectural Club has lived for thirty years and will live for three hundred years to come, if so be it that architects may eat and live for such a space of time.

It is fun to belong to the Pittsburgh Architectural Club because it makes life interesting. There are such abundant opportunities to get hopping mad or indulge one’s self in gayety, and whatever may be on the knees of the gods, this much is certain—that the Pittsburgh Architectural Club preserves the profession in ways no other organization could.
IN YE EARLY DAYES OF YE PROFESSIONE.
YE ARCHITECT DISCOVERS THAT HE HATH MADE YE BROOME CLOSET TOO SMALLE.
The Design Winning the Competition for the Selection of an Architect for the New York State Roosevelt Memorial, John Russell Pope, Architect.
JOHN RUSSELL POPE APPOINTED ARCHITECT FOR NEW YORK STATE ROOSEVELT MEMORIAL.

JOHN RUSSELL POPE has been appointed architect for the New York State Roosevelt Memorial as a result of his design submitted in the "Competition for the Selection of an Architect for the New York State Roosevelt Memorial". On pages 80 through 82 we reproduce some of the drawings submitted by Mr. Pope.

In the general statement of the Program of the Competition, Professor Henry Fairfield Osborn, Chairman of the Board of Trustees of the New York State Roosevelt Memorial, stated that:

"The design should symbolize the scientific, educational, outdoor and exploration aspects of Theodore Roosevelt's life rather than the political and literary.

"The design should be consistent with the dignity of the Empire State and reflect the national and international influence of Theodore Roosevelt.

"The Memorial should be harmonious with and embody the ideals, purposes and plans of the American Museum of Natural History to which Theodore Roosevelt devoted the early and closing years of his life.

"The Memorial should provide not only for visitors from the City and State but should be so planned that it would also become an integral part of the school and public educational system of the State; and likewise form an extension to the educational work of the American Museum of Natural History in the City and in the State."

The site of the memorial has been so chosen as to give it a close and significant relation to the American Museum of Natural History, which is located in the City of New York on a plot of ground bounded on the south by 77th Street, on the east by Central Park West, on the north by 81st Street, and on the west by Columbus Avenue. The memorial will be erected on a plot adjacent to the southeast wing of the museum.

The Jury which passed on the drawings was composed of the Trustees of the New York State Roosevelt Memorial and two architects, one selected by the Trustees and the other selected by the competitors and consisted of the following:

Henry Fairfield Osborn, Chairman of the Board of Trustees,
Peter D. Kiernan, of Albany,
Mrs. Douglas R. Robinson, of New York,
Chauncey J. Hamlin, of Buffalo,
Charles W. Flint, Chancellor of Syracuse University.

(Continued on Page 89)
FROM a letter recently received by C. Grant LaFarge, Secretary of the American Academy in Rome, from Gorham P. Stevens, Director, we quote the following: “Another Annual Exhibition of the work of the Fellows has come and gone. The King’s visit, the repertory of the musical works, and the general exhibition, attended by 450 people, took place, all on the same day. It was such a strenuous affair, that next year I believe it will be better to have the exhibition spread over three days. The exhibition was unusually good. We are keeping it in place for Mr. Edwin H. Blashfield to see—he is expected any day.”

“The French Academy and the English School have also had annual exhibitions. It is interesting to compare the tendencies of the artists in these institutions with those of our Fellows. Some day perhaps there will be a combined exhibition of the work of all these talented young men.

“Prof. Kelsey has returned from Carthage, where his assistants have just successfully terminated the excavation of a concession. He has gone to London; then he returns to Ann Arbor for a few months. The following gifts have come in: $1,000 from Mrs. Mary Brooks Otis for general expenses; 100 lire, anonymously for general expenses.

“Members of the Academy are beginning to scatter. Prof. and Mrs. Merrill of the Classical School have permanently left and so have a number of students of that School.”

“Sculptor Tom Jones and wife walked into my office this morning. They are staying with Professor Fairbanks. Jones has a commission to execute.”

“During the first days of the month, I attended an archaeological gathering in Tripoli. The Governor of Tripoli invited about fifty representatives from approximately a dozen different nations to be his guests in Tripoli and to see, in addition to Tripoli itself which is very interesting, the important excavations, which he is making at Sabratha and Leptis Magna. We also made one or two trips into the heart of the country with the Minister of Colonies, and we thus had an exceptional opportunity to see some of the habits and customs of the natives. The Italians have done a great deal to raise the standard of living throughout the province. The latter is well worth visiting, and can now be reached conveniently by boat from Naples, Syracuse and Malta.”

“All Rome has been treated to a most unusual sight, namely, the illumination of the dome and the Piazza of St. Peter’s. Thousands of electric lights and flickering torches vied with one another in a gorgeous effect. The great dome fairly vibrated with life.”

DONN BARBER

DONN BARBER died at his home, 125 East Seventy-fourth Street, in his fifty-fourth year, on May 29th, 1925. He died after a short illness and had hoped to make the new Broadway Temple his crowning achievement.

Mr. Barber probably was one of the most versatile of the artistic leaders in this country, and death came just as he was at the peak of a brilliant career in architectural work, displayed in many buildings in New York and in other cities.

Secretary Herbert Hoover had appointed him as the American delegate to represent architecture in the International Exposition of Modern Decorative and Industrial Art, now being held in Paris, where he was scheduled to speak on June 20.

Mr. Barber was a champion of simplicity and an ardent advocate of durable construction in this country. He gave time between the designing of the Hartford, Connecticut, Tower and the State houses in various parts of the country to develop the plan for the solution of the problem of congestion for the 7,000,000 people of New York. In addition to this he championed the work for “Better Homes in America”, preached it on many occasions and gave freely of his time and his talents to the practical development of these programs.

