



Architectural Design and Original Art combined in Insurance Building  
(See Complete Story, Page 16)

# NORTHWEST ARCHITECT

MARCH-APRIL, 1955

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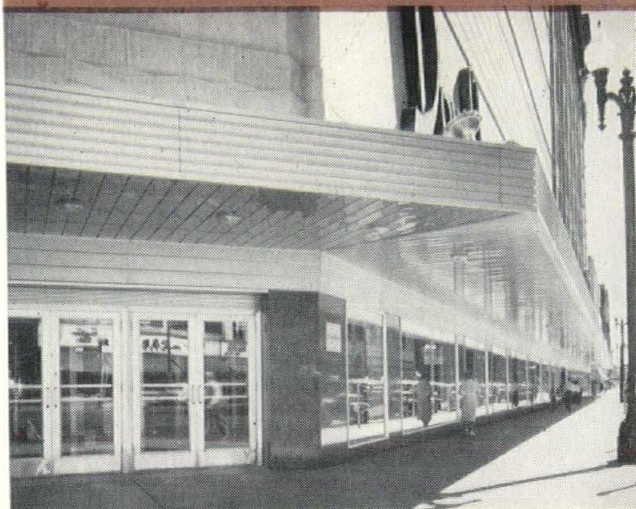
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NUMBER TWO

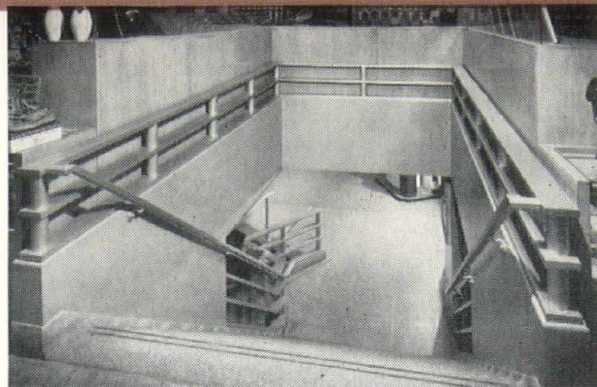




...appearance has influence



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general is our constant endeavor.

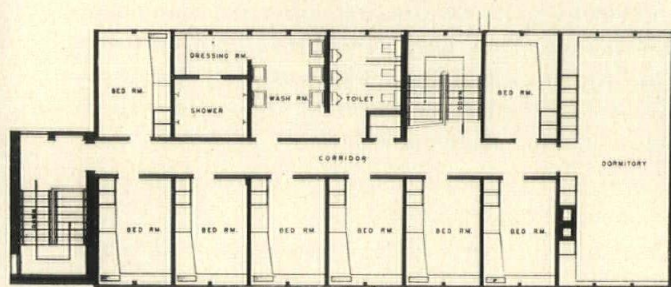
# *Crown Iron Works Co.*

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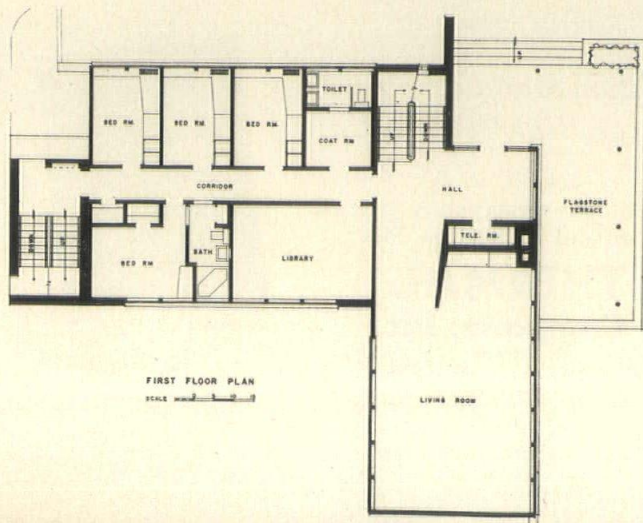




# Pella Casements . . .



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

## Phi Delta Theta University of Minnesota

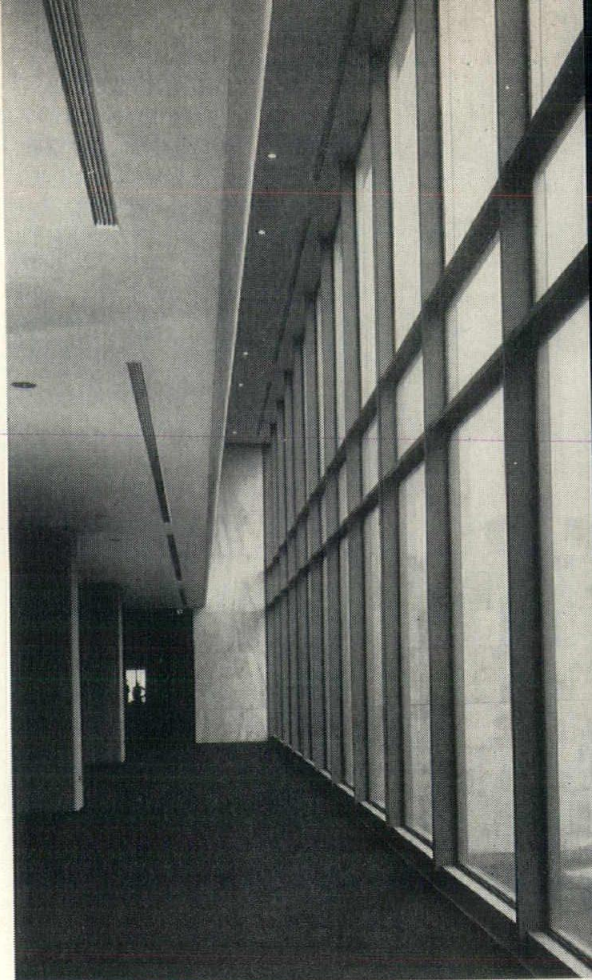
Includes basement floor . . . providing for spacious dining room and kitchen accommodations.

Lang & Raugland  
Minneapolis Architects

Photos by Photography, Inc.







## Design fundamentals of the **ALL-AIR HIGH VELOCITY** distribution system

By F. J. KURTH

*Vice President of Engineering*

*Anemostat Corporation of America*

A national survey reveals that today, more than ever, engineers are studying, learning and using high velocity-high temperature differential air distribution. Here is a brief discussion of the advantages of the all-air high velocity system over conventional and mixed cycle (air and water) systems.

**1. No Coils — No Clogging — No Odor**—There are no coils in the all-air high velocity units. Damp coils collect lint and emit dank odors, and the coils must be cleaned periodically.

**2. No Individual Fans — Filters — or Electric Motors** — The all-air units operate entirely with air which is processed in the main equipment rooms. The 100% induction units utilize the kinetic energy of the high velocity air to mix primary air with the room air.

**3. No Conflict of Trades**—The all-air units are installed by the sheet metal trades only.

**4. More Effective Use of Outside Air in Spring and Fall**—More primary air is delivered to the all-air units than to induction coil units. This allows the engineers to operate in the Spring and Fall on outside air and thereby save refrigeration.

All-air high velocity units offer scientific air diffusion. Each high velocity unit is provided with an aspirating or high induction type air diffuser which is scientifically designed to diffuse air without drafts. Each unit can be pressure balanced by an easy-to-operate balancing device and a calibrated orifice. In fact, the Anemostat all-air high velocity system can be balanced more accurately than other systems and in less than half the time required to balance a low velocity system.

High velocity units require practically no maintenance after installation. They have valves of the non-corrosive, die-cast, "rocket-socket" type, which are patented by the Anemostat Corporation of America. All units can be adapted for the following variations:

1. Single duct for zone control or individual thermostatic or manual remote control.
2. Dual duct for thermostatic control or any other type of control.
3. Single or dual duct units with the diffuser fastened to the unit, or remote from the attenuating unit.
4. Under-the-window, sidewall or ceiling type installations.
5. Can be provided with standard aspirating diffusers or 100% induction type diffusers.
6. Induction type units handle temperature differentials up to 33° below ambient.

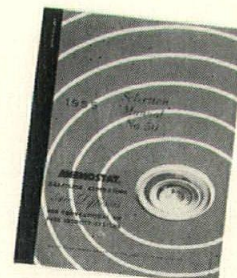
### *Selection Manual Contains Data on High Velocity Units*

Write or telephone for Selection Manual 50 which gives extensive selection and application data.

**THERMAL  
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# NORTHWEST ARCHITECT

## IT WAS HARVARD UNIVERSITY

Where this postulate concerning the Next Development of Man in Architecture  
was announced in the year 1951.

**S**PACE and the surface of the earth are two of the most basic working materials of design. The most important material of all, however, is people.

In every problem of design the most fundamental issue is some human need, some maladjustment or inadequacy between people and their environments, that awaits correction. The things and arrangements conceived by the designer are created as probable means toward solving some central human difficulty.

Our planning professions have a common goal in their aim to determine, to create, and then to keep current, optimum relations between people and their environments. We seek to enable men to use the sustaining values of the environment without using them up.

By sustaining values we mean those invironmental factors that will give sustenance to the whole man, psycho-somatically.

Other types of human effort — other professions — are also engaged in solving this general problem. But we designers attack it in a way that has certain distinctive characteristics.

Publication Committee—S. L. Stolte, chairman; D. S. Haarstick, Ralph Rapson; H. W. Fridlund, technical adviser.

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Nestor 2641

EDITORIAL | John Jager, A.I.A.  
ASSOCIATES | W. G. Purcell, A.I.A.

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ARCHITECT

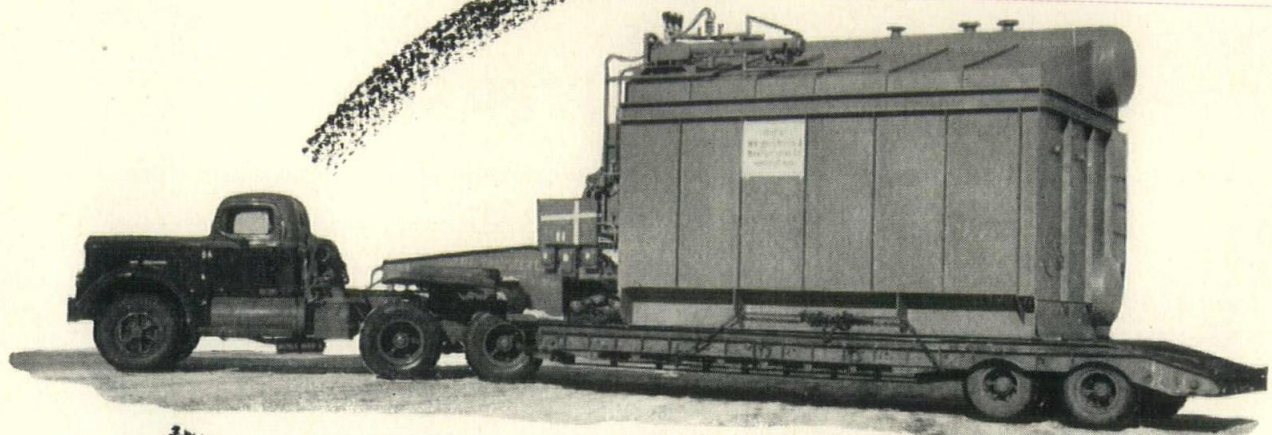
from "An approach to design"  
by Norman T. Newton, 1951  
Graduate School of Design

Chairman, Department of Architectural Sciences  
HARVARD UNIVERSITY

VOLUME XIX  
NUMBER 2 1955



# Packaged Boilers by **BROS**



give your plant low-cost steam!



Here you see how easy it is to get a compact BROS Packaged Boiler into your plant. Through long testing and design research, BROS produces the greatest possible boiler capacity within minimum physical dimensions. Surprisingly little plant space is needed to accommodate this well-engineered unit.

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You can get this efficient boiler completely factory assembled, ready for your service connections. Or it can be shipped KD, to be erected at the site. It comes with or without burning equipment, oil and/or gas. A heavy structural base permits convenient skidding or crane handling.

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Gate City AWNING WINDOWS

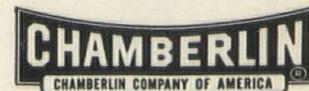


Carey

Pella WINDOWS



Kawneer



Sanymetal

Cupples ALUMINUM WINDOWS

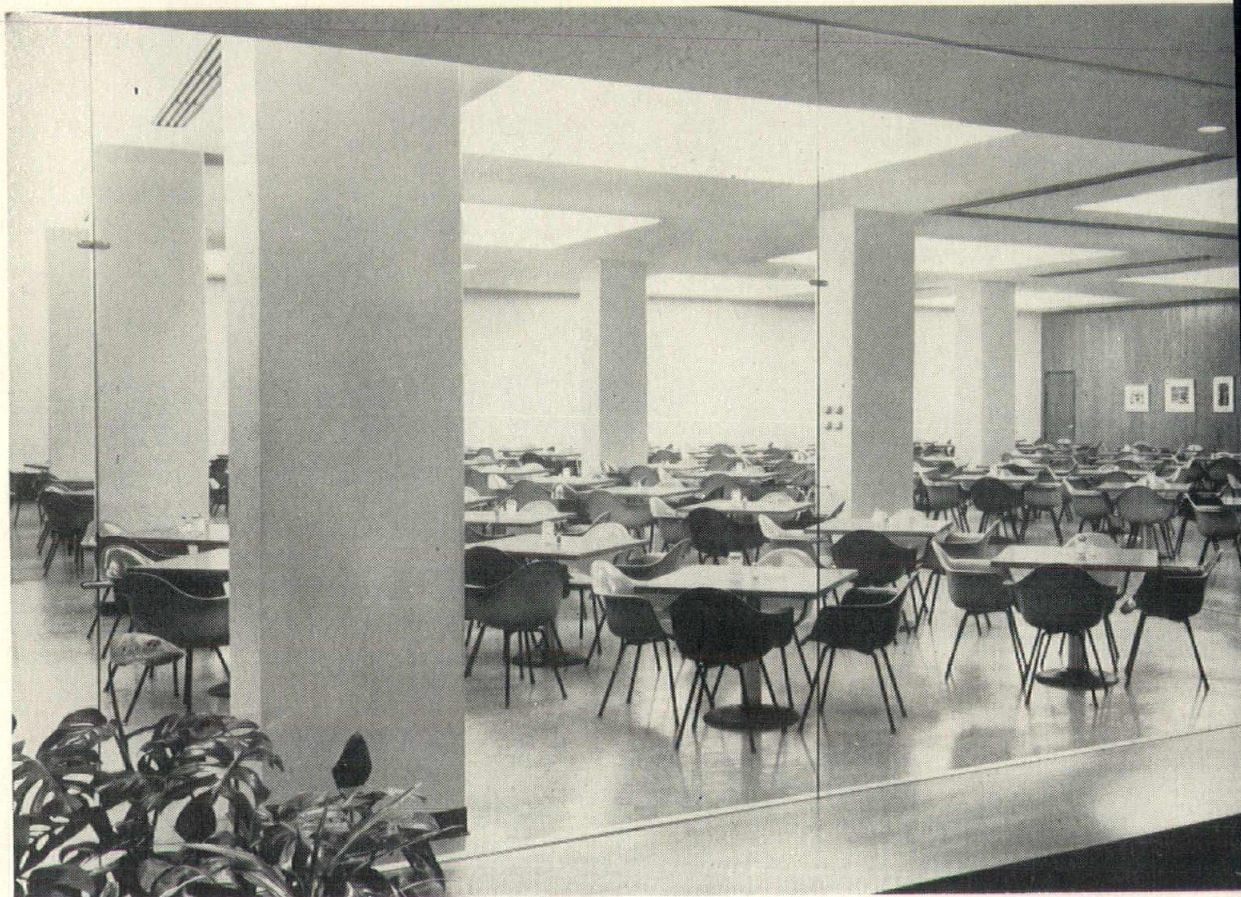


ACOUSTI-CELOTEX Sound Conditioning





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**CONSULTING ENGINEER:** ELLERBE & COMPANY

**ELECTRICAL CONTRACTOR:** PEOPLES ELECTRIC COMPANY

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**SUPPLIER:** LAX ELECTRIC COMPANY, INC.

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*Information compiled by Lighting Service Section*

**NORTHERN STATES POWER COMPANY**

For factual lighting information, technical data on light sources, fixtures, relative costs, etc.  
**Call Lighting Section—Northern States Power Company**





3'-0" WIDE

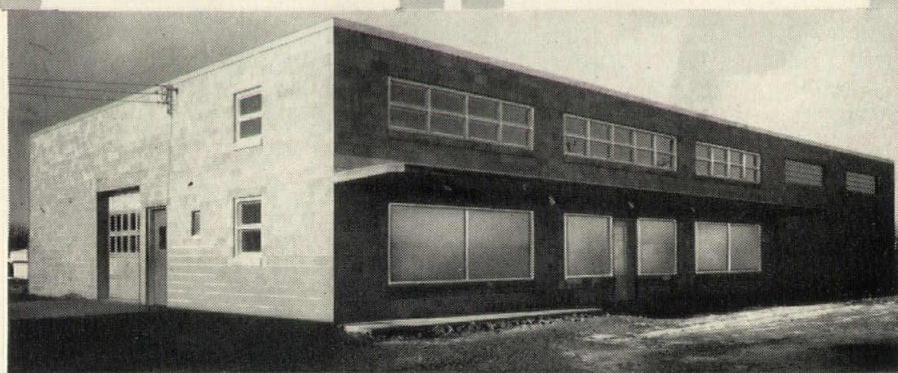
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50' MAX. SPAN



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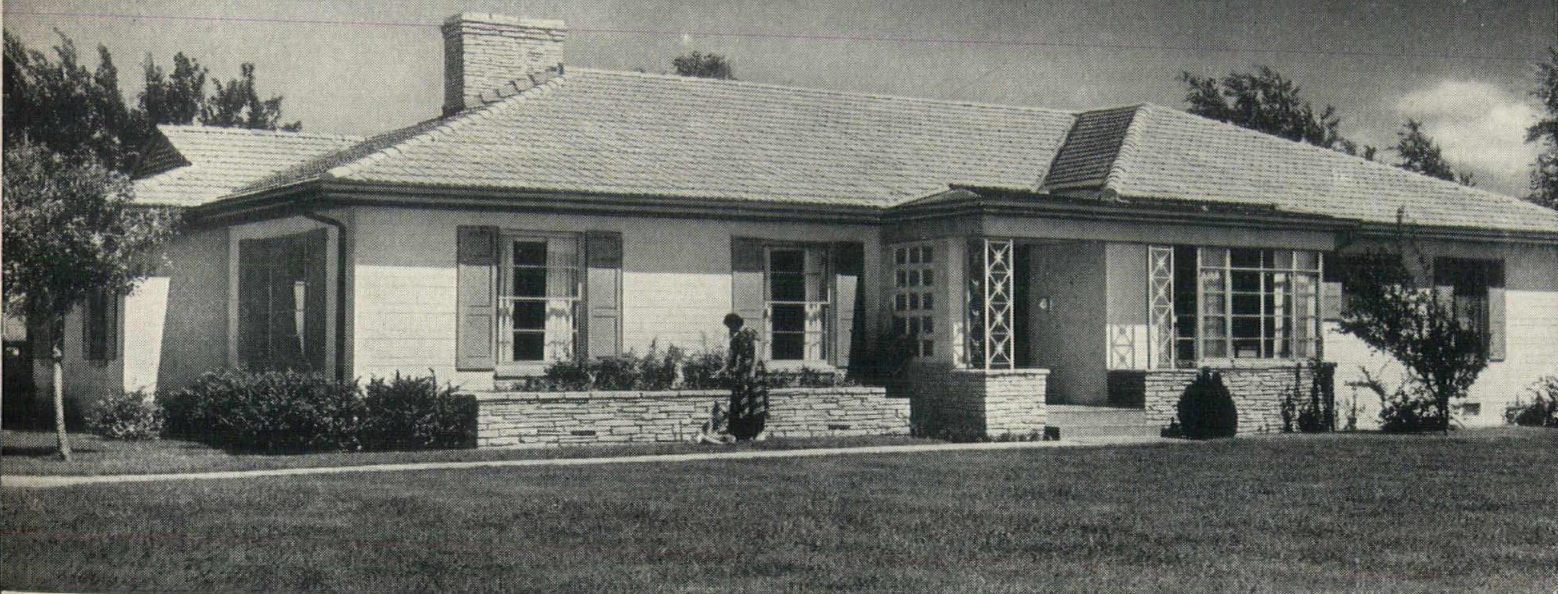
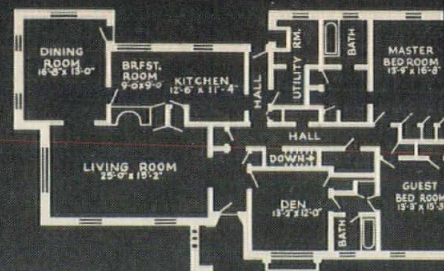
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- Wall Panels
- Columns
- Beams and Girders
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## *Concrete House*

**B**UILDING a house usually is a once-in-a-lifetime experience. Naturally you want your past savings and future earnings to buy the utmost in house value.

Just as some fabrics make better clothing buys, so do some construction materials make better building values. Whatever size or style house you're planning, you'll get outstanding value if you build with concrete because a concrete house delivers:

**OUTSTANDING COMFORT** An insulated concrete house has year-around comfort even in rigorous climates—warm in winter, cool in summer, clean and dry at all times.

**OUTSTANDING BEAUTY** Concrete masonry can be laid in many charming patterns and finished with an attractive portland cement paint or a distinctively textured stucco.

**OUTSTANDING PROTECTION** A house with concrete foundations, walls, subfloors and a firesafe roof assures you lifelong security. Concrete provides maximum firesafety because *concrete can't burn!* It also is resistant to storms, decay, quakes and termites.

**OUTSTANDING ECONOMY** A concrete house is moderate in first cost, requires less maintenance and fewer repairs and lasts a lifetime. Result: **low annual cost.** A concrete house costs you less *per year* to own.

Yes, when you invest your savings in a concrete house you reap lifelong dividends in comfortable living, lasting beauty, maximum protection and **low-annual-cost** shelter. For more information send for free book "*Why People Like Concrete Homes.*" Distributed only in U. S. and Canada.

### **HOW TO GET YOUR CONCRETE HOUSE**

**... and what will it cost?**

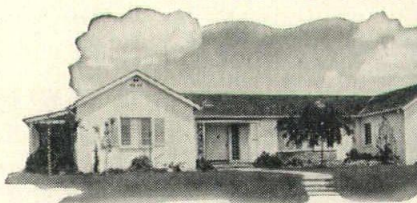
Phone a local concrete masonry manufacturer for names of architects and builders experienced in concrete house design and construction. They know local conditions existing in your community and can tell you about plans and costs.

Take any plans or sketches you have to an architect. Have him show you how your home—of any size, style or floor plan—can be built economically with concrete foundations, concrete walls and subfloors and a firesafe roof.

**Architect-Designed Houses Stay Young Longer**



**YOU CAN BUILD  
A CHARMING CONCRETE HOME  
IN ANY ARCHITECTURAL STYLE  
WITH ANY FLOOR PLAN**



## **PORTLAND CEMENT ASSOCIATION**

490 Northwestern Bank Building  
Minneapolis 2, Minnesota

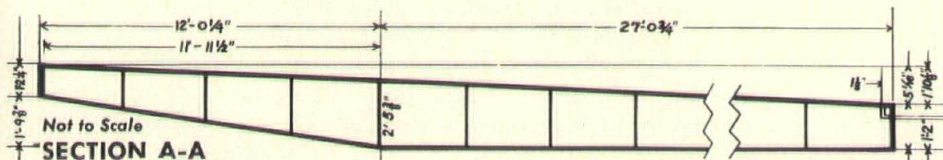
A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work



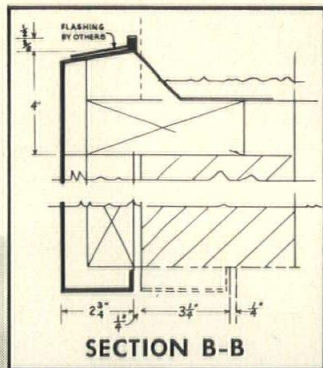
New perspectives in school design gain  
practical utility with modern **Davidson**  
ARCHITECTURAL PORCELAIN

Here, in striking combination with buff field stone, orange Davidson Architectural Porcelain Enamel points up the soaring lines of a cantilevered canopy. A distinctive accent, yet in full keeping with good taste, this application reminds again that there is virtually no restriction on the use of Davidson Architectural Porcelain. To keynote, as here, or to achieve complete curtain wall or window wall treatments, you'll find no more adaptable material.

Davidson Architectural Porcelain Panels are made to your specification—size, shape and color just as you need them—and you can select from four basic types of panels, according to type of construction planned. Write for file folder of installations and ideas.



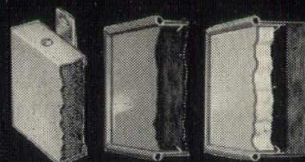
An interesting aspect of this use of Davidson Panels is illustrated in the drawing above. Note the successive changes of panel dimension and shape, accentuating the cantilevered design. Each panel was supplied exactly as specified, ready for installation.



