The

AMERICAN REGISTERED

ARCHITECT

November - December • 1962
MAKE NO LITTLE PLANS; THEY HAVE NO MAGIC TO STIR MEN'S BLOOD AND PROBABLY THEMSELVES WILL NOT BE REALIZED.

MAKE BIG PLANS; AIM HIGH IN HOPE AND WORK, REMEMBERING THAT A NOBLE, LOGICAL DIAGRAM ONCE RECORDED WILL NEVER DIE, BUT LONG AFTER WE ARE GONE WILL BE A LIVING THING, ASSERTING ITSELF WITH EVER GROWING INSISTENCY.

REMEMBER THAT OUR SONS AND GRANDSONS ARE GOING TO DO THINGS THAT WOULD STAGGER US.

LET YOUR WATCHWORD BE ORDER AND YOUR BEACON BEAUTY.

Daniel H. Burnham
Editor's Department

The President Speaks

The A.R.A. Executive Board, at its October meeting in Seattle, announced the decision to publish a bi-monthly newsletter to be circulated to A.R.A. members. The goal of this newsletter is to supplement the National Magazine, which begins with this issue, thus guaranteeing the membership a sound and complete source of communication.

— Carroll T. Hutchens, President
American Registered Architects

What's Happening in California?
Quoted from The San Francisco Examiner, Pictorial Living, Oct. 28, 1962

On the slopes of Hawaii's Diamond Head, the John O'Brien Cullens basked in the leisurely outdoor life of the islands in a rambling L-shaped house with spacious lanais and a large pool. Mrs. Cullen, a graduate of the Chicago Art Institute who has worked as an architectural illustrator, had designed the house for the family.

When John Cullen was transferred to San Francisco three years ago to assume the general managership of the New York Life Insurance Company, he and his wife decided to reconstruct their island home on a mainland hilltop. On an acre lot in Tiburon's Tara Hill Mrs. Cullen laid out the same basic home. Only this time the setting was enhanced with a 360 degree panorama of both bridges, San Francisco, the entire bay, the Belvedere Lagoon, and Mount Tamalpais.

"I arranged it so that every room except the guest powder room and our son Brian's bath has a view," explains Mrs. Cullen. "Our builder had an engineer do the final drawings. We didn't have anything like architects around."

Men and Projects

Wilfred Gregson, F.A.R.A., has been awarded the commission for the State of Georgia Pavilion at the 1964-65 New York World's Fair.

M. O. Foss, F.A.R.A., AIA is planning a large home for the aged in Minnesota.

Irving Coryell, F.A.R.A., is now Chief Architect for the Navy Department, Chesapeake Division in Washington, D.C.

The A.R.A. Executive Board awarded a Certificate of Merit to Claude R. Butcher, Oswego, Oregon, for excellence in architectural rendering at the recent meeting in Seattle, Washington.

Bulletin Board

In all future issues, this space will be available, free of charge to all Registered Architects who are
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NOVEMBER - DECEMBER, 1962

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Don’t Design Extra

Fire Insurance Costs
Into Buildings

By LOREN F. ZWINGELBERG

RECENTLY, an architect was commissioned to draw the plans for a new office building. The job seemed to be fairly routine (as routine as any job could be), and things moved along quite smoothly. The walls were of masonry construction—the roof, one of the newer steel decks. Erection proceeded on schedule, the walls were up and the roof nearly on, when an inspector for the insurance rating bureau stopped by. As he looked over the plans, he noticed the architect had provided a combustible ceiling for the building. The inspector contacted the owner’s insurance agent. He told him that the combustible ceiling would more than double the fire insurance rate. Then things started happening fast! The agent quickly called the owner, who immediately contacted the architect and explained that he wanted it changed. It was not long before revised plans were out calling for an incombustible ceiling.

Fortunately, the mistake was caught in time. If the ceiling had already been installed, the owner would face a choice; paying the higher rate or removing the ceiling. Even so, the architect was just a bit red-faced for a few days.

True, no one could or should expect an architect to know all, or for that matter much of anything, about the insurance field. This should be left to the experts in this line. This might be an insurance agent or better yet, the rating bureau. They will be happy to give you any information with no obligation. Let us look at some of the more common types of construction and see how they affect the final insurance rate.

First of all, the insurance industry classifies all commercial buildings into four categories. These are frame, brick, incombustible, and fire-resistive (formerly called fireproof). Frame buildings are those with walls and roof constructed of combustible material. Brick buildings are constructed of masonry walls and a combustible roof. An incombustible building is one with masonry walls and a roof which will not support combustion. This would include such construction as “steel deck,” gypsum or concrete on steel and the like. Fire-resistive (or fireproof) buildings have masonry walls and either a reinforced concrete roof or an incombustible roof with a ceiling of one-inch minimum of metal lath and plaster. These are the basic types. However, with the many new products on the market every year, there are many variations of the latter group.

Now, how do these different types of construction compare as to fire rates?

The brick building generally will be about 55 per cent lower than the frame building. A fire-resistive building will have a rate about 35 per cent lower than a brick building. If this were all there were to it, it would be quite simple. Unfortunately there are other ramifications. One of these which affects the rate considerably is the extended coverage part of the policy, which is part of the fire insurance coverage in practically every case. Extended coverage is that part of the policy which protects against windstorm, hail, etc. Frame and brick buildings usually carry the same extended coverage rates, but the incombustible and fire-resistive buildings have rates 40 per cent to 80 per cent lower than the ordinary roof or light steel roof types.

There is also the coinsurance angle to consider. With coinsurance the insured agrees to carry insurance to a certain specified percentage of the value of his building. For example, with the 80 per cent coinsurance clause, he agrees to carry insurance of an amount equal to 80 per cent of the value of his building. The insurance company then agrees to give him a certain reduction in rates for carrying this much insurance. The amount of reduction is based on salvageable value after a fire. And in this coinsurance reduction, there is a wide degree of difference. Let us look at an example.

For comparison, we will stay with the 80 per cent coinsurance figures. For frame buildings, this reduction is usually about 10 per cent. Brick buildings, since they are not as subject to total loss, take about 25 per cent reduction. Incombustible buildings, since they will probably have just as much damage as a brick building, that is, only walls remaining after a fire, will also carry about 25 per cent. Fire-resistive buildings, not being subject to much damage even in heavy fires, carry about a 70 per cent reduction.

Putting all this information together, rates might look something like this. For comparison, we will take an arbitrary figure of $1.00 per $100.00 of fire insurance for a typical business housed in a frame building. We will assume the 80 per cent coinsurance clause is being used.

1. Frame building — basic rate of $1.00 minus 10% for coinsurance = $.90 + $.20 for extended coverage = total of $1.10 per $100.00 insurance.

2. Brick building (55% lower) = $.45 basic rate minus 25% for coinsurance = $.34 + $.20 for extended coverage = $.54 total per $100.00 insurance.

3. Incombustible buildings (35% lower than brick) = $.29 basic rate minus 25% for coinsurance = $.22 + $.02 for extended coverage = $.24 total per $100.00 insurance.

4. Fire-resistive buildings — $.29 basic rate minus 70% for coinsurance = $.09 + $.02

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THE Society of AMERICAN REGISTERED ARCHITECTS is open to any Registered or Licensed Architect holding current and valid registration in any state of the United States of America. The A.R.A. is the only professional architectural organization in America of national scope that recognizes the fact that legal registration or licensing qualifies the individual to practice architecture; and therefore admits the individual to membership in the A.R.A. without reservation as long as his license is in effect.

It is the contention of the Society of American Registered Architects that every Registered or Licensed Architect is entitled to the benefits and protection of the registration laws of the individual states.

A license to practice bestows upon him the privileges of carrying on the business of his chosen profession without the further “blessing” of any individual or organization. His is the well-merited right to work and enjoy the fruits of his labor under a democratic constitutional liberty, not to be abrogated or enjoined by the personal whims of any other individual or organization. All, subject of course, to the requirements of licensing boards, the safety and welfare of the public and the ethics of the profession.

All Registered Architects are welcome to membership in the A.R.A. composed of other Registered Architects, who are not their peers but their co-professionals. Such membership is open without reservation to all Registered or Licensed Architects in any state of the United States of America.

Under A.R.A.'s charter and by-laws, only a Registered or Licensed Architect may be admitted to membership. We award no “honorary” memberships and have no Associate or Junior members on the national level of this professional organization. Other categories, as may be deemed advantageous for membership, are admissible on a state level.

So that you, the Registered Architect may know us, the following information and requirements are described. Membership in the A.R.A. is granted and maintained on the basis of these covenants:

- Membership is not open to anyone whose right to practice has been revoked or suspended.
- A member shall be a citizen of the United States and shall uphold and defend our constitutional government.
- Conviction of a felony automatically precludes admittance to membership in the A.R.A. and shall also be cause for revocation of membership in the Society.
- A member shall maintain membership in the officially chartered State Council of the A.R.A. in the state of his residence, now extant, or which later may be formed.
- A member shall remit the annual dues to the A.R.A. within the time limits of the fiscal year ending December 31.

**Member Architect A.R.A.**

Full membership status in the A.R.A. is that of a Member-Architect. Under such status, you agree to join the A.R.A. and your State Council affiliate, where same exists, or which later may be formed in your state of residence. You shall abide by the by-laws and regulations of the charter and supplemental by-laws of the Council affiliate. Under this membership, you shall enjoy full rights and privileges of a voting member of the A.R.A. A Certificate of Membership is presented to each new member.

The Fellow Status of Membership

Any architect who has been in practice as a principal for at least ten years is entitled to the privileges of joining as a Fellow. This, we believe, is the twentieth Century acknowledgement that every architect is entitled to well-earned recognition. Being a Fellow imposes upon you the added responsibility of guiding with tolerant and sympathetic understanding the younger members of our profession. Application for membership as a Fellow is not mandatory but the use of the title FARA is restricted to members who desire such designation.

**Member Emeritus of A.R.A.**

Any member of the A.R.A. who retires from the practice of architecture, may request such status and all fees henceforth will be waived.