But the ambition of the closing days of his life was the building of the Broadway Temple. It was said by those interested in this project that Mr. Barber originated the idea of this new type of American self-supporting cathedral, and that when pictures of last plans for it were distributed over the country he received more than 5,000 letters of inquiry about it.

Mr. Barber’s career was brilliant from his student days in Paris, where he completed the work of the Ecole des Beaux Arts, in 1898, in the shortest time of record. He was the first American architect received as a member of Beaux Arts, and was decorated both by the French and British Government for his distinguished work. Mr. Barber was President of the Architectural League of New York and took this office last May.

He was born in Washington, D. C., Oct. 19, 1871, and was a descendant of Thomas Barber who came to America in 1634 and settled in Windsor, Conn. After grad-
uinating from Yale, class of '93, and having determined to follow the profession of architecture, he took a special course at Columbia University during 1893-94, and then went to Paris to continue his studies. He was one of the originators of the atelier idea in the United States, and was head of Atelier Donn Barber, which made it possible for young and ambitious students to become successful architects. His pupils have been winners of many scholarships.

Among the more important monuments that testify to the value of his work in New York are the New York Cotton Exchange, National Park Bank Building, Mutual Bank, Lotos Club Building, Randall's Island Hospital group, Institute of Musical Art Structure, National Headquarters Building Central Branch of the Y.W.C.A., Knickerbocker Hospital, and Dramatists Theatre.

Few architects have covered the wide range of subjects that were entrusted to Mr. Barber over the period of twenty-two years that he practiced under his own name. He designed a number of admirable private houses, including those of Edward H. Litchfield, the late E. C. Converse, Horatio S. Shonnard, E. S. J., McVickar, Richard Delosh, Logan Armstrong, William R. Dinsmore, Adrian H. Larkin, E. S. Ryenal, Charles Smibert, Waldron Williams and H. Edward Manville.

Mr. Barber was the architect for many buildings in the South and in New England and was consulting architect in charge of design for the Yale Bowl. He won from twenty of the foremost architects in the country the Department of Justice Building for Washington, D. C., The Connecticut State Library, Traveler's Insurance, Supreme Court Building and the Hartford National Bank Building, all of Hartford; the Chattanooga Union Station buildings at Chattanooga, Tenn.; the Capital City Club at Atlanta, Ga., and the White Plains Hospital are other interesting examples of his work.

He was editor of the New York Architect for four years, and President of the Society of Beaux Arts Architects in 1909 and 1910. At the annual Beaux Arts ball, given for the benefit of struggling students, he was always one of the principal figures. In 1923 he represented the American Institute of Architects and appeared before the Board of Estimate against the proposed demolition of High Bridge.

Mr. Barber was also a member of the National Academy of Design, National Sculpture Society, and an honorary corresponding member of the Royal Institute, British Architects.

Among his clubs were the Union, University, Century, Lotos, Players, American Yacht, Apawamis, Racquet and Tennis, Westchester County Hunt, and Knollwood Country.

Mr. Barber was married to Miss Elsie Vandell, a daughter of Dr. Ray D. Vandell and the late Mrs. Enid Vandell, the sculptor, in Louisville, Ky., on Nov. 22, 1899. He is survived by his wife, three daughters, Mrs. Joseph Larocque Jr., Mrs. Richard S. Hoffman, Miss Elsie Y. Barber, and a son, Donn Barber, Jr.

PERSONALS

MORRIS ROTHSTEIN, ARCHITECT, has removed his offices to 84 Joralemon Street, Brooklyn, N. Y.

ERIC J. RIVES, LANDSCAPE ARCHITECT, has removed his offices to 305 Delaware Avenue, Buffalo, N. Y.

THEODORE H. SKINNER, CONSULTING ENGINEERING AND ARCHITECTURE, has removed his offices to Room 710, 103 Park Avenue, New York.

ADAMS & ADAMS, ARCHITECTS, have removed their offices to Builders Exchange Building, San Antonio, Texas.

FRANK DUNHAM has opened an office for the practice of architecture at 1010-11 Tribune Building, Tampa, Florida.

WELBY N. PUGIN and HAROLD C. WALLACE have opened an office for the practice of architecture and civil engineering under the firm name of Pugin and Wallace, with offices at 149 Sixth Avenue North, Nashville, Tenn.

HARRY LUCHT, ARCHITECT, H. G. ANDERSON, ASSOCIATE, have removed their offices to 432 Palisades Avenue, Cliffside Park, N. J.

CHARLES A. RAG and RICHARD H. FOX have opened an office for the practice of architecture in the Columbus Building, Westfield, Mass.

PENCIL POINTS

Plate made by Herbert S. Rosenberg, New York, as collateral work for the "History of Ornament" Course, given by Professor Hamlin at Columbia University.

UNIVERSITY OF LOUISVILLE

T HE University Archi-Arts Society of the University of Louisville brought a successful year to a close on Thursday evening, May 21, with a big banquet, attended by thirty students, professors, draftsmen, and architects. The old drafting room was draped with colored crepe paper, its walls were covered with drawings made by the students during the past year, and with its horseshoe of white tables surrounded by merry faces it presented a very jolly sight. After everyone had eaten, the program of the evening began. The students were first introduced to the visitors by a song, each verse of which was about a different boy. The speeches of the evening followed, and there were plenty of them. Of course these speeches were varied, but the substance of them was rejoicing at the success of the past years, farewell to the old quarters, and encouragement for the future. After the talks were over, Mr. W. E. Glossop, teacher of the class, awarded books—prizes given by Messrs. D. X. Murphy, J. C. Murphy, W. E. Glossop and W. O'Toole—to the following students for their work during the past year: E. C. Lea, president of the society; first; Strattan Hammon, second; R. E. Schwab, third; and Robert Hunn, Jr., Arthur Drabrick, and Joseph Rade-maker, fourth. The meeting was then brought to a happy close.