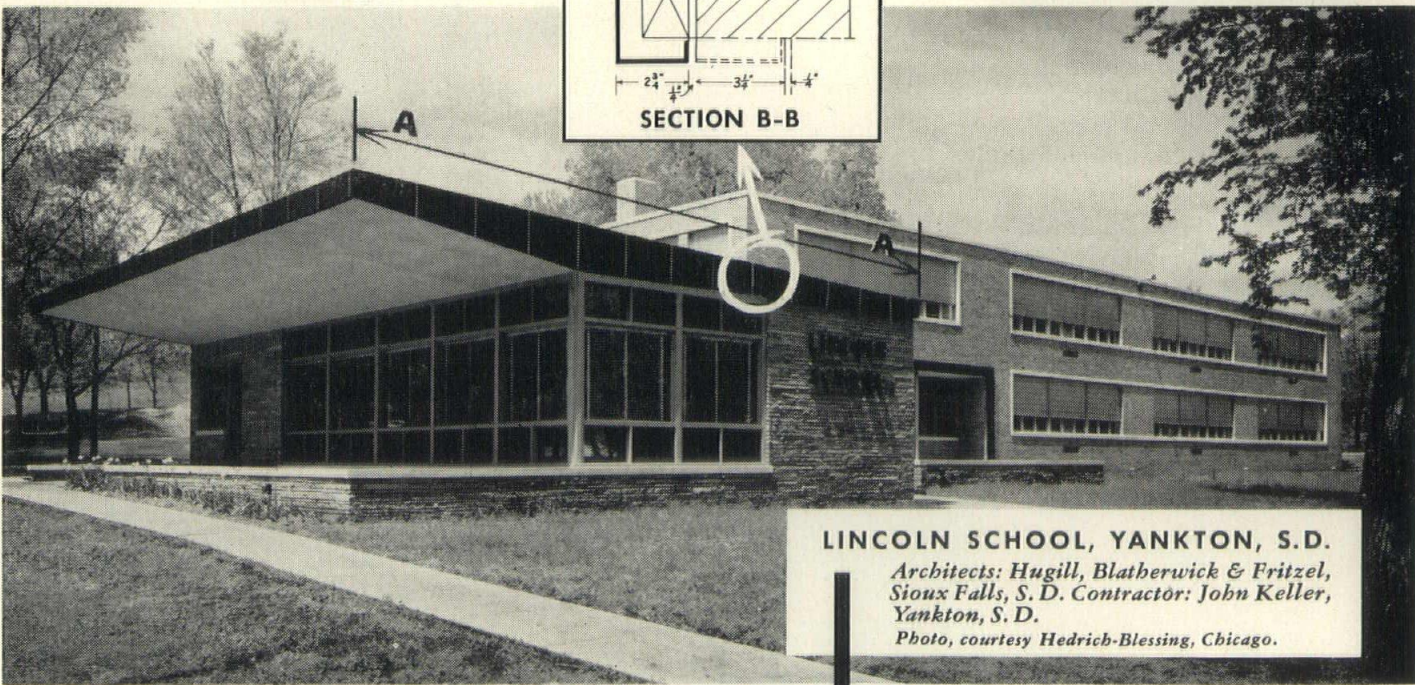
**Type 1 Facia Panel,  
Used Here**



Porcelain enamel fused to  
16-gauge steel



**Facia and Double-Wall Panels for curtain wall, window wall or modernizing . . . interior or exterior.**



LINCOLN SCHOOL, YANKTON, S.D.

Architects: Hugill, Blatherwick & Fritzel,  
Sioux Falls, S. D. Contractor: John Keller,  
Yankton, S. D.

Photo, courtesy Hedrich-Blessing, Chicago.

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# ***“Designing for the Community”***

## **Theme Will Pace Sessions of AIA Convention in Minneapolis in June**

“DESIGNING FOR THE COMMUNITY” will be the theme of the American Institute of Architects’ annual convention in Minneapolis, June 20-24, when the 87th annual gathering of the national group is expected to draw some 1,600 architects and others in associated

fields to the city, according to an announcement by A.I.A. President Clair W. Ditchy.

The local steering committee under the chairmanship of G. Clair Armstrong of Minneapolis and the committee’s associated group of architects named to handle special phases of the five-day gathering have been long active in working out the many ramifications of such a large convention and the results, coupled with those handled by the national convention committee headquartered in Washington, promise an outstanding series of meetings. The national planning is under the management of Arthur B. Holmes and liaison between headquarters and the local planners is close. A.I.A. Regional Director Edgar H. Berners of Green Bay, Wis., also is active in the arrangements.

The community theme of the convention will be carried through from the speeches to the seminars to the general discussions and serves as an important focus for many problems confronting the architect today.

The administrator of the federal government’s Housing and Home Finance Agency, Albert M. Cole, will deliver the keynote address of the meetings Tuesday morning, June 21. James W. Follin, commissioner of the Urban Renewal Administration, will further develop the theme when he speaks at that day’s luncheon. It is particularly appropriate, convention planners pointed out, that this theme will be used for the Minneapolis meetings because the convention city was among the first in the country to get a “go-ahead” from the Housing and Home Finance Agency for its urban renewal plan. The Minneapolis plan for this work was approved early in February.



A planning session of the convention steering committee found around the discussion table (left to right) Francis Meisch, Brooks Cavin, John Mag-

ney, Albert Larson, Roy Thorshov, Chairman Clair Armstrong, George Townsend, Victor Gilbertson, R. V. McCann, Allan Meinecke and Harlan McClure.



The first convention seminar, in the afternoon of June 21, will have Richard W. E. Perrin, A.I.A., executive director of the Milwaukee Housing Authority, as moderator for a detailed discussion of "Rebuilding the City." The panel of architects which will handle this subject under Mr. Perrin's guidance has not yet been announced. The architect's role in city development and redevelopment is a vital one and this session promises to produce much of value for every architect attending the convention.

"Keeping the Client a Friend" is another seminar scheduled whose title should attract quite a group of listeners. It will be conducted under auspices of the AIA department of education and the committee on office practice.

Another important seminar later in the sessions will be that on "Architecture of Community Expansion." Norman J. Schlossman, F.A.I.A., Chicago, and a former first vice-president of the institute, will moderate this presentation. Seminars on chapter and regional A.I.A. affairs and on office practices will fill out this phase of the meetings.

Annual banquet has been scheduled for Thursday, June 23. At this banquet it has been traditional to make the presentation of the institute's Gold Medal, highest honor given for distinguished service to the profession. Other honors will be awarded at an awards luncheon, including the Fine Arts Medal, the Craftsmanship Medal and the Edward C. Kemper Award.

The President's Reception will be held in the Minneapolis office building of the Prudential Insurance Company, an outstanding area structure designed by Magney, Tusler and Setter of Minneapolis. This building will be officially opened during convention week and in honor of the occasion Prudential's president, Carroll Shanks, with other top company officials, will be in the city.

The Annual Exhibition of Outstanding American Architecture will present for the study of those at the convention the finest examples of contemporary design and construction and will provide many hours of discussion for those visiting the exhibit. Coupled with this design phase of the exhibits will be the showing of new building products, equipment and methods by the leading suppliers in the nation.

An all-day tour of the Cold Springs Granite Company plant on Monday, June 20, highlights the tours planned for the convention period. Between 500 and 800 conventioners are expected to take the special train trip 90 miles to the plant where they will see all the processes of producing and preparing granite for construction use. Much special preparation is being made by the company to present every phase of its operations for study and every part of granite production will be demonstrated actually at work. The ladies of the convention are invited on the trip. Although there is a \$5.00 charge for the trip, lunch aboard the train will be complimentary.

Other tours and special events include a buffet dinner and viewing of Edward Steichen's "The Family of Man" exhibit at the Minneapolis Institute of Arts, fol-



**AIA President Clair W. Ditchy of Detroit, who will preside over the Minneapolis sessions.**



**Regional Director Edgar H. Berners of Green Bay, Wis., is active in the liaison work.**

lowing the President's Reception on Tuesday, June 21. There also will be tours of plants of Minneapolis-Honeywell Regulator Company, Flour City Ornamental Iron Works and the Andersen Corporation the afternoon of June 22. Other trips to important architectural sites are planned.

Prelude to the actual A.I.A. convention will be provided by meetings of other associated group. The Association of Collegiate Schools of Architecture, the National Council of Architectural Registration Boards, the Producers' Council, the National Architectural Accreditation



ing Board and the A.I.A. board of directors will all hold special meetings in Minneapolis at that time.

While accent is naturally on professional aspects of the meetings, other phases of a well-rounded convention are being well built. Included are special tours and visits, recreational activities, entertainment and a special ladies' program. There is even a western tour of 11 days planned by a travel agency which can be taken by those interested as an after-convention event.

The holding of a national A.I.A. convention in Minneapolis this year presents an unusual opportunity for all architects, the well-established member of the profession, the just starting graduate and the student, to dig into a gold mine of information and contacts which cannot help but be valuable in the furtherance of their careers. The convention right here in the grassroots

country makes it easy to attend, either for the entire five days or for special features of particular interest to the individual.

### LINDSTROM NAMED TO 1957 CONVENTION GROUP

John Lindstrom, partner in the firm of Magney, Tusler and Setter, Minneapolis, has received an important national convention assignment by the American Institute of Architects. He is one of 12 men named to arrange plans for the AIA's 1957 national convention in Washington, D. C., which will mark the institute's centennial observance. He will represent the AIA's North Central Region.

### MINNESOTA SOCIETY OF ARCHITECTS SELECTS EXECUTIVE DIRECTOR

Ralph T. Keyes, Faribault, Minn., attorney, has been picked by officials of the Minnesota Society of Architects to be executive director for the society, a newly



Mr. Keyes

created post. Mr. Keyes has a considerable background in community service and state capital work in addition to his training and experience as a practicing attorney.

The position of executive director for the society is the result of nearly three years of endeavor by a group of members. The proposal to create the post was approved at the society's convention in Rochester last year and Mr. Keyes is the first man to fill the new job.

Mr. Keyes is a graduate of the University of Minnesota Law School and has practiced law in Faribault since 1946 as a member of the firm of Cook and Keyes. During World War II he served in the U. S. Navy for four years, achieving the rank of senior grade lieutenant before being separated from active duty. In 1947 he took a recess from the practice of law to serve as executive secretary to former Governor Luther Youngdahl.

While in Faribault Mr. Keyes took an active part in local civic affairs, including the Parent-Teacher Association, American Legion, Knights of Columbus and

Chamber of Commerce. He is highly experienced in executive procedures on a practical and professional basis, having served as chairman and organizer in civic matters on numerous occasions in recent years.

In his capacity as executive director, Mr. Keyes will devote himself full time to the establishment of a central office for the purpose of carrying out the objectives of the American Institute of Architects and the state society. After the initial work of collecting, compiling and co-ordinating files and documents, preparing chapter membership lists, as well as transacting routine business, he will be concerned with a long range program of legislation, registration enforcement and public relations. Of major importance in the immediate future will be assisting in preparations for the National AIA convention in Minneapolis next June.

### FORCED HOT WATER RATED TOPS BY ARCHITECTS IN NINE AREAS

A survey of heating preferences of architects and engineers in nine major trading areas of the country revealed recently that a clear majority prefers forced hot water, providing cost is not a factor, according to the Plumbing and Heating Industries Bureau.

Among 623 architects and engineers who answered the basic preference question, 357 named forced hot water heating (the question was put like this, "If cost were not a factor, which heating system would you prefer?"). Ranking next was forced warm air, with 269 voting for this method. Only 27 named steam or vapor and four named gravity warm air. A big majority, 497 of the architects and engineers, said their new clients demand summer cooling.

Panel heating was the favorite distribution element of those who favored hot water, preferred by 175. Baseboard radiation was preferred by 138 and convector radiation by 78. Only six mentioned free-standing radiation. More even distribution of heat, comfort, and cleanliness were the reasons most frequently mentioned for preferring hot water heat. Next, in order of mention, were better control, lower operating expense, appearance, reliability, longer life, simplicity of operation and buyers' preference.



# American Institute of Architects

## 87th Annual Convention

Minneapolis, Minnesota

June 20-24

### Preliminary, Tentative Program

#### MONDAY, JUNE 20

9:30 A.M.:

Registration Opens

11:00 A.M.:

Busses leave Hotel for Cold Springs Granite Company Tour (return 5:45 P.M.)

#### TUESDAY, JUNE 21

9:00 A.M.:

Registration Continues (Delegate's Registration closes 5:00 P.M.)

9:30 A.M.:

Opening Business Session  
Invocation  
Presentation of Convention to President  
Acceptance and Welcome by President  
Host Chapters Welcome  
Keynote Address  
Treasurer's Report  
Official Announcements

12:45 P.M.:

Address on Urban Renewal

2:15 P.M.:

Honor Awards Presentation

2:45 P.M.:

Seminar—"Rebuilding the City"  
Subjects:  
Cities Are Planning Conscious  
Review of Redevelopment Accomplishment  
Training the Architect for Planning  
Design Objectives in Planning  
Urban Design and Housing—A Report from the Committee  
Discussion from Floor

5:45 P.M.:

President's Reception—Prudential Insurance Building (Busses from Hotel, 5:30 to 6:15 P.M.)

7:30 P.M.:

Buffet Supper and Exhibition. "The Family of Man" by Edward Steichen—Minneapolis Institute of Art

#### WEDNESDAY, JUNE 22

9:00 A.M.:

Registration Continues

9:30 A.M.:

Second Business Session  
Report of Credentials Committee  
Report of Nominating Committee  
Call for Nominations from Floor

12:30 P.M.:

Luncheons as arranged  
College Alumni Groups

State Organization Groups

Architectural Fraternity Groups

2:15 P.M.:

Local Tours as arranged by Host Chapters

2:15 P.M.:

Seminar—"Keeping the Client a Friend"—Department of Education and Research  
Committee on Office Practice

5:00 P.M.:

Deadline for Presenting Resolutions

6:30 P.M.:

Smorgasbord Dinner and Ice Skating Exhibition Auspices Host Chapters—Saint Paul Auditorium

#### THURSDAY, JUNE 23

9:00 A.M.

Registration Continues (Closes 1:00 P.M.)

9:30 A.M.:

Third Business Session  
Report of Resolutions Committee

10:00 A.M.:

Polls Open (Close 5:30 P.M. Same day)

12:45 P.M.:

The Awards Luncheon

2:45 P.M.:

Seminar—"The Architecture of Community Expansion"  
Subjects:  
Planning Needs the Architect  
Development Housing—Neglected Architectural Opportunity  
Planning of Smaller Communities  
Commercial Service to New Areas  
Discussion from Floor

7:30 P.M.:

The Annual Dinner  
Investiture of New Fellows  
Awarding of the Gold Medal of The Institute  
Address

#### FRIDAY, JUNE 24

9:30 A.M.:

Final Business Session  
Announcement of Elections  
Introduction of New Officers and Directors

1:30 P.M.:

Luncheon, The College of Fellows

2:30 P.M.:

Seminar—Regional and Chapter Problems

4:30 P. M.:

Adjournment sine die.

Note: This program is printed at this time for your study and convenience; it is subject to change.





# A Company's Experience Guides Architect In Functional Design

ELLERBE & COMPANY

Architects-Engineers

St. Paul, Minnesota

## INTRODUCTION

In these times of progress we are often inclined to accept certain indications of advancement as routine, without giving much thought to the origin of the project and how it became possible; then again, with an equal amount of unconcern, we pass it off as another event which, unless we are directly associated with it, is of no great interest to us.

Architecture and its associated professions are today on the threshold of an era which is becoming more active and interesting with every passing hour. However, in order to emphasize that interest and carry the message to all, it is first important that architects themselves be sincerely interested in the local works of fellow practitioners, not just as reading material but as a matter of practical application.

In this article we have attempted to cover without too much detail the progress of the commercial enterprise commonly known as insurance and, in keeping with this, the manner in which the architect and engineers as a complete team met the challenge of providing a functional, attractive and economical building.

In order to ascertain the requirements of the new structure it was first necessary to turn back the pages to the origin of the organization and from there analyze the subject matter in detail, step by step, through the years up to the present day. Then, in order to gain first-hand information as to the active operation of the organization, the architect realized that he could best understand the function around which he was to plan and design a building by becoming part of the organization. This proved to be a most logical and satisfactory approach to the problem.



## HISTORICAL DEVELOPMENT

One day 15 years ago in 1940 a small insurance company first moved into the Midway District of St. Paul. The staff occupied just a small portion of the second floor of the Grain King Building at 2323 University Avenue. Soon the company needed a little more room, so in 1942 it moved to the Wright Building at 2333 University, taking half of the building's first floor and, a year or two later, three-fourths of the floor, for their growing operations.

But they also outgrew these quarters and in 1947 they purchased their first home office, the old Farmers Union Grain Terminal Association Building at 1923 University Avenue. By this time they were really growing and only a year later, in 1948, they had to build a large addition to this building. This tripled its former size, so much so that it extended back 300 feet from University to Charles Street in the rear.

That was 1948, and this large addition, they felt, would provide sufficient space for many years to come. But they were wrong for early in 1953 they had to move part of their operations into rented space across the street. Later that year about 50 of the home office personnel were moved into the First National Bank Building in downtown St. Paul.

By then the board of directors knew that they had to have a large and modern building, and very soon. The necessary steps were taken to provide such facilities and the St. Paul architect-engineer firm of Ellerbe and Company was commissioned to prepare the drawings for a structure to be erected on adjoining property on University Avenue. Following considerable research, drawings were approved in August, 1953, after which bids were called and construction commenced in September, 1953. The new building is now completed and occupied. Possible future requirements have been considered, first in acquiring adequate land for horizontal expansion and second in the structural frames being designed to carry additional future floors.

## OWNERS REQUIREMENT—BASIC

One of the organization's long range objectives is to provide good working conditions for employees. The guiding concept was, therefore, to provide the best known features contributing toward ideal employee working conditions. In consideration of air conditioning, acoustic treatment, lighting and provision of employee dining space the best available was required, both in the



ARCHITECT

working areas and recreational spaces. It was to be a home office building that would express in its design the progressive spirit of the Mutual Service organization and at the same time retain the dignity and obvious quality that benefits the character of the institution.

The building was to be designed for functional use with maximum utilization of space. In keeping with the principles of modern office planning large open work areas unhampered by partitions and numerous private offices were of utmost importance. Office space of this type would give maximum flexibility in arranging work flow for the most efficient office operation; also, any future modifications to this operation brought about by changes in the work flow could be made without alterations or renovation of the interior of the building.

Past experience had proved that any new structure should be "expandable" so that, in step with the growth of the organization, the building could be added to without congesting the space (and functions) already provided. It was realized that "building in" such expandable facilities would be costly at this phase of con-



One of the executive offices, where use of art forms and color provide a relaxed atmosphere.

struction. However, such was considered essential in keeping with the anticipated trend in insurance business.

A basic guide—the overall cost of any new building must be within the legal limitations (set by law).

## SOLUTION

Yes, it is an insurance building, calling for an executive staff and a large clerical complement; not so complicated a problem. No, but in these days space means dollars and economy of space, especially to the business man, is a most important item. Coupled with this are the possible future requirements, inside the structure as well as outside, for the using public as well as the employee. It all adds up to the often asked question—why an architect? This structure, as well as many, many others, provides the obvious answer.

The exterior can be termed as plain but in such lies its attraction for it indicates clean and simple design,

Bright and efficient is the general office space, shown at left.





The cafeteria is a place of recreation, an important feature in the planning of today's business buildings.

the honest and proper use of materials in true form provides a dignity highly desirable in a structure representative of this particular branch of present day commerce.

As the entire building is air conditioned the control of sunlight was most important, particularly on the southwest exposure. It was therefore necessary to avoid the use of windows on that side of the structure. Hence the reason for the large, but interesting, expanse of blank wall facing University Avenue. The noise factor also had to be taken into consideration and controlled so the avoidance of windows on the University Avenue side made this possible in conjunction with the air conditioning requirements.

The building is so placed on the site as to make the best use of the land area. The main entrance, together with the stair-well, is so located principally because of functional requirements but at the same time it provided an opportunity to be expressive from an esthetic point of view. The use of contrasting colors in a change of materials is particularly attractive and in keeping with present day trends in architectural design.

The whole building as a mass is quietly expressive and in true keeping with its function. In the rear is an adequate and open parking area, with space set aside for public as well as employees' use. The ground adjacent to this area is attractively landscaped, providing a pleasant view from the north windows.

Space within the building can be classified as follows:

**(a) Basement**

- (I) Staff cafeteria and lounge
- (II) Kitchen and service area
- (III) Mechanical equipment rooms (2)
- (IV) Storage
- (V) Toilets

**(b) First Floor**

- (I) Main entrance and public space
- (II) Executive offices and board room
- (III) General office and staff conference rooms

- (IV) Service and receiving area
- (V) Staff toilets and women's lounge

**(c) Second Floor**

- (I) General office and staff conference rooms
- (II) Staff toilets and women's lounge

**GENERAL DATA**

**Land Dimensions:**

Building area—250 front feet on University Avenue x 310 feet in depth.  
 Parking area (in rear)—200 x 450 feet.  
 Total land area—3.8 acres.

**New Building Dimensions:**

200 feet x 86 feet.

**Number of Floors:**

Two, plus basement, (3).

**Floor Space:**

New building—51,600 square feet.  
 Total space—85,000 square feet.

**Provision for Expansion:**

Vertically—structurally designed to carry 8 additional floors.  
 Horizontally—to limits of the property in rear.

**Construction Features:**

Reinforced concrete construction.  
 Air conditioned.  
 Acoustic ceilings.  
 Thermopane windows.  
 Recessed fluorescent lighting.  
 Stone facing—Bedford Limestone and Minnesota Granite.  
 Electric and telephone service—accessible through underfloor duct system.  
 Snow melting system—installed in sidewalk and loading dock.

**Costs:**

All contracts (including remodeling in existing building)—\$1,250,000.00.



### Time Under Construction:

Ground breaking—September, 1953.

Completion—March, 1955.

### Architects—Engineers

Ellerbe and Company.

Project co-ordinator—Earl Wesley.

Art Co-ordinators—Warren Mosman and Kemper Kirkpatrick.

### LIGHTING—ARTIFICIAL (ELEC.)

Because of the functional requirements and control necessary in the general office areas, it was essential to provide large open spaces—such (secondary to site limitations) dictated the overall dimensions and shape of the building. At this stage the matter of providing adequate and effective artificial lighting was a most important factor. In order to overcome this problem the very latest, proved type of recessed ceiling fluorescent lighting fixtures have been used. These units have a low brightness prism lens so designed as to reduce the direct brightness from the lighting fixture. Above all this lens, without destroying the overall illumination, reduces most effectively the reflected glare from the surrounding working surfaces and this in itself is most important.

### VERTICAL TRANSPORTATION

At present one service elevator has been installed in the building. However, the structural requirements and necessary space have been provided to permit the installation of passenger elevators (6) as required when additional floors are needed.

### USE OF COLOR

One is frequently reminded that choice of color is a personal matter determined by taste and experience; that beyond a few generalizations there is no rule of "right" or "wrong" regarding the use of color.

In selecting schemes for the general office spaces at Mutual Service, the following points were carefully considered. The spaces were large and unbroken by architectural features. Plastic materials had been chosen to cover the free-standing columns. This material looked best in its most neutral colors. The office equipment was medium grey color. Natural light was not an important factor.

These considerations indicated that strong accent colors could be used on peripheral walls to shorten the apparent length of office areas, to make confined areas seem more spacious and to provide visual termination in spaces which would otherwise have been monotonous.

Recessive hues were chosen for the largest color surfaces. Frequently these colors were qualified by mild contrasts of color or value which accentuated the psychological effect of the major choice. The recessive colors seemed to provide the most satisfactory distant relief for workers confined to their desks. Brilliant contrast colors, or contrasts of strong value, were used in smaller quantities. Usually these indicated the proximity of circulation spaces. Some were placed on walls behind desk workers.

For the most part, colors were chosen under fluorescent light of the same degree color as that which was to be used in the building. In numerous instances

colors were continued from space to space in hope of securing a color progression without sudden breaks. Occasionally unexpected juxtapositions were introduced to add richness. In this scheme each general office area developed a characteristic color note which was subordinated to the whole plan.

### ART PROGRAM

An important feature of the new Mutual Service Insurance Companies Building is the inclusion of an art program consisting of twenty-five original prints, drawings and easel paintings. These are spread throughout the building, in the restaurant, public areas and private offices.

It may sound incredible but already in the few weeks since the dedication of the building it can be said that the works of art, which give an added touch of completion in appearance and visual expression to the architecture, have very nearly paid for themselves in terms of public relations and publicity.

Lively interest on the part of the company's employees has been aroused, ranging from full appreciation to spicy conversation. There is little or none of the "no comment" reaction. Literally hundreds upon hundreds of their friends and relatives have viewed the new building's efficient planning, use of beautiful materials, handsome color and carefully selected works of art with above average interest.

When the program of art was first proposed by the architect to the building committee there was an attitude of being not quite sure it was the thing to do. However, during the four months it took to arrive at final selection, with the help of art consultants, confidence and real enjoyment matured into a sense and rightness of purpose.

The program has been a great stimulus to the local and regional artists who produced the prints and paintings. There is a prevalent feeling that the program has been mutually beneficial to all concerned, that the Mutual Service Companies have lived up to their name and that art with architecture can be good business!

### MINNESOTA STATE BUILDING CODE BECOMES STATE LAW

After hopes had dwindled during the final weeks of the recently completed Minnesota state legislative session for passage of the State Building Code, the code was okeh'd during the last days of the session and became Minnesota law. The new code has not yet become available in printed form but as soon as it and other architecturally important pieces of legislation passed are made available and have been studied we will carry a story on them for the information of our readers.

