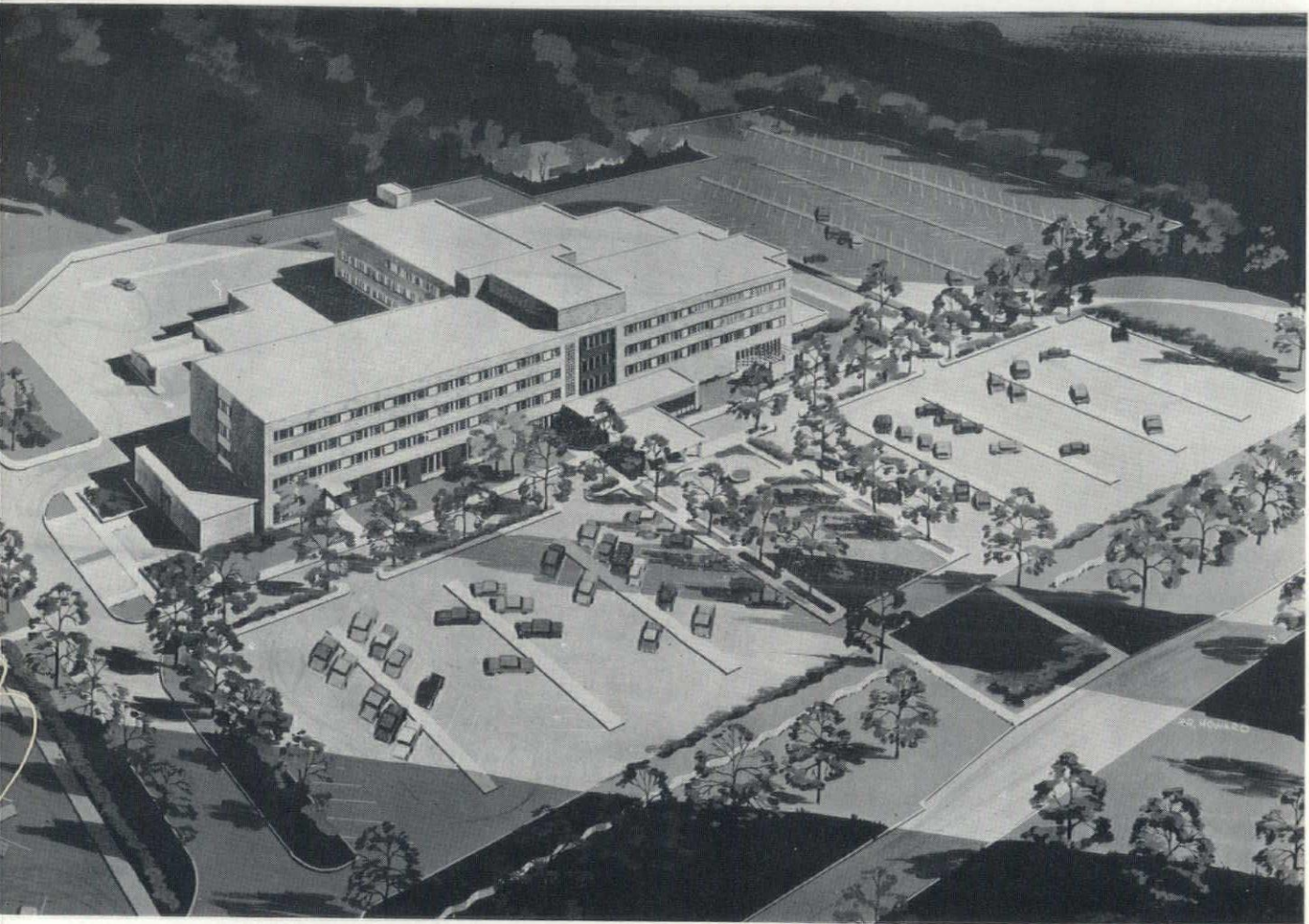


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Charles F. Kettering Memorial Hospital

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July-August

Volume XXII

Number 4

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which will include—Full Convention Program
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From the Desk
of the Executive Director

Members

Architects Society of Ohio

I accept the assignment to the position of Executive Director of the Architects Society of Ohio with deep humility and a fervent prayer for strength and guidance to attain success. I realize that as a layman to the Architect's profession, I do not have all the solutions to the many problems that will arise concerning the architectural field, therefore I accept also the assistance already afforded me so graciously by very competent architects and their offer to aid me in the future.

The ASO office will be open to Architects in the State of Ohio and any assistance or guidance desired by any member of the Society will always be available. I personally will be available whenever needed by a member. Please feel free to call upon me at your discretion. I hope to be able to broaden our services to the profession.

The publication of The OHIO ARCHITECT will continue with the same high standard of quality. It is my hope, as time goes on, to gradually expand the magazine, broaden its news coverage, strengthen the advertising picture, and expand the local chapter news articles. I plan to keep The OHIO ARCHITECT in the prestige magazine status with a dignity that becomes a publication representing a profession deserving no less than this. I will welcome your suggestions and criticisms from time to time hoping that you as a reader will let me know the items you like in the publication and the changes or additions you would like to see made. The use of color to a greater degree, when economically feasible will be a goal of mine, also the incorporation of unique, attractive covers that will not only lend prestige to our publication, but will draw greater reader interest.

I am looking forward to working with the Architect's Society and all its members. I hope that I, with my wife Betty, and our three boys; Bruce, Brian and Brad, may meet all the members of the Society as soon as it is physically feasible. My family will be moving to Columbus just as soon as suitable living quarters are available, until such time I shall be commuting on week-ends to my home in New Philadelphia, Ohio.

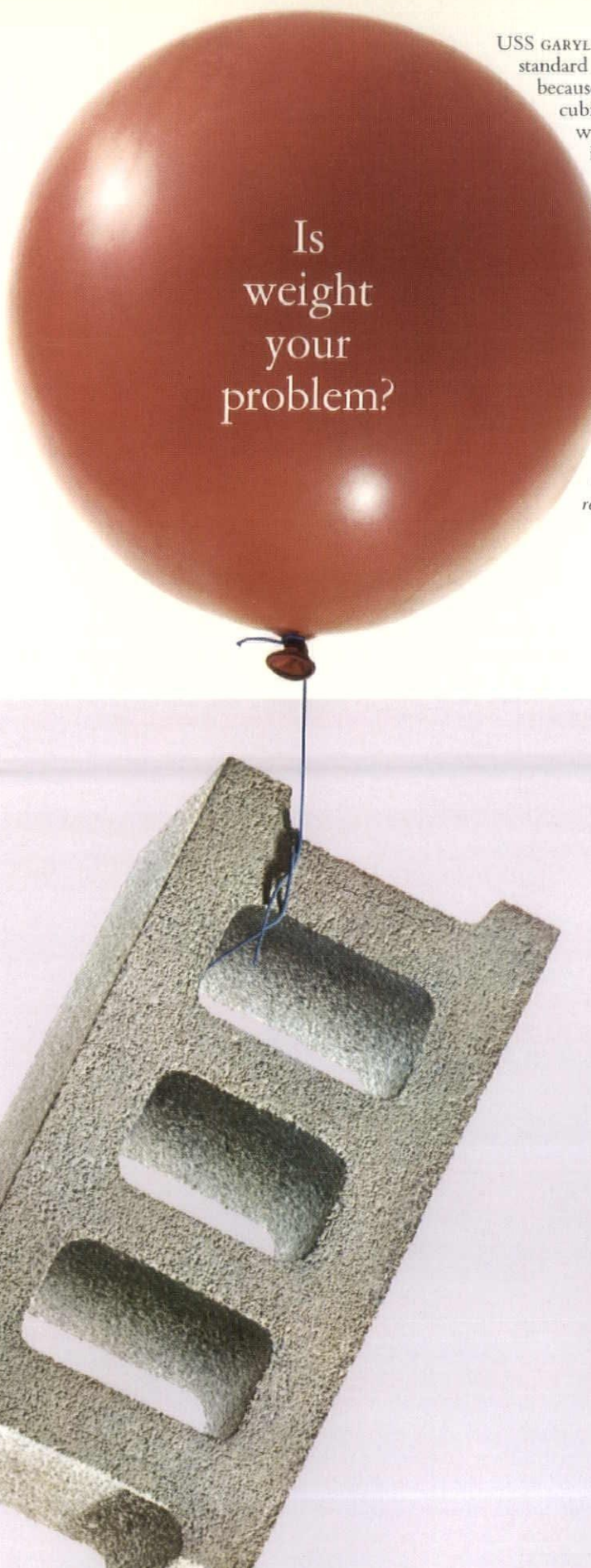
I would like to take this opportunity to thank all the Board members and the screening committee for the confidence expressed in me by appointing me their Executive Director. I shall endeavor to do my utmost to fulfill this confidence.

I am at your service —

Sincerely,

David A. Lacy

David (Dave) A. Lacy,
Executive Director



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CHARLES F. KETTERING MEMORIAL HOSPITAL

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420 Third National Bldg., Dayton, Ohio 45402

Potter, Tyler, Martin & Roth, Consulting Architects
128 E. 6th Street, Cincinnati, Ohio 45202

Helmig Lienesch & Associates, Consulting Engineers
228 East First Street, Dayton, Ohio 45402

Richard R. Iuen, Food Facilities Consultant
9394 Montgomery Road, Cincinnati, Ohio 45242

James H. Bassett, Landscape Architect
1504 Cook Tower, Lima, Ohio

There are four public entrances to the Charles F. Kettering Memorial Hospital nearing completion on the Kettering Estate in Kettering, Ohio, just south of Dayton. The Main Entrance on Southern Blvd. for visitors, the Admitting Entrance for patients arriving on a pre-scheduled reservation, the Out Patients Entrance for those coming to the hospital for special treatment and the Emergency Entrance. Besides these, there is a Doctor's Entrance and a large receiving dock and entrance where all material and supplies enter the hospital.