This is the A.R.A. manner of honoring those members of our profession who have devoted their lives to the practice of architecture and who wish to keep in touch with their fellow members and the progress of architecture. Upon retirement, a request for Emeritus status must be approved by the Executive Board.

**Citation and Honor Awards**

Any member is entitled to be the recipient of A.R.A. Honor Awards, made annually at its convention. Honors are earned for meritorious service to the profession, for service as an officer, or for outstanding service. Special awards may be granted to non-members for outstanding contributions in architecture or its allied fields.

**Registration**

Each new member is assigned a life-time registration number through which all records are maintained. Through this system, a member's service, awards, and individual data is kept by the A.R.A. Recorder. As records are open to State Registration and Licensing Boards, NCARB and other official bureaus, it is important that all individual data be complete. Should your address change or should you form a new association, be sure to inform National Headquarters immediately. Such promptitude will enable us to keep our records currently accurate.

All records are permanent and a great amount of expense and effort goes into maintaining these records. Resignation from the A.R.A. carries no stigma with it but it is requested that membership not be dropped without notice being given. It is possible that you may, from time to time, disagree with certain policies, programs or actions of the A.R.A. This is your democratic right. But please remember that you are joining an organization which has as its principal goal the protection and enhancement of you the architect and the profession.

*Continued on page 24*
Southern Steel Company offers you today's most advanced engineering services in the design of jail or prison facilities. Whether large or small, maximum, medium or minimum security, price alone does not mean the best bargain in security equipment. From start to finish, our consultants can help you set the security level you want within the budget you have.

Cost Estimates
You need accurate and quick cost estimates based on your first rough sketches for budget purposes as soon as possible, when designing a jail project. Our consultants can save you time and give you confidence in a budget figure for jail equipment. They can suggest certain proven theories which will put reason and depth behind the first "rough-sketch-budget-conference." Call or write us for this service whenever you are designing a building with a jail area in it.

Preliminary Layouts
Before the final building shape is fixed, let our consultants suggest several preliminary security layouts. Our trained consultants can give you a choice of arrangements eliminating, through experience, the blind spots and danger areas which can occur if planning does not take into consideration the peculiar requirements of jail security and prisoner flow. Many of the nation's most successfully operated jails today are using jail area layouts suggested by Southern Steel Company consultants.

Custom Design Requirements
No two jails can or should be designed exactly alike. Our consultants will meet with you and custodial personnel to determine the individual security requirements of your project. They will arrange demonstrations of actual working models of jail equipment best suited to your requirements and budget. Our consultants can discuss many similar installations with you so as to arrive at a final determination of the needs of custodial personnel and make suggestions which will fit those needs into the budget prescribed by the owners.

Contract Drawings and Details
The "catalog" approach or "single line amateur drawing" approach is no help when you are preparing a custom designed jail. The Southern Steel Co.

The nation's largest firm engaged exclusively in planning, engineering, manufacturing and installing jail and prison equipment

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Steel Co. come to you with complete outs, contract drawings, specifications and accurate cost estimates.

company is engaged exclusively in manufacturing and installing jail and prison equipment the year 'round. We have a full time staff of expert draftsmen skilled in producing professional contract-working drawings and details that are tailor-made to your requirements. We much prefer to render this service to the Architects actually designing jails, rather than "breadside" to a larger, more disinterested group with stereotyped information. Contract drawings and details are furnished on paper or linen of any size supplied by you or by us.

Security Equipment Specifications
For 65 years, our consultants have advised with Architects, Owners, Wardens, Sheriffs and Chiefs of Police on specially prepared security equipment specifications. When designed for your job alone, the specifications we suggest will insure the achievement of a desired level of safety and security in the finished project. We know that all jail equipment is bought on competitive bids, and we make no suggestions which will preclude any reputable jail equipment manufacturer from bidding on your project. We recommend only functional specifications which will set the level of functional quality that you desire for all bidders to meet or exceed.

Bidding Conditions
Most jail equipment companies manufacture entirely different types of locking systems, which are not directly competitive with one another. For this reason, our consultants will place at your disposal, recognized bidding procedures for selecting the operating equipment which best suits the special needs of your project. Like kitchen equipment, elevators, laundry equipment, x-ray machines, laboratory equipment, or any other custom made operating equipment, every effort should be made to achieve the most competitive atmosphere consistent with protecting the functional requirements and security level of the jail area. Submission of models of equipment at the time of bidding; testing of tool-resisting steel samples; description of variations or additional features of merit offered by each bidder; these are some of the areas in which our consultants can give you extremely valuable information during the preparation of your bidding conditions.
THE BAR of the nation has noted for some time, and particularly in recent years, a rapid growth in the number and variety of claims being asserted against professional men generally. For many years doctors seemed to be a vulnerable target for claims predicated upon alleged negligence. Various writers on this subject have now noted that all types of professional men are being subjected to litigation of this nature. Included in this present category are architects, engineers, insurance agents, lawyers, accountants, dentists, and almost every person engaged in furnishing some type of skilled or specially trained service. A staff reporter of the Wall Street Journal recently noted the widening scope of such professional liability and specifically referred to some types of claims being asserted against architects and engineers and arrived at the conclusion that they are among the professional groups currently hit hardest by liability claims.

Liability upon the part of an architect should not come as any surprise because even in early Babylonian days severe penalties were imposed upon a builder guilty of improperly constructing a structure resulting in death or property damage (the famous Code of Hammurabi). But at an early date in England, architects, either through their own ingenuity, or by the employment of excellent counsel, were able to establish by decision law that an architect under the duties of his employment as outlined by actual contract or implied in the relationship with the owner, occupied a position sometimes categorically described as quasi-judicial and by reason thereof would not be liable from the results of his decisions, absent fraud, intentional misconduct, etc. At an early date some of the Courts in this country adopted this general view. As a result, probably, architects generally were lulled into a false sense of security for a long period of time. But, gradually the theory that some type of judicial immunity should be extended to an architect in the sense that he was acting as an arbitrator was narrowed to more and more precise situations. And soon the Courts began to say that an architect in the performance of his duties was compelled to exercise reasonable care and diligence. Finally, various Courts began to say that the same standards of reasonable care which apply to the conduct of auditors, public accountants, lawyers and doctors would be equally applicable to architects and engineers, since all of them are professional men engaged in furnishing skilled services for compensation. Because judges and juries seemed to be constantly broadening the application of the general rule of reasonable care, protests were constantly made to the general effect that imposition of such liability was unreasonable and would necessarily inhibit and restrict the efficient performance of their duties. In response to this suggestion, a Court recently stated that the imposition of such standards (exercise of reasonable care) does not leave the architects without adequate protection, since their liability and damages arise only as the result of methods or practices in the performance of their work which indicate lack of reasonable care, fraud or bad faith, and since they are entitled to a wide discretion in the selection of such methods and in determining which of several practices or principles is most sound or best suited for the work undertaken by them.

Some of the decisions have noted that sometimes the duties of an architect are imposed by contract with the owner, but they have also noted that if the architect voluntarily assumes the obligation to perform some duty or act, the architect is still liable if he performs that act negligently. Recently the rule has been extended to cases where the architect has erred in estimating anticipated cost of construction, or he has failed to ascertain whether or not payments to creditors have been made by contracts, or involving the collapse of structures from various causes, or where injuries have been sustained by individuals because of alleged claimed improper construction and planning, or he has allegedly erred in selection of recommended materials, or involving improper acceptance of finished structure and other situations.

One of the most recent cases was decided by the United States District Court and the Honorable Dennis F. Donovan, one of the judges thereof, in and for the District of Minnesota on November 30, 1961. Because of my participation in this action, I was invited to report on the same. This action involved the application of this general duty of exercising reasonable care.

The action arose out of events having to do with the award of a contract for the construction of a new County Court House at Montevideo, Minnesota. After the usual bidding procedures, a contract was awarded and the successful contractor in compliance with Minnesota law supplied a corporate surety bond insuring the performance of the contract. The contract between the surety on this bond, the architect, the owner and the contractor consisted generally of the building contract between the contractor and owner, the specifications prepared by the architect and the bond. The specifications included the provision usually found in most contracts as follows: "Not later than the fifteenth day of each calendar month, the owner will make
imposing liability
upon
an
ARCHITECT

Attorney at Law, Fergus Falls, Minnesota

a partial payment to the contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under this contract, but to insure the proper performance of this contract, the owner will retain ten per cent of the amount of each estimate until final completion and acceptance of work covered by this contract.” The specifications further provided, “In applying for payments, the contractor shall submit a statement based upon this schedule, and if required, itemized in such form and supported by such evidence as the architect may direct, showing his right to the payment claimed.”

As construction progressed, the contractor submitted to the owner for payment monthly estimates totaling $314,069.60, which were duly submitted to the architect and which, with a few alterations immaterial here, were certified by the architect as correct; and as a result thereof, the sum of $290,162.63 was paid to the contractor by the owner.

After six such monthly estimates had been certified as correct by the architect, the contractor defaulted in the performance of his contract and the surety company was required to complete the construction as required generally by the bond and supporting instruments.

Estimates were made at the time that the surety company and persons in its employ took over the job for purposes of completion as to the value of work performed and material on the job site. The evidence indicated that the approved estimates totaled $314,069.60, whereas the actual value was in the sum of $202,675.00. When the per cent retention was applied to both amounts, it appeared that the amount of overpayment by the owner to the contractor was in the amount of $100,255.14. Upon the completion of the job the surety company brought action against the architect to recover this amount, and the architect was found liable for this amount. Excerpts from the Memorandum of the Court give the reason for the decision and we quote them as follows:

“That plaintiff expended the amount sued for in compliance with the bond is not seriously in dispute. The issues in dispute reduced to simplicity are these: Was defendant’s alleged negligence the sole proximate cause of plaintiff’s damage to the exclusion of contributory negligence on the part of plaintiff? In other words, absent negligence of the plaintiff as a contributing proximate cause of the damage sued for, has plaintiff carried the required burden of proof supporting its contention that defendant failed to exercise reasonable care as defined by Minnesota law?”

