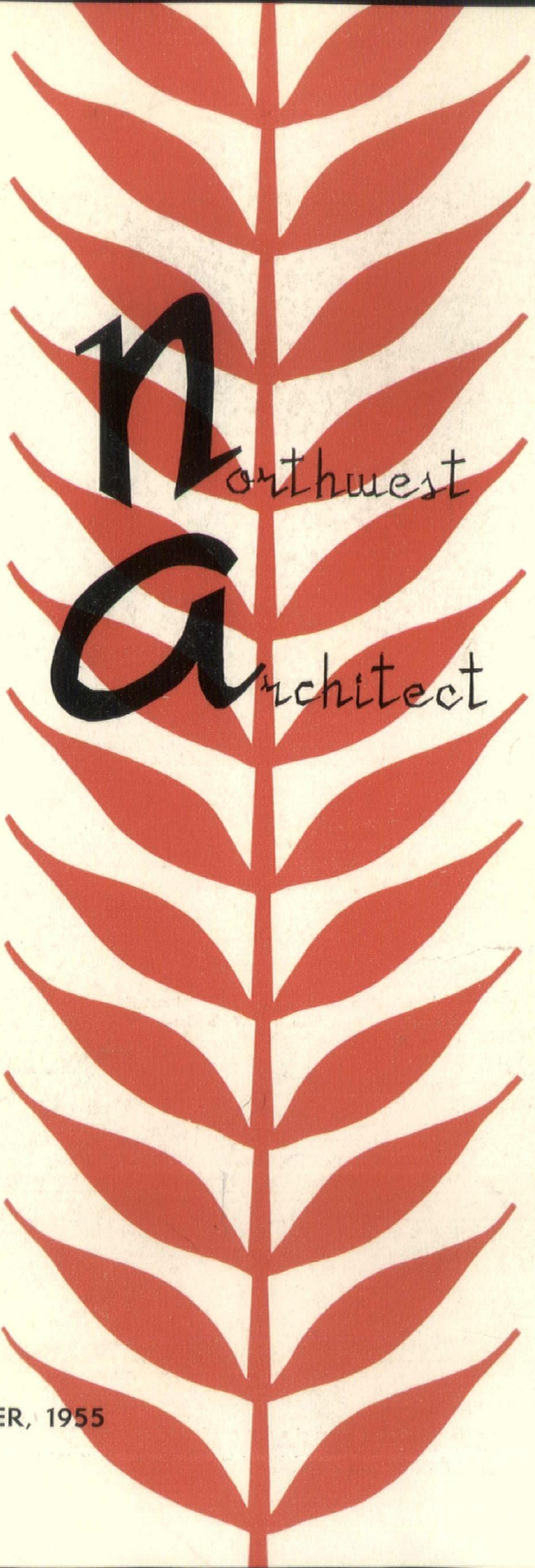


Northwest Architect

aia

NOVEMBER-DECEMBER, 1955
VOLUME XIX
NUMBER SIX

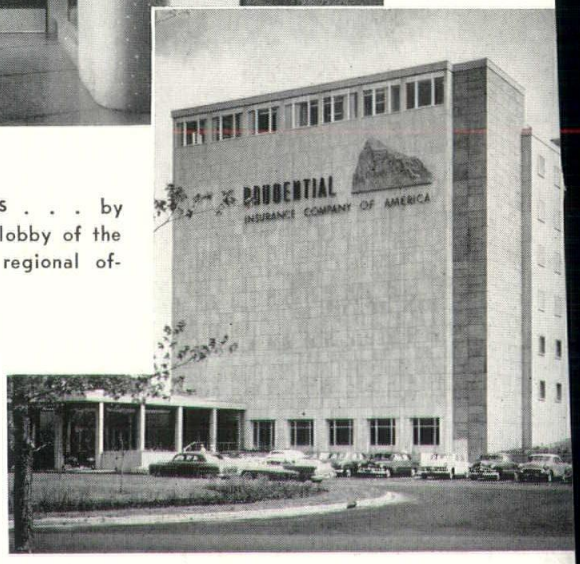
.....appearance has influence

CROWN

These lines have been added to our expanding service.

- KAWNEER PRODUCTS
- WELDWOOD DOORS
- STAY-STRATE DOORS
- HOLLOW METAL DOORS
- HOLLOW METAL FRAMES
- METAL WINDOWS
- STEEL ROOF DECK
- STEEL JOISTS
- H. H. ROBERTSON CO. PROD.

Perforated Aluminum Light Reflectors . . . by Crown Iron enhance the beauty of the main lobby of the Prudential Insurance Company of America, regional office building, Minneapolis, Minnesota.



All miscellaneous iron and ornamental metal fabricated by Crown Iron Works Company.