Each entrance is distinctly different as it should be, since each serves a different purpose. The main entrance, protected by a large and substantial porte-cochere with solid red brick columns and spreading horizontal blue porcelain fascia, gives the visitor a feeling of security as he enters the main lobby.

The Out Patient's Entrance on the southern end of the building on the other hand, is open and sunny all the day. It is approached through a flag stone patio with benches, planting and shaded by a beautiful pagoda tree.

The Admitting Entrance provided specifically for those coming for a stay at the hospital is again like the Main Entrance, covered. The protection against the elements here, is a long curved folded plate grey reinforced concrete canopy with painted steel column supports.

Lastly, the Emergency Entrance is protected with a grey reinforced concrete folded plate roof supported on one end by the hospital building and on the other by solid red brick wall, on which large aluminum letters clearly identify it. Since many will arrive here by ambulance, this is also a porte-cochere which allows vehicles to drive

under it for protection and the patterned brick wall serves both as a support for the concrete roof as well as a screen for the parking lot adjacent.

The paramount idea which guided the Architects in designing the hospital, was patient comfort.

The building is constructed of reinforced concrete with exterior walls of mottled glazed brick in a range of soft grey colors. The main entrance has walls of deep red granite cut in cubes and floor to ceiling glass windows. The red granite is also used in large panels to accent the windows on the first floor and the center area above the main entrance. Varigated red brick which blends harmoniously with the granite has been used as accents on the hospital building proper while the heating plant, maintenance garage and enclosing serpentine wall screening the park-



Front facade Charles F. Kettering Memorial Hospital

ing areas from Southern Blvd., are constructed entirely of this material. The visitor enters the hospital directly into the carpeted lobby and waiting area. Here is a large handsome information desk of walnut wood and black formica set against a long screen of walnut wood embellished with walnut travertine marble panels. On one side of the screen is a portrait of Charles F. Kettering for whom this building has been erected as a memorial. Just off the lobby is a small, simple and beautiful walnut paneled chapel adorned with stained glass windows and open for everyone, patients, visitors and staff.

A very unusual gift shop is off the main lobby where the visitor and patient may find many interesting, unusual and unique gifts as well as merchandise usually available in this area.

The walls of the lobby are finished in Japanese grass cloth in tones of beige with a vert antique marble baseboard. The ceiling is acoustically treated with recessed lighting. Comfortable upholstered chairs, sofas and walnut furniture have been provided for visitors.

Down a corridor is the Snack Shop, a bright sunny room decorated in blues and white with touches of green, where visitors may obtain refreshments while at the hospital. The glass walls of this room open onto a flag stone patio screened by staggered red brick walls and planting. Here the visitor may dine out of doors in pleasant weather.

The main or entrance floor contains the administrative and business offices and all the working departments of the hospital; surgery, pathology laboratories, radiology, admitting, physical medicine, out patients, emergency, central supply and pharmacy. Here also is the medical records department and a large handsome medical library. The inter-relation of one department to another was carefully considered when designing was in progress. Each department has been laid out to work as efficiently as possible and each has been provided with the most advanced equipment available today. Several have unique features and all are planned to make the patient as comfortable as possible.

The layout of the surgery department is especially unique. This department contains eight operating rooms plus a larger operating room especially designed for open heart surgery, and an orthopedic room, making a total of ten. It is so arranged that the patient enters the operating room from a patient's corridor while the doctors and attendants enter from a central sterile area. Walls in this area are floor to ceiling ceramic tile, soft green in color and the floors are conductive pure vinyl tile. There is a large recovery room included for post-operative observation. Nearby are doctors and nurses lockers and lounges and facilities for the surgery club; a comfortable waiting room for relatives of patients in surgery. Central Supply, where so much of the supplies and equipment used for operations originates, is connected by a door.

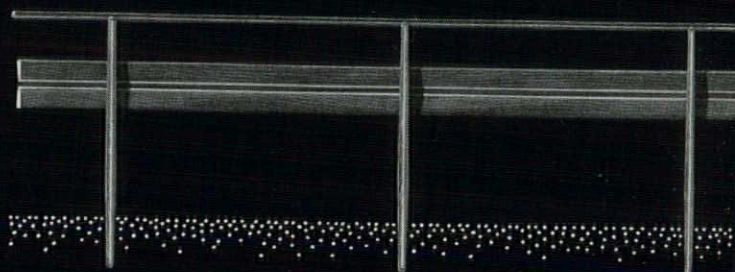
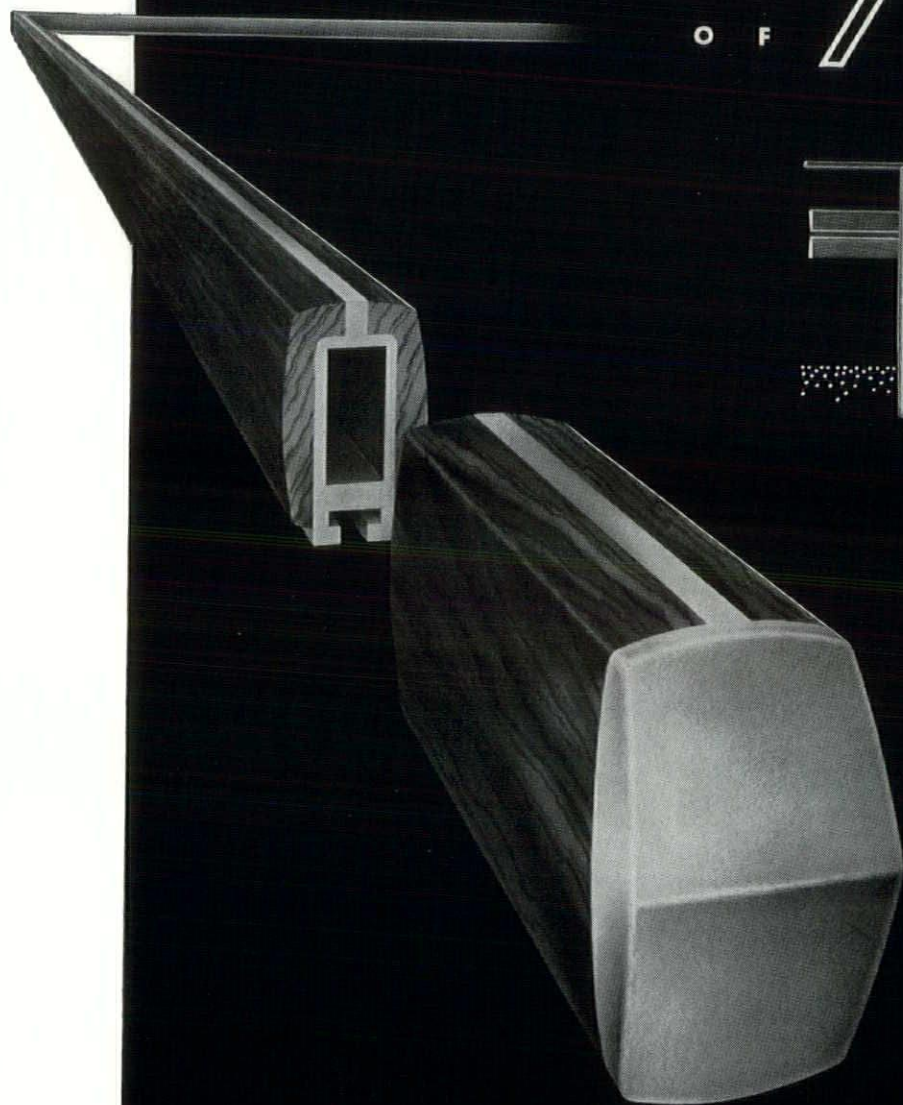
Pathology laboratories across a corridor from surgery, gives the pathologist easy access during operations. Here the blood bank is located and the department includes a small library, a special research laboratory with an animal