(Counsel for the architect claimed that the surety company was also negligent and that such negligence would bar recovery, because it and its field men should also have checked the job from time to time and would then have learned of the contractor’s default earlier.)

“In the instant case they (architects) would be required to perform said services, for which they are engaged, in good faith with reasonable care and competence, and would be liable for damages occasioned by any failure to do so.

“Where, as in the case at bar, the alleged liability of defendant is predicated upon the claimed negligent and wrongful release of the retainage fund provided by the contract for the mutual benefit and protection of the owner and the surety by subrogation, the Court is of the opinion that the evidence supports the conclusion that defendant had actual or constructive notice and knowledge of the surety bond and the purpose of the retainage fund. Such knowledge added to the duty of defendant to exercise reasonable care in certifying bills for payment, as it did, charged defendant with notice that the retainage fund was not to be released until the contract had been carried out and concluded, as provided therein, requiring the Contractor to submit satisfactory proof that all bills and indebtedness had been paid. Privity of contract between plaintiff and defendant was not a prerequisite to the existence of the defendant-architect’s duty in the foregoing respect, for the reason that said architect’s duty to protect the Owner and the suregated surety arose out of the general and mutual contractual arrangements which included resulting independent rights and obligations. Nor is privity of contract a requisite to make effective said duty, the violation of which constitutes actionable negligence.

“The Court concludes from the foregoing that defendant herein was engaged to furnish skilled professional services for compensation, and in the doing of which, it was charged with the duty of exercising reasonable care in discharging the obligations of an architect as required by said contract. Defendant, in considering and approving estimates for payment by the Owner, was not in any sense an arbiter. The problem for the tiler of the facts, therefore, is not whether the Court or another architect might think that some extent of defendant’s conduct should have been different, but rather that what defendant did in the way of approving estimates, in the present case, did not measure up to the exercise of due care in the light of approved professional standards. As the Court views the evidence in the present case, the negligent approval and certifying for payment of sums beyond and in excess of the amount required to be retained was the proximate cause of plaintiff’s damages. The imposition of such standards requires defendant to exercise reasonable care and competence in the performance of its services.”

I hope that the foregoing will be of some benefit to architects in appreciating the duty which the Court has held that they assume in connection with contracts of this kind. Since this decision was rendered, many architects have inquired as to how to avoid its implication. I do not think that it is possible by contractual provisions to avoid the responsibilities delineated by this decision. An effort has been made by some architects to incorporate a provision in their specifications barring the surety on a performance bond from asserting any rights as subrogee as was done in this case. This poses an entirely different question.
The Shoemaker and His Last

THERE IS a growing tendency for businessmen to urge that “the shoemaker stick to his last,” the professor stick to his classes, and the architect stick to his drafting board and pretty pictures. Such advice is undoubtedly due to the number of men who have deserted their original vocations to serve in government offices to show how the business of the country should be run to provide for a more abundant life, “To grasp this sorry Scheme of Things entire, . . . and then, Re-mould it nearer to the Heart’s Desire!”

Even architects have been known to invade, in their thinking at least, the realms of building finance, real estate, city planning, and municipal government. Some architects have had time to study these fields and have had the temerity to voice their opinions as to what is wrong, stating their theories of the possible methods of correcting the conditions which have prevented the profession from gaining a living by practicing.

The fact that architects are taking an active interest in the forces and institutions that control all building, directly and indirectly, is good both for the architect and for those active in the “invaded” fields. Certainly the study of real estate practices, of financing methods, of legislation, of all the underlying factors which influence the potential and effective demands for building and for his services, is natural, proper and salutary — especially when so little of his time has been demanded for the creation of new buildings.

Approaching these formerly taken-for-granted fields with a pristine but perceptive and analytical mind, his conclusions may offer at best real contributions to constructive thought in those fields. At worst they may be no more “cock-eyed” than the thinking (or lack of it) which has brought us into this state of stagnation. Shall this shoemaker be sent back to his last? Just what is his last? Shall he not try to find out cause and effect in his own market? It is time that the architect, to change the metaphor, took apart the building industry clock to see what makes it tick, or stop, how strong its main spring is, who winds it, how its wheels within wheels mesh and grind or slip a cog.

True, the greatest contributions of an architect should be in the technological and aesthetic development of building, but a better understanding of the factors which condition his work would enhance his effectiveness. That the architect is not neglecting his own last is evinced by the new interest in the small house, the less-than-$5,000 house which constitutes 75 per cent of the dwelling market. The new experimental buildings in modern materials, straightforward in design, and the new housing developments show that advances are being made technically.

The architects who have understood the controlling factors in building, who have had a working knowledge of the existing “rules of the game,” have been the busiest members of the profession. They have been the ones who have had the opportunities to put their technical knowledge and design talents to practical use. Those who keep informed of the changing rules and practices, and who even take a hand in formulating the new, will be in the most advantageous positions to obtain new commissions.

Architects must be credited, in part at least, for the advances made in home financing legislation and procedure,—architects who did not stick to their last. Only the fact that their expensive custom-shoe lasts have been so long idle is forcing architects to do “cobboring,” and, to do some thinking. This is the reason why architects are examining causes and effects in the whole field of building needs and control. To find his market to create new lasts and styles, the shoemaker must leave his bench at times. We hope he does.
WILLIAMS SEALS and GASKETS

WILLIAMS Efficiency WATERSTOPS

WILLIAMS SEALS and GASKETS DIVISION
Williams Equipment and Supply Co., Inc., 486 W. Eight Mile Road, Hazel Park, Mich.
WEATHERTITE "R" — The Michigan Control Joint is the most practical from a functional standpoint, because it provides a strong, positive key in the joint to maintain lateral stability in masonry walls. Weatherite "R" installed in a Michigan Control Joint, as shown, provides the best seal available today . . . it is the only material that possesses the re-expansion properties necessary to assure a pressure-tight seal after long periods of compression. Weatherite "R" (Pat. Pend.) is a specially shaped, nonabsorbent, expanded Polyvinyl Chloride strip which provides multiple, continuous, pressure-contact sealing surfaces when compressed. This closed-cell material is impervious to water, and possesses high acoustical and insulating properties . . . it effectively seals the Control Joint against moisture penetration, and also serves as a sound barrier and insulation against heat loss or passage of cold air. See Physical Properties under column headed Type "V" in Property Table.
Specify Michigan Control Joints Sealed with Williams Weatherite "R".

PERFECT-SEAL — The Control Joint illustrated is simple to construct and is most practical, from a functional standpoint, because it provides a strong, positive key in the joint which maintains lateral stability in masonry walls despite the continuous vertical separation. Williams Perfect-SEal was developed especially for sealing this type of joint . . . it is available in four-point pressurized-contact sealing which prevents air passage and keeps moisture out of control joints. The T-Section is a high-grade rubber compound; the cross-sealing member at the base of the "T" is a strip of readily compressible, expanded closed-cell Neoprene Rubber. This closed-cell sealing material is impervious to water, and possesses high acoustical and insulating properties . . . it provides a permanent, positive, pressure-contact seal directly behind the ceiling. It also serves as an ideal caulking backer. Bond-breaker paper, cut to size, is furnished gratis with Williams Perfect-SEal.
Specify Mortar-Keyed Control Joints Sealed with Williams Perfect-SEal.

WEATHERTITE "RB" — This is a more economical product of the same closed-cell material possessing the same physical properties and functional characteristics as Weatherite "R". It has only two continuous pressure-contact surfaces, whereas Weatherite "R" has three. Weatherite "RB" (Pat. Pend.) was initially designed especially for Besser Control Joints, but can be employed with equal effectiveness in the Michigan Control Joint as shown. Installation in Besser Control Joints is accomplished in exactly the same manner.
Both Weatherite "R" and Weatherite "RB" are furnished with a pressure sensitive adhesive compound on the flat back surface for easy positioning. The cost per foot of Weatherite "RB" is approximately one-half that of Weatherite "R".
Bond-breaker paper, cut to size for convenient handling, is also furnished with Weatherite "RB", without charge, when specified for use in Michigan Control Joints.
Specify Michigan Control Joints with Outer Seals of Weatherite "RB".

WILLIAMS KEY-SEAL — This Control Joint Seal was designed to perform a dual function, and was developed for use in Control Joints constructed with standard sash block. It consists of two functional members: One is a solid extruded T-Section of high grade rubber of 60 to 70 Durometer and 3000 Ibs./Tensile . . . this T-Section serves as a stem key in the Control Joint and adds materially to the lateral stability of the wall. The other member is a strip of non-absorbent Neoprene closed-cell sponge rubber which is cemented to the stem of the "T" and serves as a compressible pressure contact seal when compressed between the blocks of the Control Joint. The stem of the T-Section locates the compressible member away from the sash slot in the blocks to assure positive sealing between continuous unbroken surfaces.
Williams Key-SEal (Pat. Pend.) does a better job of sealing Sash Block Control Joints . . . it is preferable in every way to other "Sash Block" joint strips.
Specify Sash Block Type Control Joints Sealed with Williams Key-SEal.

WILLIAMS KEY-SEAL SPECIAL — Here is a sash block control joint similar to Williams Key-SEal Standard, but with a flange extended 2½", eliminating the need for joint fillers. The Neoprene closed-cell sponge rubber, cemented to the stem of the "T", serves as a compressible pressure contact seal. This assures maximum flex to cope with wall movement and provides complete protection from foreign impolachable materials. It resists cracking and the attack of oil or solvents as well as weather conditions. You get a positive sealing between continuous, unbroken surfaces. This special seal forms a convenient dam to prevent proper caulking where desired. Made of high-grade rubber, the product is designed to fit into notched metal window sash block for quick placement, sure interlock and easy caulking, it is a companion product to masonry wall reinforcing. Williams Key-SEal Special (Pat. Applied For) does a better job of sealing sash block control joints.
Specify Sash Block Control Joints Sealed with Williams Key-SEal Special.
SEAL—CUSHION—INSULATE—PROTECT MASONRY AND CONCRETE CONSTRUCTION

now available in premolded neoprene, vinyl, sponge rubber, expanded polyethylene, and polyurethane.