MAGNEY TUSLER & SETTER
Architects
Minneapolis, Minnesota

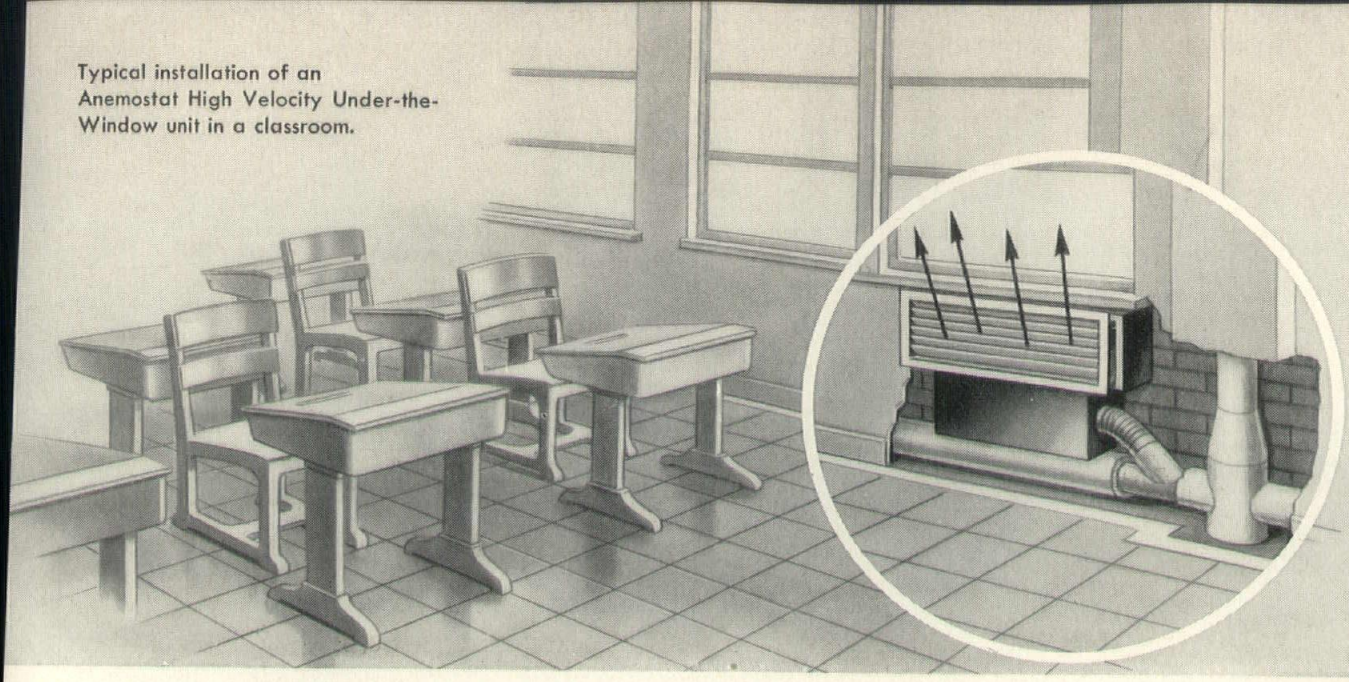
SEVENTY-SIX YEARS OF EXPERIENCE

Crown Iron Works Co.

1229 TYLER STREET N.E., MINNEAPOLIS 13, MINNESOTA TELEPHONE: GRANVILLE 3556

SERVING NORTHWEST ARCHITECTS

For more than three quarters of a century—Crown Iron Works Company has been a leading producer of structural steel and other metal fabricated products. Continued expansion of facilities for the best possible service to northwest architects and the building industry in general is our constant endeavor.



Typical installation of an Anemostat High Velocity Under-the-Window unit in a classroom.

How to deliver
high velocity air to schoolrooms

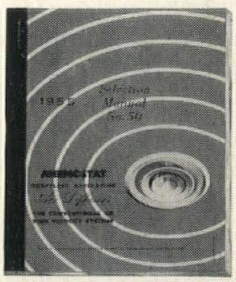
Shown here are two ways of using the Anemostat All-Air High Velocity system of draftless air distribution for heating and ventilating schools. Under-the-Window units (above) are the most practical for colder climates. Corridor distribution (below) is preferable in warmer climates.

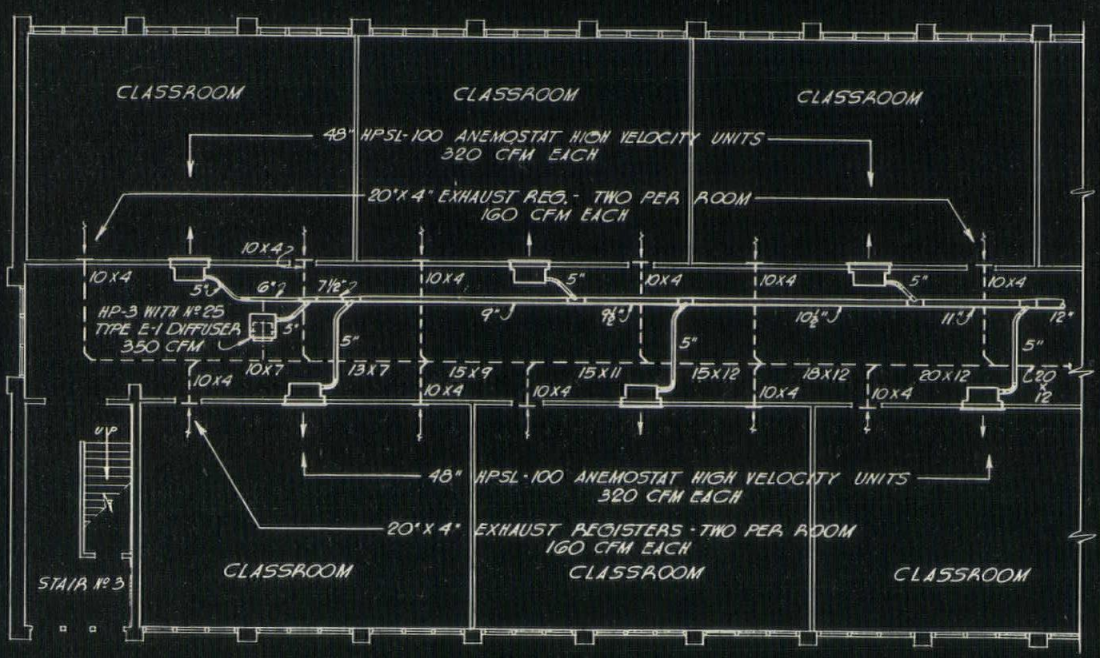
Advantages:

- All-Air High Velocity units require smaller than conventional ducts, thus save space and money.
- All-Air HV units can be used for individual or zone control, in single or dual duct installation.
- Since air is supplied from the main equipment room, there is no need to break through the outside of the building for prime air make-up. This eliminates grilles, dampers, possibility of leaks.
- The Anemostat All-Air HV system can be simply installed by the sheet metal trades. No supply or return pipes are required. Units are quiet, need a minimum of maintenance from custodians.

For selection manual No. 50 covering All-Air High Velocity units contact

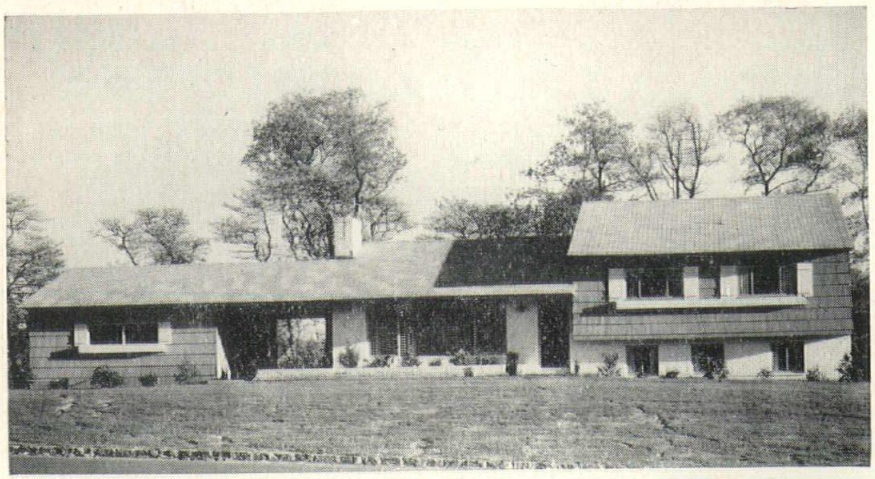
Thermal Company, Inc.
2526 University Ave.
St. Paul 14, Minn.
Mi. 6-1364





Diagrammatic layout shows corridor distribution of high velocity air for wing of school.

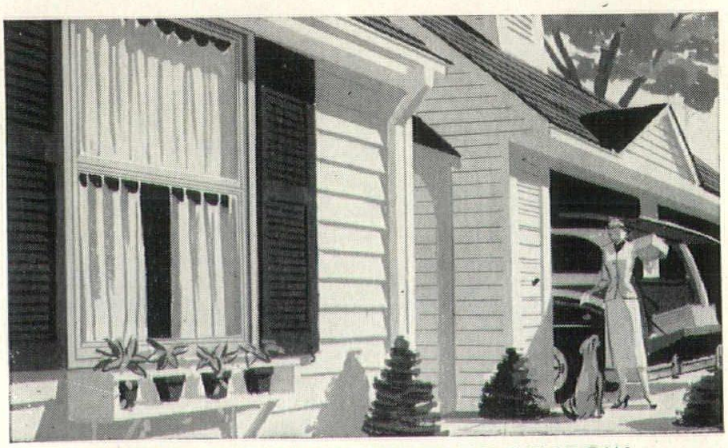
Here's Why Leading Architects Say



RUSCO
PRIME WINDOWS
CUT BUILDING COSTS
and offer outstanding improvements in window design!

- Magic Panel No-Draft Ventilation
- Self Storing Storms & Screens
- All Sash and Screen Removable from Inside for Cleaning
- Fiberglas Screen Cloth
- Permanent Baked-On Gray Enamel
- Double Weatherstripping
- Complete Package in Rusco Steel or Split Red Wood Casing
- Neoprene Glazing Spline—No Putty
- No Maintenance
- The Modern Window for Today's Buildings

RUSCO HORIZONTAL-SLIDE PRIME WINDOW



RUSCO VERTICAL-SLIDE PRIME WINDOW

RUSCO FULVUE PRIME WINDOW

When deciding on window specifications—it's good business to remember that only Rusco makes a window that **Does Everything a Window Should Do** and **Everything a Window Should Be!**

"ALWAYS ONE STEP AHEAD OF THE WEATHER WITH RUSCO"

For Further Information Call or Write
The Exclusive Northwest Distributor

INSULATION ENGINEERS, INC.

RUSCO PRIME WINDOW DIVISION

Marvin L. "Fergie" Fergestad, Registered Architect Engineer

6318 Cambridge
Minneapolis 16

St. Louis Park
West 9-6794

NORTHWEST ARCHITECT

In This Issue:

Minnesota Society's Convention 20
Solar Heating in Urban Areas 24
Corporations Versus Partnerships 26
S. F. 143 29
Porcelain Faced Building 33
Convention Pictures 38
University of North America 48
Chapter, Club and Other News 54
Finishing of Northern Hardwoods 68
Products and Services 76

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

C. J. Loretz, Managing Editor
Fred Miller, Jr., Associate Editor
Midway 6-2641

Official Publication Minnesota Society of Architects, Glynne W. Shifflet, St. Paul, President

Northwest Architect and its publishers disclaim any and all liability for statements made by authors in contributed articles.