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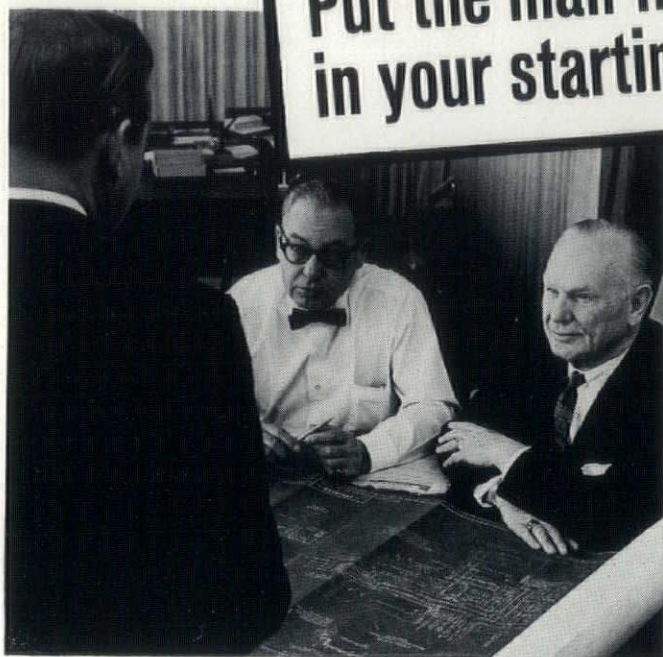
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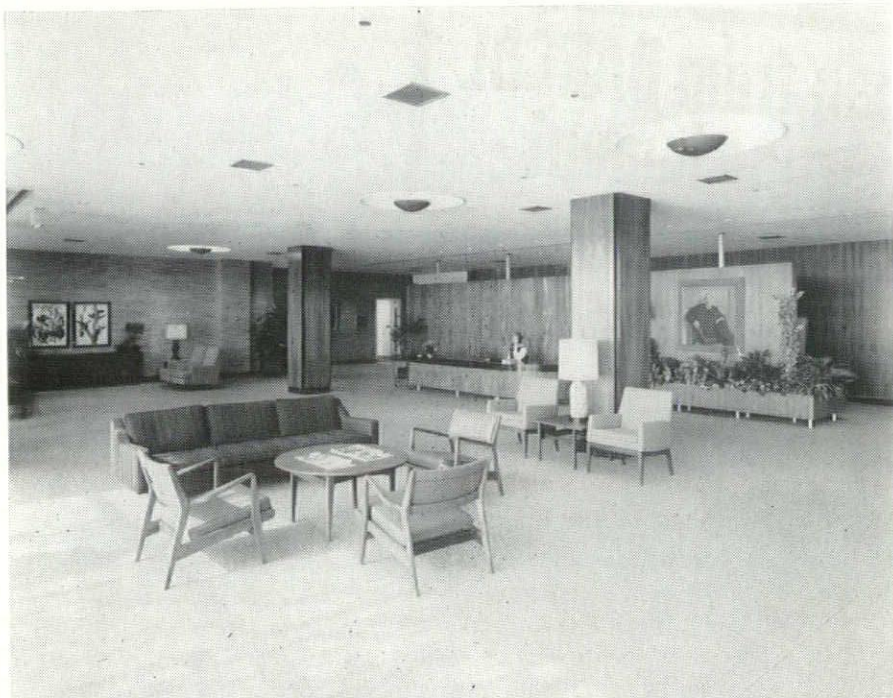


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Main lobby Charles F. Kettering Memorial Hospital

room and the autopsy room.

The Radiology layout is similar to surgery with a patient corridor completely around the four X-ray rooms. The work area is in the center with film developing, barium kitchen and control panels around a center corridor. There is a special door to X-ray from the emergency department so that emergency patients may have easy access. A special waiting room for patients requiring X-ray therapy with private dressing rooms included exclusively for them, has been provided.

Wherever possible, mechanical conveyors have been utilized to transport people, food, equipment, supplies, drugs and every conceivable object needed to run the hospital. Food is delivered from the kitchen on the ground floor to the patient floors on carts by means of fast dumbwaiters. The trays of soiled dishes are returned on an endless tray-veyor to the dish washing room.

Two banks of high speed elevators carry visitors, patients, doctors and nurses from floor to floor efficiently and fast. There is a freight elevator on the receiving dock to deliver materials down to the ground floor or send it up for shipment.

Drugs from pharmacy are sent by dumbwaiter to the nursing floors and central supply has a special dumbwaiter to transport supplies vertically. A pneumatic tube system connect all the key areas and departments of the hospital.

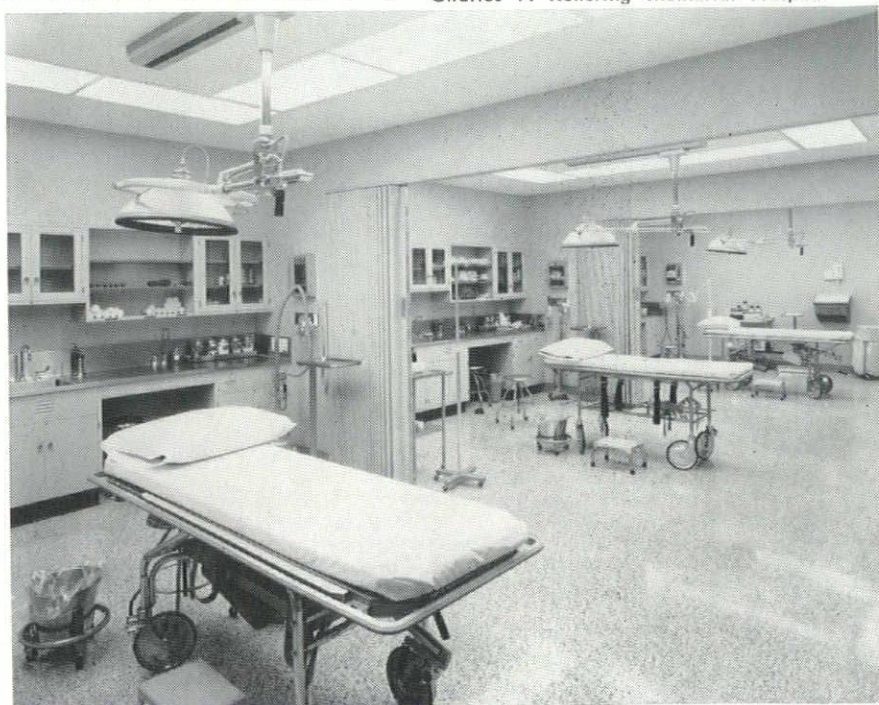
Stairs lead off the lobby down to the ground floor or elevators descend to a large lower lobby or foyer which serves both the cafeteria and the medical lecture hall.

The cafeteria which serves meals to the employees and staff is designed to accommodate 200 at one time. It is

entered through doors in a glass and oak partition from the foyer. Oak paneling combined with walls covered with a soft green material on which a geometric design has been applied, combine to make this a very pleasant place in which to dine. The serving square has walls of pale yellow ceramic tile. Recessed sliding matching oak doors can be pulled, closing off this area for special occasions and banquets. Certain areas can also be divided off with folding oak doors which match the paneling for smaller luncheon or dinner groups. The ceiling is acoustically treated and the lighting is recessed, supplemented by four handsome bronze chandeliers which combine direct and indirect lighting.

A private dining room has been provided which accommodates up to 50 complete, with a serving pantry. Here the paneling and wainscoting is oak and walls painted aqua color. The carpeting is deep tones of blue and green with coral white reminiscent of the Caribbean Sea. Walnut tables and chairs with black seats and backs add to the quiet dignity. The indirect lighting is supplemented by four white six branch chandeliers accented with brass decoration. One wall has been provided with a movie screen and blackboard which when not being used, is shielded by a handsome floor to ceiling curtain.

General view—Emergency operating room Charles F. Kettering Memorial Hospital





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Staff and employee dining room Charles F. Kettering Memorial Hospital

room has a bathroom with a white Vermont marble shower stall and each semi-private room, a private toilet and lavatory. The decor of each room in each nursing unit is different.

Each patient, except those in the four bed wards and intensive care units, has a bedside unit that allows him to perform for himself many of the services ordinarily accomplished by a nurse or an aid. He can turn on and off the radio or television, raise or lower his bed and draw his own ice water. Each private and semi-private bed has been provided with a telephone.

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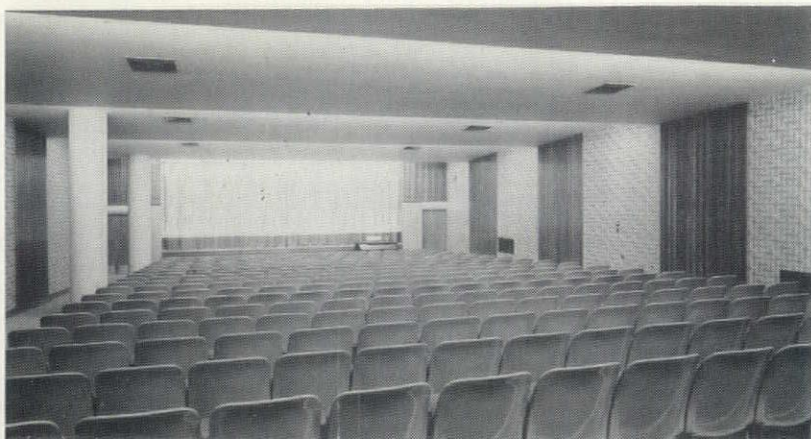
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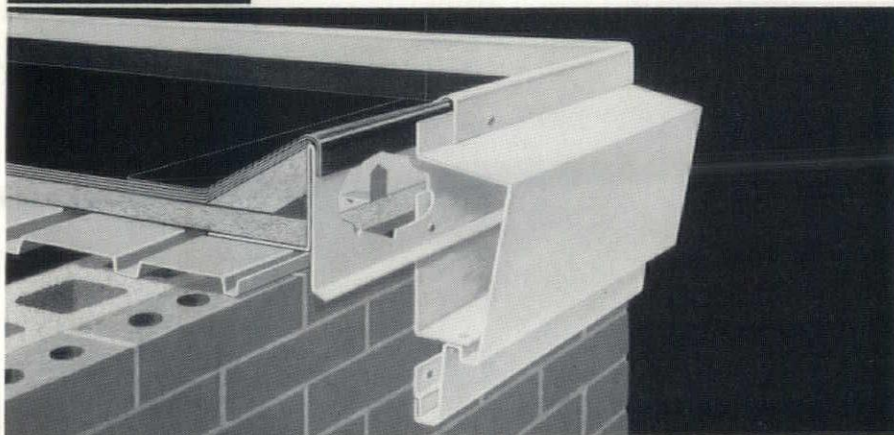
OHIO ARCH

The fifth floor now under construction, will be similar to the floors below in plan; however the exterior walls instead of being brick are aluminum curtain wall with red granite aggregate panels. Three special lounge rooms have been provided, one for each nursing station and these will be finished in different decors. On the south and north wings open terrace porches have been provided so that the patients may sit outside on pleasant days. The south wing also has a large glass solarium. The fifth floor will contain many more private rooms than the other floors. One wing will be devoted to self-care patients, particularly those in the hospital for series of tests or convalescing from long illnesses.