Williams gaskets have a proven record of performance under extreme conditions and are recognized as necessary adjuncts to superior construction. They are an economical safeguard against costly maintenance.

EVERLASTIC NEOPRENE and VINYL gaskets are of expanded closed-cell composition and are available from stock in any width or shape in standard thicknesses of ¼", ⅛", ⅛", ⅛", ⅛", and ⅛". Thicker material furnished on request. Pressure-sensitive adhesive backing on both EVERLASTIC Neoprene and Vinyl material facilitates installation. EVERLASTIC Neoprene gaskets effectively resist aging and oxidation and are used extensively as joint sealing and cushioning strips in tilt-up walls and other slab units. EVERLASTIC Vinyl gaskets, used as column wrap on structural members, prevent cracking of masonry walls due to normal movement of steel columns and relieve shrinkage stresses in concrete-framed buildings.

EVERLASTIC CONCRETE GREY RUBBER gaskets are recommended for expansion joint fillers in poured concrete construction where pressures exceed 70 lbs PSI and are less than 700 lbs PSI. Concrete grey gaskets are ideal where complete resiliency is essential or a color to blend with concrete is desired. EVERLASTIC Open-cell Neoprene is recommended for strip gasketing of door closures and where water absorption is not a problem. Available in thicknesses from ⅛" to 1".

EVERLASTIC EXPAND-O-FOAM (expanded polyethylene) is a closed-cell material used primarily as filler strip to regulate depth of sealant required in a joint. This product is highly resilient, has extremely low water absorption and is chemical and solvent resistant and makes an ideal insulation material. Available in thicknesses of ⅛" to 2".

EVERLASTIC POLYURETHANE is recommended for filler purposes and for air sealing where water absorption is not a problem. Available in ⅛" to 2" thicknesses.

WILLIAMS CONTROL GASKETS were extensively used in this 104,000 sq. ft. Baptist Books Inc. building, Deer Plaines, Ill. Fred H. Prather, AIA, Chicago architect-engineer; Turner Construction Co., Chicago, general contractors.

In addition to masonry use, Williams gaskets are ideal for:
- Thermal insulation
- Dust barriers
- Moisture seals
- Shock absorption
- Packing material
- Anti-Squeak Pads
- Vibration control
- Weather-strip

EASE OF APPLICATION

Sheets, Strips and Die-Cut Stocks are furnished with a pressure sensitive adhesive for temporary cementing applications.

isolating steel and concrete structural members

physical and thermal properties

<table>
<thead>
<tr>
<th></th>
<th>Closed-cell Neoprene</th>
<th>Closed-cell Expand-O-Foam</th>
<th>Open Cell Neoprene</th>
<th>Open Cell Concrete</th>
<th>Open Cell Polyurethane Foam</th>
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<tr>
<td>COLOR</td>
<td>&quot;U&quot;</td>
<td>&quot;V&quot;</td>
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<td>&quot;N&quot;</td>
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<td>Temperature Resistance</td>
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<tr>
<td>Durometer</td>
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<td>40</td>
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<td>SAE Grades</td>
<td>SB 41</td>
<td>VE 41</td>
<td>SC41</td>
<td>SC42</td>
<td>SC43</td>
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</table>

WILLIAMS interior corner protector

Here is the ideal rubber bumper that protects interior wall corners at doorways, aisle intersections and other areas vulnerable to the damaging impact of carts, trucks, dollies, wheelchairs and other moving objects.

- Easy to install with Williams adhesive.
- Hard rubber base resists even severe impacts . . . does not show digs, scrapes or scratches.
- Full 5" protection for each wall from floor to any specified height.
- Available in black or grey.
- Ideal for corners near elevators, swinging doors or other heavy traffic areas.
- Can be applied over cracked, chipped or irregular corner areas.
WILLIAMS Efficiency WATERSTOPS for more effective sealing

**Design:** Williams Efficiency Waterstops are a simple Dumbbell Type... they are designed to completely seal construction joints between cast-in-place concrete members, and expansion joints in concrete structures where hydrostatic pressures of up to 150 psi are involved. There are no extra ribs or other unnecessary surface serrations to reduce the effectiveness of a full-tension seal at the shoulder of the end bulbs.

Tests and actual experience in many and varied applications in the field have proved that it is better to have ONE full-tension, positive sealing contact than to distribute the tension-produced contact pressure over a number of ribs where only the first two or three take up the tension load and the remainder lie inert and ineffective in the concrete.

Three sizes adequately fulfill sealing requirements in all construction joints and any type of expansion joint in buildings, public works or highway construction projects where cast-in-place concrete members are employed.

**Material:** Williams Efficiency Waterstops are extruded polymers of 57-80 durometer... they are produced in three sizes: 5", 6" and 9", and are available in Natural Rubber, Standard G.R.S. Rubber, Neoprene Rubber, and Polyvinyl Chloride. See Physical Properties and Functional Characteristics in Property Table.

Waterstops are shipped to the job in rolls of any length up to a maximum weight of 100 lbs., in order that they may be conveniently handled in the field.

**Accessories:** Bothersome splicing and joining operations in the field are eliminated when Williams Rubber or Neoprene Waterstops are used. Unions, Els, Tees, and Crosses—horizontal and vertical—are available in Molded Junction Fittings. (Pat. No. 2,867,160) Junctions made with these fittings are a simple and time-saving operation.

When Vinyl Waterstops are used, Splices, Tee-Joints, Crosses, etc., must be accomplished on the job by the hot-weld method... a hot steel plate is used to fuse the two pieces of Vinyl to be joined. The two pieces are then held together in the desired position until the material cools.

**Molded Union and Junction Fittings**

- **Joining:** is quick and simple. End of Waterstop must be cut square.
- **Pouring:** one ounce of Williams Rubber Cement into base of Fitting Sleeve.
- **Insert:** end of Waterstop in Fitting Sleeve. Press home to full depth.
- **Thoroughly sealed:** leak-proof joint is completed in less than one minute.
WILLIAMS NEO-SEAL—This product is designed especially for use as a seal between face brick in Control Joints in either solid or cavity type composite masonry walls. It is an oval shaped tube of Neoprene Closed-Cell Spangé Rubber which is turned inside out to give it the required pressure contact at each end when flattened and compressed in the Control Joint. The material is non-absorbing and is inert to heat, cold and atmospheric acids. The specially formed tube compresses to approximately 3" in width when installed in a conventional ¾" control joint.

Williams Neo-Seal provides an effective seal against moisture entering the Control Joint and causing serious frost damage in composite masonry wall construction where face brick is employed. The installation at right shows Williams Neo-Seal employed in conjunction with Williams Key-Seal in a typical Control Joint in composite masonry wall construction.

(Patent Pending)

Specify Control Joints with Face Brick Sealed with Williams Neo-Seal.

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WILLIAMS EVERLASTIC masonry coping seals makes masonry construction more PERMANENT!

Everlastic Masonry Coping Seals, made of wholly non-absorbent elastomers, permit linear expansion in summer heat and seal joints against moisture which causes frost damage in winter. They are a readily compressible joint filler. Inert to heat, cold, oils, alkali's and atmospheric acids. Impervious to water, Everlastic Seals are furnished in vinyl or neoprene ¼" or ½" thick—die-cut to stone specifications and coated with pressure sensitive adhesive. Everlastic Seals should be used between all sill and coping stones, brick or stone wall panels and other places where expansion, contraction and freezing action will destroy masonry construction.

- Use at all end-joints in stone coping.
- Use in stone window sills at intervals of 15 feet or less.
- Use in stone belt courses extending more than 3 inches beyond face of wall on east, south and west elevations—at intervals of 15 feet or less.

Joints in Sill and Coping Stones

UNION CENTRAL LIFE INSURANCE CO., selected Williams gaskets for coping and control joints for their new building in Cincinnati, Ohio. Hartley, Ellington, Cowan and Stirtan Inc., AIA, Detroit, Michigan, Architects; Frank Messer and Sons Co., Inc., Cincinnati, Ohio, general contractors; Georgia Marble Setting Company, Atlanta, Ga., Stone Setting Contractors.

CONTROL JOINTS AND COPING STONE JOINTS in this recently remodeled Chandler Power Substation for Detroit Edison, Detroit, Michigan, utilize Williams die-cut gaskets.
WILLIAMS PANEL SEALS have been developed especially for use with Precast Concrete Wall Panels. The various types are designed, with regard to size and functional characteristics, to provide an effective seal for both vertical and horizontal joints under virtually any condition that might arise in either precast concrete or prefabricated metal panel construction.

The unusual flexibility in adaptability provided by the design of Williams Seals, whether used singly or in combination, will effectively seal panel joints up to 1" in width... each type will readily compensate for variations in joint width, irregular joint surfaces and the inevitable erection adjustments to overall building dimensions.

MATERIAL—All Williams Precast Panel Seals are of expanded, closed-cell Neoprene Rubber. The closed-cell structure of the material provides the resiliency and lively re-expansion properties which insures maintenance of an effective, continuous pressure-contact seal in the wall joints under all conditions for an infinite period of time.

INSTALLATION—Provisions for sealing panel joints should be included in the precast panel design and specifications. Joint seals should be factory-installed by the panel manufacturer while joint faces are clean. Williams Seals should be selected on the basis of the seal being compressed at least 25% and not more than 50% in the joint width specified.

Neoprene Rubber is compatible with Thickol and other rubber base caulk compounds, Williams Seals No. 2, No. 2-2 and No. 3 can be used as calking backers. Seals should be located so as to provide a mean calking depth equal to the width of the joint opening.

Specify Panel Seals by Williams.