Publication Office: 2642 University Ave., St. Paul 14, Minnesota. Second Class Mail Privileges Authorized at St. Paul, Minnesota.

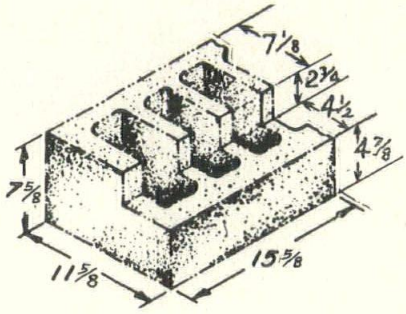
VOLUME XIX
NUMBER 6
1955

Announcing

The New 12 INCH HEADER BLOCK

IT IS NOW POSSIBLE TO HAVE A 16" MASONRY WALL FOR THE SAME LABOR COSTS AS IN A 12" WALL. IN THE PAST WHEN BUILDING DESIGN DEMANDED A 16" BRICK VENEER WALL, IT WAS NECESSARY TO USE AN 8" HEADER BLOCK AND A 4" PARTITION BLOCK IN EVERY OTHER COURSE AS ILLUSTRATED IN "A" BELOW.

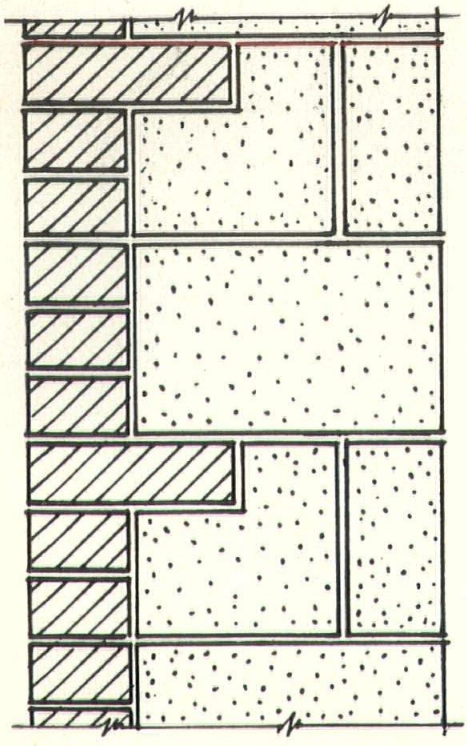
NOW WITH THE NEW 12" HEADER BLOCK, ILLUSTRATED IN "B" BELOW, LABOR AND MATERIAL COSTS OF THE 4" BLOCK ARE ELIMINATED. AS A RESULT THIS 12" HEADER BLOCK NO. 1233 CAN BE USED TO GOOD ADVANTAGE IN DESIGN AND CONSTRUCTION OF LARGER MASONRY BUILDINGS.



Old Style

Using 4" Partition and
8" Header Block

A

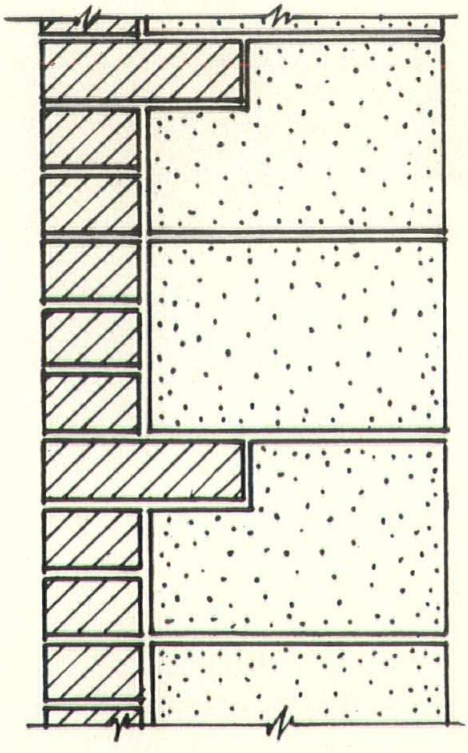


Manufactured
in either
WAYLITE
or
CONCRETE

New Style

Using New No. 1233
12" Header Block

B



GLACIER SAND and GRAVEL CO.