The members of the University Archi-Arts Society hope that the other clubs have had as successful a year and wish them progress for the future.

Respectfully submitted,
Robert W. Hunn, Jr., Sec.

UNIVERSITY OF MICHIGAN

T HE legislature of the State of Michigan has just made an appropriation of $400,000 for the first unit of a building for the architectural school of the University of Michigan. This is probably the first time that a state legislature has made an appropriation for such a purpose.
AN INVITATION.

The example set by the Pittsburgh Architectural Club in contributing the material for the "Here and There" department in this issue of Pencil Points starts something which we feel is well worth carrying on by other Clubs located in different parts of the country. Come on your Architectural Clubs and line up for future issues! Any reasonable amount of space will be allotted by arrangement to other Clubs, thus giving the members an opportunity to display their talents and put themselves and their city on the map, so to speak. Each organization may use its own ingenuity in selecting the material to be presented, subject only to reasonable editorial supervision at this end.

COLLEGE OF ARCHITECTURE, UNIVERSITY OF MICHIGAN

The George G. Booth Traveling Fellowship in Architecture has been awarded to Kenneth C. Black of Lansing, Michigan. Honorable mention was awarded to LeRoy E. Kiefer of Detroit, there being four other competitors. This is the second year that the Fellowship has been awarded, which carries with it a stipend of $1,200. Mr. Kiefer, the runner-up, is to receive $150 given by the Detroit Chapter of the American Institute of Architects.

The jury consisted of the following architects:—H. J. Maxwell Grylls, President Detroit Chapter A.I.A.; William B. Stratton, Past-President of the same Chapter; John B. Jewell, President of the Detroit Architectural Club; and Mr. Wirt Rowland, of Smith, Hinchman & Grylls, Detroit, and five members of the architectural faculty.

In the opinion of the faculty, there is an improvement in the designs submitted by the competitors this year over those of last year, and this improvement it is hoped will go on from year to year.

The purpose of the scholarship is to further a higher standard of preparation for architectural practice, the stipend being based on the endowment of $20,000 given last year by Mr. George G. Booth of Detroit. Mr. Booth has taken a fine constructive interest in the architectural school, and along with the architects of the state has done much to cooperate with the faculty in advancing the school's standards and interest.

HERBERT J. POWELL

Herbert J. Powell, winner of the Shelden Travelling Fellowship from Harvard for 1924-25, has just returned from his travels in England, France, Italy and Spain. On another page of this issue we reproduce one of the many excellent pencil drawings made by Mr. Powell while travelling on the Fellowship.

Mr. Powell was born in Redlands, California, and was graduated in Engineering from the University of Redlands in 1920. He received his M. A. in architecture from Harvard University, School of Architecture, in 1924. While at Harvard he was presented with the Medal of the American Institute of Architects for general excellence in his work. Mr. Powell has been in the office of Mowll & Rand, and of Kilham, Hopkins, & Greely, both of Boston. At the present time he is with McKim, Mead and White, New York.

ATELIER CORBETT-KOYL

Luchow's was the scene of the annual Patrons' dinner of the Atelier Corbett-Koyl, which took place on Friday evening, June 12. A jolly good time was had by all; the only disappointment being the absence of our inspiring patron, Mr. Corbett, who was out of town.

However, Mr. J. K. Smith, who has taken Mr. Koyl's place as patron, set forth his views on Atelier spirit. The rest of the evening was given over to frolic and song and the spirits which hovered low over the festive Board. Victor Pribil, massier, presided as Toastmaster, ably assisted by his cohorts, Mr. F. J. Ryan, "sousse" massier, W. G. Eichler, Secretary, and Albert Mohr, chairman, and the dinner committee.

Our friend the photographer who came to shoot the works, we are sorry to say, was the first casualty of the evening so, gentle readers, we must disappoint you with the Rogers' Gallery. The boys endeavored to take the flash-light but failed miserably because the powder was wet and the tripod lost a leg in this annual scrimmage.

Martin Beck, who just won the hundred dollars for his successful solution for the Aeroplane Landing Station, was given quite an ovation as he left to sail for France. You see it was quite an exciting evening.

Mr. Victor Candell designed the menu card. After the dinner we all went to the Village...... in taxis.
BOOK NEWS

Under this heading we shall publish brief notes of new books of interest to our field. Space does not permit of extended reviews but further information regarding any of the books may be secured from the publishers of the books themselves and may be ordered either through us or direct from the publishers thereof—Ed.

Provincial Houses in Spain, by Arthur Thorne and Mildred Stapley. A handsome volume containing 190 plates, 12 x 16, with suitable text dealing with the subject indicated. Published by William Helburn, Inc., N. Y. C. Price $25.00.


House and Garden’s Second Book of Houses. A book of 192 pages, 9 x 13, containing about 600 illustrations on the subject of the modern residence. Published by House and Garden, New York. Price $5.00.

Principles of Decoration, by R. G. Hatton. A volume of 224 pages, 6 x 9, with numerous drawings covering the subject indicated. Published by Charles Scribner’s Sons, New York. Price $3.50.