WILLIAMS special-purpose adhesives

WILLIAMS RUBBER CONTACT CEMENT NO. 37. An exceptionally high-strength, general-purpose industrial adhesive designed for bonding a wide variety of porous and non-porous surfaces. Fast-setting for a watertight type of vulcanized joint when bonding Neoprene to itself or to metal. Cures at room temperatures with great resistance to heat and solvents.

WILLIAMS PRESSURE-SENSITIVE ADHESIVE NO. 81. A synthetic, clear resin used for adhesion of concrete, stone, metals and rubber to one another. Recommended only where temporary adhesion is necessary. Can be applied by roller or brush. Cures at room temperature.

WILLIAMS DRY-TACK. An amazing water-base adhesive that dries at room temperature in 20 to 30 minutes. Applied to only one surface, it will develop terrific adhesion without the use of presses or clamps. Dry-Tack is non-inflammable, dries transparent and will not stain. No primer is required, and it's easy to apply with brush, spray or coating machine.
of construction joints & expansion joints in concrete

APPLICATION: Williams Efficiency Waterstops are now installed and are functioning in every conceivable application in concrete construction. They should be installed in every concrete construction joint and expansion joint where water seepage is anticipated and wherever hydrostatic pressures are involved.

The Williams 5" Waterstop is adequate for all vertical and horizontal construction joints. Williams 6" Waterstop should be used in all expansion joints up to 1", and Williams 9" Waterstop should be employed to seal all expansion joints of from 1" to 2".

Neoprene Rubber Waterstops should always be specified for joints where exposure to mineral oil or injurious chemicals is anticipated.

Vinyl Waterstops should not be installed in expansion joints of overpasses, bridges, viaducts, etc., in areas where maximum opening will occur under low temperature conditions. Natural Rubber Waterstops are recommended for this type of expansion joint because of the material's higher tensile and elongation properties, and greater elasticity under low temperature conditions.

Typical application details are furnished for your assistance and guidance.

**property table**

<table>
<thead>
<tr>
<th>Size</th>
<th>Material</th>
<th>Specific Gravity</th>
<th>Minimum Elongation % to Break</th>
<th>Minimum Tensile Strength PSI</th>
<th>Durometer Hardness</th>
</tr>
</thead>
<tbody>
<tr>
<td>5&quot; x 1/4&quot;</td>
<td>Natural Rubber</td>
<td>1.11</td>
<td>525</td>
<td>4000</td>
<td>63</td>
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<tr>
<td>5&quot; x 1/4&quot;</td>
<td>Neoprene Rubber</td>
<td>1.41</td>
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<td>57</td>
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<tr>
<td>5&quot; x 3/8&quot;</td>
<td>Vinyl</td>
<td>1.27</td>
<td>375</td>
<td>2600</td>
<td>80 ± 3</td>
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<tr>
<td>6&quot; x 3/4&quot;</td>
<td>GRS Rubber</td>
<td>1.13</td>
<td>450</td>
<td>3000</td>
<td>65</td>
</tr>
<tr>
<td>6&quot; x 3/4&quot;</td>
<td>Vinyl</td>
<td>1.27</td>
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<td>80 ± 3</td>
</tr>
</tbody>
</table>

Samples for Testing: Samples shall be prepared by curing in the form of slabs and pellets for test purposes identical in composition and cure with the material offered for delivery.

bridge and highway applications

**expansion joint**

Sealing 2" Armored Expansion Joint in Bridges, Interchanges, Overpasses, etc.

**expansion joint**

Sealing Conventional 1" Expansion Joint in Bridge Deck Slab of Overpass or Viaduct.

rubber base plate

Conventional Metal End Plates can be used with Williams Rubber Base Plate—they are clamped on in the field in the usual manner.
CONCRETE

An address delivered at the 1962 A.R.A. Convention by
CHARLES H. GOODMAN, Director of New Products, Material Service, Division of General Dynamics Corporation

MATERIAL SERVICE, a Division of General Dynamics Corporation, is a major producer of concrete, concrete materials, and concrete products in the Chicago area. Our development activities have been motivated by two principal purposes:

1. Reduction of cost in the ultimate building.
2. Improved quality of the ultimate structure.

Our efforts in these two areas have required, first, a continuing program designed to improve the quality of our standard products, and also to reduce the cost of producing and delivering these products so that they might find the greatest use and result in the lowest cost, best quality construction. Secondly, and the principal subject of this discussion, are our efforts in the development of new products which hopefully will result in better and more useful structures at lower cost. These efforts have thus far resulted in the development of a lightweight aggregate for use in structural concrete and concrete products, and several precast, prestressed concrete products which have proven their usefulness in the solution of numerous construction situations.

As you know, concrete is extremely strong when subjected to compressive stresses. It is not at all difficult to make concrete which will withstand compressive forces in excess of 5,000 pounds per square inch. However, when subjected to tensile forces, concrete is found to be extremely weak. Therefore, the design of almost all reinforced concrete products requires placement of bonded steel reinforcing in the tensile zone of the concrete member. In a typical beam which has forces applied to its top surface, the bottom portion would be the tensile zone, i.e., that zone which would be subjected to the greatest tensile forces.

Therefore, the typical design requires substantial quantities of steel in the lower portion of reinforced concrete beams. In the structural design of these beams, the engineer assumes a cracked section. He assumes that the top portion of the beam, which is in compression, will at all times remain in compression and not develop cracks until it reaches its ultimate strength. The bottom portion of the beams, however, is considered to be cracked. Therefore, the concrete is assumed to add absolutely nothing to the strength of the beam on the bottom and only the steel reinforcing bars are considered to be carrying the tensile load. The steel reinforcing bars thus hold the concrete together much as pearls are held together on a silk string. About 12 or 13 years ago, the development of high tensile strength steels made possible the design and construction of concrete beams and other products utilizing a technique known as Prestressing. This technique requires very high tensile strength steels which are stretched in much the same manner as a rubber band would be stretched. Concrete is then poured about the pre-stretched tendons, and after the concrete has hardened and bonded to the steel tendons, the tendons are released. Upon release, naturally, the steel tries to attain its original length, but is resisted by the concrete in which it is firmly held. Therefore, wherever the steel tendon is placed, a compressive force upon the concrete results. In the case of a concrete beam, the tendons are located in the bottom in place of the old reinforcing bar, thus resulting in a net compressive stress in the bottom zone of the concrete. By applying precalculated significant pre-compression to the bottom zone of concrete beams, it is possible to keep the concrete beam from cracking. Therefore, the entire cross section of the beam may be considered to be resisting the loads throughout the normal working loads of the beam. Thus, by use of prestressing techniques it is possible to design considerably more economical concrete structures with substantially less depth, less weight and more carrying capacity.

Prestressing, more than any other technique, has developed concrete precasting from a marginal business to a rapidly growing, important industry. Prestressing has made possible, among other things, the following:

1. Long span concrete members competitive with steel.
2. Lightweight, economical structural systems for many typical applications in buildings, bridges, etc.
3. Crack-free, watertight concrete constructions for use on walls, roofs, etc.

Material Service has been very active in the development and use of precast, prestressed concrete products. Starting with the construction of the Illinois Tollway, for which we produced nearly 4,000 bridge beams, we have continued to investigate and develop this new and promising field.

Recently, we have become impressed with the apparent opportunity of casting extremely economical precast concrete members for use in buildings. Factory precasting techniques permit the manufacturer to remove a large percentage of unnecessary material, and approach very closely ideal section properties. These techniques, combined with the many other well-known advantages of prestressed concrete, should result in the availability of many desirable members in the near future.

Four years ago, we asked our management to

Continued on page 25
THE SPECIAL CONDITIONS AND THE TECHNICAL PROVISIONS OF THE SPECIFICATIONS FOR JAIL EQUIPMENT

INTRODUCTION

The conditions set forth below are considered to be the minimum conditions which should be required of any prospective bidder contemplating the submission of a proposal on Jail Equipment. There is no provision or requirement of these conditions that will prevent or handicap bidding by any reputable manufacturer regularly engaged in the fabrication and installation of Jail Equipment.

Jail Equipment is an item of a specialized nature. It, therefore, should be bid separately in all circumstances, and provision made for all manufacturers to participate in bidding by use of their own standards of fabrication and installation.

Jail Equipment is not directly competitive. Each manufacturer has his own methods of operating, selecting, indicating and locking and unlocking of doors, as well as different types of tool-resisting steel and methods of heat treating this steel. Most manufacturers have three or four systems of operating mechanisms that will comply with the same technical specification. These conditions and model and sample requirements will enable the manufacturer to show which system he proposes to furnish; how it varies from the specified; and enable the purchaser to determine, definitely, the relative merits of the products offered by each manufacturer.

Editor’s Note: Copies of the “Invitation to Bid” and “Proposal for Jail Equipment” may be obtained by writing, Mr. Roy Casey, Executive Secretary, National Jail Association, P.O. Box 467, Kennes, Texas.

General Construction Specifications

All plumbing, heating, electrical, ventilating, and general construction work including all cement, concrete, waterproofing, field painting, tile, plastering, and masonry work in connection with Jail Equipment, will be done by the General Contractor.

The Jail Equipment Contractor will cut all necessary holes in the jail steel for the Mechanical and Electrical Subcontractors in the field, but all subcontractors requiring such holes shall locate and scribe all holes with center punch marks before erection of jail work is completed.

Electrical Contractor shall furnish and install the conduit and wiring required from source of power to all control cabinets for the electro-mechanical operation of all sliding doors. Electrical Contractor shall make all necessary electrical connections for these items, including connections to source of electrical power.

The Electrical Contractor shall furnish all conduit, wiring and lamps and shall make all necessary connections for the jail type electric light fixtures which are specified to be furnished by the Jail Equipment Contractor. All other electric light fixtures are to be furnished and installed by the Electrical Contractor.