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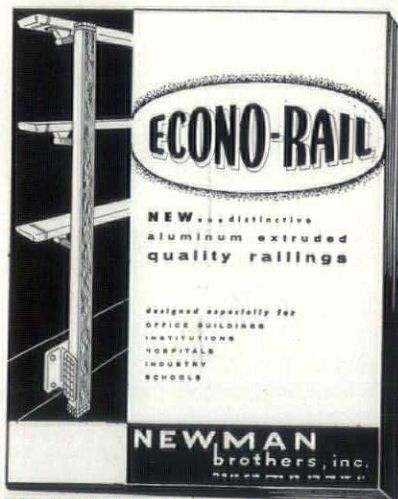


Mr. Charles J. Marr, FAIA, was elected Ohio Regional Director at the National AIA Convention held in St. Louis, Missouri.

Mr. Marr is President of the architectural firm of Marr, Knapp and Crawfis whose offices are located at 138 Ray Avenue, NW, New Philadelphia and 1475 Lexington Avenue, Mansfield, Ohio.

Mr. Marr has been active in state work, serving as President of the Architects Society of Ohio in 1957-58 and holding other offices in the State Association.

He was born in Kittanning, Pennsylvania, November 12, 1897. Mr. Marr holds a BA Degree and some of his principle jobs are Evangelical and Reform Church, New Philadelphia, St. Johns Reform Church, Dover, Ohio. Nobel County Court House, Caldwell, Ohio, New Philadelphia Public Schools, Union Hospital, New Philadelphia and Zion Lutheran Church, Canton, Ohio.



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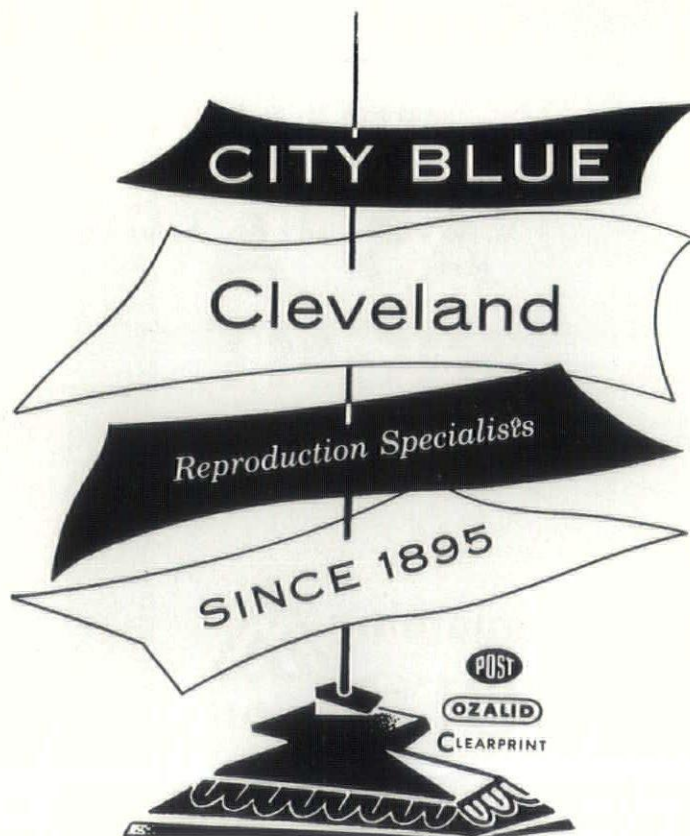
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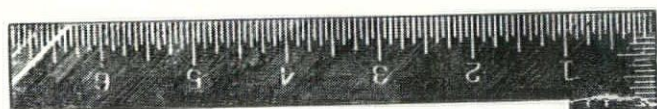
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Page 16

Fallout Shelter Courses Offered

Fallout Shelter Analysis courses will be offered by the Office of Civil Defense in selected Ohio cities during the Fall, provided at least 30 architects and engineers enroll for each course.

Probable locations for these courses include Columbus, Dayton, Cincinnati, Cleveland, Toledo, Youngstown, Akron, Lima, Mansfield, Zanesville, Portsmouth and Lorain; but any other city will be considered if demand justifies it.

Beginning in September or October, the courses will be scheduled one night a week or on Saturday for 14 weeks. They will be conducted by University professors who have been specially trained by the Office of Civil Defense. There is no tuition charge and all text and reference materials are provided free.

The Fallout Shelter Analysis course covers effects of nuclear weapons, attenuation of nuclear radiation, structural shielding methodology, shelter criteria and environmental engineering, compartmental structures, apertures and entrances, quick approximate methods of determining protection factor, and shelter planning and design.

To attend, an applicant must be a registered architect or engineer, or hold a Bachelor's degree from a recognized school of architecture or engineering. Those successfully completing a course will be certified as Fallout Shelter Analysts by the Office of Civil Defense and their names listed in National and Regional directories. They will also be kept abreast of technical developments in the field of fallout shelter design through mailings and periodic updating workshops.

Since Spring 1963, 11 Fallout Shelter Analysis courses have been given in Columbus, Cleveland, Dayton, Cincinnati, Akron, Toledo and Youngstown, and each has had good attendance. Over three hundred courses have been conducted in metropolitan areas Nation-wide, as part of the Office of Civil Defense architectural and engineering development program.

To enable the Office of Civil Defense to determine the extent of interest in this training and to select specific locations in Ohio for the courses, an architect or engineer who anticipates attending is asked to furnish his name, mailing address and course location preferred, with second choice shown, to the Director, Training and Education, Office of Civil Defense, Region 2, Olney, Maryland.

For convenience, interested persons may wish to use the form below.

Director, Training and Education
Office of Civil Defense
Region 2

Olney, Maryland 20832

I am interested in attending a Fallout Shelter Analysis course if offered in

(1st choice) _____

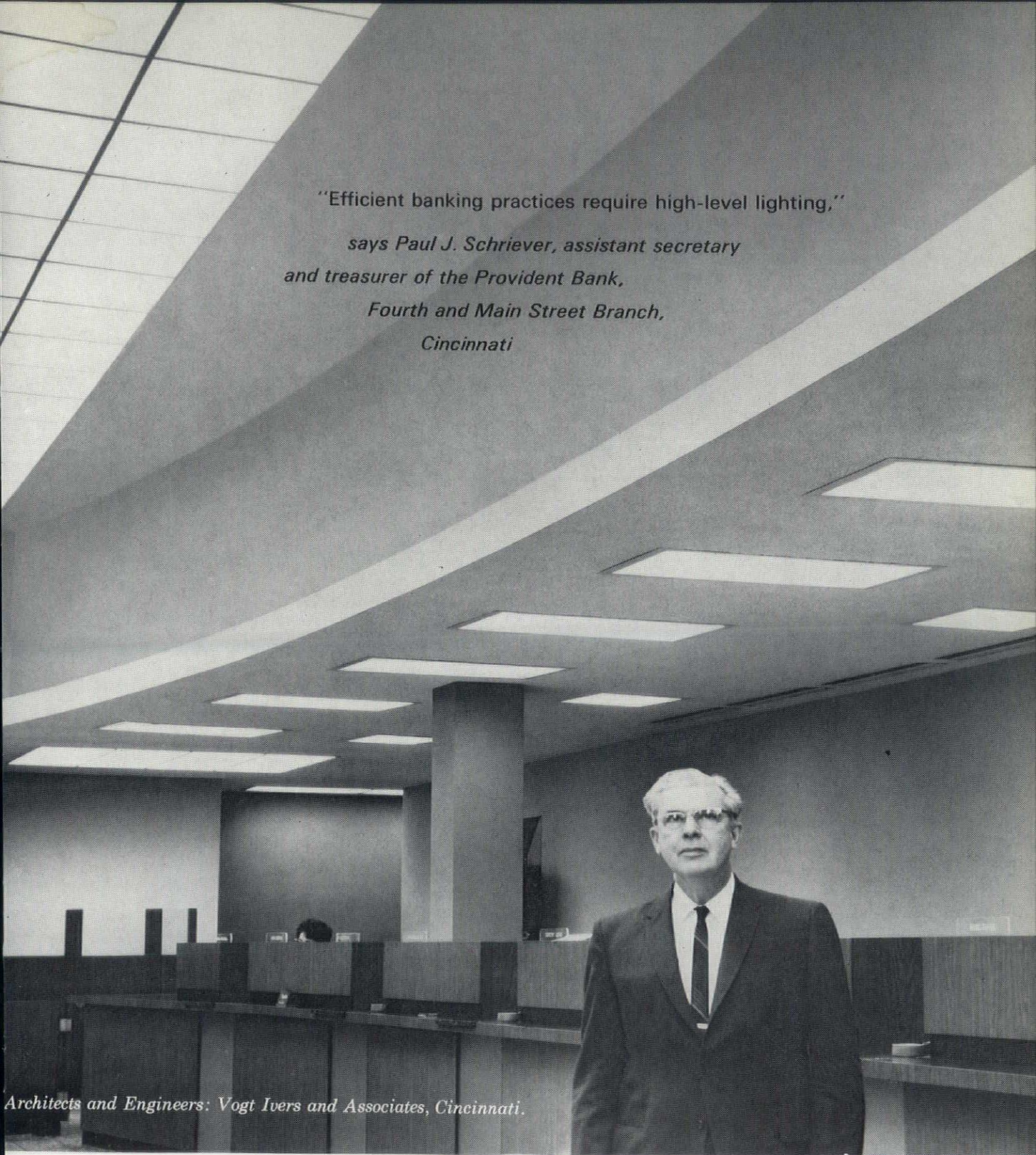
(2nd choice) _____

Name (Print) _____

Mailing Address _____

(Signature) _____

OHIO ARCHITECT



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Problems Encountered in the Completion and Maintenance of New Buildings

By: Walter L. Hartman

A multi-million dollar rocket falls to moon a dud and Professor John Doe's room is cold.