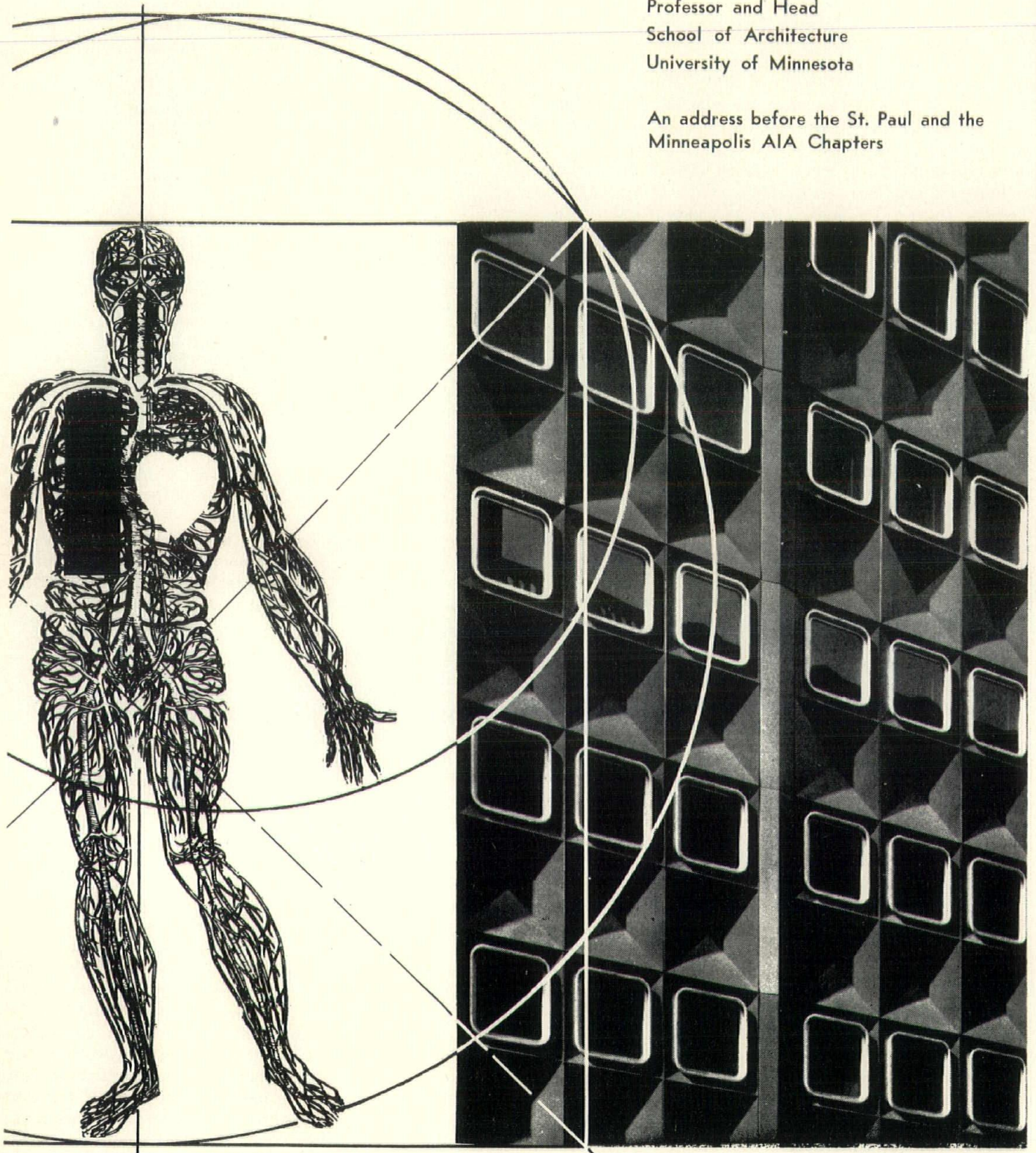
One unfortunate aspect of the passage of the code was that while the enabling legislation is now on the statute books there was insufficient money appropriated to carry out its provisions. Several groups of architects and interested parties of related fields are working on this angle to see whether there can be found some way in which the law can be made fully operative without waiting for the legislature to take action two years from now. As developments occur we shall try to keep our readers informed.



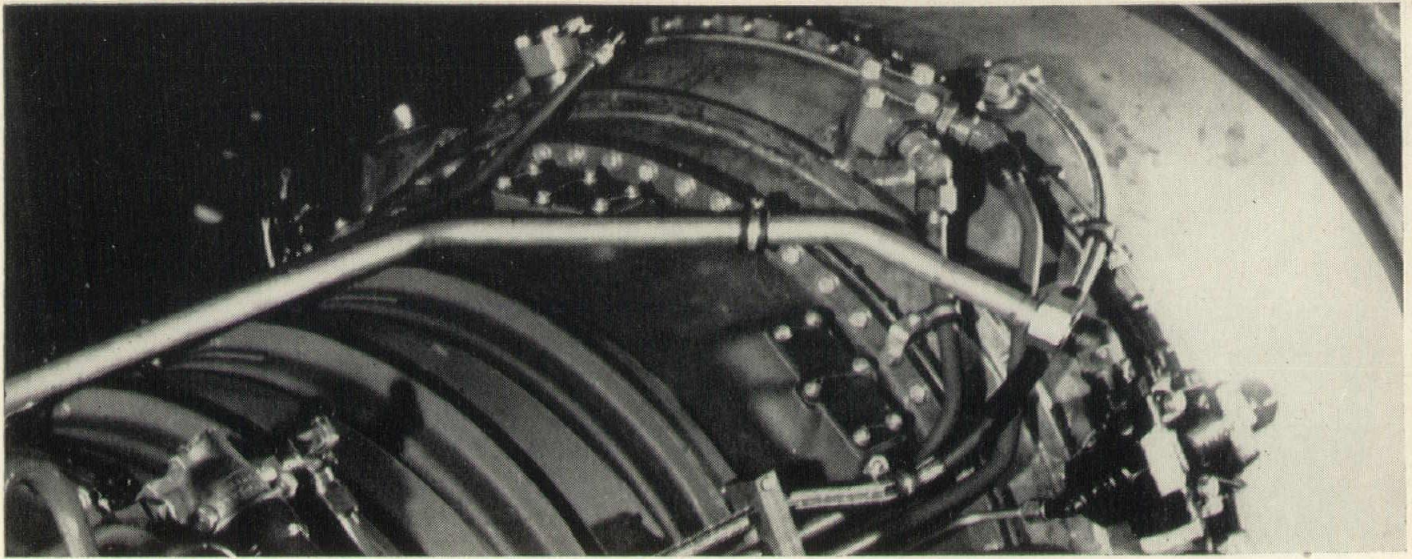
# EDUCATION AND ARCHITECTURE

RALPH RAPSON, AIA  
Professor and Head  
School of Architecture  
University of Minnesota

An address before the St. Paul and the  
Minneapolis AIA Chapters







**F**EW of you will disagree that this era has contributed many significant social and economic changes as well as enormous technological and mechanical advancements. This is the age of the machine, mass-production and great standardization. Our entire way of life has been affected and, just as life has become increasingly complex, so the architectural picture has become increasingly complex. Today architecture is not only an art but a highly involved science. It is the art and science of organizing space and relating it to man for his comfort and pleasure. The education and practice of architecture can no longer be conveniently channeled into a given formula or be regarded as a luxury open only to the cultured gentleman for it is an increasingly intricate expression of the social and physical sciences.

The fact that architecture is the basic art—second only to food for man's survival—means that the architect is tied to humanity in ways that the painter and sculptor are not. And the fact that architecture is a basic need means that in his work the architect must consider humanity in ways that the scientist need not. While this reality of life is an ever present limitation, it is the great challenge of the architect.

The unparalleled growth of population has resulted in shifting and new social patterns which require greater and greater understanding on the part of the architect. This growth alone has meant that building has become not only larger but more and more complicated and has, by necessity, been forced to match the growth of industry, transportation, medicine, government, communications, etc.

The impact of these many new developments and innovations on architectural practice has been to require a comprehensiveness never before imagined. And few of you will disagree that there is danger of an ever-widening gap between this ever-expanding and complex knowledge on the one hand and the assimilation of it in education and practice on the other.

If we were to set down the vast range of multi-skills and multi-knowledges demanded of today's comprehen-

sive architect, it is more apt to read like the complete university catalog.

The architect of today must seek a wide understanding of human psychology and aspirations and he must be sensitive to the emotional needs of society. Buildings go beyond mere necessity. Their sincerity or superficiality is reflected in the people who live and work in them. Buildings, streets and spaces influence our thinking and deeply affect our lives—as Sir Winston Churchill put it when he said, "We shape our buildings and afterwards our buildings shape us."

No architecture is created in a vacuum. It cannot be considered apart from life for its roots receive their nourishment from life. Its past, its present and its future are firmly bound up in the social and cultural history of people. Its physical forms are the visible statements of human relations upon which human happiness depends.

Probably the basic difference of truly contemporary architecture from the usual is its return to truthful moral standards—its insistence upon a properly understood moral and social program and its insistence on the honest acceptance of the science and technology of today—honestly applied to the art and science of building which is attempting to serve society.

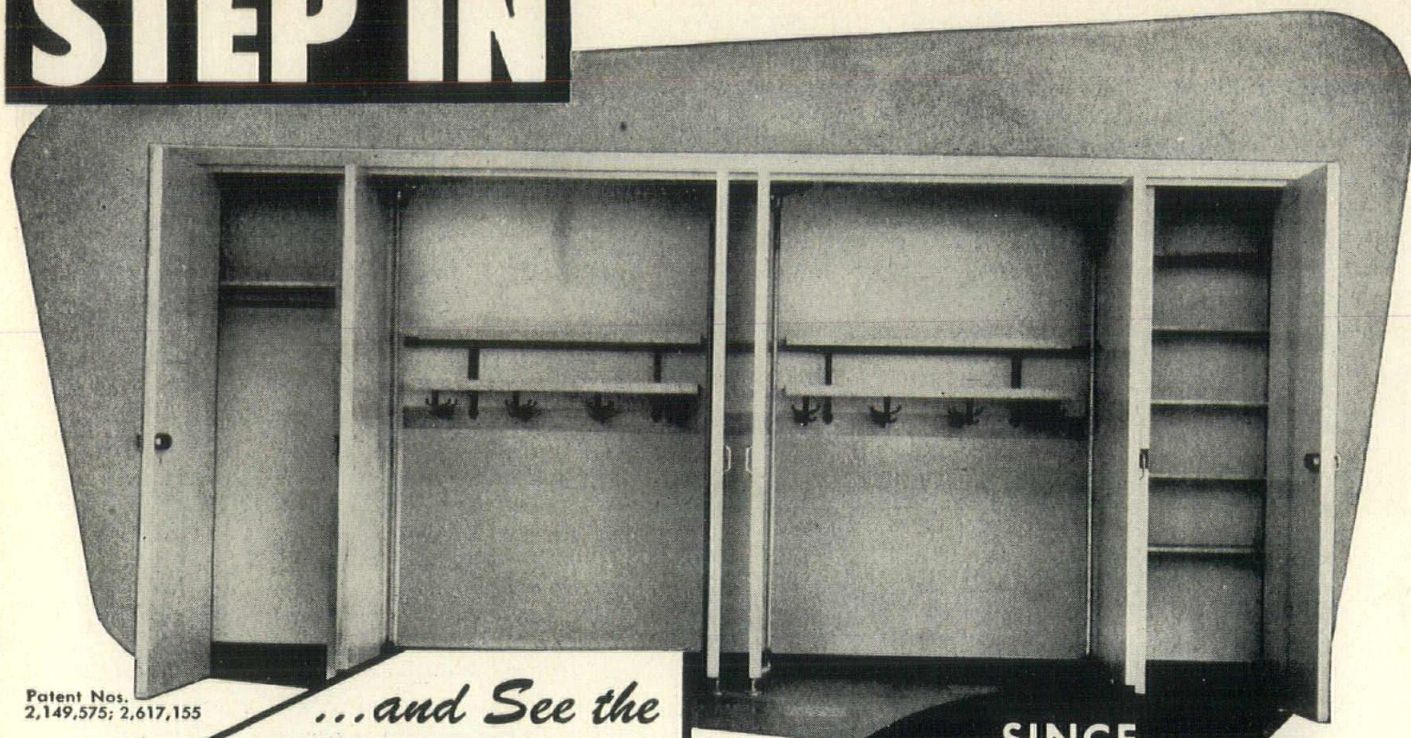
In addition to this careful consideration of humanity, the architect of today must gain great understanding and knowledge in many and varied fields—from large-scale planning to minute architectural details. He is faced with a bewildering variety of structural systems and construction methods. He must know the potentials and limitations of countless materials—the qualities and possibilities of aesthetic expression. The detail involved in the integration and intricacies of electrical and mechanical systems are becoming more and more exacting each day. Any given architectural problem may involve promotion, analysis, programming, designing, economic and administrative problems.

In other words, the architect is expected to be a bit

*(Continued on Page 24)*



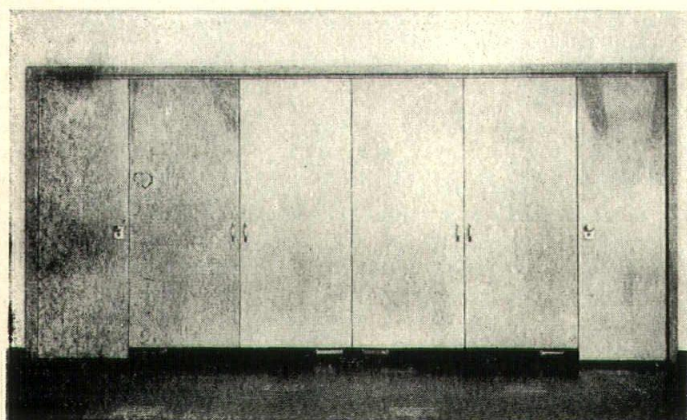
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of everything from a planner, an organizer and psychologist to an artist, an engineer or—as John Burchard said—“A father confessor and baby sitter all rolled into one.”

What I have been saying regarding this complex business raises a very provocative point, not only in the practice of architecture but in the formal education of the architect as well. Is it possible for the individual, no matter how brilliant, to be specifically informed in every facet of this great and expanding social and physical art or are we not in danger of being dilettantes both in practice and education, people knowing a little about everything and little about anything?

Much is written and expounded about the architect as the co-ordinator, that it is he who can best organize and direct this symphony, or should I say, this great side-show. If it is he who should do this job, then he cannot hope to be the conductor unless he becomes highly qualified in these many fields and so qualified that he will avoid the pitfalls of attempting leadership in those zones of work where others are better qualified.

Such a specification seldom is realized in one individual. In practice (and it generally is just that) this often overwhelming task is accomplished in varying degrees by co-ordinated group effort. In short, there are architects of different talents and interests. But to fill this comprehensive specification in education—the formal training of the individual—is another thing.

It is here that many will disagree on the general and detailed programming of these far-too-short five years of the young man's life. It is generally far too early in the development of the young mind to determine specifically where his talents lie, and it is of utmost importance that the general precede the specific.

Just as all life is more important than the single day or year, so the broad concept is more important than the detail, although the one supports the other. And I think none of you will deny we must realize that it is the total man we are interested in, the same as it is the total environment, the complete expression, that is important—rather than the individual gem or the fine, isolated detail.

Formal education of the architect is a twofold process. On the one hand it is necessary to have the broad, mature philosophy—an architectural concept and conviction worthy of the aspirations and capacities of our times; while on the other hand it is necessary to develop the skills and tools—the detailed and technical knowledge—necessary to achieve the co-ordinated, whole product. Architectural education must be guided by able practitioners, men with strong architectural convictions founded on building experience. Education must develop all the skills possible and our schools to-

day must place greater and greater emphasis on the social, economic, mechanical and technical aspects of architecture; but this knowledge will be of little value if the process fails to give direction.

By this, I do not mean any narrow, dogmatic approach as exists in one or two schools in this country for the basis of education itself is the realization that there are no final or end answers and that absolute certainty about anything is non-existent. Concerned and motivated as it is with problems of humanity, there is seldom a black and white solution to any given architectural problem—rather there is the great richness of the entire palette basically limited only by the architect's inherent and developed qualities.

Fundamentally, education is concerned with the individual; it must develop *the man's initiative and intellectual powers*. I would say there are three broad phases to this process: first, the mind must learn to analyze clearly and logically—or to think creatively; second, the mind must develop the ability to employ knowledge with judgment—or to apply creatively; and third, the mind must forever remain alert and dynamic—or, in other words, to continue the ability to learn.

Complete understanding of the learning process is essential. Creative thinking is not a mystical or an isolated phenomenon; it can only be the result of orderly acquisition of knowledge fundamental to the broad objective. This discipline is basic to education although the selection of the amount and quality of factual knowledge is most difficult. There is always the danger of stultifying the imagination as one acquires more and more information and knowledge of previously successful processes. Routine methods and known answers often eliminate doubt and without doubt one of the motivating forces of inquiry is eliminated.

Very little is known about creative ability but it would seem to be the ability to maintain a wide range of full mental association within the framework of acquired knowledge. Although it may not be possible to teach creativity, I feel that it definitely can be dulled or killed.

The ability to apply acquired knowledge with imagination and judgment is fundamentally necessary to every creative architect. Creative synthesis is preeminently the life blood of architectural education and architectural practice. It is in this phase of the training and practice of architecture, the realization and integration of the many cut-up, specialized pieces into a unified whole and total expression, that most of us fail.

Finally, if education does no more than instill a desire to continue to learn throughout life—to encourage an active and alert mind—then it has perhaps achieved its purpose. Too many have the misguided impression that education stops upon graduation; rather it is the beginning—the foundation—of continued growth. Passively obtained knowledge, under rigid direction, fails to develop or stimulate the mind and does not develop individual resourcefulness and integrity. It is imperative that education stimulate and nourish the mind, for much of this dynamic quality is due to having had pleasure in learning and realizing that learning is an

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exciting adventure—a continuous search for the new and unknown—culminating, for the architect, in creative synthesis.

Certain things can be best taught in school. Other things can be best learned in practice. While it must give great technical knowledge and training, a university is not a trade school. To me, it is far more important that the man be given a sound philosophy, direction, and convictions about architecture and life; that he learn how to analyze and organize his work and himself; and that he acquire the ability to apply himself creatively.

Robert M. Hutchins, association director of the Ford Foundation and formerly chancellor of the University of Chicago, puts it this way: "Education is not to teach men facts, theories or laws. It is not to inform them or amuse them or to make them expert techni-

cians. Rather it is to unsettle their minds, widen their horizons, inflame their intellects, teach them to think straight—if possible—but to think, nevertheless."

In conclusion, let me say that our architectural education must remain fluid and dynamic, geared to the individual man, to our society and to the technology of our times. We hope to give the boy a broad philosophy that will aid in his search for a lasting and truthful architecture. If we can give him not only a thorough foundation in the social and technological sciences but open his mind to orderly and creative thinking, teach him how to evaluate and apply knowledge and to always retain an alert mind—then, perhaps, we turn out well-rounded human beings who will one day take their places as mature architects with genuine understanding of the hopes and aspirations of humanity.



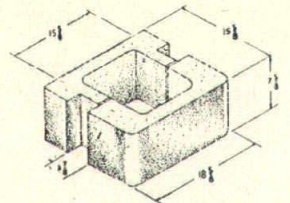


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# From the Ground Up

## Some Warm Replies on the Cold Facts

**P**eople and their material needs is the business of Engineering. People and their need of beauty should be the occupation of Architects. Engineering and Architecture cannot be segregated :: :: :: Mechanical enclosure of space can be pure poetry. Accommodation of the "Seven Lamps of Architecture," Sacrifice, Truth, Power, Beauty, Life, Memory, Obedience, by the Five Technical Arts, the arts of Stone, Metal, Wood, Earth and Fibre, can be very practical.

BY WILLIAM GRAY PURCELL, AIA

**T**his is really a hot issue — hot heads and hot foot. An engineer interviewed by phone yelled so loud you couldn't catch his words, which would inexplicably die to an echo, upon which it appeared that he was backing away from the phone so he could wave his arms.

A housewife with heat tubes in her cement-floor bungalow had turned off the whole plant and was heating, at high cost and no success, with portable electric space heaters because the floor got too hot to stand on when she stood at the sink and the stove, and the bathroom was too cold.

Yes, her husband had "tried to adjust the valves and thermostat and now the bathroom wouldn't heat at all." Our genial 6' 4" Mr. Parker put in a half hour with wrench and thermometer. He also spent fifteen minutes getting a firm promise from her not to tinker, but to just let the plant do its stuff 365 days at 24 hours per day, as our similar plant, next door, had done for four years without stopping. Her bathroom coolth has now departed, the hot feelings are mellowed, the electric bill down, the gas bill up to normal.

**F**ROM THIS it is plain that two sets of answers are needed. Each would make a book; a book for the heated-up heating experts; a book for the chilly customers.

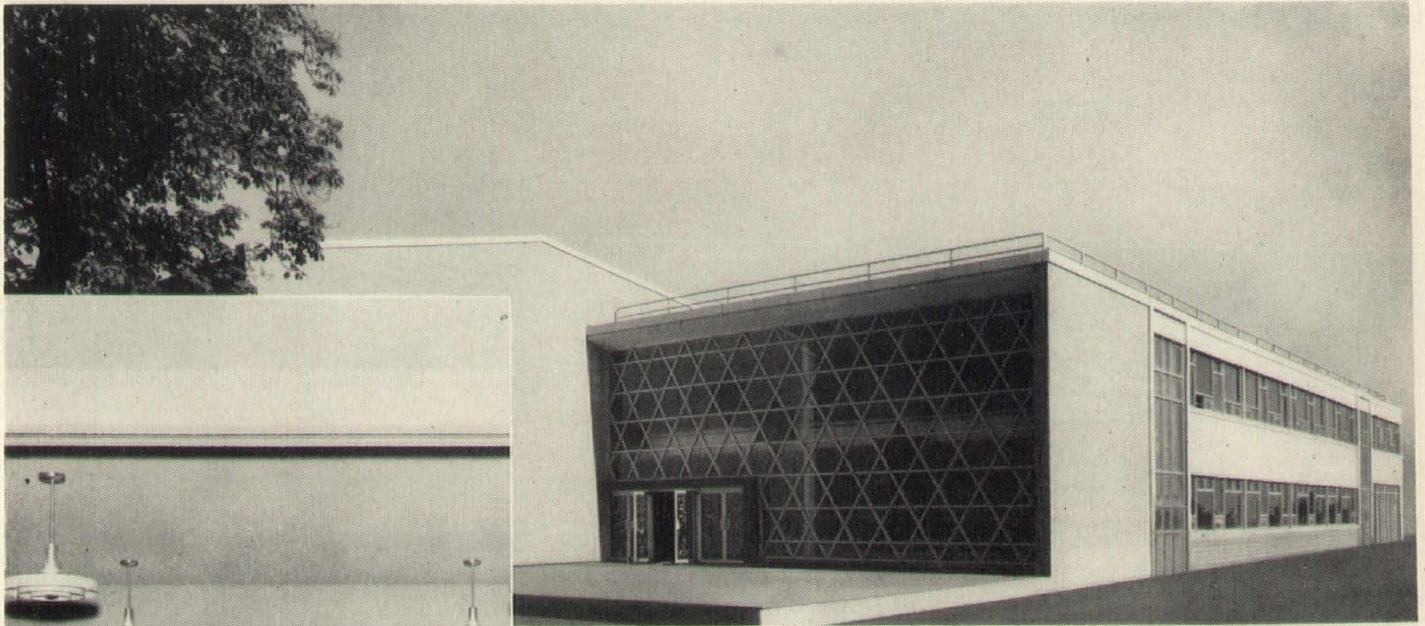
**W**E CAN'T SATISFY BOTH. We can't really do very much for either, not in these few pages. So we are going to let the engineers work out their own answers and sample their resulting successes at home. As a sign-off we will list for them a few sources of information. We will now set our thermostat for 7 a.m. and settle down by the coals of a glowing walnut log, to read your mail; with T.V., radio and a home made Hi Fi phonograph booming and trilling distantly down various "Westwinds" halls and stairs.

**H**ERE is the first question. "We live in a house with cement floors right on the ground, but with no heat in the floor slab. We have a gas heater with a blower and pipes to all rooms that will supply 72° warmth. Do we also benefit from the heat which you say is constantly radiating up from the earth through our always cold floor?"

**I**T IS TRUE that *any* cement slab is using the latent heat in the earth to raise the temperature of that cement floor to 50°. But floors must be brought up to 72° before the cement slab ceases to draw heat out of the people's feet, and out of their bodies as they sit or move about their rooms. One can't assume, if it "feels like about 72° in here" and the thermometer confirms it, that you are comfortable. The comfort of feet and legs is the index of successful heating, not what the thermometer says. The fuel bill and the thermometer are aware of the contribution of the 50° from beneath the house. Yourselves, as people, aren't aware of its value until *enough warmth has been purchased and added* to the 50° to bring the floor-slab temperature to 72°. Only then will your own bodies no longer be *supplying* to the floor the very warmth which a 50° floor is *taking away* from you, and with *no* returns to your physiology, only a bigger gas bill. That is why the 50° of heat in the cement slab of your house, where you are heating only the air content of the rooms, does not *seem* to be of any benefit. That 1,000 square feet of cold floor surface is making a 20% heat demand on every person in your house. Only when the people in the house stop being heating units for floor, furniture and walls of the house, are people in houses relieved of that *physiological* factor which makes them uncomfortable, and of the *psychological* factor which makes them still believe in thermometers, no matter how "hard" the floors feel to numb feet.



## New Jewish Community Center — Milwaukee, Wisconsin



### "Machine Applied" ZONOLITE Acoustical Plaster Used On 3000 Yard Ceiling Area

WEMPCO representative, Ken Johnson, points out ease with which structural beam was attractively covered with "machine applied" Zonolite. Left to right: Maynard Meyer, architect—Johnson—Ed Luebeck, plaster foreman of Alfred Schmitt, Inc.—Wallace R. Lee, Jr., Associate of Maynard Meyer & Associates.

The new \$1,365,000 Jewish Community Center, 1400 N. Prospect Avenue, Milwaukee, is another outstanding example of recent machine applied Zonolite Acoustical jobs.