70TH STREET & FRANCE AVE. SO.
MINNEAPOLIS 10, MINNESOTA
WA. 6-1651

ANCHOR BLOCK COMPANY

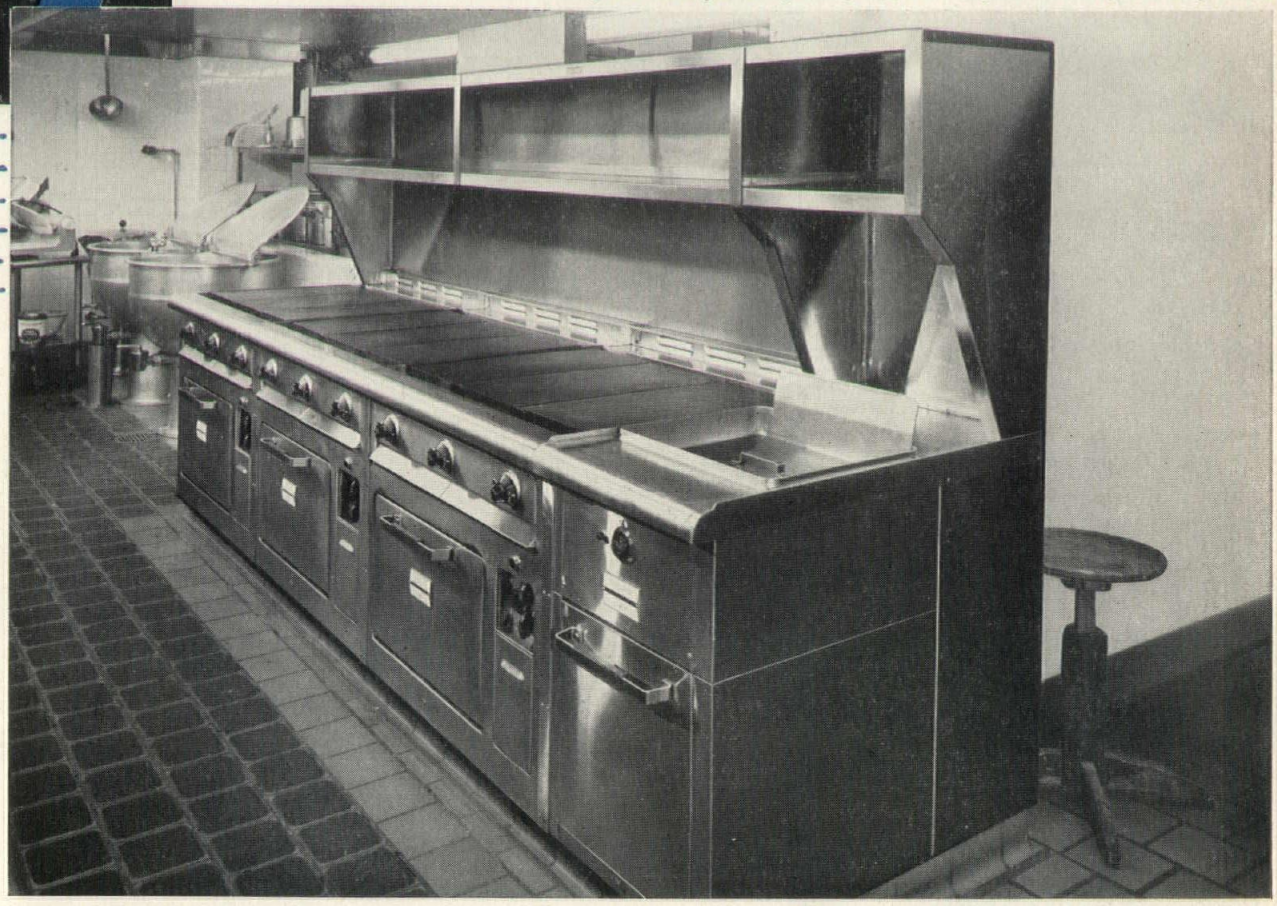
565 ALDINE STREET, ST. PAUL 4, MINNESOTA
Phone: MI. 6-6507, MI. 6-6508, MI. 6-6210

ANOTHER
Blue Ribbon
INSTALLATION

FOR LONG-LIFE COOKING EQUIPMENT

...Go Electric

Kitchen installation at Minnesota Mining and Manufacturing Company, 900 Fauquier Avenue, St. Paul, Minn.



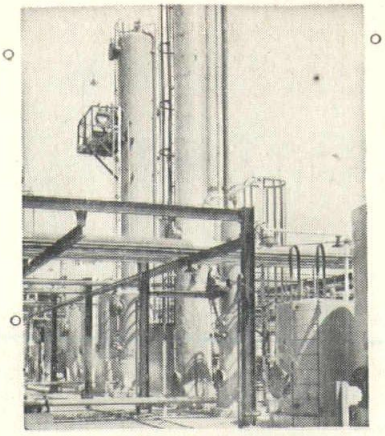
ARCHITECTS AND ENGINEERS: *Ellerbe & Company*
EQUIPMENT MANUFACTURERS: *Hotpoint Company*
EQUIPMENT SUPPLIERS: *The Joesting and Schilling Company*

AFTER FOUR YEARS OF INPLANT SERVICE, THIS ELECTRIC COOKING EQUIPMENT LOOKS LIKE NEW. ELECTRIC COOKING EQUIPMENT IS CLEAN, RUGGED AND DEPENDABLE. BE MODERN—GO ELECTRIC.

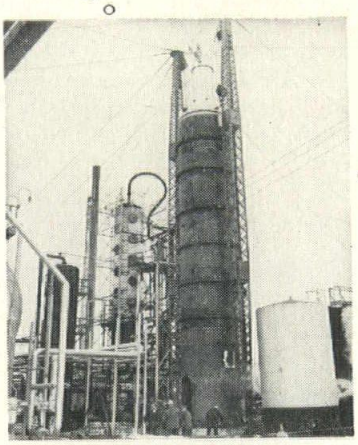
Information compiled by

NORTHERN STATES NSP POWER COMPANY

For factual lighting information, technical data on light sources, fixtures, relative costs, etc.
Call Commercial Sales Department—Northern States Power Company



TOWERS, TANKS AND PRESSURE VESSELS BY BROS



47-TON FRACTIONATOR

BROS

Steel Fabrications for the Changing Midwest Since 1882

For your petrochemical processing equipment, depend on the skills and facilities of Bros in Minneapolis — steel plate fabricator for the Midwest since 1882.

Fractionating towers, pressure vessels, stacks and storage tanks are some of the special fabrications of large and small capacities that Bros builds for refining crude oils into valuable synthetic chemicals. Above you see very recent Midwest installations constructed by Bros in its long tradition of exact conformance to blueprints and specifications.