COMPETITION FOR DESIGNS FOR ORNAMENTAL IRON WORK

J. G. BRAUN, as set forth more fully on another page of this issue, is offering money prizes for designs for ornamental iron work. This competition is open to all architects, draftsmen, designers, students of architecture and workers in iron. The purpose of the competition is to stimulate a wider interest in ornamental iron work and its application to various classes of modern buildings and was suggested by Mr. W. M. Buchroeder of Richmond, Va. All communications regarding this matter should be addressed: Ornamental Iron Contest, care J. G. Braun, 160 Greene St., New York.

EBERHARD FABER SKETCH COMPETITION

THE prize winners in the Eberhard Faber Sketch Competition are as follows: First prize, Miss Lizzie J. Koch, River Edge, N. J., second prize, Mr. R. Alex. Willson, 646 Washington St., Mt. Lebanon, Pa., third prize, Miss E. M. Rogers, c/o Gage Printing Co., Battle Creek, Mich., fourth prize, Mr. John W. Schmidt, 2015 Flatbush Ave., Brooklyn, N. Y., fifth prize, Mr. Carl Jensen, 1024-74th Street, Brooklyn, N. Y., sixth prize, Mr. Otho McCrackin, 722 R. W. Bldgs., Hutchinson, Kansas.

The sketches submitted in this competition were judged by Mr. F. R. Gruger, Mr. Franklin Booth and Mr. J. C. Leyendecker.
RESULTS OF THE VERMONT MARBLE COMPETITION

The memorial design competition closed April 1st, and on April 7th the judges met at the company's New York branch and awarded the prizes. Among the three hundred odd designs submitted, were contributions from architects and designers in practically all parts of the country. The fact that honorable mention was accorded to work produced in cities as far apart as Saint Louis and Toronto, is good evidence that the interest in the contest was confined to no one locality. Thirty states were represented, and one hundred and six towns. There was one entry from Cuba and one from London.


By a strange coincidence both the first prize of $400 and the second prize of $200 went to the same man—Alfred C. Cass of New York. The third prize ($100) was also won by a New Yorker—Aaron A. Kiff. Seventeen men received honorable mention ($25) as follows:

Norman Issott ................. Omaha, Neb.
Edward F. Toney .............. Niles, Mich.
Phil. A. Moe ................... Rockford, Ill.
Merrit F. Farren .............. New York City
Clarence O. Morrison ......... Brooklyn, N. Y.
P. M. Torraca .................. Cincinnati, Ohio
C. B. Tandy ................. Denver, Colo.
James C. Green ............... New York City
Melville Wood ................. Toronto, Ont.
Victor E. Johnson ............ Monroe, La.
Donald M. Douglas ......... New York City
H. A. Wieland ............... Buffalo, N. Y.
Emil Pozzi ................. Morristown, N. J.
(unsigned) ................... St. Louis, Mo.
{unsigned} ................... St. Louis, Mo.

The chief purpose of the contest was explained in the announcement: "As most small monuments are bought from stock, any improvement in their design must come through the effort of the manufacturer. The Vermont Marble Company, desiring to use only the best obtainable designs, hopes through this competition to draw upon the skill and taste of the best designers."

There was more to it, however, than a mere bid for designs. There was an effort to awaken interest in the subject of cemetery memorials, and to uncover latent talent in the field of creative art. It is felt that this competition has accomplished much along these lines.

DRAFTING ROOM PRACTICE

(Continued from Page 69)

This suggests immediately the obvious thing of blocking out these various sections as the work progresses on small pieces of tracing paper, adding notes in script and then arranging these sheets in a sane and orderly fashion under the large sheet of tracing paper or cloth ready for tracing. The same scheme may be used to study the arrangement for all drawings. It may be done at one quarter full size, say. This system has its adherents, but the drawings at final scale may be made to serve an additional purpose as well and, if not too carefully done, require less time than the scaling of them at one quarter the size.

Again as to the small sections and plans. The number of questions that arise during the progress of a building are just about in inverse ratio to those brought out in this article. Worked out in advance they save untold blunders. It would be interesting to know on a big job how many times some particular detail has been thought out by different draftsmen but not recorded in a finished drawing. Each in turn gives it thought and time to satisfy himself that the thing will work, and that is all. The next fellow does the same thing.

Summing up the draftsman's job we find it is as the lawyer said about law—it is just common sense after all'. Keep our eyes open to what the other fellow is doing and just use common sense. When it comes to the new methods and devices let's not be like the member of a certain organization who said, "We can't do that, it's never been done before."

We will pay 25 cents a copy for issue of Pencil Points for March, 1922. Address Box K. G. care of Pencil Points.
PENCIL POINTS

1st Prize in the Brooklyn Chapter, A. I. A., Competition by Paul N. Heller. Student at Pratt Institute, N. Y.
George Axt and Arthur L. Guptill, Instructors.

SUBURBAN PUBLIC LIBRARY

A Country Residence, by Bruce A. Mapes. 2nd Year Architectural Design, Pratt Institute, Brooklyn, N. Y. Arthur L. Guptill, Instructor.
JOHN RUSSELL POPE APPOINTED ARCHITECT FOR NEW YORK STATE ROOSEVELT MEMORIAL.

(Continued from page 81)

Mrs. William H. Good, of Brooklyn, Architect, Mr. William Richard Kendall, Architect, Mr. Milton B. Medary, Jr., who met in the office of the Trustees in the American Museum of Natural History on Monday, June 1st, and Tuesday, June 2nd, for the consideration of the eight anonymous plans which were submitted.