Alfred Schmitt, Inc., Milwaukee, was the plastering contractor. Base and texture coats of Zonolite were both applied by machine.

Maynard Meyer & Associates, Milwaukee, was the architect and Selzer-Ornst Company was the general contractor.

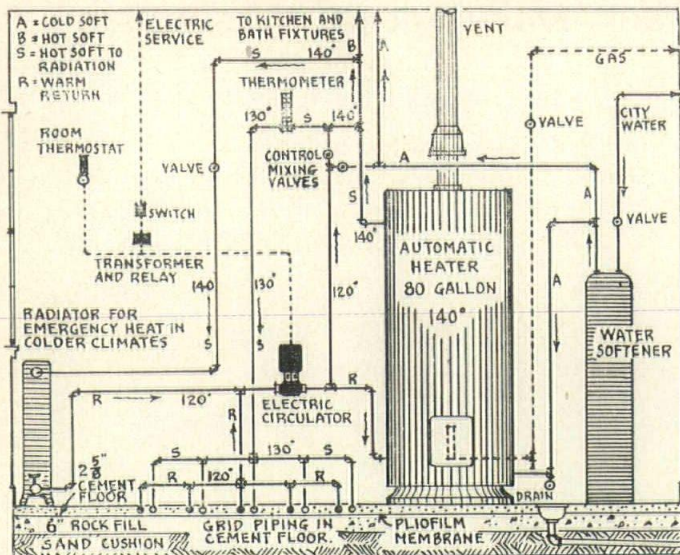
The new community center is one of many recent, large jobs where Zonolite Acoustical Plaster has been machine applied with outstanding results.

For maximum fire safety, uniformity of texture and versatility of design, Zonolite Acoustical has much to offer both architects and builders.

Investigate Zonolite now. Your WEMPCO representative will gladly give you the complete story. Write today!







PIPING DIAGRAM FOR A FLOOR GRID HEATING SYSTEM

**T**HE NEXT QUESTION: "If the floors are the 'radiator' which supplies all the heat in the rooms, don't the floors get unpleasantly warm, especially in cold weather?"

**I**N INTRA-FLOOR HEATING the floor slabs maintain a constant temperature of about 72° at all times, summer and winter, hot days and cold. You see, your body temperature is 98.6° and the ordinary room temperature generally desired is around 72°—a difference of 26°. Now consider that to maintain your own body comfortable when the day is very cold or too hot, your body has a built-in regulator something like Honeywell heating control. Your internal body temperature stays about the same in health regardless of surroundings. The skin is both a cooler in summer and a blanket in winter. When too hot, the skin pours out moisture which evaporates to cool you; when cold, the moisture tubes close, the blood is withdrawn from the skin and the inside "you" is insulated; less heat is lost.

But another principle of thermodynamics can also be called upon for more comfort at less cost. If the aqueous vapor in the air of the room is about half the volume of air, the room temperature generally accepted as about 72° for comfort, need not be more than 65° for equal comfort. This is because of the action of your skin as an automatic comfort control as noted above. It is difficult to convince people that they are comfortable at 65° if there is a thermometer around, for three reasons.

**First**, because few ever experience the enjoyment of a room of proper humidity.

**Second**, because people wouldn't know it even if they had the best humidity percentage, because they will probably never see a humidity gauge or hygrometer (the "thermometer" designed to register aqueous vapor).

**Third**, because they are so conditioned to correlating thermometer and comfort with 72°, that they "register" their feelings by the thermometer and react to visual evidence. In this they are practically justified, because houses are not ordinarily operated on a laboratory

*THE ACTUAL INSTALLATION of such a heating plant as this, in your home, would of course present no such tangle of pipes and gadgets as appear in the above diagram. The sleek surfaces and well contoured forms of today's service equipment are true modern "form-with-meaning" art. They are living tokens of physical and emotional security, orderliness and health. They are good companions. You live in and by their impersonal unselfishness. Each one gives back your unconscious gratitude. They EXIST because they ACT. WHAT they do springs, on the instant, from a potential that never sleeps. All these mechanical marvels when serving good needs become the moving poetry of the machine age.*

basis and very few rooms in cold weather ever have "half and half" humidity. Usually in Minnesota winter rooms, the air is about as dry as Death Valley. No wonder they are chilly at 72° or even at 76° with that violent skin evaporation going on!

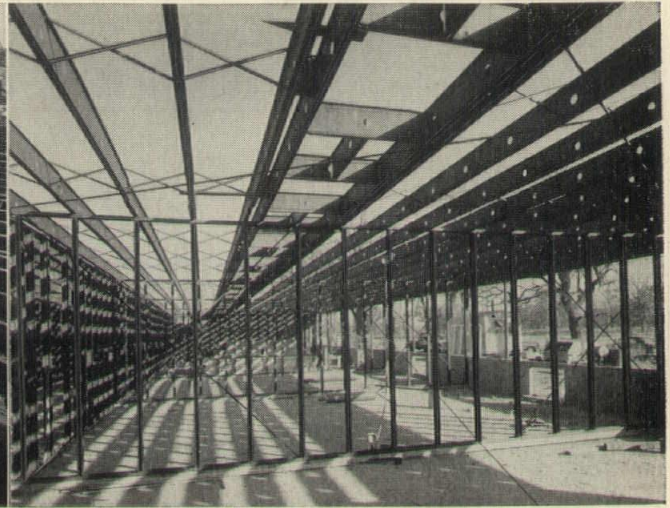
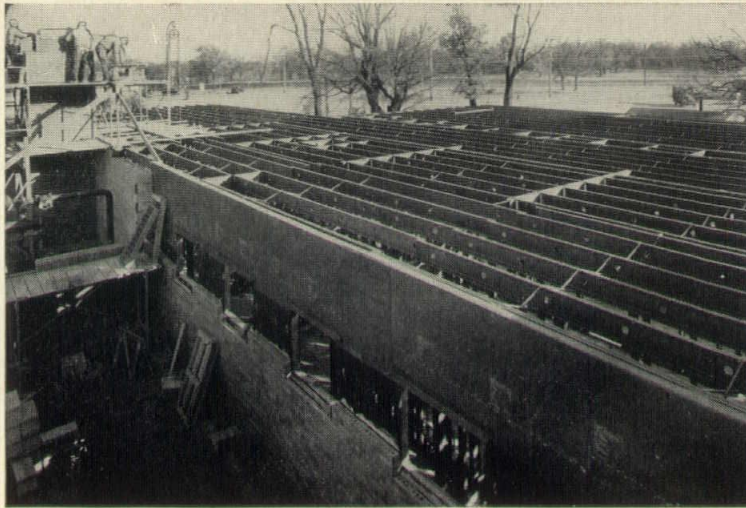
As to the floors getting too warm, the cement slab, as a heating element at only 72°, is doing its work at one-half the heat of the well known "steam heat" of cast iron room radiators. Thus, where no heat is being drawn from the people, and the unparched air in the room has been gently brought to normal, people find that they are wholly comfortable at 65°—indeed much more comfortable because they are free from the thick-headedness that comes from loss of heat-balance within body, whenever bodily metabolism is obliged to leave off normal living functions and act as a heating plant to rooms and furniture.

As for humidity, room air becomes parched by high furnace or radiator temperatures. These temperatures, for heating room air with cast iron sectional room-radiators, range upwards from 180° for circulating hot water systems. Hot water at 180° is about 75° hotter than a very hot bath. Steam radiators work at 212°. And the gas and coal combustion boxes pass the air over surfaces at 1500° or more. Under these conditions people must have 72° up to 76° room temperature to make up for their bodily heat loss by radiation and evaporation. Both make one feel cold.

**"O**N A HOT day doesn't the constant 72° temperature of the 'warm' floor make the rooms that much warmer?"

**N**O, BECAUSE of the principle that heat always travels from the warmer body to the cooler. When the day's weather gives you 90° outdoors and in, the 72° floor does not make the room warmer. The floor is receiving heat from the air in the room, not supplying heat to it. The heating boiler thermostat has gone off and no gas is burned until the outdoor weather temperature, as it affects the air in the room, causes the floor-slab temperature to fall below 72°. One of the most disagreeable features of unwarmed cement floors is their clammy feeling when coming indoors from a hot





# Another School *Shows How*

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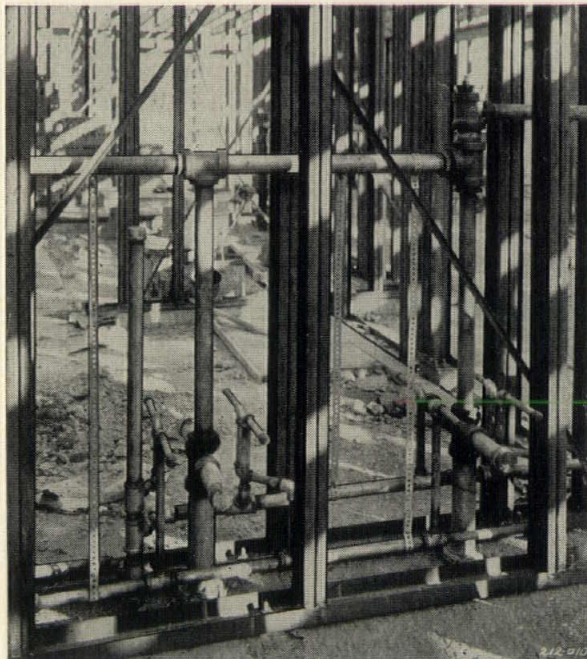
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The above pictures are of the addition to Lovell School District 48, Anoka County, Circle Pines, and Lexington, Minn.

Architect H. B. CROMMETT

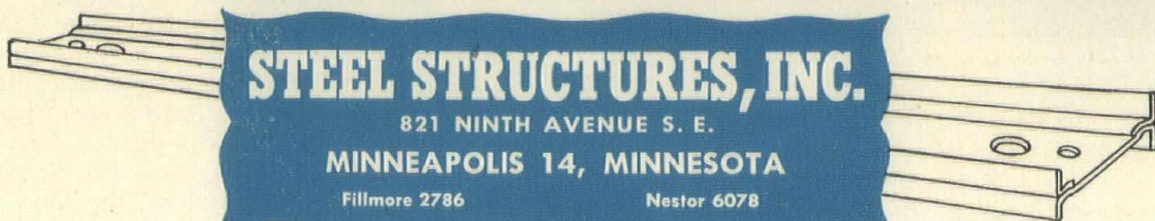
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summer day. Then you are really grateful for a neutral floor which cannot heat up the air in the room, which may already be 80°, 90° or more. Toward such weather a 72° floor is neutral indeed.

**"B**UT IF you can't 'turn off' the warm floor slab which supplies the heat for the house, and one must cool off the house by opening the windows, just think of all the heat being wasted heating up the whole outdoors."

**T**HIS GOES BACK to an old rule of thumb we used in figuring radiators for all the rooms:

- 1 sq. ft. of rad. for each sq. ft. glass.
- 1 sq. ft. of rad. for each 10 sq. ft. ext. wall.
- 1 sq. ft. of rad. for each 100 cubic ft. of room content.

So you see that very little heat is required to warm the air in the room and that 99% of the heat is required to heat the walls, ceilings, floor, furniture, and window glass as we have variously explained.

But the critical factors here are TIME and HEAT SATURATION. These principles operate as follows: When the building of your house is completed and the intra-floor slab heating plant ready to perform, the electric pump at the tank heater is snapped on; the hot water starts to circulate through the floor tubes. It is going to take from three to four days to heat up your five hundred cubic feet of concrete and cement of the floor slab, and you will get no heat to warm you until this operation is complete. The heat is fed to the floor by the surrender of only four degrees of heat for each circuit working 24 hours a day. The full value of your plant will not be had until the heat from floor has radiated directly through the room air, and, by continuous impingement upon walls, ceiling, equipment and furniture has slowly brought them all to 72°.

Now you are set for all time; you *never* turn off the plant winter or summer. When the room temperature or outdoor temperature is more than 72° the weather feeds heat back to your home. The earth beneath your floor is always feeding up fifty degrees of heat and so the pump thermostat only works the plant when asked by the indoor "weather."

Since the house has taken an average of nearly a week to really get going, that is, about 150 hours, opening the windows in bedrooms only for 9 hours at night would be 150 hours divided by 9 hours or about 15 hours total heat loss. Thus even if the entire house were thrown open, for nine hours, only about 1/15 the heat stored in the slab could be affected by the cold air coming in the windows and passing over the floor. But no one cools off an entire house in winter and any such loss is further reduced because we have to take into account the *rate* at which the floor slab gives up its heat which is very slow.

So we found by trial runs in our Prospect Houses, that it costs less than 25c a week more to just let the slab heat run with the thermostat. Our tenants in these houses tell us that getting up at night to look at the kids and walk on warm floors is a real joy. In the morning, close windows, open hall doors, whole house is ready-warm in five minutes; the bath, halls, kitchen, etc., never cool off.

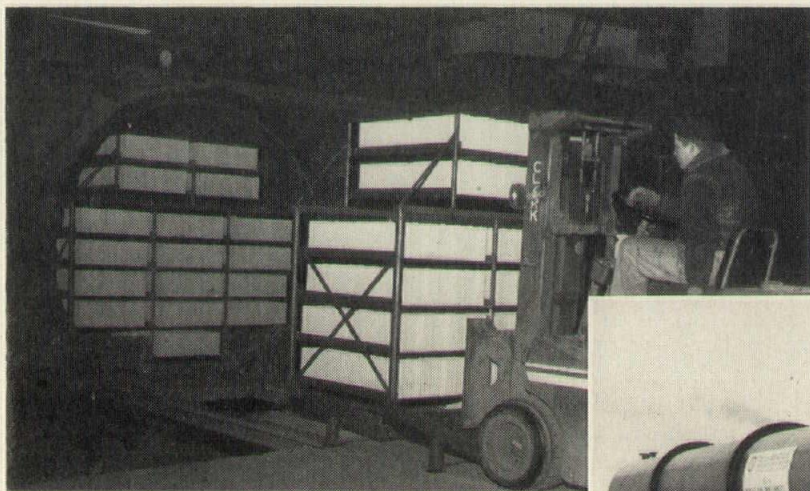
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NORTHWEST

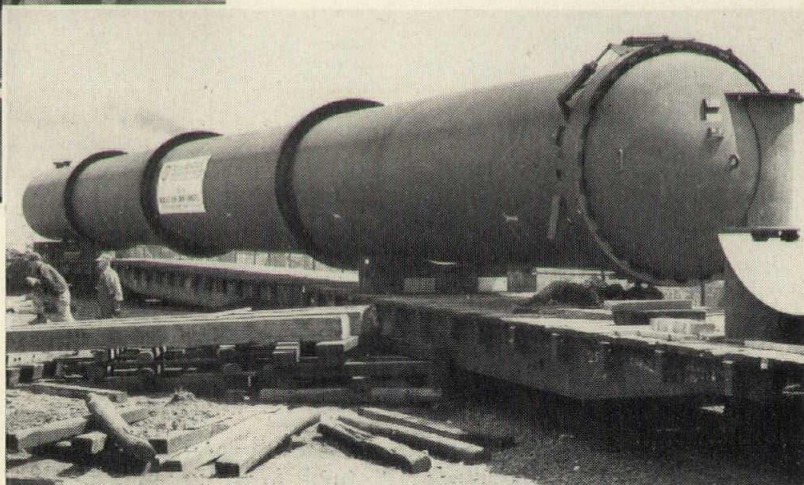


# CONTROL MASONRY SHRINKAGE . . .

*With High Pressure Steam Cured Masonry Units!*



LEFT: A view of one of the autoclaves which cures 3672-8" masonry units simultaneously under a pressure of 150 p.s.i. saturated steam at 366° F.



RIGHT: One of the 65-ton pressure vessels, 128 feet long by 9 feet in diameter.

## *What is High Pressure Steam Curing?*

By definition of the American Concrete Institute, high pressure steam curing is understood to mean the process of curing in saturated steam under a pressure and for a period sufficient to produce a stabilized finished product, such that the linear shrinkage from a saturated condition to that after drying to constant weight at 212° F. shall not exceed 0.03 per cent.

## *What Takes Place?*

High pressure steam-cured masonry units are different from other masonry units. This type of curing gives a more stable block and greatly reduces volume changes due to moisture conditions. The lime and silica in the cement and aggregates combine to form crystalline hydrated calcium silicate which does not shrink or swell as much as the amorphous forms that occur in normal steam curing. A more dense, higher strength, more stable concrete is the result.

## *Advantages of High Pressure Steam Cured Masonry Units:—*

- **FULLY CURED BLOCKS** ready for use.
- **HIGH STRENGTH** in 24 hours is more than equal to 28 days moist curing. This high early strength is permanent.
- **DRY BLOCKS** with moisture content below normal air humidity when removed from Autoclaves.
- **PRE-SHRUNK**—A more stable block. Initial curing shrinkage already complete. Future shrinkage from wetting and drying at least 50% to 66% less than in blocks cured by air or low pressure steam which is known as high temperature steam curing.
- **PHYSICAL CHARACTERISTICS**—A lighter colored and more uniform block. True in shape and size. Gives a clear ring when tested with a hammer.
- **MAKES BETTER WALL**—Good mortar and workmanship is essential for a good wall. However 95% of a block wall is composed of the blocks themselves and it is obvious that units with low shrinkage give greater assurance of uncracked walls. A.C.I. Committee in Nov. 1944 report that they do not know any other treatment that will reduce drying shrinkage to the extent that High Pressure Steam Curing will reduce it. Architects and experienced builders who have used high pressure steam cured units insist on them in preference to normal steam cured units. Their superiority is a proven fact.

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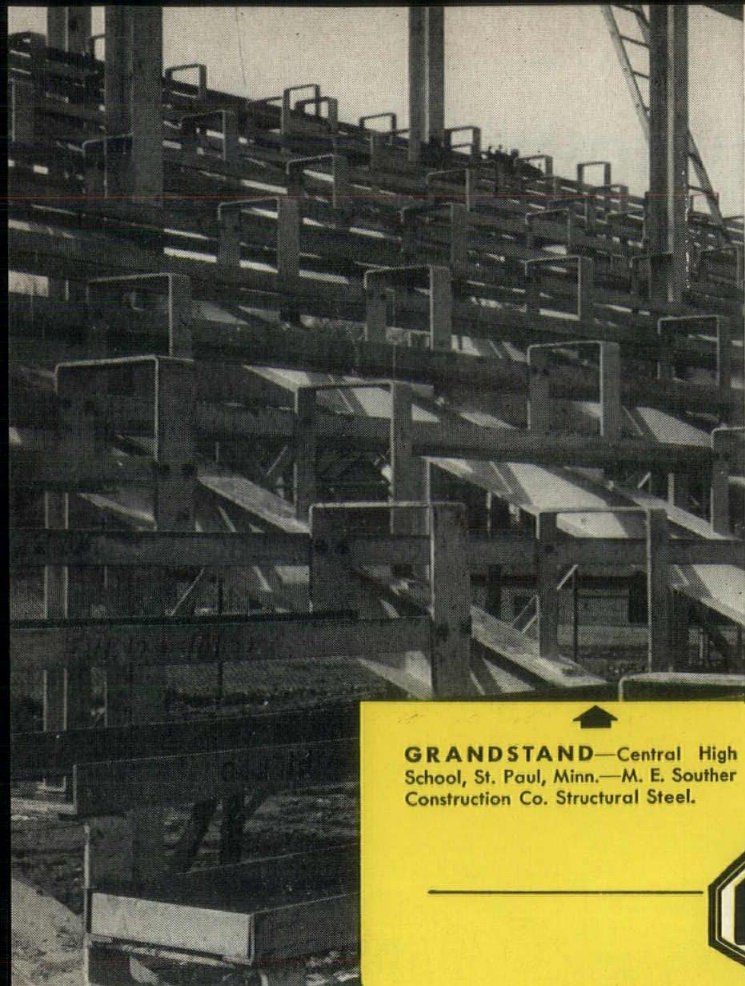
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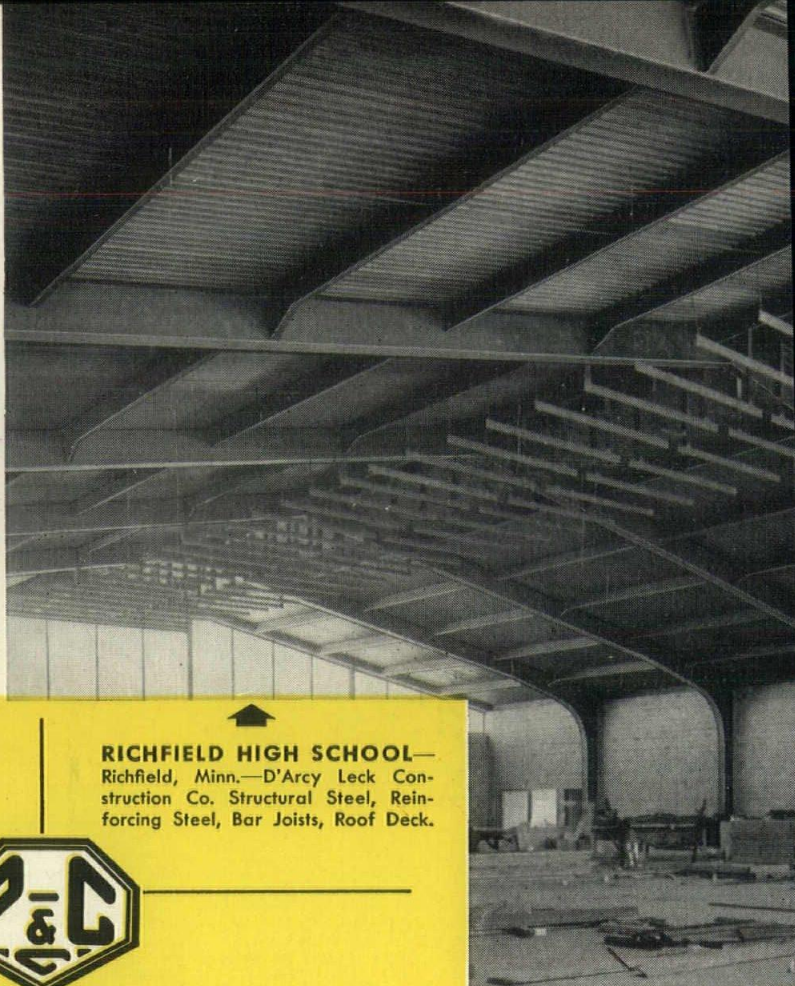
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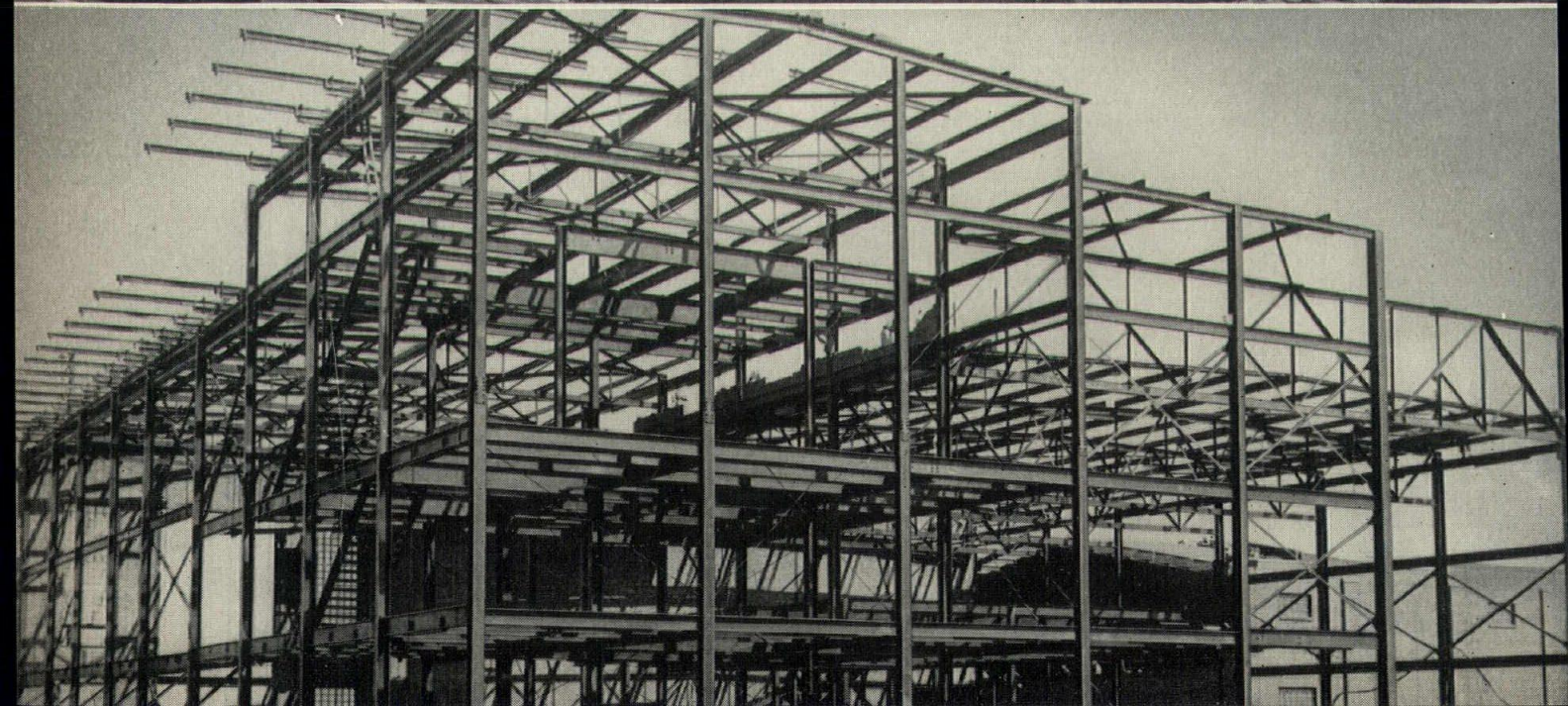
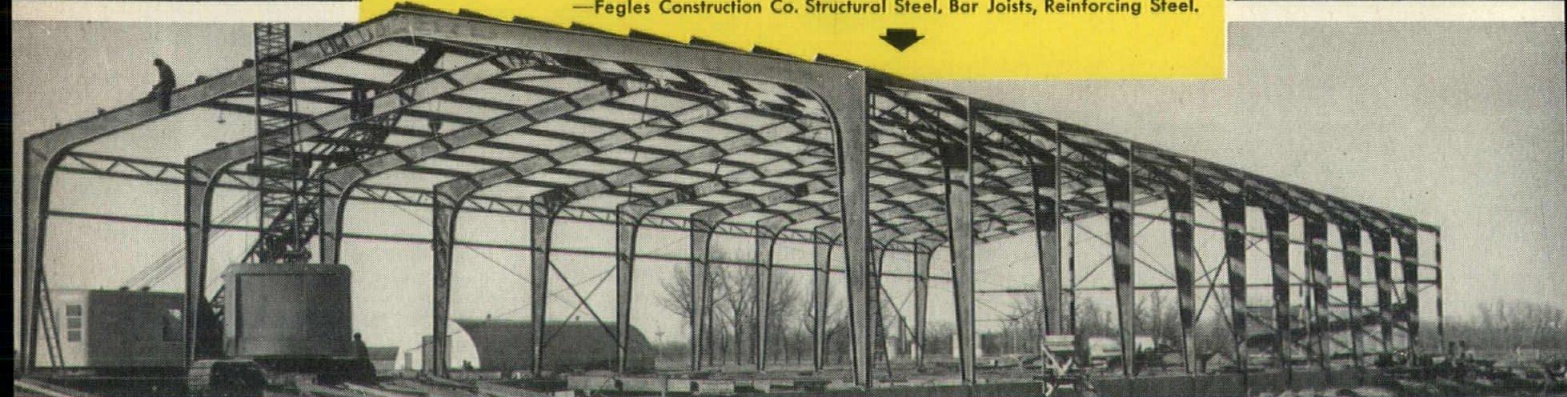
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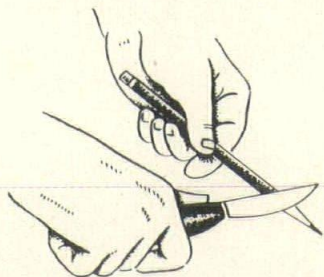
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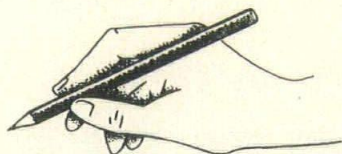




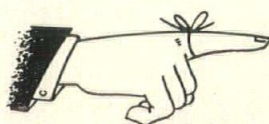
## An Important Point



## That Busy Architects



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**S**O ARE wood floors very hard. It is not that the floors are hard, whether of wood or cement; it is feet that are numb from that six-inch deep lake of 50° air on the floor, when the room is 72°. The cement and marble floors of office buildings do not seem hard to slipped typists. The floors are warm from the hot ceilings of the floor below. We find our warm floor slabs with in-the-slab pipes no longer feel hard. As you know, *anything* you walk on feels hard to a foot numb with cold.