Our engineering and research departments are staffed to provide you with expert assistance in the planning and design of process equipment. We have modern machine shop facilities for weldments and steel plate work from 3/16″ to 1-1/2″ thickness. Fabrications conform to all accepted code requirements. We also have X-ray and annealing facilities available.

When required, skilled Bros crews field erect units too large for such limiting conditions as shipping or building clearances.

Bros also builds and erects fuel oil tanks up to 20,000 bbl. capacity. We have a special 24-hour repair and maintenance service for your convenience. Our sales engineers are always ready to discuss your plant requirements for steel plate products.

General Sales Division

WM. BROS BOILER & MFG. CO.

1057 TENTH AVENUE S.E., MINNEAPOLIS 14, MINNESOTA

FIELD REPRESENTATIVES

STEEL PRODUCTS CORP.
52 Vanderbilt Avenue
New York, N. Y.

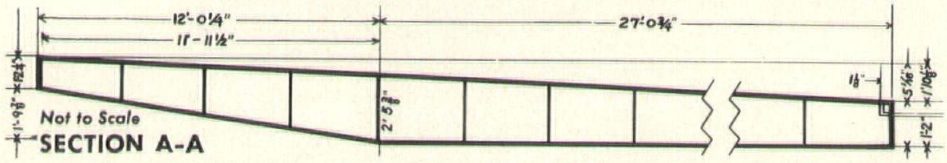
WILLIAMS-SWANSON CO.
503 Builders Exchange
Duluth, Minn.

E. M. THOMPSON
950 Dierks Building
Kansas City, Mo.

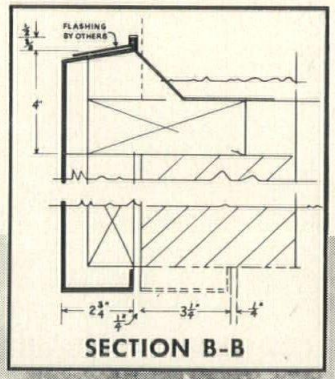
New perspectives in school design gain practical utility with modern Davidson ARCHITECTURAL PORCELAIN

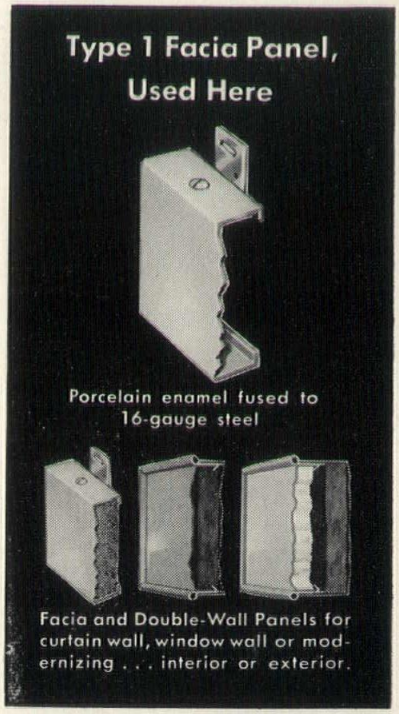
Here, in striking combination with buff field stone, orange Davidson Architectural Porcelain Enamel points up the soaring lines of a cantilevered canopy. A distinctive accent, yet in full keeping with good taste, this application reminds again that there is virtually no restriction on the use of Davidson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

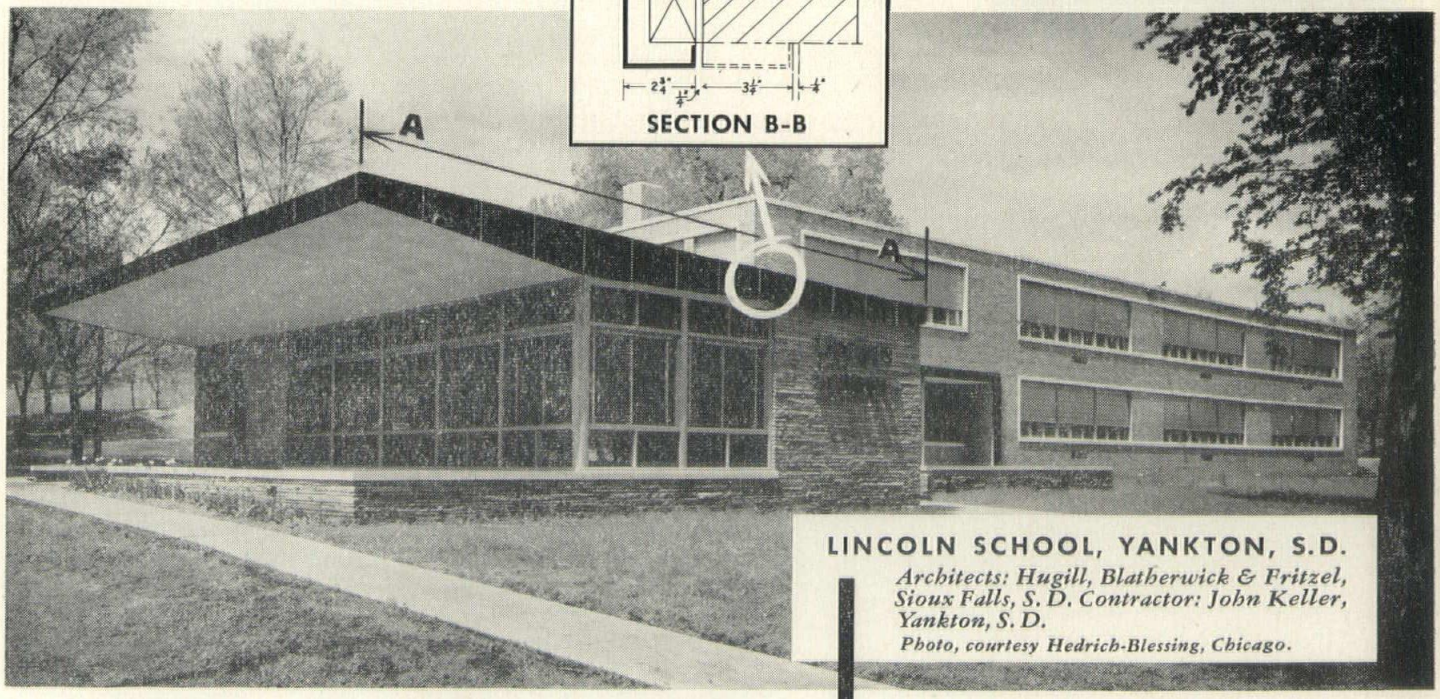
Davidson Architectural Porcelain Panels are made to your specification—size, shape and color just as you need them—and you can select from four basic types of panels, according to type of construction planned. Write for file folder of installations and ideas.