After an extended and most deliberate consideration in which the advice of Messrs. Kendall, Medary and Butler was sought and freely given, the choice of the jury fell upon the architect of plan No. 6, which proved on opening the sealed envelope to contain the name of the successful competitor, Mr. John Russell Pope.

The seven remaining Architects it developed were J. H. Freedlander, New York City; Gordon & Kaehler, Rochester, N. Y.; Edw. B. Green & Son, Buffalo, N. Y.; Helmle & Corbett, New York City; H. V. B. Magounigle, New York City; Trowbridge & Livingston, New York City, and York & Sawyer, New York City.

The Trustees were unanimous in their opinion that the choice had fallen on one of the ablest of representative American Architects. Shortly there will be taken up again many of the difficult problems which enter into the solution of the plan and Mr. Pope will make any necessary revision of his competitive drawings.

The ten dollar prize for the most interesting contribution in the "Here and There" department for June goes to Nathan Barth, Montreal, Que., for his very ingenious cipher puzzle as published on page 91.

Mr. M. L. Scheffer, manager of the Architectural All-Stars, 101 Park Ave, New York City, care Donn Barber, announces that he is desirous of booking games with all architectural organizations within a radius of one hundred miles of New York City.

Herbert Lippmann, 62 W. 45th Street, New York wants a copy of PENCIL POINTS for March, 1925.

R. L. White, architect, Austin, Texas, is anxious to secure a copy of PENCIL POINTS for January, 1921.

Mr. Wayne Everett Bell, 704 Mutual Home Bldg., Dayton, Ohio, requires a copy of PENCIL POINTS for December 1924, to complete his file.

J. Bradbury Minott, 43 No. Laurel St., Hazleton, Pa., needs a copy of PENCIL POINTS for October, 1924.


Rudolph Villani, 1931 E. Pratt St., Baltimore, Md., desires copies for December, 1924 and February, 1925.

"A Subscriber", care PENCIL POINTS, will pay 35c each for the following copies of PENCIL POINTS delivered to the office of the publication. June, July, August, September, 1920, January, February, March, April, May, December, 1921, January, 1922.

SPENCER & PHILLIPS, ARCHITECTS, (A.I.A.) Fidelity Bank Bldg., Memphis, Tenn., are opening branch offices at Miami and West Palm Beach, Fla., and wish to get in touch within the next couple of months with several first class men, good at sketching and capable along general lines; especially men experienced in high class Gothic Church work, hotel and other commercial work and with Spanish style as used in Florida and California. Opening for several men in Florida and one or two in Memphis office. All of the above desirable requirements do not have to apply to any one man. Write fully in applying.
Roman Lettering from Hübner's "Exempla Scripturae Epigraphicae Latinae."

Pompeiis, in Theatro, Tabulae Marmoreae Litteris Pulcherrimis; Extant in Museo Neapolitano.
Roman Lettering from Hübner's "Exempla Scripturae Epigraphicae Latinae."

1. Caere, Tabula Marmorea; in Museo Lateranensi.
2. Romae, in Arcu Titi in Summa Sacra Via, Litteris Aere Olim Incrustatis; Ex Imagine Photographa.
3. In Civitate Lavinia (Gentiani, Inter Ariciam et Nemus Dionae), Tabula Marmorea; Romae in Museo Capitolino.
Roman Inscriptions from Hübner’s “Exempla Scripturae Epigraphicae Latinae.”

1. Pompeii, Parea Basis Ex Marmore Nigra; in Museo Neapolitano.
2. Pompeii, Cippus Hermae Similis Ex Marmore; in Museo Neapolitano.
3. Pompeii, Cippus Hermae Similis Ex Marmore; in Museo Neapolitano.
Doorway and Window Details. This is one of the plates from Part II of “Good Practice in Construction,” by Philip G. Knobloch, now in course of Preparation by the Publishers of Pencil Points.
THE SPECIFICATION DESK
A Department for Specification Writers

SPECIFICATIONS
By W. W. Beach

PART IX.
GENERAL CONDITIONS, Continued

THE foregoing completes the portion of the General Conditions which may be considered as essential and invariable for all major construction awarded under a general contract. There should immediately follow those "Special Conditions," or "Supplementary General Conditions," of which we gave a rather complete elucidation in Part IV of this series. These will vary for different buildings and in different offices, but each office has them more or less standardized as best serves their work.

There will also be variation more dependent upon the size of the job than is the case with the general conditions. Even for the latter, however, it is advisable that more than one form be used. The long form given in Part VIII should be immediately carriable for small jobs and for minor contracts on larger jobs as we will later show.

The following paragraphs are so arranged that the first portion may be standardized and certain of the final paragraphs, as found necessary, will be added as occasions demand. It will be remembered that we are reproducing a complete specification for a consolidated district school building.

SUPPLEMENTARY GENERAL CONDITIONS
ART. 22. SCHEDULE OF DRAWINGS.

(A) THE DRAWINGS referred to in Art. 3 and made part of the Contract Documents are as follows:

(Here follows a list of all drawings submitted to Bidders.)

ART. 23. LIST OF ADDENDA:

(A) THE ADDENDA referred to in Art. 3 and made part of the Contract Documents are as follows:

(1) ADDENDUM NO. I.

(Here follows addenda in regular numerical order, if there be any.)

ART. 24. TEMPORARY WORK AND EQUIPMENT.