When air conditioning was first installed in hot summer theaters and restaurants about fifteen years ago, the thought was to get the temperature back to the accepted normal 72° that everyone liked. It was at once discovered that a reduction of about 10° was all that the public could take without sneezing, when the “weather” outdoors stood at 90°.

The human body has a wide range of acceptance and non-acceptance. Our friends who live in hot-the-year-around Imperial Valley, have a “cool cellar” for afternoon siesta when daytime desert temperatures are 120°. They cannot however reduce temperature below say 105°, without catching cold. Down there the “children’s bedtime” for the whole community is twelve midnight after playing in the flood lighted park following ten o’clock supper. Well, so much for that, which only shows that the primary heating problem can only be appraised by the varying index of people’s habits and conditioning and not by the mathematics of heat gauges.

**“W**HY don’t the walls, floors, and furniture get warm from the 72° air content of any room heated by space heaters — cast iron hot-water radiators, fan driven circulating gas heaters?

**T**HEY DO eventually; but much too slow to be of practical benefit, except during long periods of winter weather. Remembering the 1 to 10 to 100 relation in the disappearance of heat, you will see that the heating ability of air in a room due to direct contact with a colder surface is as 1 to 100. Unlike the mild heat convected about by aqueous vapor in 72° room air, radiant heat cuts right through the air and is stored at once in solid objects, without warming the air through which it passes. On the contrary the room air is warmed by contact with objects made warm by the radiant heat which has impinged upon them. Everyone has experienced the burning sensation on the face when a speeding train passes a burning pile of wood ties, twenty feet or so beyond the double glazed sleeping car windows. The radiant heat passes full force and instantaneously right through the glass.

**“I**F WHAT you say about walls and floors and things taking the heat out of people is so important, the knights and ladies in the old stone castles must have had an uncomfortable time.”





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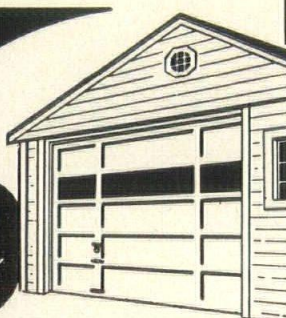
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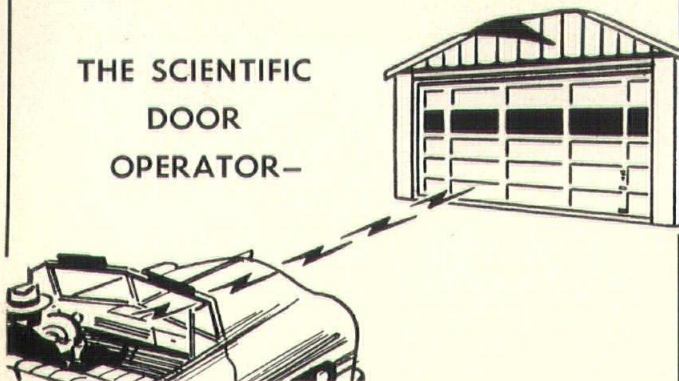
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WELL, THEY DID, and they didn't, because our pre-central heating forefathers discovered by slow trial and error what to do about it. Their practical actions produced all sorts of high backed settles, high chairs with cheek pieces either side, and many another measure for avoiding "drafts." We have all been fooled by this word "drafts" and our superficial booky opinions about folklore medicine have led us to laugh at what was and still is no laughing matter. What our great grandparents thought of as a "draft" on their necks was usually not a threatening movement of air blowing on them, but a "something taking it out of them," leaving them uncomfortable. So the word "draft" was apt. The icy walls were drawing the heat out of them. They "knew" it only subconsciously and their mania for "closing that door" produced houses which were piles of boxes.

You may have noticed that in the earliest New England houses, the several fireplaces, and the oven for baking bread and beans, were all built into one large stack in the center of the house. By this arrangement all the heat, produced by all the fuel, was stored up in the masonry of the chimney, except for a very little heat contributed to the draft by the inside of the smoke flues (remember that 1 to 100 ratio). Thus these big masses of warm masonry in early New England sitting rooms did not draw heat from people as they do in today's visual-design "modern" mass-masonry fireplaces. Today the fire-on-the-hearth is occasional and the space-heating systems provide no method for warming these great areas of brick or stone which never get warm from one year's end to the next — not even in summer.

I HEAR you say at this point: "But nearly all 'Colonial' houses have brick chimneys at one or both ends against the outside walls. The stored heat in such masonry would be heating all-out-doors."

TRUE ENOUGH, if you mean imitation "Colonial" design, which from 1894 to 1934 got stuck on city drawing boards, cut off from economic and cultural necessity. Firm knowledge about open fires had become a token tradition with no practical experience continuity. Those old end-wall chimneys were originally built of small logs, or "sticks," with clean chips chinked in between the cabin-laid logs. The whole was well plastered, inside and out, with a thick layer of clay. The hot fire baked the clay hard, like pottery. In the hottest places the chips and sticks charred away leaving hollow walls. Not much heat was stored and what passed out doors was accounted small loss. Cordwood was to be had in abundance on every farm. In Virginia and the South where the stick-chimneys were one by one rebuilt with brick, the climate was mild.

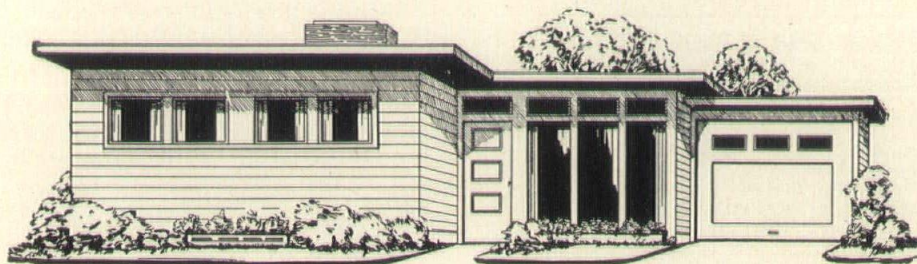
OUR engineers and professors have for a long time "known" all about these phenomena we have been reviewing. But they thought about them as physicists. Conclusions were applied as laboratory abstractions. Mechanic Arts had no contact with the College of Medicine. Both forgot the people.

THE PILGRIM FATHERS and Robin Hood in his thatched cot with pounded earth floor and peat hearth didn't know *scientifically* about how and why, but they

NORTHWEST



# MODERN **AIR CONDITIONING** by CHRYSLER AIRTEMP



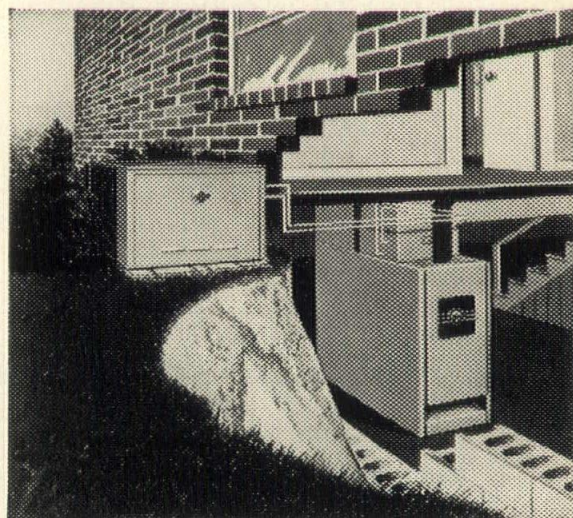
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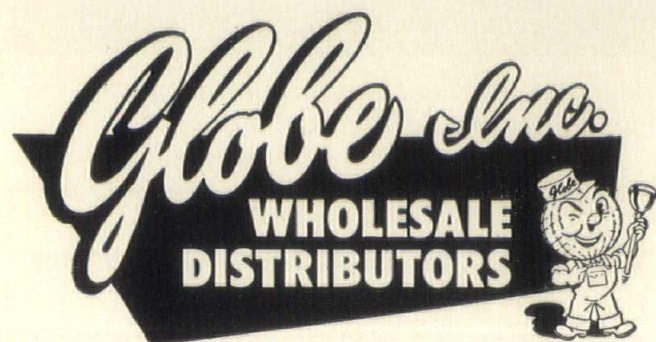
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did something about their needs with the means at hand. Even in the palace of Henry the VIII of England the floors were covered with six inches of straw insulation. This use of straw, or rushes for the poor classes, was the common winter carpet from time immemorial. The universal squared log sill under the door, to keep the rushes from being pushed out doors,

#### Joints in Structures & Slabs

*We have some of the answers:*

**PARA-PLASTIC**—Hot poured—Premolded—Cold Applied—Paralateral Strip  
**WATER STOPS**—Rubber (dumbell and bulb types)—Harza Labyrinth—Flextrip  
**EXPANSION JOINTS**—Asphalt, Fiber, Kork-Pak, Cork, Self Expanding Cork, Sponge Rubber

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was called "the rush hold" and we say it so to this day. We have even retained the "the" in "th/reshold" —"u" to "e" the only letter changed. As with us they said "th" not "the" and I've heard New Yorkers in the Catskills give "u"s and "i"s an "e" sound—"I wouldn't resk it"—"Resh around and find me some kindling."

Our technical editor, Mr. Jager, reminds me that, in the Balkans, the pounded earth floors, not anything like as cold as cement, have been carpeted with a winter mattress of ferns for 5000 years and more. On a certain spring day when the V sprouts of wheat are a thumb length out of the warm earth, the winter tramped floor ferns are carried out to glow in evening fires of rejoicing across the nation and filling the mellow air with fragrant fern smoke. One October day I went into the octagon church in Perugia, Italy, and found the floor laid with a six-inch thick carpet of green fir twigs. Hundreds of harvest thanksgiving candles glimmered on the altars, and at the Stations of the Cross along the walls. The lovely odor of pine quieted the spirit; an unforgettable requiem to the passing year.

So it was that the uncomfortable people of the hand-y days, before the push button came, knew what they lacked. They learned to put curtains around their beds, wore warm wooden shoes, kept their milk cool in the spring house. I once knew a retired lumber jack in the North Woods who made wonderful bread. They all did for that matter. I said, "Gordey, when its 35° below around here how in the world do you raise dough? You can't stay up all night to keep the wood fire burning." "O, I take the sponge to bed with me." W.G.P.

## CONCRETE DESIGNED with POZZOLITH *in the new*

### VICTORY PARKING RAMP

St. Paul, Minnesota

Leonard J. Johnson,  
architect.

Steenberg Construction Co.,  
builders.

Ready Mixed Concrete by:  
J. L. Shiely Co., and Corn-  
ing-Donohue, Inc.



More and more concrete is being produced with *Pozzolith* because design engineers recognize the value of *minimum unit water content* obtained through the use of *Pozzolith*.

#### Less Water in Concrete with Pozzolith:

- reduces shrinkage and permeability
- increases durability and bond to steel

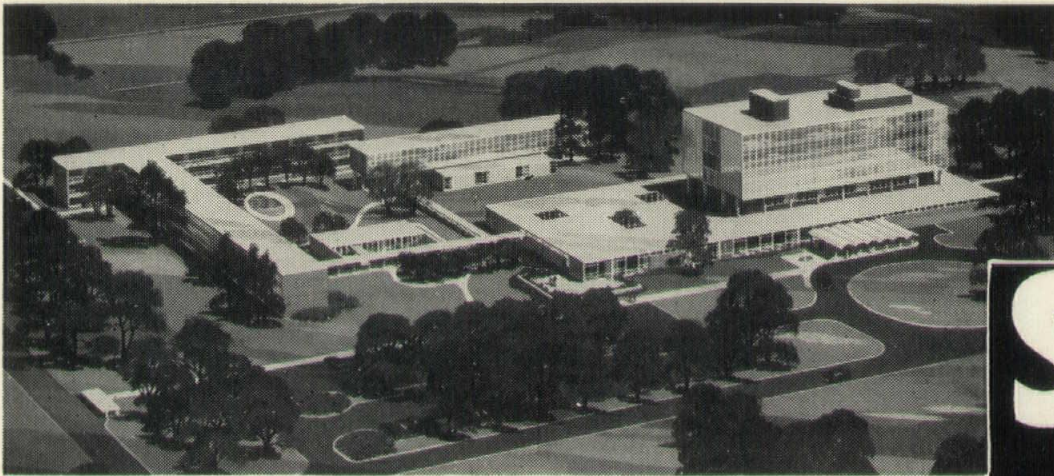
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Harlan, Kentucky

Architects

Sherlock, Smith & Adams



## HARLAN CENTRAL HOSPITAL HOLDS UNIT COSTS TO A MINIMUM WITH...

Ten hospitals with facilities of the highest caliber are now being completed in the heart of the southern Appalachian coal region. The "Smooth Ceilings System" was used in 5 of the 10 hospitals, and 16 of the 18 staff housing buildings. With this undertaking almost completed, it's been found that buildings using SCS had the lowest cost per square foot and the lowest cost per bed. Smooth Ceilings System reduces the amount of concrete form work required, facilitates the placement of pipe sleeves and small ducts adjacent to columns, and provides a smooth unbroken ceiling line. For time and material savings, choose SCS for your next building.

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## ANOTHER ALUMINUM HOLLOW EXTRUSION

*Sunlight*

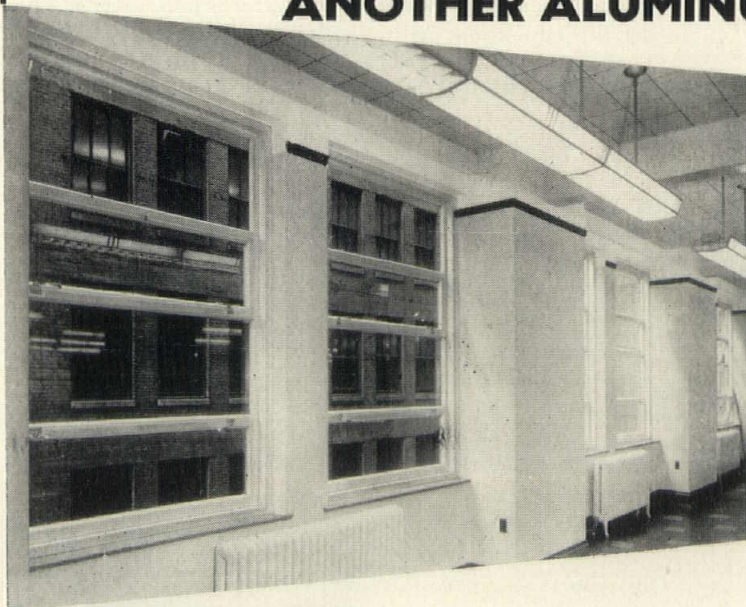
### WINDOW INSTALLATION

*Northern Pacific Railway Office Building, St. Paul*

where 87 individual sash were installed as replacements for old steel sash.

Glazing head available for single glazing or for "Twindow" or "Thermopane." Available also for inside or outside glazing—using glazing bead. Weatherstripped casements or projected units.

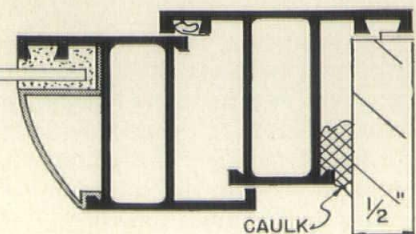
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# Chapter, Club and other news...

## MINNEAPOLIS CHAPTER MEETINGS FILLED WITH ACTION

With the executive committee meeting in advance of the general membership, Minneapolis A.I.A. Chapter packed a lot of action into the evening of March 17. As reported by Secretary Hubert H. Swanson, these things were done:

The executive committee meeting was called to order by President Victor Gilbertson with the following board members present: President Victor Gilbertson, Vice-president R. V. McCann, Secretary Hubert Swanson, Treasurer David Griswold and Directors Frank Meisch, Clair Armstrong and John Lindstrom.

1. It was announced that the Minnesota Society of Architects voted that corporate members pay \$25.00 and Associate members pay \$5.00 dues. This was discussed but not decided by the executive committee.

2. Recent cases of lifting insurance and performance bond out of contracts to allow owner to provide them was discussed. We should resist this wherever we can. Clair Armstrong proposed resolution to this effect. Motion passed.

3. Applications for corporate membership were approved for Earl P. Fullingim, 1645 Hennepin, Suite 307, and Robert W. Schimke, 5807 Knox Ave. So.

4. Theodore Sime's request for transfer from the St. Paul Chapter, as a corporate member, was approved.

5. The following applications for associateship were approved: Robert Magney, 719 S.E. 7th St., Arthur Dickey, 17 W. Franklin and Marlin Hutchinson, 17 W. Franklin.

6. Meeting adjourned at 6:30 p.m.

The membership meeting was called to order at 7:30 with 56 members present. President Victor Gilbertson presided.

### YOU MAKE THE NEWS, WE'LL PRINT IT

This section of NORTHWEST ARCHITECT each issue will be devoted to news of importance in the chapters and architects' clubs and groups. President Darrell of the Minnesota Society of Architects has written the chapter presidents in the state to send in meeting minutes and other news items for publication here. These should be edited as there are some items which are not intended for general dissemination. The co-operation of all presidents and secretaries is requested so this section can bring out the newsworthy actions taken.

1. Stowell Leach moved, Gordon Schlichting seconded and motion passed to ratify proposal of state society on \$25.00 corporate and \$5.00 associate dues.

2. President Gilbertson admonished the members of the chapter to resist having owners take prerogative of buying performance bond and liability and compensation insurance.

3. The deaths of Tubby Jones in Mexico City and Mrs. Carl Graffunder in New Orleans were announced by President Gilbertson.

4. Sid Stolte reported on Progress in the legislature of the State Building Code. Chapter members were urged to contact legislators for passage of the code bill.

5. The Minnesota Department of Health wishes photos and plans for exhibit of old people's homes at seminar to be held in Center for Continuation Study at the University. Donald Setter described the project. President Gilbertson inquired as to how many members had such photos and plans. Project to be turned over to the state society.

6. Program co-Chairman Kenneth Backstrom showed movies on reinforcing steel.

7. Meeting adjourned at 8:45 p.m.

## MORTENSSON ELECTED ST. PAUL GARGOYLE CLUB PRESIDENT

N. Holger Mortensson was elected president of the Gargoyle Club of St. Paul at a recent meeting of the group made up of architects, artists and those in the related arts. Other officers elected are Donald S. Haarstick, vice-president, and Tilford Moore, secretary-treasurer.

Chairman of standing committees named at the meeting are Gerald H. Buetow, entertainment; Ben L. Anderson, education; Magnus Jemne, house; and Kenneth Fullerton, finance. The club also voted to increase the size of the Gargoyle Club Prize at the University of Minnesota from \$50 to \$200.

The Gargoyle club, a professional group, is unique to St. Paul.

## MINNEAPOLIS A.I.A. AND MINNESOTA A.G.C. ENDORSE SEPARATION RESOLUTION

The Minneapolis Chapter of the A.I.A., through its board of directors, has endorsed the resolution passed at the annual convention of the Associated General Contractors of Minnesota. The resolution specified:

"RESOLVED, that in this convention convened January 28, 1955, the Builders Division at its meeting does concur and accept the full resolution as passed by the AIA-AGC Co-operative Committee for September 21, 1949, wherein they have set down these words:

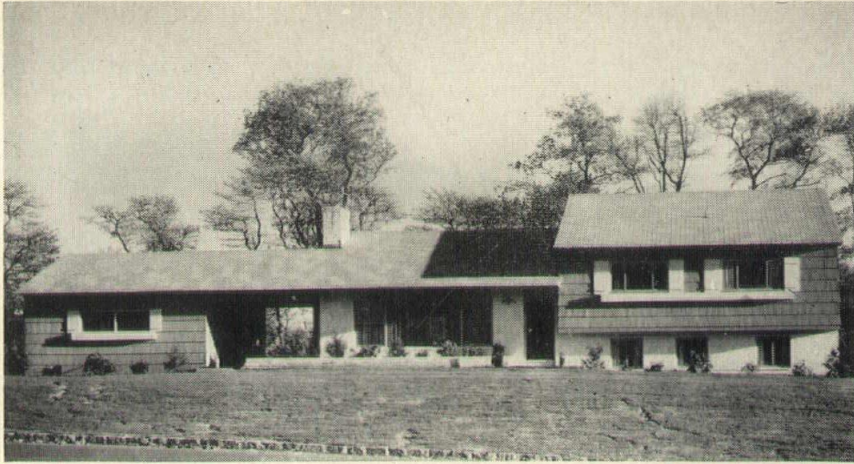
"Be it resolved, that this committee is in agreement on the basic principle that in connection with public construction work the interest of the public is best served by a complete separation between the professional function of design and supervision and the business-management function of construction.

"Be it further resolved that, in furtherance of this belief, the committee recommends that only independent firms of professional practicing architects be retained for the functions of design and supervision on all

(Continued on Page 60)



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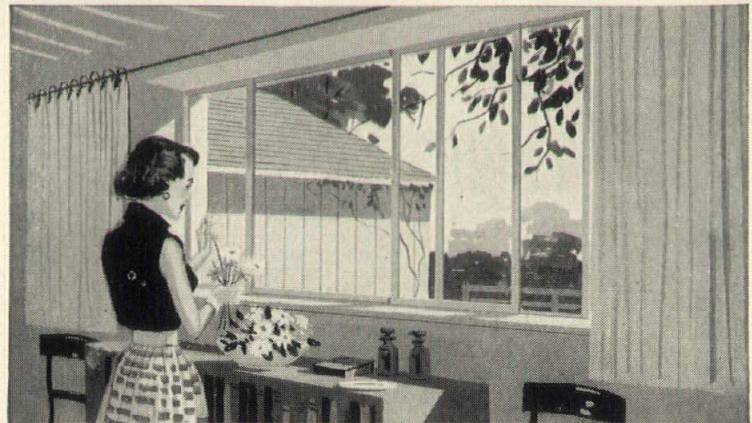
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**RUSCO HORIZONTAL-SLIDE PRIME WINDOW**



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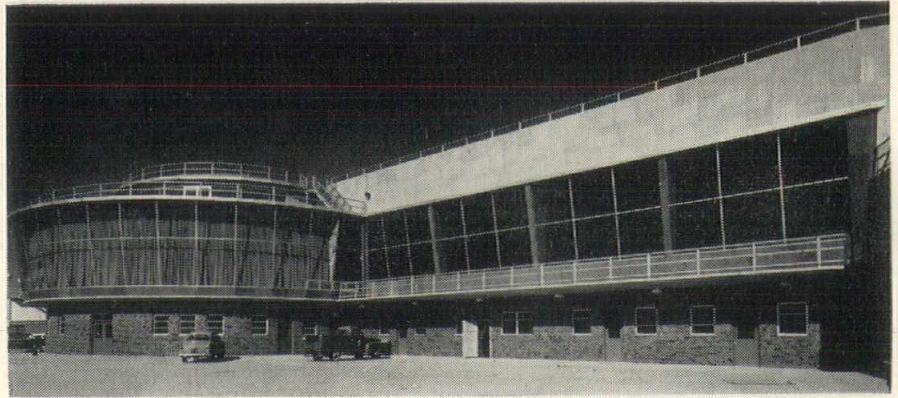
**RUSCO FULVUE PRIME WINDOW**



## MINNESOTA STONE USED IN HOUSTON AIRPORT BUILDING

Minnesota stone's fine color has been used in making the new airport terminal in Houston, Texas, an outstanding structure in that city's building expansion.