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.







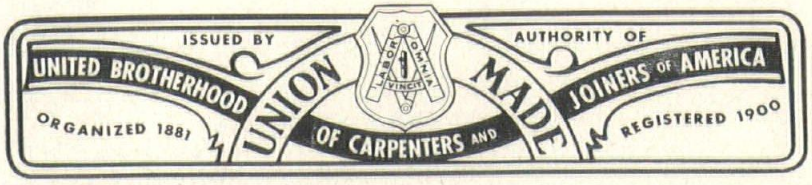
LINCOLN SCHOOL, YANKTON, S.D.
Architects: Hugill, Blatherwick & Fritzel, Sioux Falls, S. D. Contractor: John Keller, Yankton, S. D.
Photo, courtesy Hedrich-Blessing, Chicago.

JOEL F. JACKSON
franchised distributor of
Architectural Porcelain for
Davidson ENAMEL PRODUCTS, INC.

808 N.W. FEDERAL BUILDING
730 HENNEPIN AVENUE
MINNEAPOLIS 3, MINNESOTA

1111 EAST KIBBY STREET, LIMA, OHIO

The firms listed below are employing members of the United Brotherhood of Carpenters and Joiners of America and have the use of the Carpenters' Label.



They are manufacturers of all types of showcases, counters, wall cases, institutional equipment, kitchen cabinets, church furniture and special millwork used in banks, offices, bars, taverns, restaurants, hotels and all types of stores. Several manufacture prefabricated material used in the building of homes and all other types of construction.

MINNEAPOLIS

A.B.C. Cabinet & Woodwork Shop
Advance Signs & Display Company
Allied Store Equipment Company
Associated Homes
D. W. Blohm Manufacturing Company
Brooklyn Industries, Inc.
M. Capp Manufacturing Company
Central Woodworking Company
Columbia Millwork Company
Conrad Fixture Company
Crystal Cabinet Works
Aaron Carlson Company
DeVac Self Storing Window Company
John Elmberg Fixture Company
Grand Showcase Company
Hill Woodworking Shop
Harriet Millwork Company
Holdahl & Colstad, Inc.
Jerry Wood Products Company
Jeppesen Cabinet Company
J. R. Jones Fixture Company
Kalco Company
Lee Wood Products Company
Main Street Fixture Company
Minnetonka Showcase Company
Nokomis Woodworking Company
Joseph F. Palen, Inc.
Rembold Cabinet Company
Serley Company—(Serley Windows)
Shirmers Cabinet Shop
Suburban Cabinet Shop
Shur-Nuff, Inc.
Tennyson & Son Fixture Company
E. C. Woida Company

ST. PAUL

Benida Fixture & Cabinet Mfg. Co.
Bergstedt Sales Company
John Calander Manufacturing Co.
C & S Cabinet Shop
O. C. Carlquist & Son
Glass Specialty
Hasslen Cabinet & Millwork Shop
Johnson Lumber Company
Lien Millwork Company
Midway Cabinet & Fixture Company
Modern Cabinet Shop
National Lumber Company
Panel Products Co.
Payne Avenue Woodwork Company
L. Paulle Midway Fixture & Showcase Co.
Peters Cabinet & Fixture Company
Ramacier Sash & Door Company
Riverview Cabinet & Supply Company
Ross Manufacturing Company
Al Sax Highway Cabinet Maker
R. M. Weber Cabinet Shop
West End Cabinet Works
Widman Manufacturing Company
Wood Fabricating Company