(A) SUPERINTENDENT'S OFFICE. The Contractor shall, immediately after award of contract, furnish a substantial, weatherproof building at the site, containing an office for the Architect's Superintendent, of 120 sq. ft. floor area. It shall be fitted with movable sash, substantial door (with butt, latch and cylinder lock), table for blue-prints, desk with drawers, chairs and locker. This building shall be constructed under direction of the Superintendent.

(B) CONTRACTOR'S OFFICE at site shall be a substantial building and the proper place of deposit for copies of all drawings and all file records pertaining to the work. The Contractor or his Foreman shall be constantly in charge of same during working hours and shall there receive all orders and instructions. This office shall not be used for storage of materials nor as a loafer place for Employees, for which purposes the Contractor shall maintain other sheds as are necessary.

(C) TELEPHONE SERVICE shall be provided by the Contractor at the site in location approved by the Superintendent, for their joint use and for the use of others when necessary in connection with work on the building.

(D) TOILET CONVENIENCES for all Persons employed on the work shall be constructed and maintained by this Contractor in accordance with local ordinance, properly lighted and kept clean and sanitary, to the approval of the Superintendent.

(E) SCAFFOLDING, RUNWAYS, LADERS and similar appliances shall be provided by the Contractor, of sufficient strength and rigidity wherever necessary for all trades of this contract. There shall be not less than the set of double ladders or other temporary means of access to each floor and roof to every 12,000 sq. ft. (or less) of floor area until same is provided with stairs. Temporary stairways of 2" planking, with substantial rails and guards, shall be provided at each floor grade with each other level as fast as building progress will permit. Permanent steel stairs or rough construction of other stairs may be used for this purpose if properly protected.

(F) TEMPORARY PLANKING shall be provided where necessary for flooring over portions of framing in order to facilitate work above same.

(G) ENCLOSING BUILDING. As soon as construction is sufficiently advanced, this Contractor shall enclose the building, using temporary light-board barriers and doors (with suitable locks) in all outside doorways. When plastering is complete (or sooner, if weather conditions necessitate), all window openings shall be closed with permanent glazed sash, and the temporary means of access shall not be installed for enclosing building before or during plastering. If such enclosing is needed, the Contractor shall provide muslin sufficient for the purpose.

(H) PAINT SHOP. The Contractor shall set aside a room or rooms as soon as possible after building is enclosed, to be used as a paint shop, to and from which all wood finish shall be taken by this Contractor. This space shall be completely enclosed with temporary doors and sash and made dry for Painter, using salamanders or stoves, if needed. When this paint shop is thoroughly dry, finish woodwork may be stored therein but will not be allowed elsewhere in the building until all concrete and plastering are finished and dry.

ART. 25. MECHANICAL CONVENIENCES.

(A) HEAT FOR MATERIALS. The Contractor shall provide all necessary heat to warm aggregate, protect concrete, dry plaster and as may be needed for any other work in this contract, using therefor methods approved by the Architect.

(B) HOISTING PLANT. The Contractor shall provide, install and operate ample hoisting plant (or plants) as needed to insure maximum speed in prosecution of the work, consistent with safety and good construction. The location, character, capacity and details of construction and operation of all hoists shall be subject to approval of the Architect, but such approval will not relieve the Contractor from all responsibility for damage due to defects in or operation of any hoisting apparatus or parts thereof. Stacks of steam boilers shall be of sufficient height to carry smoke above all parts of the work in progress or complete.

(C) TEMPORARY HEAT FOR BUILDING. This Contractor shall provide such temporary heat as may be necessary for the work in the building and subject to approval of the Architect. After heating plant is in readiness, this Contractor shall operate same (when heat is needed) for the benefit of all having work in the building and until completion of this contract, during which time the temperature in the building shall not be allowed to fall below 40° F. The Contractor shall provide suitable fuel and attendance for the plant and shall properly care for same. Before its final acceptance, he shall replace or repair any portions that have been damaged while in his care, to the satisfaction of the Architect.

(D) LIGHT, POWER AND WATER. This Contractor shall provide all temporary light and power necessary to the operations under this contract, including connections needed to supply same. He shall also provide water for his own and all other operations in connection with the building. The Owner will provide City main tap, meter and cut-off, from which this Contractor shall extend such piping as is needed, with hose-bibbs for the use of all requiring same.

ART. 26. RESPONSIBILITY FOR PREMISES.

(A) THE BUILDING AND PREMISES shall be in charge of this Contractor who will be responsible for same from the time site is turned over to him until the work of the contract is accepted.

(B) GUY WIRES AND ROPES shall not be attached to trees nor may they extend outside property lines.

(C) KEEPING PREMISES CLEAN. The Contractor shall keep the premises clean and free from rubbish as required in Art. 19 and shall see that the owners of Sub-Contractors keeps his rubbish and waste material to a minimum and completely removes all that may remain when his work is complete. Paragraphs B and C of Art. 19 will be strictly enforced.
ART. 27. PROTECTION.

(A) BOXING TREES. All trees and shrubs endangered by operations under this contract shall be carefully and adequately boxed with good planking before any hauling or excavating is begun.

(B) ALL WALKS, CURBS AND FENCES that are to remain shall be adequately protected wherever liable to damage. Sections of fence may be removed for passage, and stored on premises, then placed in original condition at completion of work.

(C) SAFEGUARDING. In addition to the safeguards called for in Art. 11, the Contractor shall provide such temporary walks and fences as may be required, also guardrails around well-holes, blanket protection of all projecting masonry, and of jambs and sills of openings used for passage, and shall maintain such guard and protection members until work is completed or same are ordered removed. Temporary fences, walks and sidewalks enclosures shall conform to ordinances and to drawings and details, where same apply.