What is the similarity? A mechanical or electrical defect existed in each case. What is the difference? Professor John Doe makes a lot more fuss about his cold room than all of the taxpayers put together do about their million dollar dud.

Theoretically we take over a new building from the Architects and Contractors on a certain date and everything is complete and ready to go, and all of the problems are solved.

They have troubles. What are these troubles? Let's look at some of them starting with the little ones and ending with the big ones.

Our first little problem we will name—

1. Equipment Defects:

In spite of today's advertised quality control much of the equipment is defective when we get to it. What causes this? Let's take a careful look at a few detailed items.

a) Antifriction Bearing Failures

With antifriction bearings we find that in our new buildings the failures are about as follows:

- 50% fail from over lubrication
- 10% fail from misalignment
- 10% fail from poor application
- 10% fail from loose inner bearing races
- 20% fail from all other causes

A quick mental calculation and you will say someone should have kept his cotton picking hands off the grease gun. How did it happen? Let's look at a typical case—

The job specs say the Contractor shall lubricate all bearings. The Contractor's foreman says Joe get some grease and lubricate those bearings. Joe goes to the filling station and gets the best oil and grease he can buy and lubricates those bearings. Now thru this extra effort we are sure of 50% or 60% ball bearing failures. That expensive detergent oil washed all of the graphite out of the impregnated bearings so we get near 100% failure here. What should Joe have done? He should have covered the bearings with pieces of plastic to keep the water out during construction. He should have kept his cotton pickin' hands off the grease gun and used cheap machine oil in the impregnated bearings.

Here is another dandy that always catches our men. The manufacturer puts grease fittings on a motor with sealed bearings. Our men carefully grease the motor and thereby ruin the bearings. Another dandy that always catches the contractors. Gear reducers are shipped with a solid plug in the place of the breather plug. The breather plug, of course, gets lost and is not installed. Thus when the unit is operated it gets hot, blows its seals, and we have a ruined gear reducer.

The manufacturer could help us all if he would put some lubricating instructions on the equipment with something besides cheap paper that falls off when it gets wet. Something that your men and our men can read.

b) Misalignment

I have in my hand a \$25 magnetic holder and

dial indicator that makes the alignment of rotating machinery an easy job. I find that any good mechanic with several hours instruction can do a good job of checking alignment with this simple device. Good alignment can add years to the trouble-free life of equipment. A pump properly applied and aligned will run 10 years with no attention. The same pump misaligned will whip itself to pieces in less than one year.

c) Missing Parts

This is a problem that is not as bad as it was a few years ago. Now it usually turns out to be the item that everyone thought the other guy was going to furnish. It is time consuming and frustrating. A typical example is a chemical feed pump. The manufacturer says it must have a relief valve. He did not ship it and the contractor did not buy one. The result, a damaged pump or a serious delay.

d) Defective Parts

This item fits in closely with missing parts. It is a tough one to pin down because there are many external conditions that can damage parts. The cost of the part is usually small but the loss of time and the labor cost is high.

Recently we have had a rash of poor electrical equipment on air conditioners.

Excessive Vibration and Noise

This is a tough problem—Often to solve these problems we must call in a specialist. Formerly it often meant sending the item back to the factory. There has been some very real advances in this field recently. I R D, International Research and Development Corporation, in Worthington have on the market electronic equipment that does a very effective job on field vibration problems.

2. Material Problems (5a)

This little problem I am sure bothers contractors a lot more than it does us.

Here are a few that we find quite troublesome.

a) Wrong Material

There is an endless list of these items:

Right hand instead of left hand as ordered.
Brass finish instead of chrome.

Wax gaskets instead of rubber gaskets.

The list is long, costly and time consuming, but we find most suppliers very gracious about making corrections. In many cases we find that we have been specifying the wrong material. In a recent case it took 3 years and many long distance calls to find that we had been using the wrong nomenclature for a special toilet repair part. We have joined the City of Columbus in outlawing cast iron pipe for water mains. We cannot afford the cost of repairing so many broken cast iron lines especially where they enter buildings.

b) Defective Material

This is not as serious as it was a few years ago. I think that manufacturing quality control is paying off with improvements in most of our basic materials.

One small piece of defective material can sure cost a lot of money. Did you ever hear a plumber sound off when he found a leaky pipe fitting in his completed pipe system? Man, that is an educa-

OHIO ARCHITECT

tion. However, it is not the kind we like to offer at Ohio State.

c) **Non-matching Material**

We have no answers for this problem. We feel that it will get worse as the kind and variety of materials increases. One thing that would help would be for aesthetically minded architects and customers to pick standard colors and materials rather than the exotic or specials.

d) **New Materials**

Just because it is new does not make it good. Of the many good new materials I would like to cite a few that have done a terrific job for us.

1. Silicones, especially in the waterproofing of masonry.
2. Epoxy and Acrylic compounds. These materials are terrific for a variety of jobs from caulking stonework to patching broken steps. We have literally solved hundreds of vexing maintenance problems with these materials.
3. Teflon—for bearings and packing. In many cases Teflon packing has been the difference between success or failure on automatic valves.

3. **Manufacturer's Recommendations**

(This little fellow is a twin brother of material problems). What are the problems here?

a) **Manufacturer's Recommendations Missing**

Too often the man on the job and the maintenance man never see these. This always throws these men for a loss.

b) **The Wrong Instructions Furnished**

A good example—A complete set of instructions were furnished for a boiler for gas firing. This is fine, but this is an oil fired boiler.

Another example—The manufacturer furnishes a complete book that contains everything. Your mechanic, at a cost to you at about \$6 per hour, finds a soft box, lights his pipe, and reads the entire book. Finally, he gets to the climax of the story only to find the details on Model 2-X are contained in book No. 2 which he does not have. By this time he is so mad he does not do any work the rest of the day.

c) **Manufacturer's Recommendations Wrong**

This problem happens more often than many people realize. This comes about with constantly changing designs and applications. We recently had a case that got me out of bed a good many times. The piping connections were a manufacturer's standard. But—But he changed suppliers. Now what happens—It just won't work that way.

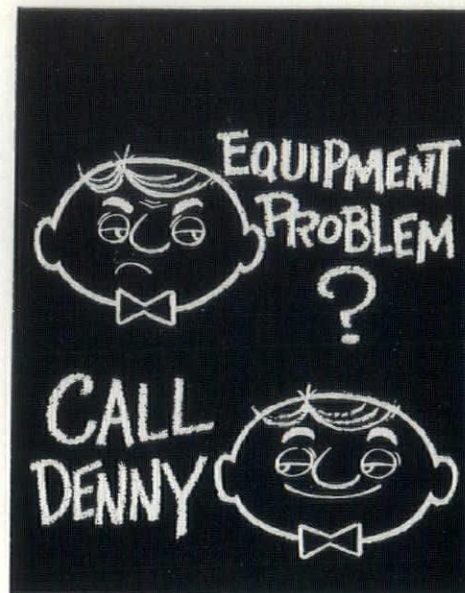
Let's look for some answers on this problem. One of the biggest improvements would be for the manufacturers to fasten their instructions, wiring diagrams, etc., to their equipment with decals or metal plates that will not fall off. This makes it easy for the mechanic or maintenance man to find it. I can assure you that it is a real problem to even attempt to file all of the maintenance instructions we need for all of our equipment on the campus so that any one of a hundred men can find it.

4. **Workmanship**

This may come as a surprise to many but we find that the workmanship in the basic crafts is better than most people think. This holds true until we get into complex jobs like controls, intricate electrical work and electronics.

The most common problems are:

- a) The wrong man for the job
- b) Lack of proper instruction
- c) Lack of interest in the job

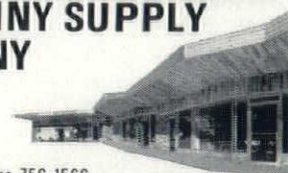


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d) Poor housekeeping

Let's face it gentlemen—In the difficult jobs requiring technical skills there are simply not enough good men to go around. Our rockets fall out of the sky and the professor's room gets cold.