The steel Jail Equipment work specified to be set in place or erected by the General Contractor shall be furnished and delivered by the Jail Equipment Contractor to the building site and there taken and installed in the building by the General Contractor without cost for such installation to Jail Equipment Contractor. The General Contractor will set in place all steel door frames, all anchors, anchor angles, anchor bars, channels, and similar items which are to be set in concrete or masonry work, and any other parts which are to be built into concrete or masonry as the building progresses.

Necessary opening through the outside wall of building not less than 4'-0" x 7'-0" for ingress of Jail Equipment herein specified shall be left or provided on jail floor by General Contractor without expense or unnecessary delay to Jail Equipment Contractor.

Jail Equipment Contractor shall furnish General Contractor with necessary approved shop drawings and setting diagram of all Jail Equipment to be set in place by General Contractor. Jail Equipment Contractor shall deliver this material to the building site in time so as not to unnecessarily delay General Contractor in the progress of the work.

Jail Equipment Contractor shall furnish and install all jail type steel showers and shall furnish the shower drains for these showers, but Plumbing Contractor shall install the shower drains and he shall also furnish and install all other plumbing material such as shower heads, valves, pipe, etc., required for the jail type steel showers.

All floor finish, cement curbs, waterproofing, and other cement work, where shown or specified in connection with the Jail Equipment and all plastering and painting on or near Jail Equipment shall be done by General Contractor after Jail Equipment is completely erected in building.

All steel Jail Equipment herein specified, except anchors and anchor bolts to be embedded in concrete, parts of the work to be enameled or plated, and aluminum, bronze or stainless steel finish hardware, shall be painted one shop coat of good red oxide primer, before shipment from factory.

Painting of all Jail Equipment after erection shall be done by others at no cost to Jail Equipment Contractor.
All burns, weld spatter, exposed field rivets, bolts, nuts, welds, plaster, cement, waterproofing, and any marring of the shop cost of paint on Jail Equipment, shall be thoroughly cleaned and retouched by others without cost to the Jail Equipment Contractor.

Where the work of other Contractors is specified not to be finished or where it cannot reasonably be finished, until after the Jail Equipment is installed complete, delays to other Contractors resulting therefrom shall not constitute a basis for damages against Jail Equipment Contractor unless it be shown that he has unnecessarily delayed the progress and completion of his work. Bidders estimating work subject to such time lag in connection with completing the installation of Jail Equipment are advised to make allowance for same.

Jail Equipment Contractor shall be responsible for the execution of his work in strict accordance with approved drawings and specifications and shall be responsible for his errors in shop and field work. Other Contractors shall likewise be responsible for their work being in strict accordance with dimensions and construction shown on approved drawings and shall be responsible for and correct errors therein.

General Contractor shall be entirely responsible for accuracy of building construction, such as locations of beams, columns and masonry walls, and for accuracy in concrete work, the elevations must be level and true. Any chipping of concrete or pointing up between the jail steel and the concrete work that may be necessary due to unevenness of concrete shall be done by General Contractor.

Under normal conditions the Jail Equipment Contractor shall not begin his erection work of the steel Jail Equipment until the rough slab of jail areas is broom clean, exterior enclosing walls are in place, exterior windows glazed, and roof installed to prevent weather damage to the mechanical parts of the cell door locking and operating mechanism and other parts of the Jail Equipment.

Special Conditions

Article 1 — PRECEDENCE OF CONDITIONS

Such parts of the GENERAL CONDITIONS and SPECIAL CONDITIONS, above mentioned, which are applicable to Jail Equipment, together with the following shall govern this this Contract. Where anything in these SPECIAL CONDITIONS APPLICABLE TO JAIL EQUIPMENT is in conflict with the General Conditions, or Special Conditions, these Special Conditions Applicable to Jail Equipment shall take precedence and govern.

Article 2 — DOCUMENTS

The Contract Documents are complementary and consist of the Agreement, Advertisement for Bids, the General Conditions, Special Conditions, the Drawings, these Specifications, Proposal, and all modifications thereof incorporated in the documents before their execution.

Article 3 — SEPARATE CONTRACT

Jail Equipment, herein specified, will be contracted for by Owner direct with Jail Equipment Contractor, which Contractor shall not subcontract any part of the work in connection with the Jail Equipment without the written consent of the Owner and Architect. Neither Owner nor Contractor shall assign the Contract without the written consent of the other.

Article 4 — FORM OF AGREEMENT

The form of agreement shall be that of the Society of American Registered Architects, or some other form mutually satisfactory to Owner and Contractor.

Article 5 — DEFINITION OF TERMS

The term “Contractor,” “this Contractor,” “Jail Equipment Contractor,” or “Successful Bidder,” as used herein, shall mean the person or persons, firm or corporation, whom the Architect and Owner have selected to furnish and erect the Jail Equipment herein specified. The terms “Building Contractor,” “General Contractor,” “Plumbing Contractor,” “Other Contractors,” etc., as used herein, shall mean such persons, firms or corporations with whom the Owner may enter into contract for the building and other branches of the work not specified to be included in the Jail Equipment work. The “Architect” and “Owner,” as used herein, are referred to as if each were of the singular number and masculine gender.

Article 6 — LAWS AND REGULATIONS

Should any question arise as to the legality of the Contract Documents, or anything pertaining to the same, including omissions of or irregularities in any advertisements, resolutions, orders, act, etc., in connection with, leading up to, or following the execution of contract, or as to the ability of either Owner or Contractor to legally and faithfully carry out the stipulations and agreements set forth therein, both Owner and Contractor, or either of them, shall pass all orders, resolutions, etc., and do all things not prohibited by law, that may be requested by the other to make possible and insure strict compliance with the provisions of the Contract, and to make the Contract and all things pertaining to same, legal, secure and in accordance with the laws governing. Contractor may cease or modify operations on the work while such questions are pending and unadjusted to the satisfaction of both Owner and Contractor.

Article 7 — DELAYS

Should the Contractor be delayed at any time in the progress of the work by any act or neglect of the Owner or Architect, or of any employee of either, or by any other Contractor employed by the Owner, or by changes ordered in the work, or by strikes, riots, lockouts, fire, unusual delay in transportation, inability to procure suitable labor or materials, unavoidable casualties, or any cause beyond the Contractor’s control, or by delay pending arbitration, or by any other cause which the Architect shall desire to justify the delay, then the time of completion shall be extended not less than the time lost by reason of such delays or difficulties and the Contractor shall not be held liable for any extra cost or delays to Owner or other Contractors by reason of such delays. If no schedule or agreement stating the dates upon which drawings shall be furnished is made, then no claim for delay shall be allowed on account of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claim be reasonable.

Article 8 — RIGHTS OF OWNER

The Owner reserves the right to consider each proposal entirely upon the merits of the Jail Equipment proposed to be furnished by the bidder and to accept any proposal regardless of its price relation to any other proposal and to reject any or all proposals, as the best interest of the Owner may appear.

Article 9 — PATENTS

The Architect has endeavored to avoid specifying herein or showing on the Jail Equipment drawings any exclusive or patented materials, construction, device or mechanism; therefore, the quality of the work, the standard of performance and the construction herein specified or shown on drawings must be strictly adhered to, except for variations and/or substitutions for which provisions are hereinafter made. Any prospective bidder having knowledge of any patented construction herein specified, which in any way limits competition, is requested to promptly advise the Architect of name of patentee, the owner of the patent and the number and issuing date thereof.

Article 10 — CHANGES IN WORK

The Owner, without invalidating Contract, may order...
extra work, make changes in, add to or deduct from the work; the contract sum being adjusted accordingly. All such work shall be executed under the conditions of the original Contract, except that any claim for extension of time, caused particularly, shall be allowed at the time the change is ordered. No change involving additional cost shall be made except upon written order from the Architect stating that Owner had authorized such extra work or change; no claim for an addition to the contract sum shall be valid unless so ordered.

Article 11 — PROGRESS PAYMENTS

Monthly progress payments will be made of 90 per cent of the value of labor and materials incorporated in the work and of materials suitably stored at the building site. Final payment shall be made upon completion and acceptance of the work.

Article 12 — CONTRACTOR RESPONSIBILITY

Jail Equipment Contractor shall be responsible for the execution of his work in strict accordance with approved drawings and specifications and shall be responsible for his errors in shop and field work. Other Contractors shall likewise be responsible for their work being in strict accordance with dimensions and construction shown on approved drawings and shall be responsible for and correct errors in their work.

Article 13 — MANUFACTURER EXPERIENCE

The Jail Equipment called for herein shall be manufactured and installed by a concern experienced in the manufacture and installation of this type of equipment. Bidder shall enclose with his proposal a letter to the Owner, naming and definitely locating five jail or prison equipment installations, fabricated and installed by the bidder which have been in continuous and satisfactory operation for periods of more than five years; in addition, bidders will name, locate and give the date of final acceptance of five other jail or prison equipment installations fabricated and installed by the bidder which embody the same quality tool-resisting steel as proposed for use under these specifications, are comparable in size and of the same character and construction as the work herein specified, and which were completed within the five-year period immediately preceding the bidding date hereunder.

Article 14 — PROVEN EQUIPMENT

Bidders are advised that any material, mechanism or construction which has not been proven in actual jail use over a period of at least three years will not be acceptable hereunder to the Architect and Owner. This applies particularly to the tool-resisting steel grating; the design and construction of door operating and locking mechanism in the control cabinet; the operating mechanism in the horizontal cover box above keyless locked sliding doors and to the actual locking means operating within the vertical lock bar housing at each of such doors. Bidder shall indicate at least three of the above five installations which embody a fully selective door operating and locking system of the same design and construction, which functions in the same manner, as bidder's equipment proposed for use in this project, and as exemplified in bidder's models as required to be submitted hereinafter.

Article 15 — MANUFACTURER PERFORMANCE

The term 'fabricated entirely in the plant of the bidder' shall mean that the bidder performs in his own place of business with his own personnel and employees all manufacturing processes required to fabricate the Jail Equipment specified herein, particularly items such as:

- Heat treating and fabricating all tool-resisting steel;
- Manufacture, assembly and testing of the locking and operating devices;
- Cutting, punching, welding and assembling all open- hearth steel and all tool-resisting steel plate and grating components.