The new building is ten miles southeast of downtown Houston. It rises in pink granite and Kasota stone splendor from a dark red base of paver bricks hugging the plains. Situated on the north site of the



Houston airport, the new building

faces south. It is complete except for minor interior revisions and the finger extensions which lead to the loading areas.

The new Houston terminal contains approximately 100,000 square feet of usable floor space for airlines, concessions and for administrative offices. It is served by a large parking area, loading finger structures, finger utilities, tunnels and service pits, flight ramp aprons and similar utilities to make it as up-to-date as possible.

The stone, marble and granite for the exterior and interior of this building were all selected at the same time by the architect, Wyatt C. Hedrick of Houston. In this way the Kasota stone blends naturally with the Sunset Red granite and the Verde Antique marble sets off both.

Approximately 13,600 square feet of 3 $\frac{5}{8}$ " thick stone were used, sawed with block joints in three-foot-square pieces. Each piece is anchored on the top bed with two strap anchors bent into the stone and up into the masonry backup.

The Kasota stone was cut across the veins and set to show alternate patterns of horizontal and vertical veining. This adds textural interest to the façade with a plaid effect.

## SHOULD OWNERS FURNISH MATERIALS? . . . AIA-AGC SAYS *NO!*

*Note the following resolution adopted February 9, 1950:*

"BE IT RESOLVED that this joint co-operative committee of the Minnesota Society of Architects and the Associated General Contractors of Minnesota is agreed that the purchase and furnishing of materials for building construction projects is a part of the business-management function in construction which can most efficiently and economically be performed by the general contractor, that the purchase of materials by the owner cannot be controlled and often results in the purchase of unspecified materials and

"BE IT FURTHER RESOLVED that because of this agreement the committee recommends that the purchase and supply of materials be included in the contract for construction as a specific responsibility of the contractor."

DEPEND ON AND USE THE RECOMMENDATIONS OF  
MINNESOTA'S AIA-AGC JOINT CO-OPERATIVE  
COMMITTEE

AIA Co-chairman  
ROY N. THORSHOV  
Thorshov & Cerny



AGC Co-Chairman  
C. H. BINGHAM  
Kraus-Anderson of St. Paul  
Co.

Prepared by

ASSOCIATED GENERAL CONTRACTORS of MINN., INC.  
910 Builders Exchange  
Minneapolis 2, Minnesota

## BROS ISSUES BROCHURE ON "S" TYPE BOILERS

A new 8-page brochure (#WT-8) describing the Bros "S" series of boilers has just been published and is available free upon request from Wm. Bros Boiler & Mfg. Company, 1057 Tenth Ave. S.E., Minneapolis 14.

Complete data and specifications are given on each of the models and sizes in the line, with capacities ranging from 10,800 to 50,000 lbs. of steam per hour. Units can be

NORTHWEST



furnished for coal or for gas or oil. A page is devoted to general design features and special Bros "S" type construction features. The back page describes other power equipment by Bros.

### COMPETITION TO LOWER BIDS, A.G.C. SURVEY FINDS

Intense competition among contractors for new work coming on the market in the remaining nine months of 1955 is seen by a majority of members of the governing and advisory boards of Associated General Contractors of America chapters all over the country, according to Ray V. Johnson, president of Minnesota A.G.C.

"The unanimous forecasts at the turn of the year that 1955 will establish a new record volume of construction are strongly confirmed by the results of a nationwide survey conducted last month by A.G.C. of America. But because of the high degree of competition for new construction contracts and because of a pronounced downward trend in bid prices for this work, reflecting lowered profits, 1955 is likely to see some construction firm failures," said Mr. Johnson.

The brightest spot in the survey showed that 100 per cent of the Minnesota contractors replying forecast an increase in highway construction work. This compares to a national average of 72 per cent of the contractors indicating an increase in highway construction.

Commenting on bid prices, 50 per cent of the Minnesota contractors looked for a decrease, 36 per cent predicted no change and 14 per cent predicted an increase. The most prominent reason cited for these low bids was given as "inexperience of some newcomers who make dangerously low bids."

In general, replies show a high degree of uniformity in expectations of increased activity in building with 66 per cent predicting an increase, 16 per cent predicting no change and 14 per cent say that building construction will decrease; 68 per cent of the contractors look for an increase in heavy construction with the balance evenly divided between no change and a decrease. Many respondents reported increases in school, hospital and commercial activities and some noted de-

clines in industrial construction.

The survey also showed that many new contractors have entered the construction market, the capacity of many of the older firms has been enlarged, more and better equipment enables contractors to execute work faster and more economically, many contractors have improved their skills and there is much idle equipment and manpower in the industry.

### U. S. CERAMIC TILE TO DIS-TRIBUTE CERATILE

Distribution and sales of Ceratile, on which multiple glazes are fired at one time, in 37 eastern states of the country has been taken over by United States Ceramic Tile Company under an agreement with Ceratile's makers, Pacific Tile and Porcelain Co.

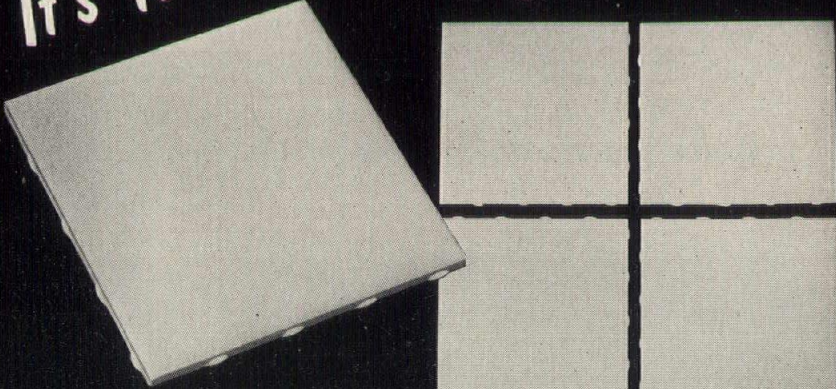
A leading decorative tile, Ceratile has introduced 21 new patterns with

# ROMANY

## SPACE-SET TILE

*It's New!*

*It's Better!*



**4 1/4" x 4 1/4" SIZE ONLY**

A noteworthy advance in tile design, with the following exclusive advantages:

**POSITIVE SPACING** — Each spacer working independently provides for full width of the joint. Automatically allows for proper spacing between trim and flat tile.

**FLEXIBILITY** — Four spacers on each side permit easier setting of fractional cut tile, etc. The spacers are arranged so that the tiles may be set straight or broken joint.

**DESIGN** — Spacers are designed to withstand rough treatment, and so that maximum grout can be forced into the joint. Space-Set tiles can be set with a string if a wider joint is desired.

All of Romany's outstanding features have been retained, including: Strong Buff Body, Size and Shade Control, Beautiful Colors, Enduring Glazes, Cushion Edge, Low Absorption, Versatility.

for the specification  
consider these  
features

**ROMANY IS:**

**FIRE PROOF**

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And is available in more  
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• Hopkins, Minnesota



## Morse's "ONE-COAT" used by Anderson Cadillac Co.



Shown here is a night scene of the ultra-modern Anderson Cadillac Co. showrooms on Excelsior Blvd., Mpls., Minn. New in 1953, the building was designed by architects Lang & Raugland, Mpls., Minn., and was erected by Levering Construction Co., St. Paul, Minn.

The Anderson Cadillac Co. used Morse's "One-Coat" cement floor sealer and hardener on all cement floor surfaces to eliminate concrete dusting and chipping and to insure easy to clean, non slippery floors. "One Coat" prevents penetration and stain of oil, acids and water . . . restores old and blackened floors to original newness . . . etches, cleans and closes concrete surfaces permanently with just one easy application by mop or broom . . . is used in office buildings, warehouses, homes and industrial plants throughout the country. Write for complete information.

**F. J. Morse Co., Inc.** Rossmor Bldg., St. Paul, Minn. CA 4-1995

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### AMERICAN ARTSTONE COMPANY

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surface texture, design and color of unique quality. In addition to the standard patterns the company produces custom tiling to match architects' motifs.

U. S. Ceramic Tile is represented in the Northwest by Rollin Child, Hopkins, Minn.

### MOLANDER MADE VEEP AND GENERAL MANAGER OF STEEL STRUCTURES

Elwood W. Molander has been named vice-president and general manager of Steel Structures, Inc.,



**Mr. Molander**

Minneapolis and Fargo, according to an announcement by C. K. D. Minar, president.

Mr. Molander is a graduate of Bemidji high school and the University of Minnesota Business School. He served for three years as an officer in the U. S. Navy during World War II. Before joining Steel Structures he was the divisional sales supervisor in the Minneapolis steel building division office of Butler Manufacturing Company.

Steel Structures, Inc., are distributors of Great Lakes Steel Corporation Quonset steel buildings and Stran Steel framing, McKee Overhead Doors, Alsynite, metal deck and allied building products. They sell direct in Hennepin and Ramsey Counties and through an organization of approximately 40 dealers in Minnesota, North Dakota and part of Wisconsin.

R. D. Pence continues as sales manager of the steel building division and Lorix Halin as manager of the building products division.

**Use that insert card for continued pleasure!**

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## PORTLAND CEMENT GROUP UPS ALLEN AND PIPER

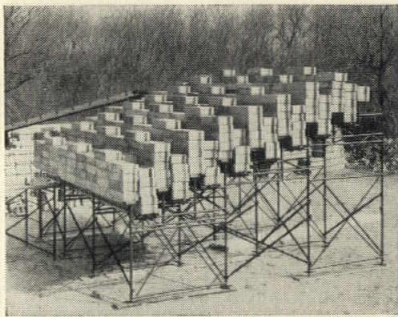
James D. Piper has been named vice-president for promotion and W. D. M. Allan vice-president and secretary of the Portland Cement Association, G. Donald Kennedy, president of the association, has announced.

Mr. Piper, who succeeds Mr. Allan as vice-president for promotion, has been district engineer in Texas. In his new position, he will supervise promotion activities of the association throughout the country.

Mr. Allan, a veteran of 36 years with the association, served as vice-president for promotion and secretary for the past three years. In his new position as vice-president he will direct special activities of the Association.

## STEEL BLEACHER ASSEMBLED WITHOUT BOLTS

A new tubular steel bleacher that is assembled entirely without nuts and bolts has been placed in pro-



The concrete test

duction by Sico Grandstands, Inc., a division of Waco Manufacturing Co., Minneapolis.

Sico, builder of permanent and portable bleachers and grandstands, has adapted Waco's tubular steel scaffolding design for the new 2600 Bleacher. Extreme portability is achieved as the tubular design eliminates excess weight. The stands are built with welded frames that are interlocked by built-in coupling pins. These standard frames and sections are being mass produced, thereby lowering the cost.

Fast erection and disassembly is possible because of Sico's patented "Speedlock" which ties frames and sway braces into an integral unit. The "Speedlock" eliminates nuts and bolts and, according to Sico,

provides an instant, safe locking of all supports. Seat boards and foot boards are securely fastened to the structure without bolting.

The grandstand can be moved inside for basketball and outside for football, baseball and other sports. Loads of more than 600 pounds per seat were applied to the 2600 Bleacher without approaching the yield point. Sway tests were similarly successful, according to the manufacturer. The Twin City Testing Laboratory conducted the structural tests.

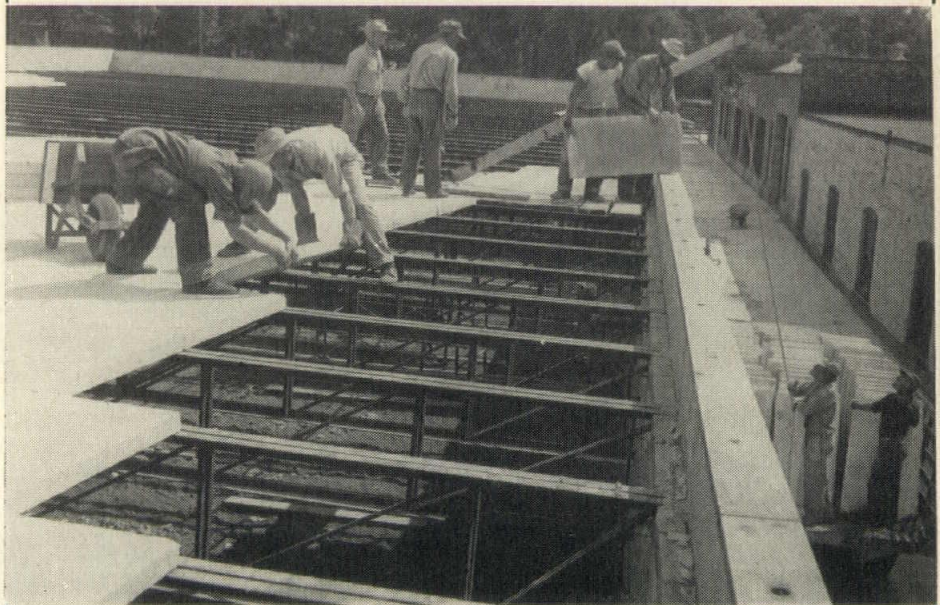
## DATA AVAILABLE ON 3M CERAMIC TILE ADHESIVE

A new four-page technical data sheet covering the physical properties and installation characteristics of "3M" brand ceramic tile adhesive (CTA-12) for installing floor tile is available from the Adhesives and Coatings Division, Minnesota Mining and Manufacturing Company, Dept. Z5-19, 423 Piquette Ave., Detroit, Mich.

Specifications include strength and coverage of the rubber-base adhesive and step-by-step instructions

# MINNESOTA PERLITE PRECAST CONCRETE Insulating Roof Tile

DESIGNED and REINFORCED for 48" or 36" JOIST CENTERS



## All Weather Installation

- 2 $\frac{5}{8}$ " OR 3" THICK, 24" WIDE
- ONE PACKAGE INSULATED DECK
- PORTLAND CEMENT CONCRETE
- LOWER INSURANCE RATES
- NO ADDITIONAL INSULATION NECESSARY
- FIREPROOF—LIGHTWEIGHT

Sawing, cutting, nailing done on the job with ordinary tools.

## MINNESOTA PERLITE CORPORATION

Manufacturers and distributors of Perlite and  
Minnesota Perlite plaster and concrete aggregates.

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on preparing the surface, laying the tile and grouting are provided.

The time, space and weightsaving advantages of this adhesive for use on many different types of subfloors, including plywood, concrete and terrazzo, are also pointed out.

### NEW SUMP RECEIVER DESIGNED FOR EXACT POSITIONING

Exact positioning of drain installations with a reduction in roof strain is the aim of design of a new Zurn Mfg. Co., sump receiver being distributed in this area by the Albert W. Schultz Co., 100 E. 14th St., Minneapolis, Northwest Zurn representative.

Especially designed for flat roofs, the Zurn receiver assures flush installation in precast concrete or gypsum slab deck construction. Chaphering or other preparation is eliminated. When used with insulated decks, precast tile blocks, corrugated compensation panelling or other light construction materials, the receiver reduces roof strain by distributing the weight of the drain installation over a large segment of the roof area.

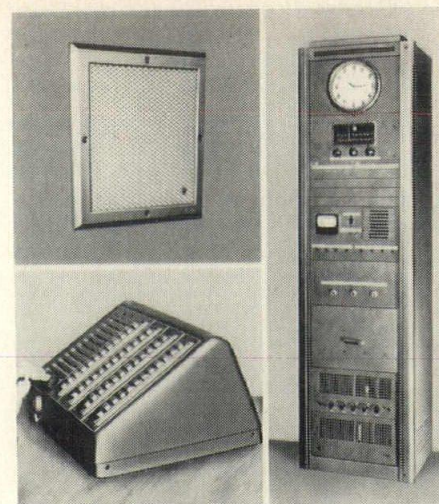
The Zurn receiver is made of steel with a corrosion resistant finish. Technical details are outlined in Manual 54-1, available from the Schultz Co.

### EXECUTONE HANDLES ALL SCHOOL COMMUNICATIONS ON ONE SYSTEM

A single system can now handle school two-way intercommunication, paging, public address, AM-FM radio, recorded music, alarm, program and time signal by use of the Executone School Communication System, which also has decentralized operation so the school principal can speak with any classroom without leaving his desk.

The single-conduit system eliminates triple wiring. A compact control station in the principal's office has push-button classroom selectors. The sound control rack handles all other operations and has a built-in AM-FM tuner, three-speed automatic record changer and relay controlled amplifier.

Classroom stations can be flush mounted in new construction or surface mounted in existing buildings. An intercom call to any classroom automatically cuts out other sound



transmission until the personal call is completed.

For details those interested can contact Executone, Inc., 415 Lexington Ave., New York 17, N. Y.

### MINNEAPOLIS HOME WEEK HEAD NAMED

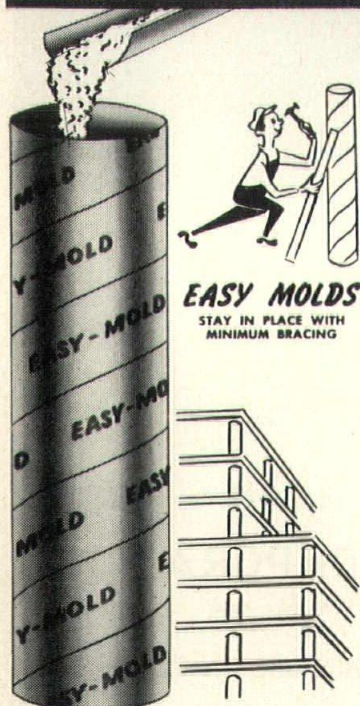
E. Harold Johnson has been named to head a committee of 19 Minneapolis Home Builders Association members which will handle the 1955 National Home Week promotion and exhibits.

# NEW

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EASIER  
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## EASY-MOLD

- FIBRE TUBE CONCRETE FORMS
- AIR PIPE FIBRE DUCT



**EASY MOLDS**  
STAY IN PLACE WITH  
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**BETTER . . .** because Easy-Molds are low in initial cost . . . ruggedly made . . . very light in weight . . . and can be cut on the job.

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#### FIBRE TUBE CONCRETE FORMS

FOR: COLUMNS ● PIERS ● PILES ● FOUNDATIONS ● FLOOR VOIDS ● CULVERTS ● ETC.

- Eliminates erection of costly wooden forms.
- Wax coated for easy stripping and waterproofing.
- Easy-Molds give your job a more pleasing appearance at one-third the cost of rectangular form construction.

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#### AIR PIPE FIBRE DUCT FOR PERIMETER HEATING INSTALLATIONS OF ALL TYPES

- Chemically treated to actually improve with age. Must be imbedded in concrete.
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- Easy-Mold AIR PIPE has superior sound absorption qualities.



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CAN BE CUT TO DESIRED  
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## NEW ROLSCREEN WINDOWS SATISFY FHA REQUIRE- MENTS

Multi-Purpose Window #4428 has just been announced by Rol-screen Company, Pella, Iowa, and the manufacturer reports that two of these units satisfy Federal Housing Administration requirements for a 10 x 12 foot room. This window is 44 inches in width and 28 inches in height.

Units can be used as awning windows, hopper vents or casements—in ribbons or stacked. They come completely factory assembled, with all sash hardware attached, and the frame is flat on all sides to facilitate installation. When furnished as vent units, inside self-storing screens and self-storing storm sash are included.

This new unit plus six other fixed or ventilating sizes and three larger fixed sizes, all compatibly proportioned, can be combined to form a variety of window arrangements.

These multi-purpose windows are distributed in Minnesota by Pella Products Company, Minneapolis.

## 1955 AMERICAN STANDARDS LISTINGS RELEASED

A listing of the 1,440 American Standards, with prices for each of the printed spex, has been published by the American Standards Association and the list contains 210 standards in the fields of construction and civil engineering.

The 1955 list has been increased by the 152 new standards established during 1954. The association which issues this list is made up of 115 technical societies, trade associates and consumer groups and 2,300 individual member companies. The standards are set up by some 200 national committees whose membership includes the experts of that particular field. The committee's personnel is appointed by the interested trade and professional groups.

The list of standards can be obtained free of charge from the association at 70 E. 45th St., New York 17, N. Y.

Have you looked at the insert card?

ARCHITECT

## REMODELING INSTRUCTION FOR \$50

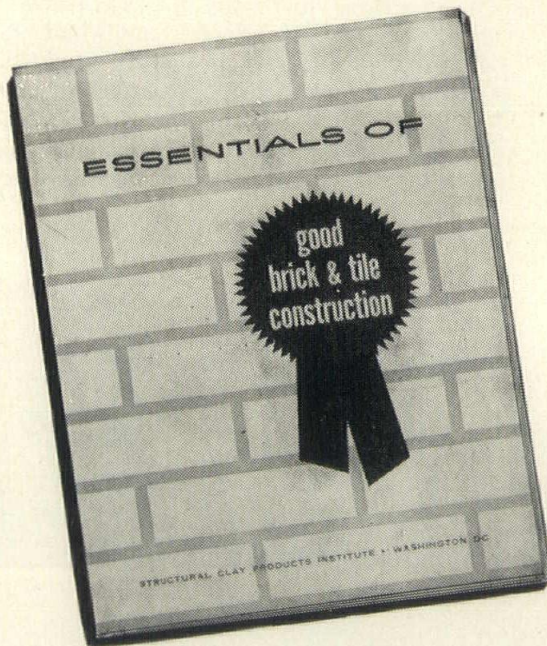
A personalized, mail order, home modernization service is being offered for \$50 by *Better Farming*, the national agricultural magazine. For 25 cents the prospective remodeler gets a kit with instructions for laying out plans of his present setup. This is reworked and new plans and spex supplied by the designers on the magazine's staff. Planning aims at modernization with a minimum of basic change in the structure.

## WINDOW CHOICE ANALYZED IN COUNCIL BULLETIN

Ten points to consider in selecting windows so they will give optimum satisfaction have been summarized in a new circular issued by the University of Illinois Small Homes Council.

The bulletin, obtainable from the council for 10 cents, is titled "Selecting Windows." In keeping with the style of this series, the information is presented graphically with a minimum of verbiage.

# Your GUIDE To The BEST in CLAY MASONRY CONSTRUCTION



Good masonry, that is, durable and strong masonry which will resist rain penetration, depends upon the use of good materials and good workmanship in assembling them. The use of quality materials will not compensate for poor workmanship and masonry constructed with the finest workmanship will not give satisfactory performance if poor materials are used.

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The reflection of the workman in this illustration shows the absence of any distortion due to uneven grinding.



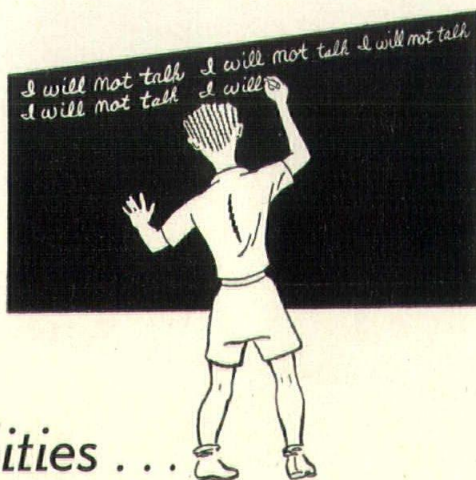
### "TWIN-GROUND" PLATE GLASS INSTALLED FOR FIRST TIME

First area installation of the new twin-ground plate glass made by Libby-Owens-Ford and distributed in this area by Forman, Ford has been made in the Thorshov and Cerny designed Knollwood Plaza Shopping Center in St. Louis Park.

The shopping center, consisting of 34 stores, serves an expanding residential area. Some 427 lights of the new glass were installed in the center.

The new type glass differs from ordinary plate in that its distortion rate is much lower because it is ground on both sides at the same time. Regular plate is ground first on one side, then on the other and that results in sometimes non-parallel grinding. The "Parallel-O-Plate" of Forman, Ford comes through the manufacturing machine as a huge ribbon 127 inches wide and a fifth of a mile long. It is ground on both sides simultaneously, mile after mile as the machine runs.

First production was used for military instruments and in the making of fine mirrors but now increased production has allowed its use in buildings.



*best writing qualities . . .*

The writing surface of slate remains the standard by which the writing qualities of substitute chalkboards are judged. Slate is tops in its ability to take chalk marks smoothly, continuously and legibly and to continue to do so after repeated erasures.

**W. E. NEAL SLATE COMPANY**

Minneapolis, Minn.