(D) EXPOSED FOUNDATION FOOTINGS shall, in cold weather, be protected by straw or other approved material, sufficient to prevent damage from frost.

(E) SNOW AND ICE shall not be allowed to remain on any part of the structure (other than finished roofs), but shall be removed by this Contractor as soon as possible, in every stage of completion of exterior of building.

(F) STORM-WATER drains shall be properly protected, and all leaks shall be adequately guarded against by ditching, plumbing or other means.

(G) WATCHMEN shall be provided by the Contractor during time premises are under his control, to furnish adequate protection to all parts of the building and site at all hours when, in the judgment of the Contractor or the Superintendent, conditions make such protection advisable.

ART. 28. PROCEDURE.

(A) LINES AND LEVELS. The Owner shall establish lot lines and restrictions which are matters of record. The responsibility for all other lines and levels necessary for proper location and erection of the building and appurtenances rests upon the Contractor who shall employ a competent Instrument Man. Points from which finished floor and wall surfaces in each room can be determined shall be established and maintained by this Contractor for coordinating the work of the various trades. All bench-marks and reference-points shall be carefully protected.

(B) TIME SCHEDULE. The work shall proceed in general as stipulated in Art. 16, each branch of same being carried on and finished in ample time to assure completion of the major sections and the whole work on or before the dates fixed in the following schedule, which schedule is deemed to be fair and reasonable and is based upon the assumption that the Contractor can take over the premises and start work on June 15th, 1925.

(C) DIVIDED PROCEDURE. (Where size of building permits) The Contractor shall proceed with foundations and masonry of one-half of building in advance of other half, when such procedure will operate to facilitate progress by enabling other trades to work in one section while masons are on the other. All floor construction, metal or concrete stairs, interior partitions and furring in each section shall be done story by story as rapidly as the progress of the work under other trades permits.

29. PENCIL POINTS.

The following letter, submitted by Mr. John F. Goven, of the Copper and Bronze Research Association, comments upon the "General Conditions" as published in this department for June. It is hoped that others interested in this subject will feel free to add their comments to those of Mr. Goven.—Ed.

PENCIL POINTS.

I HAVE read the Specification as published in your June issue with much interest. It is very well done, I congratulate Mr. Beach. All in these pages are well written and least vague and involved "General Conditions" I have ever read.

However, there are several places where, unconsciously, the law of self-preservation has been at work. This is not unusual, for specification-writers are prone to write complete alibis for the architect into the "General Conditions." Not only is this unfair, but it is poor practice, because, in the first place, the experienced contractor adds an increasing percentage for every clause wherein the architect disclaims responsibility for his own errors, and in the second place, such clauses do not stand the scrutiny of courts as they often lead to.

This specification contains several of these "alibi" clauses. They are the inheritance of the past, when the building contractor and the architect did not understand each other well enough to do nothing. If they are corrected the "specification" will be a clear one by the contractor as to his own responsibility to his clients.

I shall discuss the specification in order of its articles. You will note that there are one or two other points included.

1. Should not the paragraphs beginning "It is important . . ." following Art. I, sec. B, be moved to position in front of Art. 17 This is editorial matter by Mr. Beach.

2. Art. II, sec. F. If the architect once approves materials or work of any kind, it is well-nigh impossible to reject it later, unless fraud can be proven. I believe it has been established by the courts that clauses of this kind indicate an attempt by the architect to avoid responsibility for his acts.

In this clause there is no time limit except "later," which is indefinite and, if used literally, gives the architect unlimited power. Definitions of "later" and "defective" should be added to make the clause binding.

3. Art. III, sec. D. While this section is clear and concise it would be better to add, "However, upon request the architect will assist in delimiting the divisions of work." It is, in my opinion, better to have the architect complete all this work in general, and then be responsible for its correctness. The architect is not "guaranteed" correct, but is "guaranteed" results which he must see through. If the architect once approves masonry, it is well-nigh impossible to reject it later, unless fraud can be proven. I believe it has been established by the courts that clauses of this kind indicate an attempt by the architect to avoid responsibility for his acts.

4. Art. III, sec. F. Here is the old clause by which the architect fixes responsibility for divisions, with a new tag to it. I believe the tag makes it sound the only difficulty being to prove that the work omitted from any of the documents is "clearly within the scope of the contract." This clause makes the contractor increase his bid by a bigger provision for contingencies.

I believe the contractor could be held to the proper execution of the work as shown by the reasonable intent of the Contract Documents as a whole without this clause.

My experience has been that the majority of these discrepancies (which are recognized by the courts as bound to occur) are found when the estimate is being made, and I have always made it mandatory for bidders to have them adjusted before bids are submitted, under penalty of no redress from the architect's decision or interpretation after the contract is signed. It is an open question as to which method is best. On small work ($50,000) I have found that my method works admirably.

5. Art. III, sec. H. There should be some statement in this clause as to the obligation on the owner, through his architect, to furnish working plans at proper times, and in time to allow the work to progress satisfactorily.

6. Art. IV, sec. B. The architect who approves drawings cannot avoid responsibility for errors in them unless they are errors of detail, etc. For instance, an "approved" wrong general dimension, such as 110 for 100 feet, if it were copied from the original drawings of the architect, could not be relieved of responsibility and architect of financial responsibility therefor. This is an attempt to eat and have one's cake, and the courts are fond of pointing
out the errors in such clauses. It should be enlarged to include errors for which the architect will assume responsibility.