5. **Communications**

We now have more and better means of communications than ever before, but communications on the job between the various agencies and crafts seems to get worse with every advance in communicating equipment. We have this in our own shops and no amount of lecturing and talking changes it. We have about concluded that it is a basic limitation of people themselves. It is expensive in terms of job cost and delays and it is often dangerous.

I have only one constructive suggestion to offer. I have here a **Red Tag** which we use. This is a standard industrial tag.

We have literally forced our men to use these. I think that now our men are grateful that we use them. This red tag or a little note left on a machine can prevent an injury or prevent or eliminate hours of wheel spinning, known as "who done it".

6. **Controls**

This is a big problem on any job, Gentlemen, and as our controls get more sophisticated the problem will get worse rather than better. Our men jokingly say controls follow Murphy's Law, which is, I quote, "If anything can go wrong it will go wrong".

To keep that rocket in the air or to make that building work requires a level of technical skill and care that most of today's mechanics cannot deliver.

To fill in this gap a group of engineering firms are developing whose job it is to come in and balance and adjust other peoples jobs and make them work. I be-

lieve that it is a real challenge to the mechanical contractors of Columbus to develop greater technical and engineering skill.

I am going to give just a few of hundreds of control problems that have been left to us on jobs that were 100% complete.

- a) Safety controls on gas fired boilers incorrectly installed.
- b) Safety controls on gas fired heaters not connected.
- c) Hook up a humidistat in a library backwards. Man, you should see what happens to a library after the humidistat runs all night calling for more moisture, it is raining outside and the roof leaks. Murphy would say 'tis a sad sight.
- d) A man disconnects a control air compressor. The next morning the entire building is over 130°F.
- e) Air balance sheets that show 250% fan efficiency. Man that is good.
- f) Another item. Automatic controls that give dangerous cross connections on drinking water lines. The State Plumbing Department has produced a film "What Happened to Herry" that shows what these cross connections can do to drinking water. All plumbers in the state should see this film.
- g) A heating system that will not work because Murphy left a piece of brick in the main line. One gallon can that cost contractors and taxpayers more than equivalent weight in gold.

Let me stop here for a minute, Gentlemen. While we give Murphy credit for all of these horrible things, he does get some outside help.

Gentlemen, I could go on for hours on these 100% complete jobs. These are not easy problems and they do not have easy answers. I do have several suggestions for your

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consideration.

- 1) We need technicians of greater skill. This is a challenge to contractors, engineers, and labor organizations and I will add — to The Ohio State University.
- 2) We need better communications between the craftsmen, the engineers, and the technicians.
- 3) We need to make better use of existing standard procedures for air balancing, water balancing, for checking boiler controls, etc.
- 4) We need to use what I call the "rocking chair" technique on jobs that are in trouble. Get a good man and tell him to sit there in a rocking chair until he finds and solves the problem. You would be surprised how well it works. The man will actually spend less total time on the job this way than he does running in and out.

7. Architects and Engineers

Many of you men can speak to the good and bad points of Architects and Engineers better than I can. I am going to approach this a little differently by looking at the bottom side of the problem.

- 1) Architects and Engineers are people (you may have heard this questioned in some circles)
- 2) All people make mistakes. Therefore, it follows that all Architects and Engineers, including myself, our department engineers and the Ohio State University inspectors make mistakes.
- 3) It is also fundamental that plans, specifications and equipment are imperfect.
- 4) The problems do exist. The custodian knows the roof leaks as he mops the water. Professor knows his room is cold as he puts his overcoat on and read 50° on the thermometer.

Now that I have all Architects and Engineers in trouble, how do we get out of the mess we are in?

- 1) If the architect, the engineer and the contractor would calmly sit down and analyze the job problem, the responsibility usually follows easily. A 3 page report on why a job should work does not help when it is finally found that all adjustments were based on a thermometer that was off 40° F. In many cases there is more money wasted in arguing about the job than it takes to fix it. Once the problem is defined there are ample means of settling the issues. We believe the State Architect does a good job in cases where the contestants can define the problem.
- 2) At the beginning of the job clearly define the architects, the engineers and the inspectors responsibilities. My personal opinion is that the local engineering firms are hampered by poor contract arrangements with architects and customers.
- 3) Watch those shop drawings. Too many jobs are loused up by failure to face the issues at the shop drawing stage. Gentlemen, it is a lot easier to change a few lines on a drawing than it is to change equipment on the job.

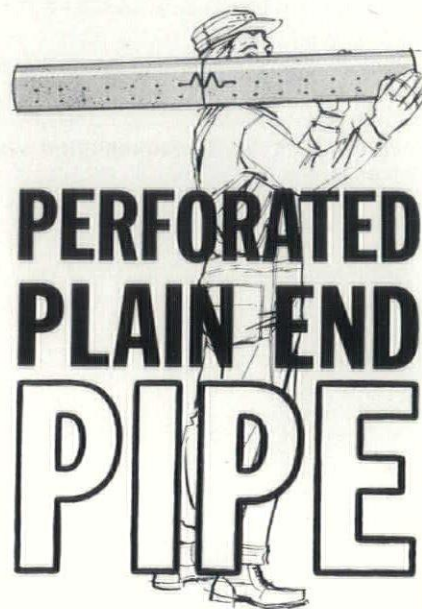
The Customer

This guy is the worst problem child of them all. If it was not for him we would not have any problems and no jobs either.

There is no use kidding ourselves. The customer does create many problems. I am not going to take time to analyze the customer. There are some experts out there that can do it better than I.

What can we as a team do to build and maintain for Professor John Doe a better building. I say this because a large part of our maintenance at Ohio State University is done by contract.

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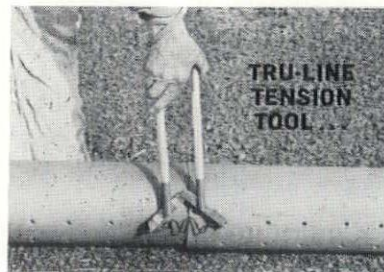


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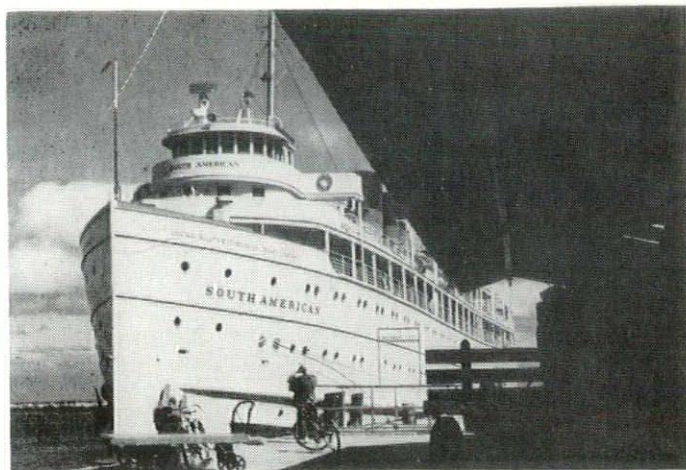
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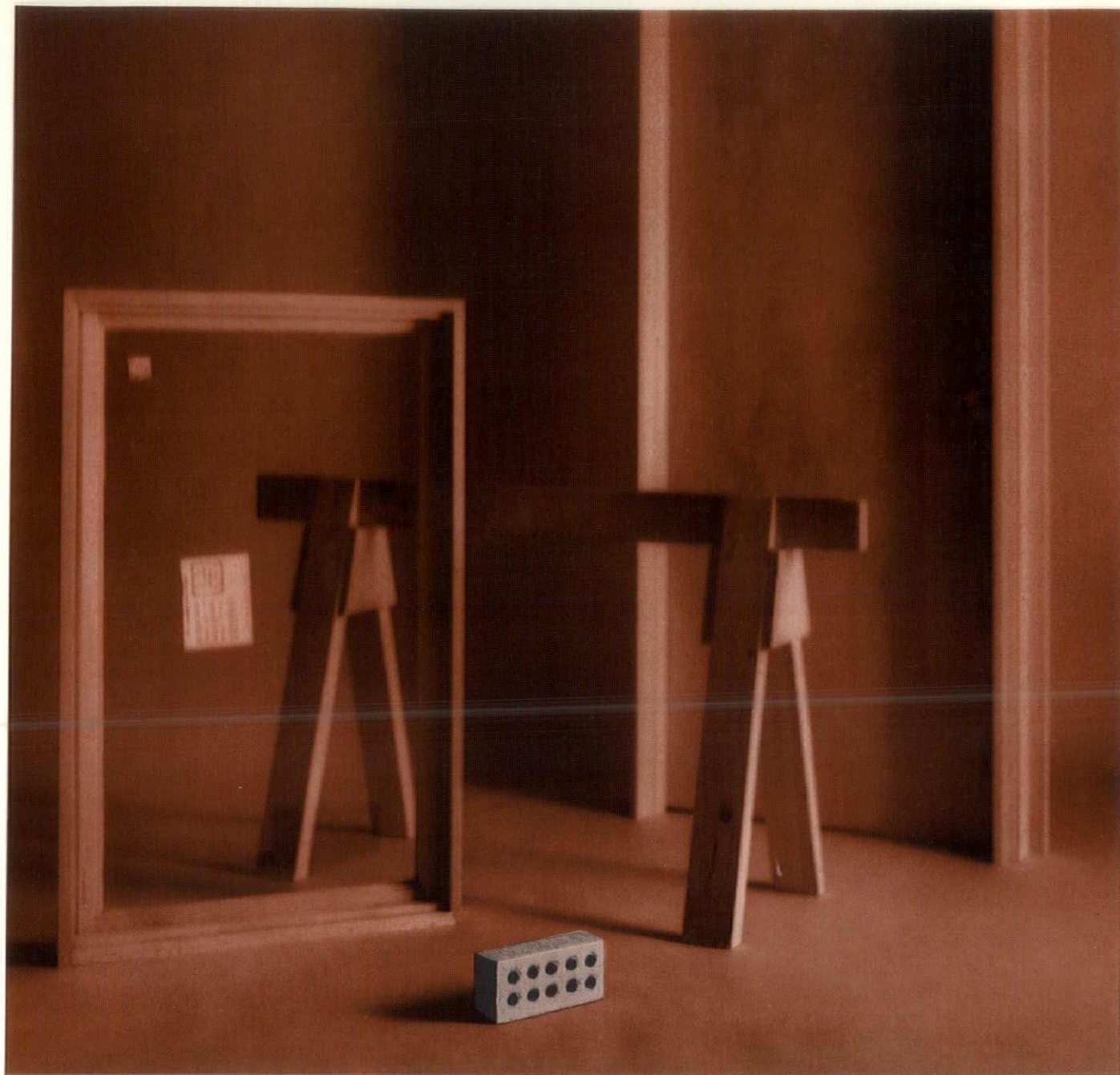
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WHY ARE BRICK SO SMALL?