Items such as bullet-resisting glass, jail type key locks, electrical components including motors, switches and relays, shall be the best of its kind and quality, manufactured by a nationally recognized manufacturer of the type equipment required.

Article 16 — INSTALLATION OF EQUIPMENT

The term "installed by the Jail Equipment Contractor" refers to the installation of the Jail Equipment by the Jail Equipment Contractor with workmen of his own training and experience under the supervision of a superintendent regularly employed by him, especially trained and experienced in the erection and installation of this highly specialized type of equipment. The term "installed by General Contractor, Plumbing Contractor, Electrical Contractor," etc., used herein refers to the installation of certain Jail Equipment items by said Contractors which items are to be furnished and delivered to the job site by the Jail Equipment Contractor.

Article 17 — MINIMUM REQUIREMENTS

It is the intention of these specifications and the drawings to stipulate the requirements of Jail Equipment and the functions and construction that will be acceptable to the Owner and Architect. Any substitute function, material, equipment or construction offered hereunder, must meet the high standards specified herein and/or shown on the Architect's drawings.

Article 18 — VARIATIONS

The procedure for bidding on Jail Equipment which varies from that which is specified by Architect and/or shown on the Architect's drawings is for the bidder to list and identify, by specification paragraph and drawing sheet number, where provided for in the Proposal Form, each variation or substitution which the bidder proposes to offer. A bidder offering one or more such variations from the Architect's drawings and/or specifications shall submit to the Architect, when requested by the Architect, the bidder's own specifications and/or drawings, in duplicate, showing and explaining exactly the extent each and every proposed variation listed differs from the Architect's drawings and/or specifications. This data shall be submitted in such form as to properly serve as contract documents in the event bidder's proposed variations are accepted. If a proposal fails to list or identify any such variations therein, the bidder who tenders same, if awarded contract, will be required to furnish and install all of the Jail Equipment in strict compliance with the Architect's drawings and specifications therefor.

Article 19 — PROPOSALS

Proposals shall be made and submitted in duplicate on forms provided herewith by the Architect and shall be addressed and delivered to Owner in sealed envelopes, marked "Sealed Bid for Jail EQUIPMENT in the

at ...................................."

Article 20 — BONDS

Each proposal shall be accompanied by a Bid Bond or Certified Check, payable to Owner, guaranteeing that Bidder will promptly enter into contract and furnish performance bond as required. See ADVERTISEMENT FOR BIDS for further requirements.

Article 21 — RESPONSIBILITY OF CONTRACTOR

With the exception of the equipment to be built into wood, masonry or concrete by the Building Contractor, such as the steel doors and frames set in wood, concrete or masonry walls, all Jail Equipment herein specified shall be installed in place by Jail Equipment Contractor with workmen of his own training and selection, under the supervision of a superintendent especially trained and experienced

The AMERICAN REGISTERED ARCHITECT
in this particular line of work. The steel work herein specified to be set in place or erected by Building Contractor shall be furnished and delivered by this Contractor to building site and there taken and installed in building by Building Contractor at his own cost of such installation to Jail Equipment Contractor. The Building Contractor will set in place all steel doors and frames and other parts to be built into wood, concrete or masonry walls. Necessary openings through the outside wall of building for ingress of all Jail Equipment herein specified shall be left or provided by Building Contractor without expense or unnecessary delay to Jail Equipment Contractor.

All cement floor finish, cement curbs, waterproofing, and other cement work, where shown or specified in connection with Jail Equipment and all painting and plastering on or near Jail Equipment shall be done by Building Contractor after Jail Equipment is completely erected in building.

Where the work of other Contractors is specified not to be finished or where it cannot reasonably be finished, until after the Jail Equipment is installed complete, delays to other Contractors resulting therefrom shall not constitute a basis for damages against Jail Equipment Contractor unless it be shown that he has unnecessarily delayed the progress and completion of his work. Bidders estimating work subject to such necessary delays in connection with erection of Jail Equipment are advised to make allowance for same.

Under normal conditions the Jail Equipment erection shall not be started until the jail area rough slab is broom clean, exterior enclosing walls are in place, exterior windows glazed, and the roof installed to prevent weather damage to Jail Equipment locking and operating mechanisms.

Article 22 — MODELS AND SAMPLES

It is mandatory that each prospective bidder shall submit for the consideration of Owner and Architect in the City of the models and samples specified below before his proposal will be considered. Bidders shall notify the Architect in writing, not less than twelve hours before time of opening of bids, that models and samples are in

1. A dwarf cell front model, including control cabinet, built of full size parts, finished as the bidder proposes to finish such parts if awarded contract, and showing full size cell door hanger and carrier complete; full size horizontal and vertical lock bars, full size locking, selecting and operating mechanism and covering box above cell door; full size construction of side, top and bottom framing members of cell door and cell door opening; all as shown in detail on drawings. The cell front of this model shall be about 7'-0" long but reduced to about 3'-0" in height. The model shall accurately show bidder's method of locking cell doors at top and bottom in both the open and closed positions and the manner in which bidder's cell door construction complies with the security features specified herein and shown on the drawings.

2. The mechanism which coordinates the sequence of unlocking, propelling and locking of door, to prevent incorrect operation of door and locks, shall be exposed to examination through suitable openings in the side wall of control cabinet and in the housing for the mechanism to show clearly the construction, operation and function thereof. Control cabinet may be reduced in height to about 3'-0".

3. A full size corner section of each type of tool resisting steel grating herein specified. Sections to be about 18" square, showing end and side framing members, one horizontal and three vertical members, framed to a section of tool-resisting steel plate on one side, ¼" thick, 6" wide and 15" long. The bars and plate in such corner sections shall be true samples of the quality and kind of steel the bidder proposes to furnish in the actual work, and shall also show method of interlocking vertical and horizontal bars, angle connection to plate, protection angle, framing and riveting or welding.

4. Hub cell front model and samples of steel grating showing full size construction, submitted by bidder to whom this Contract is awarded, shall remain in the custody of Owner for the purpose of comparison with the actual work furnished and will be released to bidder on completion and acceptance of the work; it being understood that all models and samples required to be submitted shall remain the property of bidder submitting same.

Technical Provisions

1. Scope of Work.

   (a) Requirements of manufacturing by the bidder.
   (b) Length of time which device has been proven in actual jail use.
   (c) Operating principles of mechanism.
   (d) Selectivity of cell front doors.
   (e) Locking of doors.
   (f) Door carriers.
   (g) Auxiliary locks and safety devices.
   (h) Requirements of full size parts of locking system to be submitted.
   (i) Type of operation (i.e. Electric, manual, electric-manual, deadlock).
   (j) Door indicator systems.

3. Control Cabinet.

4. Horizontal Covering Boxes.

5. Construction of Swinging Doors Adjacent to Control Cabinets.


7. Laboratory Shop Tests on Tool-Resisting Steel.
   (a) Test to resist distorting pressure.
   (b) Test to resist hack saw cutting.
   (c) Data required to be included in the laboratory test reports on tool-resisting steel rounds and flats.

8. Tool-Resisting Steel Grating.
   (a) Securing of vertical bars.
   (b) Interlocking with horizontal flats.
   (c) Connections of grating and plate work.
   (d) Type of tool-resisting steel to be used.
   (e) Size of diameter of tool-resisting rounds and specifications of tool-resisting flats.

   (a) Securing of vertical bars.
   (b) Interlocking with horizontal flats.
   (c) Connections of grating and plate work.
   (d) Size of diameter of open-hearth rounds and specifications of open-hearth flats.

10. Tool-Resisting Steel Plate.
    (a) Characteristics.
    (b) Type of steel plate.
    (c) Connectors and stiffeners for steel plate.

11. Open-Hearth Steel Plate.

12. Riveting and Bolting.

13. Welding.

14. Cutting Holes in Steel Plate Work for Other Contractors.
    (a) Limiting responsibilities of jail equipment contractor.
    (b) Retention of cutting equipment on the job site.
15. Anchoring Grating and Plate Work to Concrete and Masonry Work.
   (a) Steel plate doors not adjacent to control cabinets.
   (b) Grille work doors.
17. Access Doors.
20. Keys and Key Schedule for all Key Operated Jail Locks.
23. Glass Observation Panels.
26. Food Passes.
27. Jail Type Electric Light Fixtures in Walls.
   (a) Responsibility of jail equipment contractor.
   (b) Responsibility of electrical contractor.
28. Perforated Plate Vents in Walls.
29. Jail Bunks.
30. Tables, Benches and Seats.
31. Wood Benches.
32. Shower Stalls.
   (a) Construction including galvanizing.
   (b) Drains to be furnished by jail equipment contractor.
   (c) Installation to be performed by plumbing contractor.
33. Safety Clothes Hooks.
34. Padded Cells.
   (a) Speaking panels and hardware.
   (b) Padded area.
   (c) Hammock.
   (a) All equipment set in place by jail equipment contractor.
   (b) Use of experienced personnel.
   (c) Requirements of cement floors and floor finish.
   (d) Commencement of erection of jail equipment after rough slab is broom clean, exterior enclosing walls are in place, windows glazed, and roof installed to prevent weather damage to the locking and operating mechanism and other mechanical parts of the jail equipment.
36. Painting.
   (a) Primer.
   (b) Painting of cover panels, cover boxes and control cabinets.
   (c) Treatment of burns, weld spatter, exposed field rivets, water-proofing, etc.
   (d) Painting of jail equipment after erection.
37. Guarantee.
   (a) Items guaranteed.
   (b) Number of years of guarantee.

Welcome

Continued from page 5

as a whole. Policies are formed by the creative efforts of each individual member and are voted upon and put into action only after due consideration of the mutual benefits to be derived from them for the good of the profession as a whole.

Membership reinstatement may be acquired only by a vote of the Executive Board.