7. Art. V, sec. A and B. These are excellent, so long as the architect remembers that, though he is being paid by the owner, he must be meticulous in his efforts to interpret the contract faithfully. Because the specifications say he is the "unbiased arbiter" does not make him so, and he has, under this clause, much greater responsibilities than if he remained the agent of the owner alone. It is all right and usual, but, as everyone knows, it will be honored mostly in the breach. Therefore, why not admit it? If the contractor is wise he will make all verbal orders a matter of record by acknowledgement as well as by the letterhead, thus putting the onus on the architect. Unless the latter puts all orders in writing, a single verbal order constitutes a breach of contract. The clause is altogether too rigid. It is, moreover, a direct contradiction of Art. VI, sec. C.

9. Art. VI, sec. C. The second sentence of this clause infers "verbal" instructions and is in direct opposition to Art. V, sec. D. In the former the architect admits that he expects to give verbal orders by refusing to abide by the contract terms of him only, and in the latter the specification calls for a representative of the contractor to "carry out all instructions of the architect." Then the architect, knowing that he is going to give verbal orders, can "back off" and says "All such instructions shall be as binding as if given direct to the contractor." What is the contractor to do?

What is meant is that all orders given by the architect should be in writing, and, if given orally to the superintendent of the contract or the architect, then the latter shall be confirmed in writing. The architect cannot disclaim responsibility by clauses in the specification for normal and usual procedure, such as giving verbal orders. Why not be fair and recognize the way the work is going to be done? Here the contractor suffers for the vagaries of the architect. Let us suppose, the latter gives a verbal order which the contractor knows is wrong. Under Art. C he has to do the work in the wrong way, waiting for the written confirmation of it he has asked for. The architect, who is not always wise and just arbiter, finds out that he has made a mistake, and, because the extras are already large, does not write a formal order as required by the contract, but simply tells the contractor next day to do the work another way. The contractor claims an extra and the architect denies it with the excuse that the contractor has no redress because he proceeded in violation of Art. V, sec. D. The contractor claims he proceeded under Art. VI, sec. C. Who is right? This sounds impossible. Such a situation always means a skipped job, for between the figures of the approved and rejected sub-contractor in the latter specification calls for a representative of the contractor to "carry out all instructions of the architect." Then the architect, knowing that he is going to give verbal orders, can "back off" and says "All such instructions shall be as binding as if given direct to the contractor." What is the contractor to do?

This contradiction is the poorest thing in the specification, and demonstrates "alibi" clauses perfectly. It's a good example of straddling.

11. Art. XI, sec. D. The phrasing is poor. It would be better if there was a period after "time" and a new sentence beginning "In such cases, etc."

12. Art. E. Doubt in this clause has any legal value, because again the architect is attempting to avoid responsibility for his acts. It would be better to call upon the contractor to make good any defects of workmanship or materials for a certain definite time after the completion of the contract, and to bond him to do so.

13. Art. XVI, sec. A. This is a good statement of the "time limits" and that the architect knows about the time limits are ample, etc., brings forcibly to the contractor the whole question of time, and gives him some alibi in case of failure to perform.

So this condition that should be incorporated in Sec. B—"Extensions"—a clause covering the failure of the architect to perform on time; the owner is covered, and also unforeseen conditions, but how about the dilatory architect who fails to provide details or make decisions on time?
The hubs project over the ends of the adjacent pieces of pipe and prevent the earth from washing into it. Joints may also be protected by wrapping them with tarred paper or by covering them with straw. The space around the pipe should be filled with coarse broken stone or cinders through which the water may find its way to the pipe. To keep this stone from clogging with earth it should be covered with finer stones or cinders after which an extra precaution it may be covered with a layer of straw.

The cellar walls may be of brick, stone, terra cotta blocks, concrete blocks, cinder concrete or stone concrete. The denser the material used the more impervious will be the wall. Therefore, brick, stone and concrete well rammed are the best materials to use. Brick should be hard and well burned, stone should not be porous, terra cotta should be hard and well burned and must be trowel plastered with at least three quarters of an inch of cement mortar on the inside and outside. The inside coat is sometimes unwisely omitted. Terra cotta should only be used for cellar walls in dry locations and only on solid concrete or other footings. Care must be taken not to over load it with too heavy a structure on top. The specifications should call for the cement mortar to consist of one part cement and three parts clean sand.

If concrete is used the stone or cinders should be clean and free from dirt. Well screened gravel is also used and is as good as stone for foundation work. Depending upon the conditions to be met with, a concrete consisting of one part cement, three parts of clean sand, and five parts of aggregate may be used. For heavy loads of water pressure one part less of sand and one less of aggregate are used. With cinders only two parts of sand are often specified. The aggregate should pass through a two inch ring and be retained by a three quarter inch diameter ring. Under favorable conditions, larger sized stone are thrown into the forms when placing the concrete. In such cases the stones should not be too large and care should be taken that they occur toward the center of the wall and that the concrete is well packed around them. The larger the stones are the longer the unbroken joints between the stones and the concrete will be and the more easily water will be able to follow them through the walls. The ideal concrete mixture is the one in which the aggregate is so proportioned that the smaller particles solidly fill the voids between the larger ones, the sand being used to fill the smallest voids and the cement acting as a binder to cover each particle completely and hold the mass together. Tests may be made of the materials which are available in order to see what proportions of each must be specified in order to have the most dense mixture. In the same way as the broken stone in the trenches allows the water to pass through the voids the denser the mixture the more water will be kept from passing through the concrete, since it can not readily pass from one void to another. Care must be taken that the concrete is well rammed and that the forms are well filled, leaving no porous spaces.

(Please continue)
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