design intentions of gaiety, reverence, warmth, stateliness or confidence as he desires.

The economics of the small brick is well known. Time after time brick walls prove more economical in both initial and ultimate cost than other materials.

If there is any doubt we suggest you compare the cost of brick with other materials on your next job — this, better than any other way, will prove brick's economy to you. This is why brick are small. When

these reasons are no longer pertinent we will change

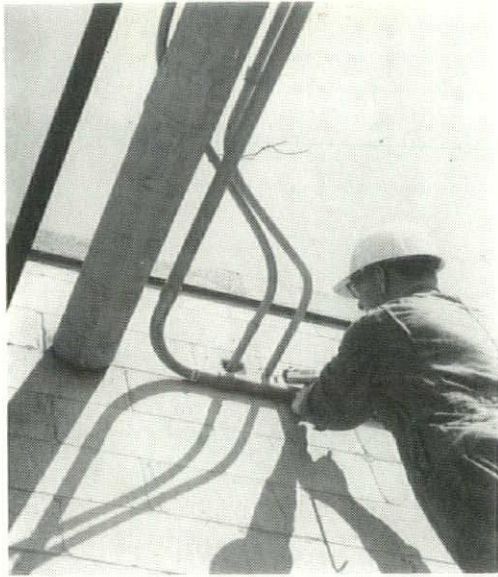
— but until then we shall concentrate on the quality, strength and appearance of our present products so as to provide you with even more imaginative tools for your imaginative design.

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NEW PRODUCT REPORT



New Silicone Rubber Construction Sealant

WATERFORD, NEW YORK—General Electric has announced that it is making its new silicone rubber construction sealant more readily obtainable for small commercial, residential and industrial jobs by making it available through lumber yards and building supply houses in standard-size 11 oz. caulking cartridges.

The material is available in four colors white, neutral, aluminum and clear. The silicone sealant is designed to serve a variety of needs from filling cracks in basement walls to permanently sealing roofs and rain gutters, smoke stacks and chimneys, windows, furnace ducts, concrete flooring and patios, shower stalls, swimming pools, fire ponds and bathtubs. It is applied from any standard caulking gun in the form of a soft paste and turns to a solid rubber on exposure to air. It sticks well to all common building materials and, once in place, stays flexible and permanently resists shrinking, chipping, drying out and discoloring. It is waterproof and cannot be dissolved by water

or damaged by temperatures to 300°F. As a filler for expansion joints in construction, it also exhibits excellent return after being compressed.

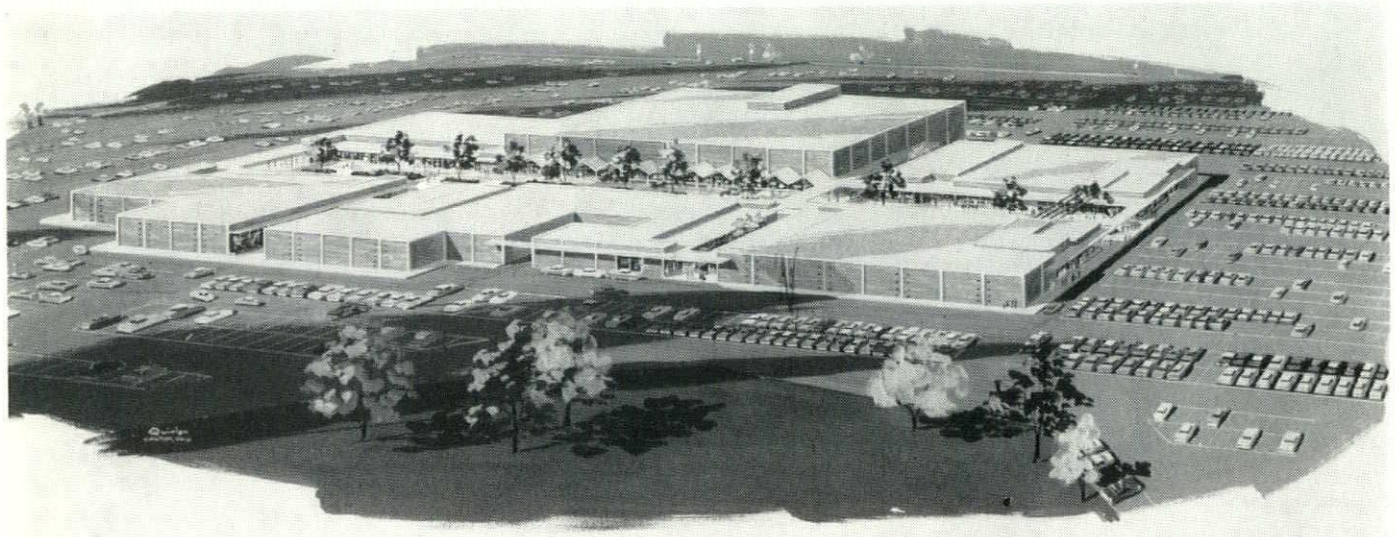
The new General Electric silicone construction sealant has attracted widespread interest since its introduction to architects and builders last spring. It outlasts non-silicone elastomeric sealants by as much as two to one. Like its predecessor industrial silicone elastomers, the silicone sealants have their origins in inorganic quartz and organic hydrocarbons, a combination which produces extremely durable materials. Silicone elastomers are unsurpassed in flexibility at low temperatures, resistance to high temperatures, weathering and aging.

According to G-E spokesmen, the new silicone material offers a number of advantages in ease of application which

the non-silicones do not provide. The G-E sealant adheres to most surfaces on application; it is easily applied at temperatures below 0°F; it requires no mixing; and resists permanent deformation in expansion joints. The silicone material, due to its soft texture in uncured form is particularly easy to remove from tools, providing for fast cleanup on the job, G-E reports.

Prior to placing its new silicone construction sealant on the market, the company put it through intensive testing both in its laboratories and in the field. It has since been used on hundreds of buildings as a curtain wall sealant and in numerous other caulking, sealing and glazing applications.

For further information write: New Product Department, Ohio Architect, 5 E. Long St., Columbus, Ohio.



Mellett Mall Shopping Center Canton, Ohio

Cox & Forsythe, AIA, of Canton, Ohio are the architects for the new \$7,000,000 Mellett Mall Shopping Center located at Tuscarawas and Whipple Roads, Canton, Ohio.

Mellett Mall will be a Mall-type shopping center built

to accommodate 45 stores with parking space for 2,500 cars. It is the largest commercial project (non-industrial) ever to be built in Stark County.

Groundbreaking took place in May, and formal opening is planned for March, 1965.

PHONE CALL TO EUROPE SECURES CONVENTION SPEAKER

Your program chairman for the Annual Meeting is stopping at nothing to secure top men for speakers at the Annual Meeting! Mr. Gilbert Coddington, FAIA, Convention Program Chairman, placed a long distance phone call to **Prague Czechoslovakia** to ask MR. JAMES MARSTON FITCH of Columbia University who is presently touring Europe, to be on the program for the Annual Convention. Mr. Fitch accepted graciously and has announced his topic: "Forms of Plenty". This subject will be of interest to the wives as well as their architect husbands. Mr. Coddington says of Mr. Fitch, "He is both amusing

and shocking" and promises convention-eers a very entertaining and informative talk.

O'NEIL FORD, FAIA, of San Antonio, Texas has been contacted for a seminar for the Cruise Convention, and while he has not been "tied down" at press time, it looks very good that we will have him. These two very outstanding men will be an inspiration to all those who hear them. Both speakers will gear their talks to the interest of Architects, their wives, and the Exhibitors. Don't miss this outstanding event—get your reservation into the ASO office today.

NEW AIA MEMBERS

We would like to extend a personal welcome to Arthur Brown, AIA, Dayton John E. Wenzel, AIA, Cleveland, Robert G. Steinkamp, AIA, Cincinnati, Thomas C. Tufts, AIA Cleveland, and James Watson, AIA, Cleveland, who have just become AIA members. Our office stands ready to serve you at any time. Please feel free to call upon us.