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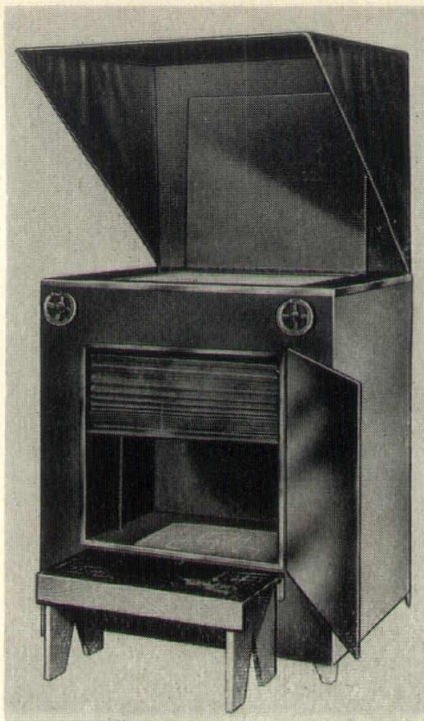
You'll profit and aid your society.

*Finest in face brick & tile*

by **HEBRON**  
BRICK COMPANY

**HEBRON, NORTH  
DAKOTA**





#### LUCIKON FOR TRACING, PHOTOGRAPHY OR DE- TAILED ENLARGEMENT

Compactly designed to take the smallest possible floor space but with copyboard and focal plate areas of good dimensions is the Camera Lucikon shown here recently announced by the M. P. Goodkin Co., Newark, N. J.

Blueprints, drawings, in fact, anything opaque, transparent or three-dimensional which can be placed on the copyboard can be used in the camera. Enlargements up to 4 times are possible and the image is in true color. The image made can be viewed directly for study, can be used for tracings, can be photographed or used for stencil making.

The machine occupies a 29 x 34 inch floor space, copyboard is 29 x 29 inches and working area on focal

plate is 24 x 24 inches. Cost, FOB Newark, is \$485.00. Additional details can be obtained from the company, whose address is 889 Broad St., Newark 2, N. J.

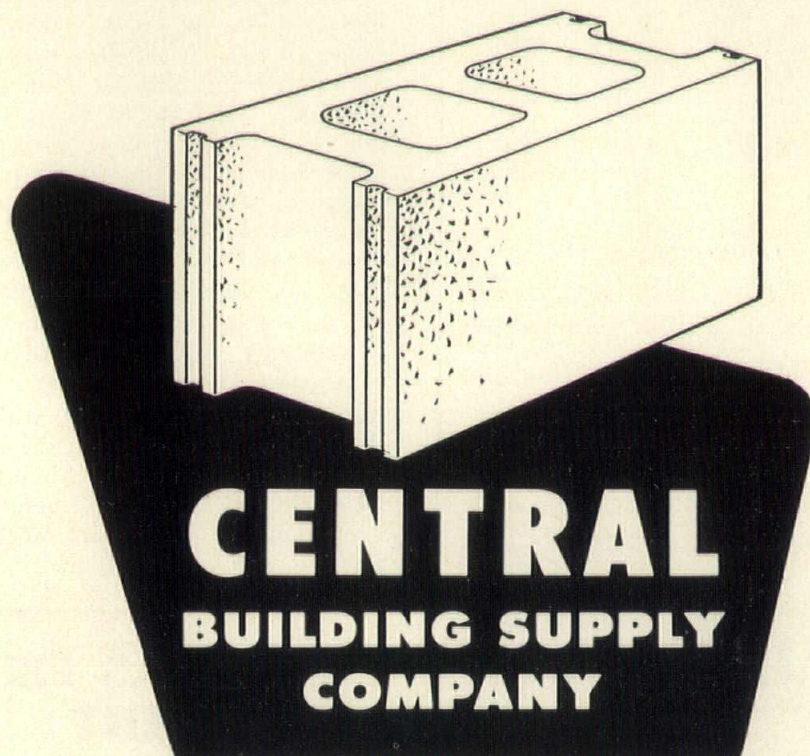
#### LONG TRUSSES IN WOOD

The world's longest timber trusses are reported to be the 250-foot, glued-laminated, bowstring trusses

covering three hangars in Westchester County, N. Y., airport.

#### TIN CANNER

Oddest homes list must include the Ainsworth, Neb., structures built by a rancher out of old tin cans. Oil cans are laid up like brick and stuccoed. Wonder what the longevity of such a structure is?



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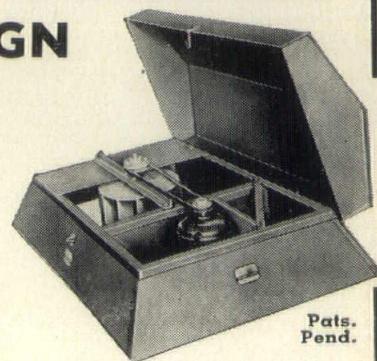
# AirXpeler®

Motor mounting on side of support structure . . . out of line of air stream reduces height of the LO-BOY model by nearly 50 per cent of older, obsolete models. Low wind resistance. Adds to skyline beauty of your buildings. You'll be proud of the new LO-BOY.

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beautiful . . . yet beats  
double hung price.

**A. T. RYDELL, Inc.**

*Woodwork of Distinction*

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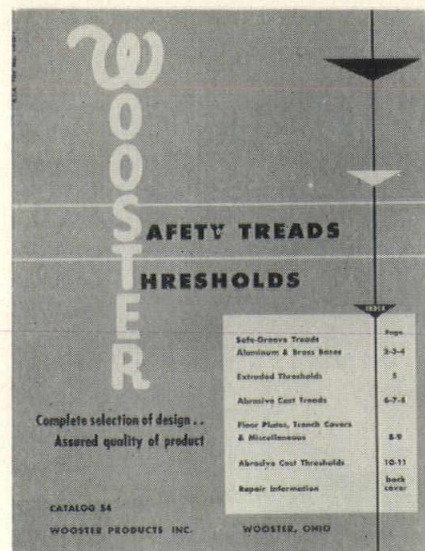
## STAIRWAY AND WALKWAY CATALOG ISSUED

A new catalog, showing a complete line of architectural metal items for stairways and walkways has been released by Wooster Products Inc. of Wooster, Ohio. The line includes stair treads and thresholds in abrasive-surfaced cast metal of three kinds, iron, aluminum and bronze.

Recent additions to the Wooster line include the new Stairmaster safety tread, a heavy-duty extruded aluminum tread made in a standard nine-inch width to fit most stairs, and a new heavy-duty curb bar, made heavier and deeper for maximum service. The curb bar can be used around passenger loading docks in rail and bus terminals, freight platforms and industrial plants.

### SURETY FOR THE MANY

With more than 90,000,000 life insurance holders, it is without doubt that Americans are the most insured people on earth. More than 11,300,000 persons are covered by some kind of health insurance or pension plan in the nation.



## SIX BILLION FOR DO-IT-YOURSELF

Do-it-yourself projects this year will put \$6,000,000,000 into circulation for insulation, lumber, gadgets, gear, equipment and all the rest of the wherewithal to do it yourself, the watchers of this market indicate. This figure is about double the amount spent for this type of work in 1952.

## TJERNLUND OIL & GAS FIRED HEATING EQUIPMENT

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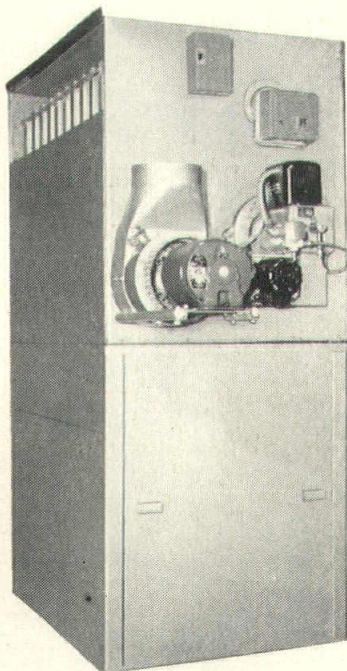
COUNTERFLOW

HI-BOY

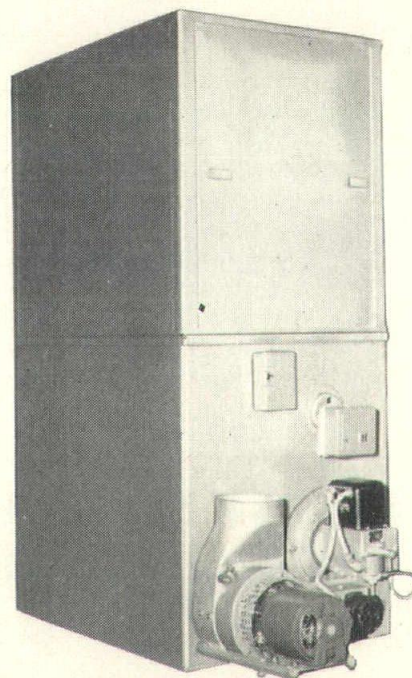
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## BUILDING SWINGS UP, ECONOMIC OUTLOOK CONSIDERED STABLE

With construction reporting groups finding a continued upswing in the letting of awards for building, the general outlook for the American economy seems to fall right into step with this in forecasting a stable balance of 1955.

The first months of 1955 set new records in the construction award field, according to reports from the F. W. Dodge Corporation. While the compilation of data lags behind current months the trend was definitely ahead of 1954's corresponding period, both in the nation and our Northwest area. The weak point seen at present seems to be in the home construction field where some tapering off is expected later this year but even this is well over the preceding year.

The gain from the 1953-54 dip in the general economy, according to U. S. Chamber of Commerce data men, actually gained momentum in the first three months of 1955. The factors expected to support and build the business picture included:

Steel production now at 90 per cent of capacity, compared with 70 per cent a year ago.

Spendable income has risen to an all-time high, gaining quarter to quarter.

Electric power output has gained from 8,500,000,000 KW per week a year ago to 10,000,000,000 this year.

Freight car loadings, industrial production index and exports and imports all show corresponding increases.

"The construction industry seems likely to continue a major element of economic strength," the chamber report said, "with the Federal Reserve System reporting that more people expect to buy homes this year than in any year since 1948. This demand is supported by the steady rise in incomes, new interest in modern homes and liberal credit."

The report saw no appreciable change in the employment picture, with a continued downward trend in unemployment totals.

"Increased spending by consumers is being stimulated by the increase in credit," the chamber reported. "Consumer debt at the end of Jan-

uary, 1955, was nearly \$1,000,000,000 higher than a year ago."

The chamber pointed out that loose credit and unduly liberal terms, while politically popular, may shorten the boom by overstimulating purchases and raising costs. On the other hand, careful extending of credit could maintain a healthy expansion of the economy.

## BATHROOM STYLE TRENDS TOWARD COLOR

The trend in bathroom designing definitely is toward more and more extensive use of color in fixtures, say the people who handle plumbing materials.

During the past decade the demand for colored fixtures has risen so sharply that occasionally manufacturers have found it difficult to keep pace. Most fixture colors are soft, pastel shades which allow home owners a wide choice of harmonizing colors for decoration of their bathrooms and kitchens.

Bathroom fixtures are now available in pink, blue, green, grey, yellow, peach, tan, ivory and many other colors in addition to white.

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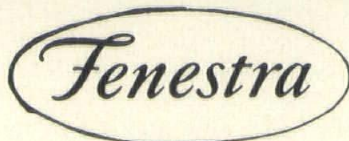
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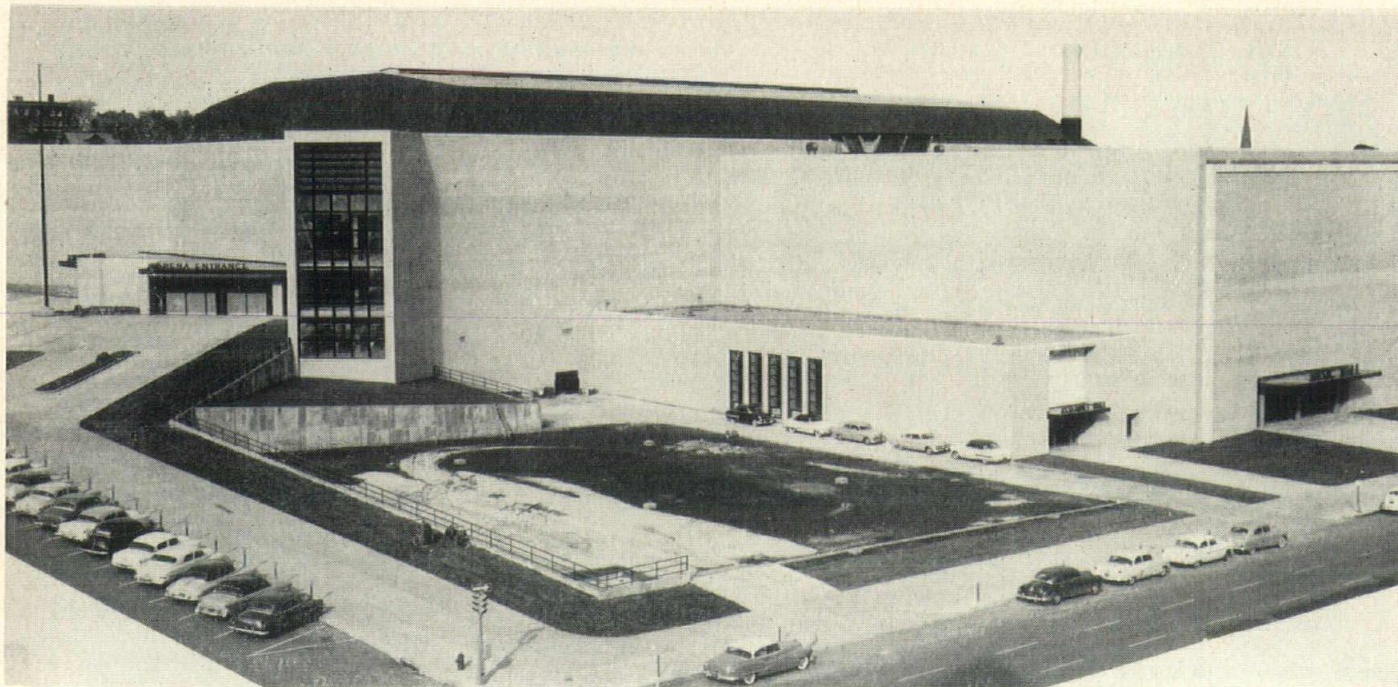
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# OMAHA

## Builds an Auditorium Structure Packed With Answers to Today's Needs

The new \$6,000,000 City Auditorium Building in Omaha, Neb., designed by the Leo A. Daly Company, AIA, of Omaha, St. Louis and Seattle, represents a brilliant solution of a difficult terrain problem and unites the best features of recently built auditoriums inspected by Mr. Daly and the city's auditorium commission on a nationwide tour. It will serve a combined population of around 300,000, including Council Bluffs, Ia., just across the river.

The two-story structure has entrances at two levels and occupies the center of a tract four blocks square near the heart of downtown Omaha. The sloping site varies approximately 55 feet from high to low points. Because of a relatively high water table, the footings rest on 989 driven concrete piles totaling 62,324 lineal feet. Lawns, trees and plantings will be ample to insure a pleasant setting through the use of retaining walls to obtain adequate drainage and advantageous planting areas. Entrance levels follow the natural grade and approaches will be featured by flower beds and shrub borders.

Containing a total of 10,000,000 cubic feet, the huge structure is divided into four main sections: Music Hall, Assembly Hall, Auditorium and Exhibition Hall, each with its own supplementary services and toilet facilities. Entrances are designated by large, free-standing, metal-letter titles on canopies. The building is predominantly windowless except for the entrances, the Assembly Hall and four striking ramp wing façades

of the Auditorium that have a glass area 45 feet high and 24 feet wide.

### THE MUSIC HALL

The Music Hall, projecting from the main structure on the east side, is the most elegant of the four sections. Designed for concerts, stage shows and similar attractions, it has a seating capacity of 2,593, 1,254 on the main floor, 402 in the loge balcony and 937 in the second balcony. Seats are upholstered theater type.

The sidewalls are shaped to assure superior acoustics. Made entirely of metal lath and lightweight plaster, they are 67 feet high and follow a parabolic curve. The acoustical treatment is machine-applied vermiculite acoustical plastic carried down the walls from the ceiling to within 7 feet of the floor.

This material was also used on stairway and balcony soffits, foyer ceilings, the band practice room, orchestra pit, and the huge cloverleaf-shaped ceiling light cove that covers an area almost as large as a baseball diamond. The acoustical treatment on this cove was gunned from a scaffold suspended by cables attached to the steel roof trusses. Covered with metal plates, the cable holes were allowed to remain so they can be used again when the ceiling is redecorated.

The second floor balcony foyer features another unusual light cove. This one extends from the wall nearest the exterior of the building to within four feet of the opposite side, where it flares downward to bring it 18 inches from the ceiling. Foyer and cove follow



a horseshoe curve. This ceiling, 12 feet high, was gunned directly from the floor.

The colors of the Music Hall are designed to set a "tails and white tie" atmosphere. Sidewalls were spray painted jet black, the center of the light cove ivory and the remainder of the ceiling turquoise.

The orchestra pit will seat about 25 musicians. The stage is one of the largest in the middle west: 4,560 square feet with a trapped section 19 by 34 feet. Stage equipment is the newest and most versatile procurable. A large freight elevator has been provided for moving stage equipment.

Basement dressing room facilities will accommodate 60 in the chorus room and about 15 in private rooms.

There is a projection booth for spotlighting and for showing motion pictures.

#### THE ASSEMBLY HALL

Adjoining the Music Hall is the Assembly Hall, also

acoustically treated, with 5,000 square feet of floor area. Seating is temporary and portable, about 500 in the hall proper and 60 in the promenade. It is designed for relatively small conventions and meetings and can also be used in conjunction with the Music Hall.

Both the Music and Assembly Halls are completely summer and winter air-conditioned by a forced air system.

#### THE AUDITORIUM

The Auditorium is designed for circuses, basketball, boxing, wrestling and other athletic events. It has a total of 87,140 square feet, with 25,000 square feet of arena floor area. There are no obstructing columns. The exposed steel roof trusses span 226 feet.

Seating capacity is 6,712 on the concourses (permanent) and 2,500 temporary on the arena floor for boxing matches, etc. Circulation is executed by the use

## Another ADLAKE ALUMINUM WINDOW INSTALLATION

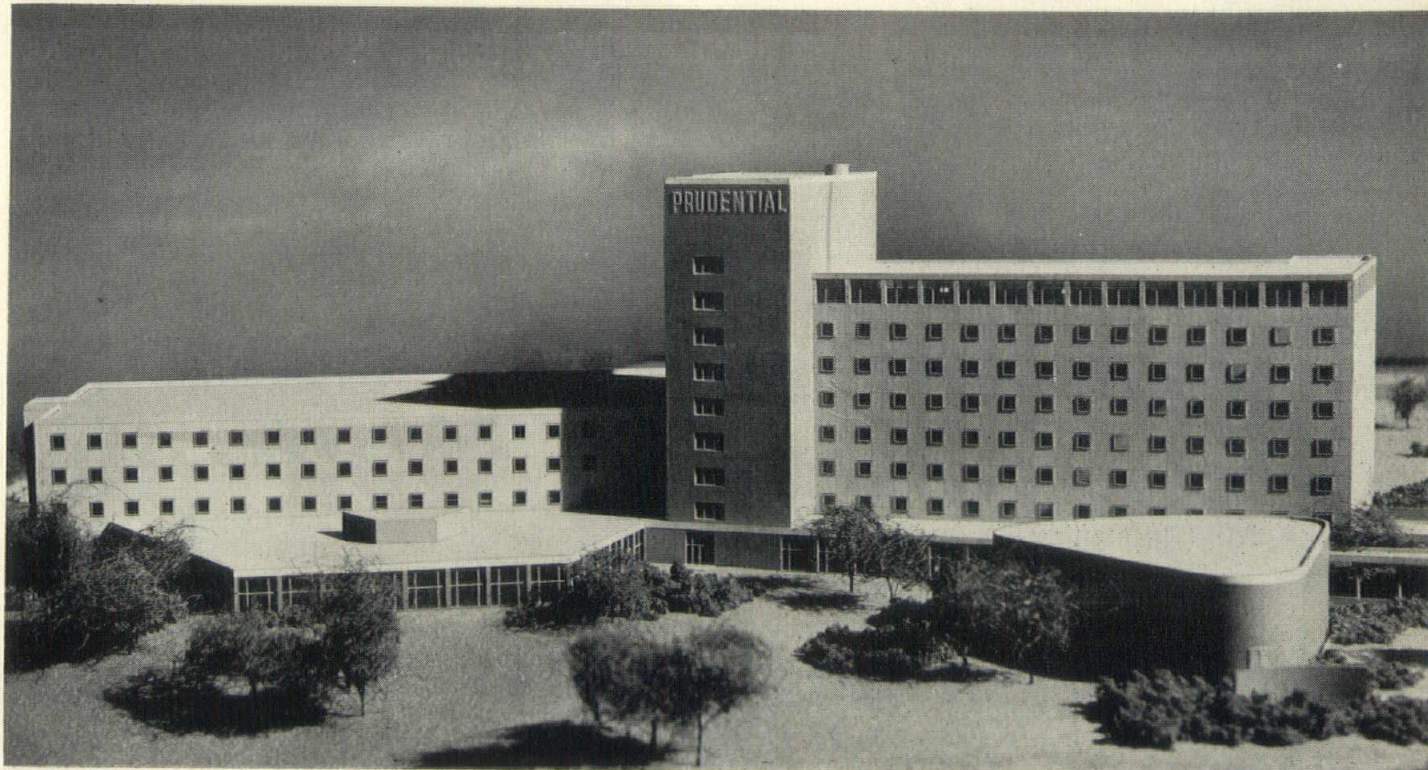
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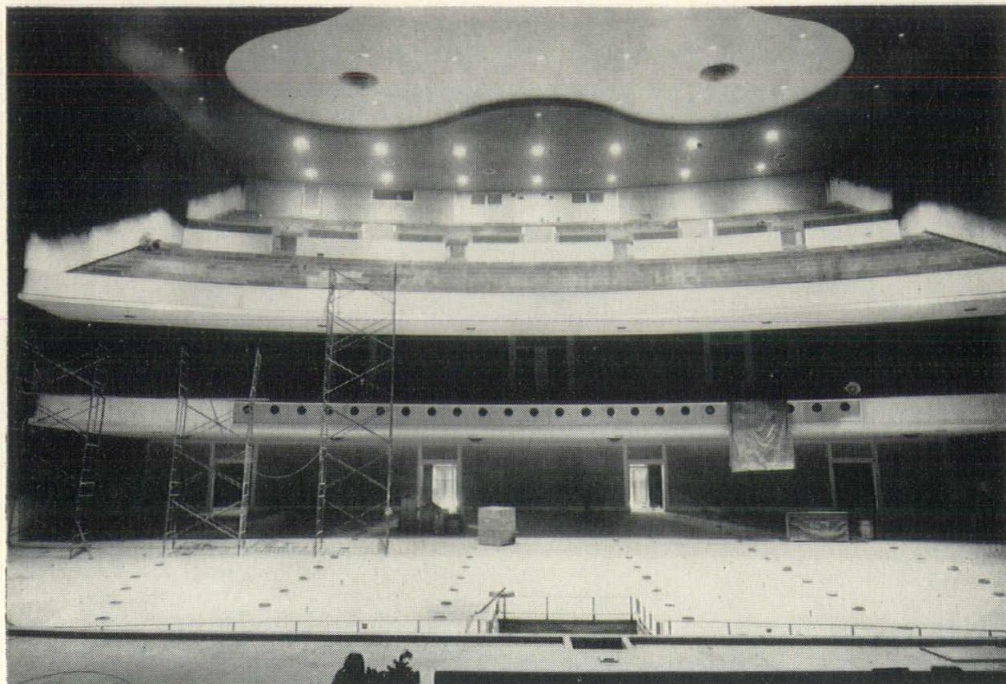
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Interior of Music Hall seen from stage. Note the giant light cove and curving side walls. At right is the light cove of the second floor balcony foyer.

of ramps rising to three concourse levels encircling the arena floor.

The sports scoreboard is four-sided and can be raised or lowered from the lower chord of the roof truss to the floor by means of motorized winches mounted on a platform at the roof truss. The board will have spring cable reels to carry the electric cables for enumerating the scoreboard and lighting the boxing ring. The boxing ring and basketball backstops are portable.

Four large dressing rooms have been provided, also separate locker rooms for ushers. Press and radio accommodations in private rooms are allocated, which is unusual in auditorium design. The concourses have lounge areas adjacent to concession stands.

Between 750 and 1,000 persons can be seated at banquets. Prepared food will be brought directly to the auditorium and unloaded at the receiving kitchen, then distributed by catering carts. Banquet tables and chairs are collapsible and will be stored when not in use.

The Auditorium is heated and ventilated by an overhead forced air system supplemented by unit heaters and convectors. A 234-foot monitor on the roof is

equipped with photoelectric control which automatically exhausts excess cigar and cigarette smoke from the air.

#### THE EXHIBITION HALL

The Exhibition Hall under the Auditorium has about 72,000 square feet of area and will be used for merchandising, building, agricultural and industrial shows. A continuous overhead bus duct supplies power for display units and floor drains have been provided for the convenience of exhibitors. A service area is available where displays can be assembled and moved onto the floor through overhead door and large storage areas are also available. The Exhibition Hall is heated by a forced air system supplemented by unit heaters and convectors. This system will also be used for ventilation during warm weather periods.