In cases of extreme hardship, deferment of dues may be granted enabling the member to continue his active status so that he may not lose contact with the A.R.A. and its activities in his behalf. A.R.A. needs the continued support of all architects at all times so that they may not lose touch with what is being accomplished.

Use of the Initials A.R.A.

Membership in the A.R.A. entitles a member to use the initials A.R.A. on his drawings, signs, letterheads and in normal use following signature. It is restricted only in the case of personal advertising. Title blocks on drawings may also carry A.R.A. in conjunction with the member's name or firm. Use of the initials or insignia is prohibited to non-members or to former members. Newspaper items may carry the member's name in conjunction with A.R.A., providing the member sends a clipping of the news item to National Headquarters for its files.

The Standards of Professional Practice

Competition with a fellow architect must be only on the basis of quality of service. Competing on a basis of professional fees, offering of free professional services, personal advertising, bearing false witness against a fellow architect, attempting to supplant another architect commissioned on a project, are deemed unethical.

Dividing fees with non-professionals, acceptance of gratuities or other concessions from manufacturers, suppliers or contractors is prohibited.

First interests of the architect shall be those of his client. He may not accept payment on account for any job, project, other than his contracted fee, from his client.

The architect is obligated to conform to the requirements established by the state licensing boards for the practice of architecture, to the ethics inherent within the profession as established by the A.R.A., and to the primary interest of his clients.

The architect therefore agrees and subscribes to the Architect's Oath of Profession.

A.R.A. Annual Dues

All dues are based on a January 1 to December 31 fiscal year. Suspension for non-payment of billed dues becomes final after April 1, following the fiscal year.

National A.R.A. dues $15 per year

NOTICE

A.R.A. members are requested to send news items about their activities and A.R.A. activities in their area to the publisher for inclusion in future issues.
authorize the development of a prestressed concrete member meeting the following criteria:

1. The member must have sufficient structural capacity to carry roof or floor loadings with spans up to 100 feet.
2. The member must furnish a flat soffit with a surface acceptable as a finished ceiling.
3. It is highly desirable, from the standpoint of total building economy, that the unit provide space for carrying building utilities, including air conditioning, heating, plumbing, electrical conduit, and telephone lines.
4. The member must have a configuration which will allow it to be erected into multi-storied buildings using existing construction erection procedures and equipment.
5. It is also considered desirable that the unit shall have sufficient flexibility to allow its use as a vertical wall member. For this use, the member must have adequate heat and sound insulating values and for exterior walls, be crack-free.
6. Member must have sufficient fire-resistive qualities to pass standard Underwriter's fire tests.
7. Production of the member must be on an economically competitive basis. It must use a minimum of materials for maximum load carrying ability, and the production facility and procedure to be utilized must be sufficiently simple and adaptable to automation, to permit a minimum labor cost as well as a reasonable capital investment. It follows, of course, that the product shall be sufficiently easy to handle and light in weight to permit minimum hauling and erection costs.

The section ultimately proposed to meet the above criteria is a hollow flat slab of prestressed concrete now known as Dynacore. This member is now produced in widths up to 8 feet and depths to 24 inches for spans up to 100 feet clear. It contains in its 8 foot length, four (4) continuous filleted rectangular voids, each 20⅞ inches wide and 21⅞ inches shallower than the depth of the member. It is prestressed longitudinally with 1/16 inch strands deflected in the vertical webs. Furthermore, the member is prestressed transversely with .182 inch strands on 10 inch centers in the 1⅛ inch and 1 inch top and bottom flanges respectively.

Dynacore is ideally suited for use in the floors, roofs, and walls of many types of structures. Due to its extremely low dead weight (approximately 33, 46 and 48 pounds per square foot for the 12, 20 and 24 inch deep members respectively) this product will find considerable application in high-rise as well as one and two-story constructions of many types.

In addition, the large void areas may be used for much of the mechanical and electrical equipment, and provide natural ducts for movement of air through the building.

The design of Dynacore was one thing, but producing it was an entirely different matter. Three full years were invested in the design of prototype equipment before we were ready to invest in a full-scale plant. This plant has now been built at Lockport, Illinois, and we are in full production.

for extended coverages = $.11 total per $100.00 insurance.

The obvious answer from this information would be to build all buildings of fire-resistive or fireproof construction. Unfortunately, this is not practical. Naturally, every building cannot be designed strictly from a fire insurance standpoint. But if the prospective client has some of the facts in advance, perhaps he could be shown how better construction, even though the initial cost is quite a bit greater, could pay for itself through lower fire insurance premiums. If he is not interested, at least you have shown him the facts, and left the decision to him.

However, many times the architect can save the owner many years of higher insurance premiums without increasing the cost of the building, or with very little extra expenditure. Here are four ways to do this.

1. Do not use too many pipe or steel columns in masonry buildings. Usually you can use up to 25 per cent of the wall area of a building in steel and glass or incombustible walls, without affecting the coinsurance of the building. Since steel has a poor record in fires, buckling at quite low temperatures, it grades the same as frame walls for coinsurance purposes. If you use over 25 per cent, the building then takes an average coinsurance of brick and frame (17½ per cent reduction instead of 25 per cent) or fire-resistive and frame (40 per cent instead of 70 per cent). In large value buildings, this can really hurt pocket books. Find out what the limit is in your area.

2. Avoid combustible ceilings under steel deck roofs. This usually makes an incombustible building rate as a brick building, with much higher rates for the insured. It might also be very hard to explain if the owner finds out he could have had much lower rates with little extra expenditure.

3. Do not use combustible ducts on heating or air-conditioning equipment, even those under concrete floors. There is a heavy penalty in the insurance rate for this feature. Even though the initial cost is higher, all incombustible ducts will soon pay for themselves and the insured will be paying for combustible ducts for the life of his building, which is a long, long time.

4. Never use a combustible vapor seal on steel deck roofs with insulation on top. If you want to know the reason for this, read the story of the General Motors fire at Livonia, Michigan. Here again, this feature results in a severe penalty in the insurance rates. (There are, incidentally, several vapor seals listed by Underwriters' Laboratories, Inc., which do not carry a penalty).

It is, of course, impossible to explore this field completely in one article. If in doubt, consult an expert. You may save the owner a lot of money and yourself a lot of embarrassment.
The Ocean-Born Mary House

EDITOR'S NOTE: Mr. John C. Parker, A.R.A., a Massachusetts architect, is a noted authority on New England folklore and 18th Century architecture. His complete knowledge on these subjects is shown in his most interesting charcoal, ink and watercolor renderings of New England "ghost houses" and historical buildings. In our next issue we will present a complete set of his works, including ink and charcoal sketches, history and folklore surrounding each site, and a brief architectural explanation.

HENNIKER, NEW HAMPSHIRE
The ghost of Ocean-Born Mary is said to return to this house.

This beautiful gentleman's town house was built, according to history, in 1767, by Major Robert Wallace, eldest of three sons of Mrs. Thomas Wallace (she is Ocean-Born Mary) when he was 30 years old.

According to the legend of this house, which has much factual proof, this house was built by Pedro, Captain of the Pirates, who personally selected this mountainside site, at Henniker in Merrimack County, New Hampshire, with its beautiful views set amidst a grove of large birches.

The writer would like to know which of these two did build this beautifully proportioned house, but would rather have the answer to the question as to how this town house that belongs with the best at Portsmouth, N. H., or on High Street, Newburyport, Massachusetts, ever got to this wild and lonely terrain in 1767. An oak timbered farmhouse yes, but certainly not this gem of colonial culture.

This house resembles the best of the pre-revolutionary period. Besides its beautiful proportions and stately grace, the great windows with rare projecting frames, are a hallmark on this beautifully wrought facade. The stately chimneys and well handled dormer windows show the hand of a master architect.

If you visit the house (open from the end of April to the end of October) and are taken on a "tour" by the owner Gus Roy, ask him about the well, the apparition of Mary, and the Coach and Four.

Bulletin Board . . .

Continued from page 3
seeking employees, or employment. Advertisements should be addressed to the

BULLETIN BOARD
c/o Tolar House Publishing Inc.
13320 Enterprise Ave.
Cleveland 35, Ohio

WANTED: Architect-Top Designer for one of the Nation's largest Planning, Architectural and Engineering Firms, located in California. Involves exciting variety of projects including planning entire cities, commercial, industrial and institutional projects plus complicated and unique facilities of the new space age. This designer must be thoroughly experienced in all phases of design, modern technology and aesthetic trends; must be creative and enthusiastic; have the ability to lead, inspire and direct other project designers. Salary depends on capability and experience. Should be available in 30 to 90 days. U. S. Citizenship required. Applicants please submit concise resume outlining qualifications to Bulletin Board, Tolar House Publishing, 13320 Enterprise Avenue, Cleveland 35, Ohio.
Application for Membership

SOCIETY OF AMERICAN REGISTERED ARCHITECTS

(1) FULL NAME: ____________________________

LAST FIRST MIDDLE

(2) ADDRESS for Society Records: ____________________________

(3) DATE OF BIRTH: ___________ Place of Birth: ____________________________

(4) ARCHITECTURAL REGISTRATION: ____________________________

NAME OF STATE REG. NO.

OTHER STATES

(5) CURRENT STATUS: (check one)

☐ Practicing Architect (principal or partner) ____________________________

NAME OF FIRM

☐ Employed Architect: ____________________________

☐ Other: ____________________________

GENERAL INFORMATION

(A) Education and Experience: ____________________________

(B) Current Membership in other professional societies or organizations: ____________________________

(C) Miscellaneous: ____________________________

(SPECIAL AWARDS, RECOGNITION, ETC.)

(D) Have you ever previously been a member of the ARA? (YES OR NO) ____________________________

(6) The undersigned, being a Registered Architect in good standing, and having met the GENERAL CONDITIONS OF MEMBERSHIP appearing on pages 5 and 24 of this publication, does herewith apply for membership.

Date ____________________________ Signed ____________________________

Return this application with $15.00 Annual Dues to:

Society of American Registered Architects · P.O. Box 4371 · Overland Park, Kansas
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