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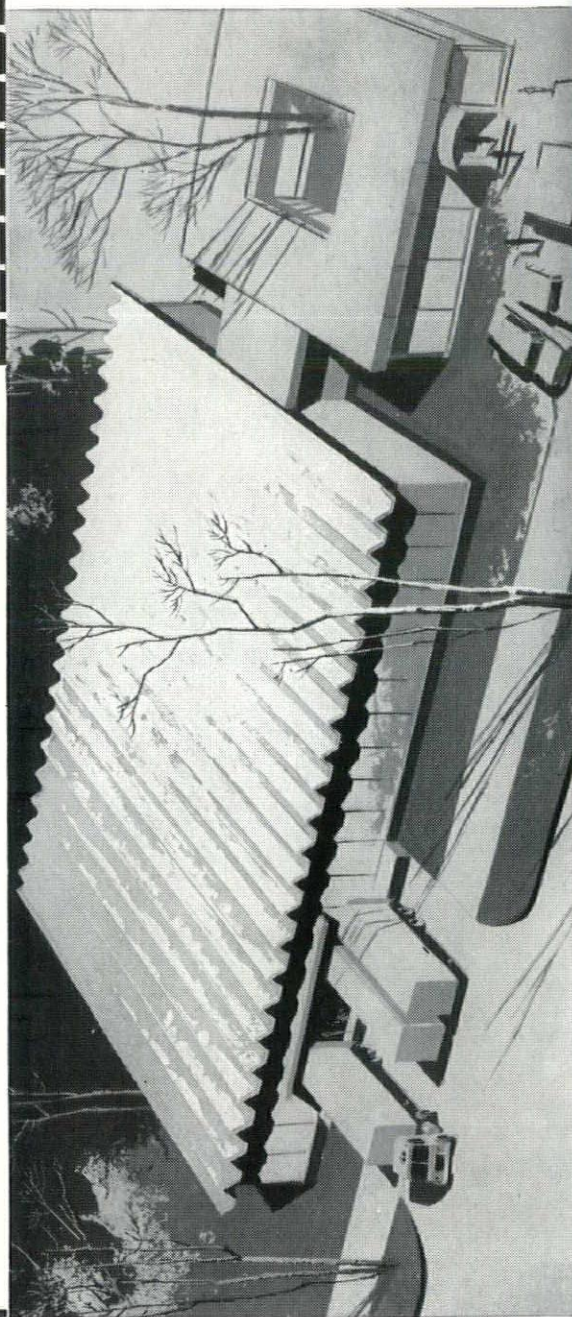
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folded plates

a.i.a. file: 4-a

Prepared as a service to architects by Portland Cement Association
clip along dotted line



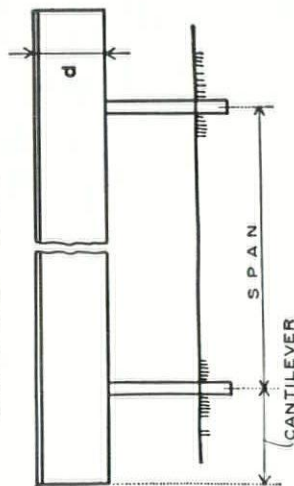
Tremendous span and load-carrying abilities characterize concrete shell roofs in the form of folded plates—also known as F/P's. In industrial construction folded plates are being used more and more to provide great areas of column-free space for manufacturing or storage.

The ability of folded plates to cantilever can be applied advantageously in the design of schools, stores and hangars.

There are three basic types (two shown below) of folded plate shells—V-shaped, Z-shaped and a modified W-shape. The economy of F/P's is increased with form re-usage. Typical span data for V- and W-shaped plates are shown in the tables below.

For more information, write for free technical literature. (U.S. and Canada only.)

CROSS SECTION

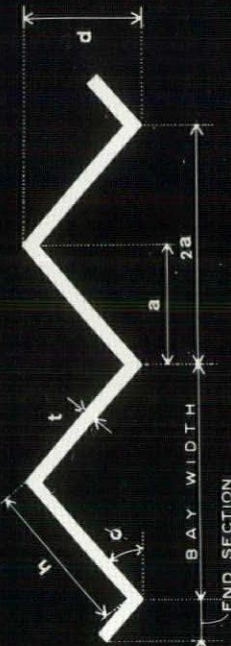


Sufficient cantilever can help to counterbalance the span. The usual span-to-depth ratio varies from 1:10 to 1:15. Example: If span is 40' long, the usual minimum depth is about 40 or 4'.

Formula:
$$\text{VOLUME OF CONCRETE IN CU. YARDS} = \frac{\text{SQ. FEET}}{324a} \times \frac{h}{t}$$

h = ft.
 t = in.
 a = ft.

TWO SEGMENT F/P



SPAN	ϕ^* max.	ϕ^* min.	d max.	d min.	2a	t	(1) (2) (3) reinforcing
40'	45°	25°	4'-0"	2'-9"	15'	4"	1.2-1.6
60'	45°	25°	6'-0"	4'-0"	20'	4"	1.9-2.7
75'	45°	25°	7'-6"	5'-0"	25'	4"	2.6-3.7
100'	45°	25°	10'-0"	6'-9"	30'	5"	4.0-5.2

FOUR SEGMENT F/P



SPAN	ϕ^* max.	ϕ^* min.	d max.	d min.	2a	t	(1) (2) (3) reinforcing
40'	45°	30°	5'	2'-6"	20'	3"	1.5-2.0
60'	45°	30°	6'	4'	25'	3 1/2"	2.0-3.0
75'	45°	30°	7'-6"	5'	30'	3"	2.5-4.0
100'	45°	30°	10'	6'-6"	40'	4"	4.0-6.0

* max. recommended slope is 45°

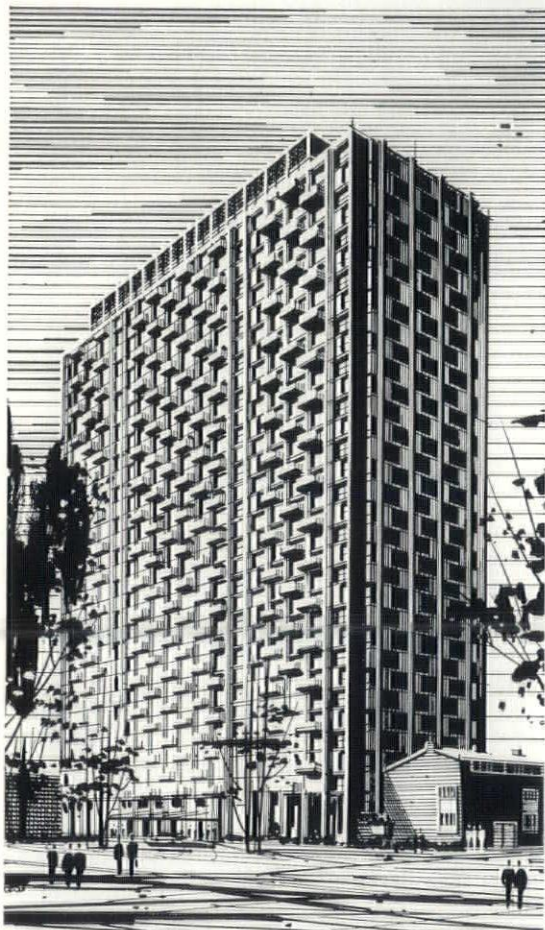
(1) values shown may vary with architectural design

(2) average thickness in inches

(3) pounds per square foot of projected area

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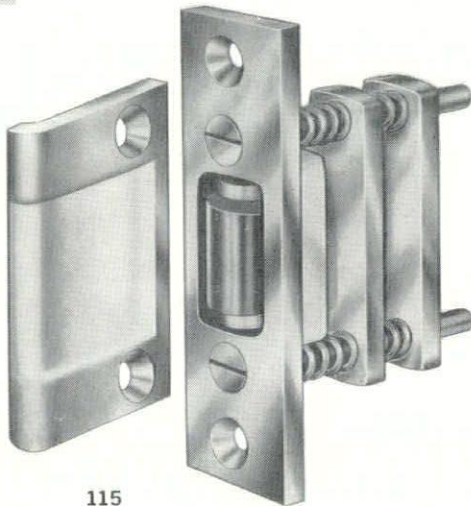
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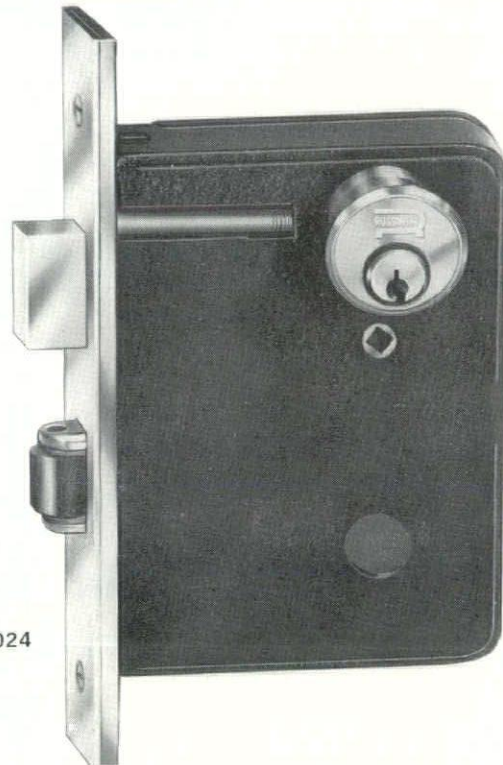
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