#### SAFETY FEATURES

Safety features include ramps instead of stairs for exiting large crowds, an emergency exit and power light system should the main power be cut off, smoke detectors within the duct system which will close the ventilating system in case of fire, safety nosings on all

## VETTER STONE

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PINK - GREY - CREAM - BUFF

*and varying shades of pink and buff*

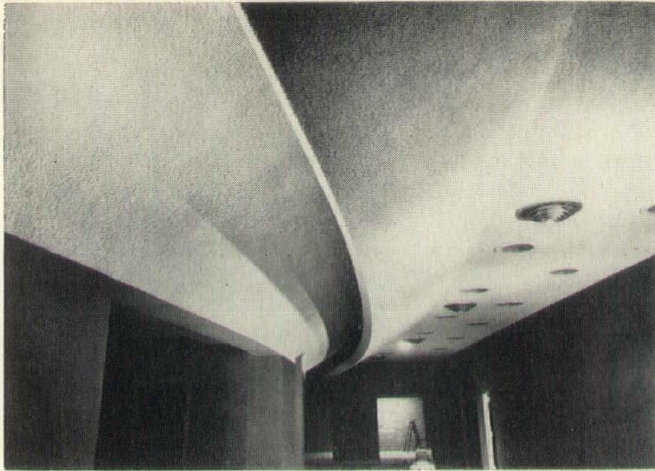
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stairs and aisle lights in the Auditorium and Music Hall seating.

A sprinkler system has been installed above and below the stage and a fire curtain has been provided on the Music Hall stage to cut it off from the seating area. First aid rooms furnished with the newest in emergency first aid equipment are strategically located throughout the building.

#### MAINTENANCE

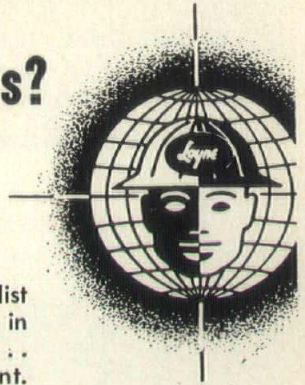
Compressors, pumps, fans, etc., are electrically operated and controlled from the boiler room by the operating engineer by means of a master control board. Approximately 19 feet long and 4 feet high, this board is mounted on an angle iron frame and has push but-

(Continued on Page 60)

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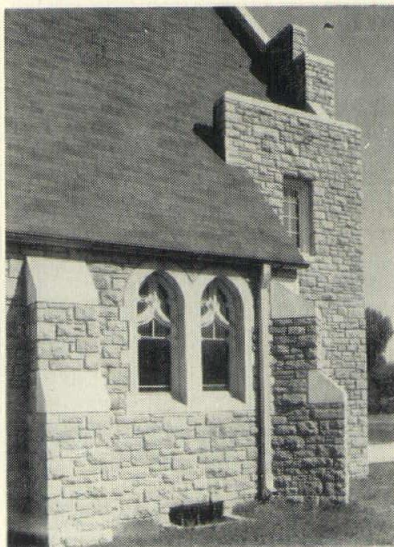
# SHIELY STONE

VENEER

FLAGGING

LANDSCAPE

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## *Rugged in Texture*

and colored by nature in soft tones of blue, gray and autumn gold.

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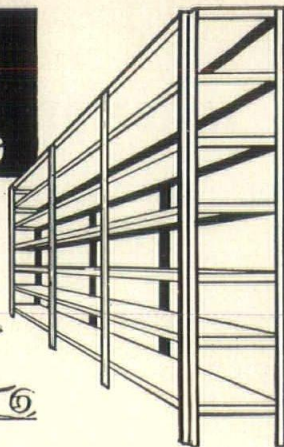
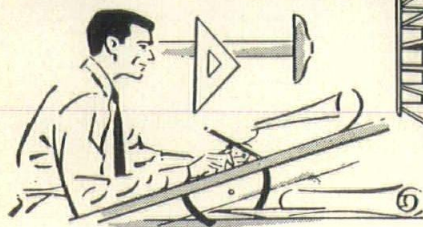
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"TWIN-POST" SHELVING



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## The Highwalk Project

advocated in the page opposite

This critical problem in city growth has just been given some national publicity not in view when the page opposite was made ready for the press run of this number of **NORTHWEST ARCHITECT**.

On page 97 of *Architectural Forum*, January, 1955, the proposal made a year before by **NORTHWEST ARCHITECT**, in September-October 1953, XVII, #5. November-December 1953, XVII, #6; and January-February 1954, XVIII, #1, is recommended as a serious Chicago Planning Commission project to conserve the 100-year tradition of shopping "down town." It is hoped that this can be accomplished by making foot travel independent of the streets and sidewalks, now jam-packed.

This Chicago proposal takes up our designs of 1953-54 including high-walk bridges at about the third story level as we reprint the illustration for you here. These thoroughfares, which are to pass through the heart of existing buildings, will be like specialized hotel lobbies lined both sides with open shops. There will be no need for store fronts and therefore no show-window frustration of ready-to-buy window shoppers. The whole shop and all its stock of merchandise becomes the "show window" where the impulse to buy can be immediately satisfied. When the people whose shopping day is thus facilitated arrive where, say, Adams street traffic roars and smogs with burned auto fumes down below, they are not aware of any sense of "bridge." Without change of width nature, or gradient of floor, or character of finish, the shop lined lobby simply continues, extends itself across the street for a distance of eighty feet to the next building. This short section of interior "lobby-street" becomes pleasantly daylighted with therma-paned openings in place of the free shop openings of the parts of the thoroughfare passing through the center of the blocks. Thus the new world "street" will create eight blocks of new business frontage in what is now the poorest rental space in the dead center of existing buildings. This new rental area will command much higher rentals than street level space, because of no show windows between customer and his desire to buy, and also because there will be no streams of auto traffic to fight which deters women buyers from coming "down town" at all.

This new Chicago street which will extend four long blocks from Marshall Field's to the Chicago Auditorium will be a unit of civic use, decoration and buyer convenience, and without question the most distinguished shopping center in the city.

Persons coming down town by the elevated can cross the present Carson, Pirie, Scott bridge from the Madison Street elevated station, reach this new street, and return home without even going outdoors. The same convenience is offered by the new subway under State Street.

So here we are — a simple solution, potent with new increased business and complete at a fraction of the cost of anything so far proposed.

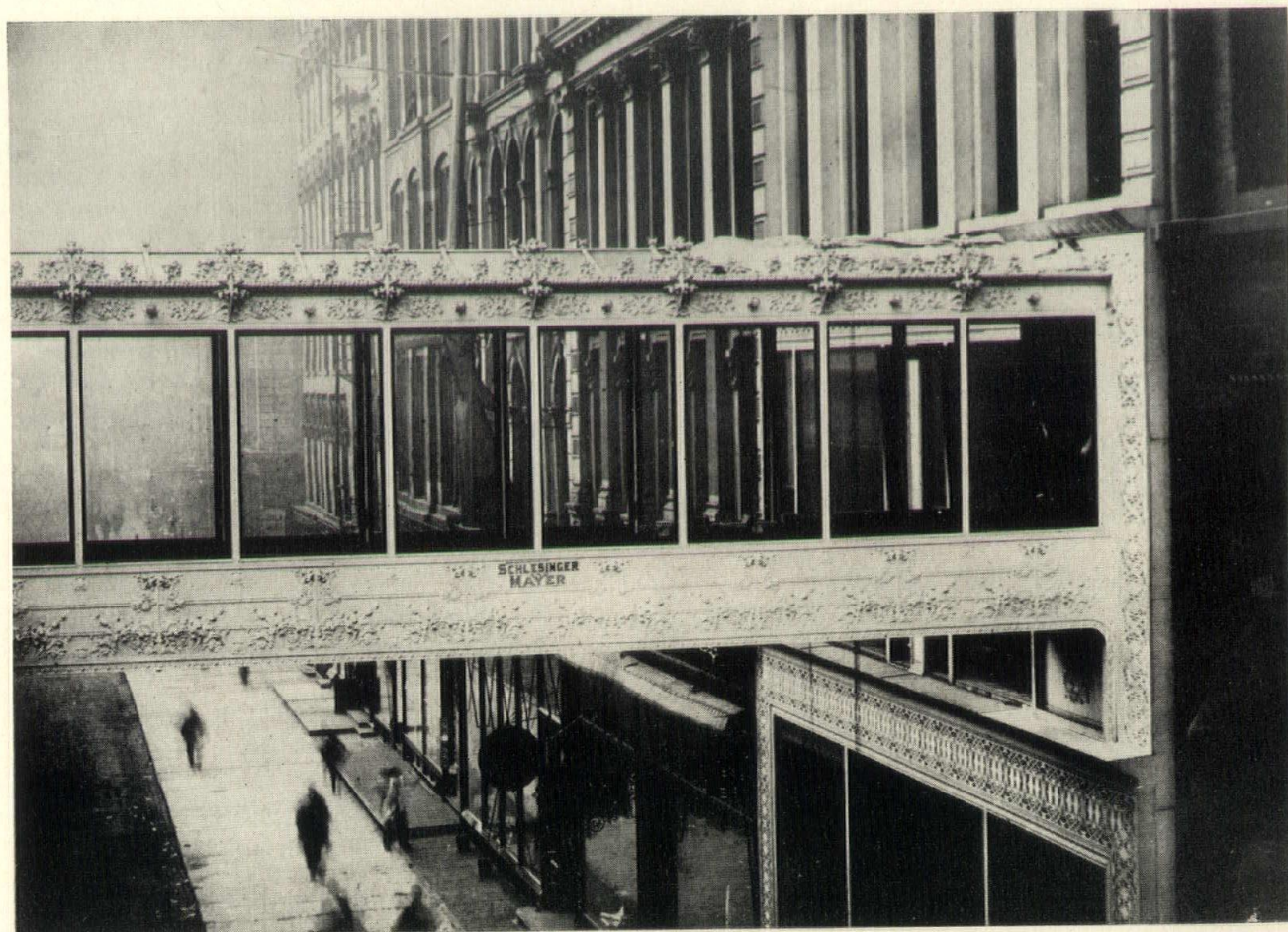
It seems curious that the hundreds of owners of downtown real estate in Minneapolis and St. Paul will make no moves to halt the retreat of well disposed customers who are none the less giving up the battle with down-

(Continued on Page 60)



# "TRANSITORS" ARRIVE

FOR ONE, ELEVATOR-TYPE CARS MOVE SIDEWAYS, ANOTHER MOVES WALKERS FASTER



AGAIN WE OFFER TO MARQUETTE AVENUE THE HIGHWALK GLASS BRIDGE  
♦ MORE THAN A WARNING ♦

**N**ORTHWEST ARCHITECT in three numbers, last winter, told of a cash loss, right now, to American cities and especially to Minneapolis and St. Paul. We said that every property owner and businessman would lose money; that this type of loss could *not* be made up later; that ordinary business foresight demanded action now. Perhaps the following story of jam-packed walkways and skyrocketing transit fares in New York City will start cogitation in Minnesota.

Please read "TIME" for November 15, 1954, page 104, under the title "Transportation." You will learn that there are now being constructed *underground* in New York at a cost of two million dollars, two types of moving "walk-ways" or "walk-and-ride-ways," which "NORTHWEST ARCHITECTURE" proposed last winter and to which for the first time we gave the general name of "transitors." "TIME'S" title says, "Subway of the Future." But what New York and "TIME" has not seen is that the "subway" is not of the future. Further extension of any kind of underground conveyance for people only aggravates the

city disease. Extending underground transit only postpones procedures toward civic health. Cities without subway transit systems are lucky. Street railways cannot be made to pay expenses. As a result the capital value of "loop" real estate is destroyed.

What is needed in New York, and in all congested cities, is the "Highstreet" which "NORTHWEST ARCHITECT" also declared and named. Cancel any more catacombs!

Freedom must first be provided for downtown shoppers to move above traffic on their own impulses, *on their own feet*. If permitted to at least get to the other side of just one street easily and happily they will learn what can be gained by types of "transitors" designed to the varying needs of distance, destination and volume of traffic. All that is needed *now* — in New York and for us in Minnesota — is an opportunity to pass *over* that streaming moil of street traffic, so it can stream to good purpose. Come on!, Minneapolis, look ahead; let's have enabling legislation for just one highwalk glass bridge. The rest will be easy.—W.G.P.



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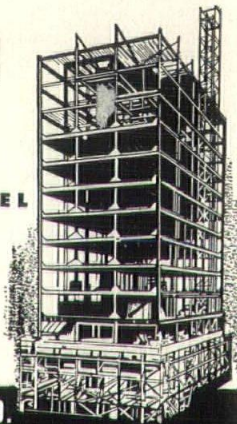
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town traffic. They are buying in suburban shops or by mail. The slow-motion municipal explosion of city loop districts has gone too far to be stopped; but it could be materially slowed to enable economic strategy and tactics to stabilize against the new forces. Chicago is making very large plans to do just this. They estimate the bridges such as shown opposite at \$50,000 each.

W.G.P.

### Omaha

*(Continued from Page 57)*

ton stations for starting and stopping operations, indicating lights to show if the unit is in operation and name plates to identify each piece of equipment. In conjunction with the master control board is an observation console board with built-in desk for the chief engineer, with indicating lights and name plate to identify which equipment is in operation within the building. This console board is located on the Arena floor in the engineer's office.

Smoke detectors are located within the building and are indicated on the control boards with red indicating lights. These operate only when smoke is present and are operated with photo-electric cells. All machinery is easily accessible by means of catwalks, separate machine rooms, pipe spaces and tunnels. Janitors' stations are scattered throughout the building for efficient service and an incinerator has been provided to dispose of waste materials. Service entrances to the building are large enough to allow trucks to drive in.

### News

*(Continued from Page 42)*

public construction projects and that the committee believes professional and business firms combining the functions of design and supervision with those of business-management or having a close association as a regular practice with firms combining such function, are not acting in furtherance of this principle.

"Therefore it is recommended that this belief be made known to the Associated General Contractors of Minnesota and the Minneapolis and St. Paul Chapters, of the American Institute of Architects, and they be requested to consider, adopt and publicize their concurrence therein."



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*A symbol of  
Peace in the Skyline*

Successful "comebacks" always make inspiring stories and the rebuilding story of St. Olaf's Catholic Church in downtown Minneapolis isn't an exception. When the church was gutted by fire on Ash Wednesday in 1953, one of the oldest landmarks in the city left the skyline.

Now, just a little more than a year and a half later, a new church designed by *Thorshov and Cerny*, architects and built by *McGough Brothers*, contractors, is rising to take its peaceful place in the heart of the metropolitan area.

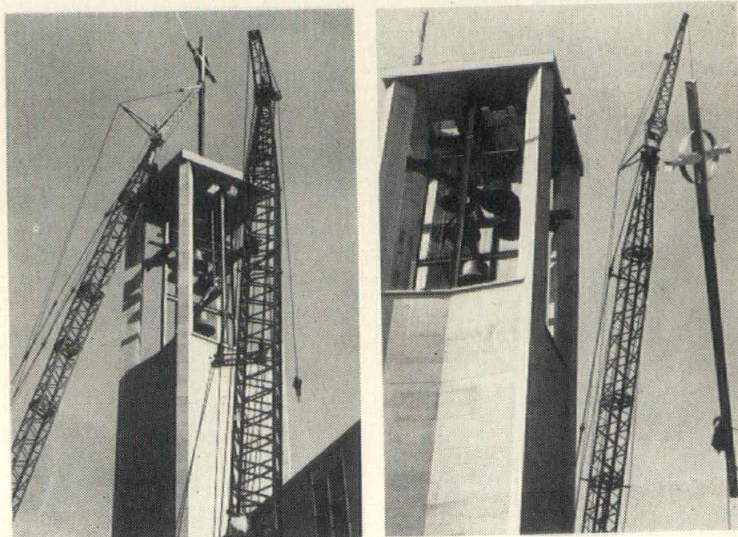
The 5,000 pound stainless steel covered cross extends 36 feet above the roof of St. Olaf's bell tower and was put in place a few weeks ago after being expertly fabricated by the ornamental metal craftsmen at *Minnesota Fence and Iron Works*.

St. Olaf's is tentatively scheduled for completion by Ash Wednesday, 1955. Then once again its long tradition of community service will again give faith and hope to all.



**Minnesota fence  
AND IRON WORKS**

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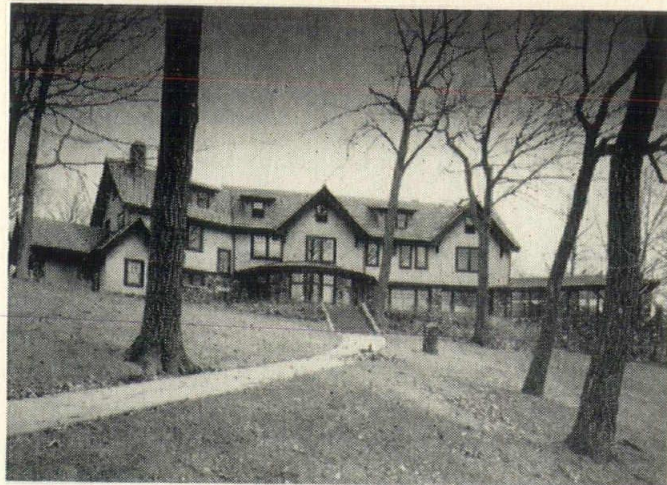


# REMODEL

## *don't*

## *wreck*

Before . . .



After . . .



When all the Frank Leslie children had "flown the coop" and the elder members of the family began to feel like peanuts rattling around in a large bag, the Leslies faced a typical problem of owners of older buildings—whether to sell, wreck or remodel. The final answer of remodel was a sound one and a fascinating job resulted.

Having one of the best sites on Lake Minnetonka to the west of Minneapolis, the Leslies thought of splitting their property and selling only the half with the house on it, then building a new one for themselves, tailored to their reduced housing requirements, on the other half of the land. A thorough investigation of all the factors involved in such a proposition showed them a new house of their desires would cost more than they wished to invest. Then too, sale of the old house was not economically sound for buyers of such a property were difficult, if not impossible, to find. The old structure had grown into the proverbial white elephant.

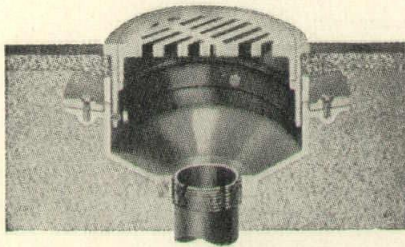
The Job—Remodel residence at Maplewoods, Minnetonka  
The Architects—Humphrey & Hardenbergh, Inc., Minneapolis

So it was wreck or remodel and the Leslies, with the skilled aid of their architects, Humphrey & Hardenbergh, Inc., Minneapolis, did a bit of both. End result, as can be seen in our illustrations, was a rambler on the old and charming site at a price they liked. The 50-year-old, 3-story, 25-room, half-timbered house wound up as a single-story, 3-bedroom rambler which could be maintained by Mrs. Leslie without help.

Except for removal of the upper two stories and extension of the house two car-widths for a 3-stall garage, little of the original exterior was changed. Similarly the road, sewer system, water, gas and electric layouts did not require major changes. The screened

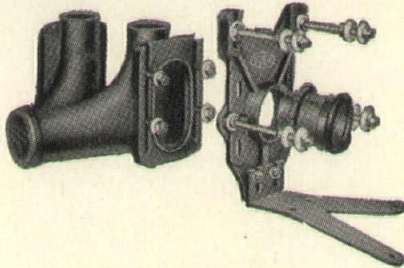


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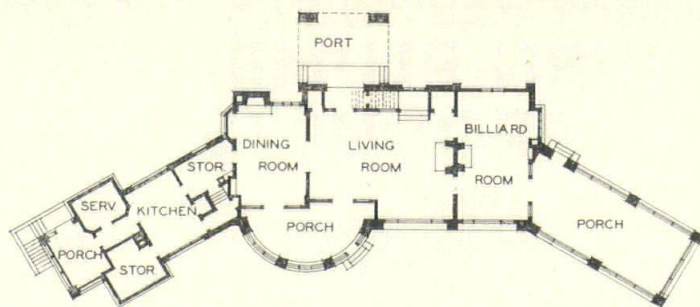
THE REDFIELD BRICK AND TILE COMPANY  
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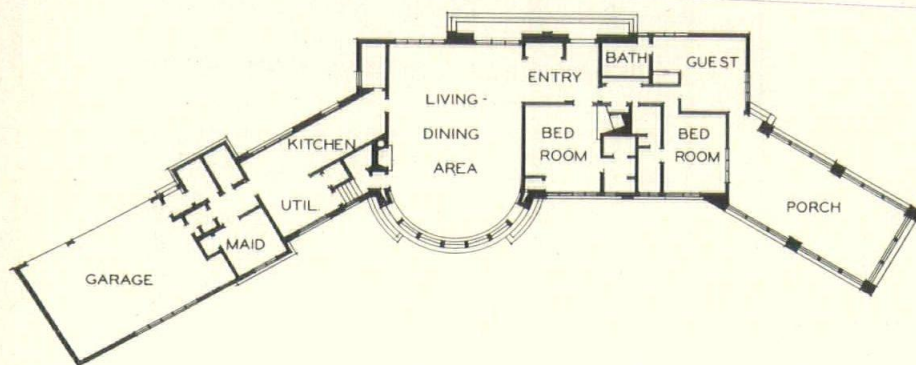


porch remained intact and its existing roof set the pitch for reroofing the rest of the building. Inside also much of the layout remained as before with no changes in kitchen, stairs, maid's room, bath and chimneys. Equipment and mechanical features, however, were brought up to date.

However, the heart of the house was redone thoroughly. First, the circular bay which had been a small, cold, glazed porch became the end of one great living and dining area, with a sweeping view of Big



Before  
(above)



After  
(left)

Lake visible through large Thermopaned windows. Second, remainder of what were large living and billiard rooms provided ample space for the entry, library, two bedrooms and baths.

Character throughout the structure was patterned to Mrs. Leslie's desire that there be no "worry about what style of house it is, just so it be mellow." This was

accomplished by use of new casement windows, parquet, tile and marble floors, mahogany-ply walls, a granite fireplace in the library, new heating and electrical work and other minor changes. The house then became a gracious setting for the later lives of its occupants and a background for the family's fine heirloom furniture.

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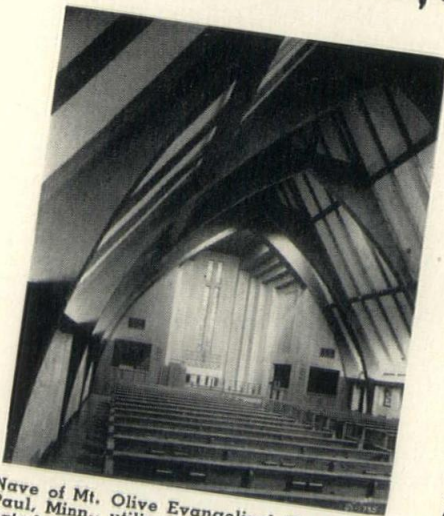
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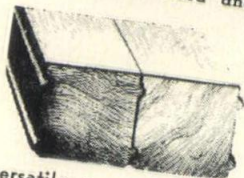
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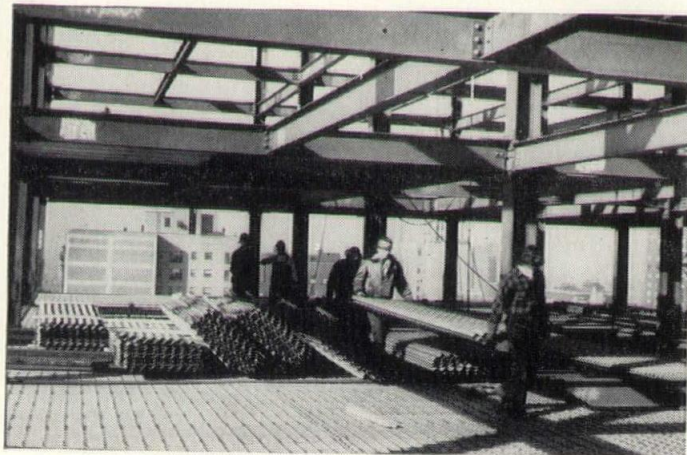
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# COFAR...

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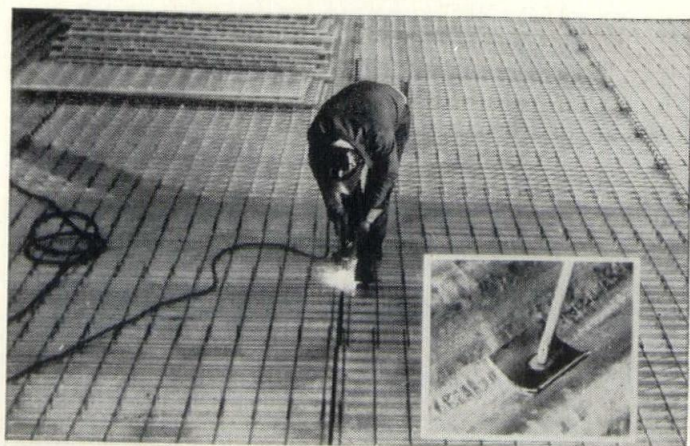
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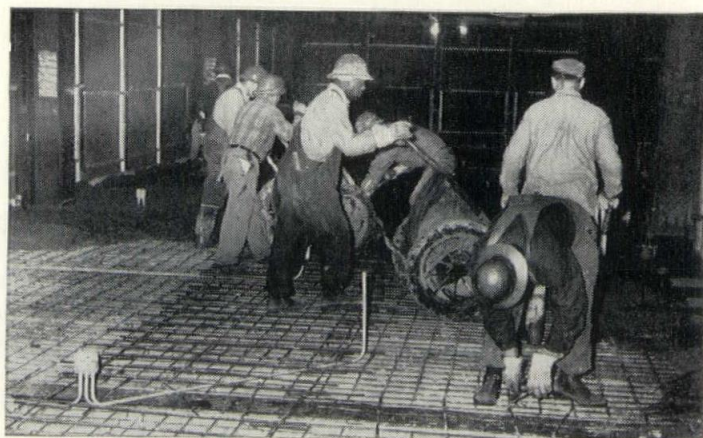
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