OUTSIDE THE TWIN CITIES

S. H. Bowman Lumber Company
Hopkins, Minnesota

Cross Lumber Products, Inc.
Bloomington, Minnesota

Chapin Cabinet & Woodworking Shop
South St. Paul, Minnesota

Herb Dillion & Son
St. Paul Park, Minnesota

Hopkins Wood Products Company
Hopkins, Minnesota

Loretto Cabinet & Millwork Company
Loretto, Minnesota

New Brighton Manufacturing Co.
New Brighton, Minnesota

Indian Head Woodwork
Milltown, Wisconsin

Shimek & Bylander
Spring Lake Park, Minnesota

South Shore Wood Products
Willernie, Minnesota

Streater Industries
Spring Park, Minnesota

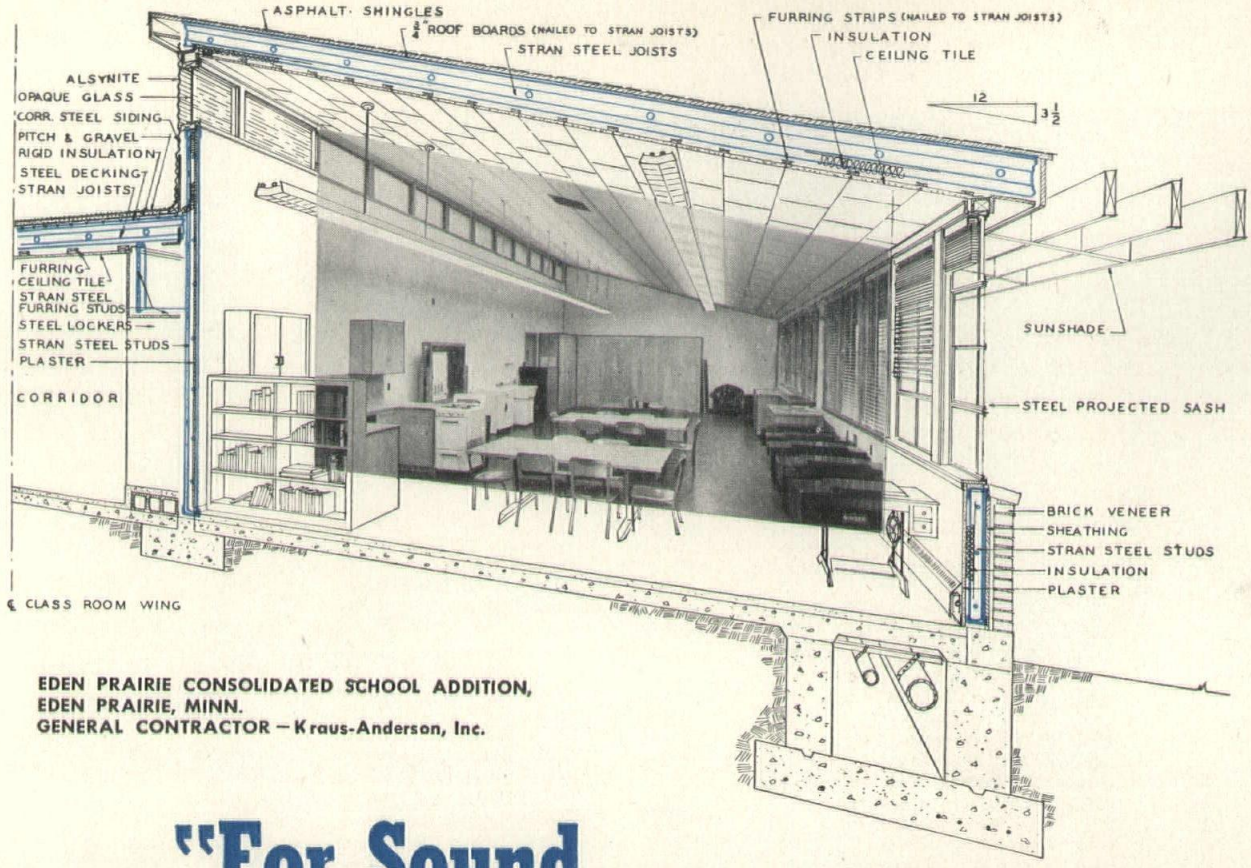
Suburban Fixture Company
Maple Plain, Minnesota

In contacting these firms in regard to any of their products, you can be assured that they are made by competent craftsmen who are well-trained and who take pride in the product they make.

TWIN CITIES CARPENTERS & JOINERS DISTRICT COUNCIL

842 Raymond Ave. — MIdway 6-7207 — St. Paul, Minnesota

J. H. Bakken, Secretary



EDEN PRAIRIE CONSOLIDATED SCHOOL ADDITION,
EDEN PRAIRIE, MINN.
GENERAL CONTRACTOR — Kraus-Anderson, Inc.

"For Sound Economical Construction

. . . we preferred Stran-Steel Framing for the addition to our school. Its exceptional economy and speedy erection, plus the advantages of steel framing have proven our choice to be correct. This type of construction is adaptable to future expansion programs, which is important in school planning. We recommend it very highly to others contemplating new construction."

HARRY E. HULS, *Supt.*
Eden Prairie Consolidated School

Stran-Steel Framing Members provide a versatile framing system for durable, fire-safe structures. Members consist of joists, studs and plates pre-cut to exact lengths and factory punched for pipes, wiring conduits and placing of screws. Collateral materials are nailed directly to Stran-Steel members. The special groove deforms and clenches the nail in a grip of steel. Ordinary carpenters tools and methods are used in erecting.

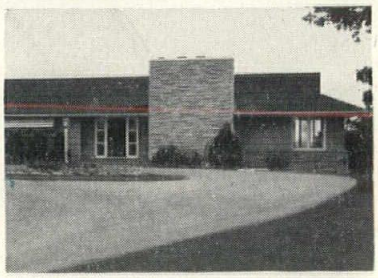
Stran-Steel Framing permits substantial savings in building costs in several ways. For instance with conventional materials it is necessary to hold up construction at various stages to permit plumbers and electricians to get their pipe and conduit in. With Stran-Steel members the entire building can be framed and closed in without delay. The various trades may then start and complete their work inside without costly interruptions.

We will welcome an opportunity to discuss Stran-Steel Framing and its application in your building plans.

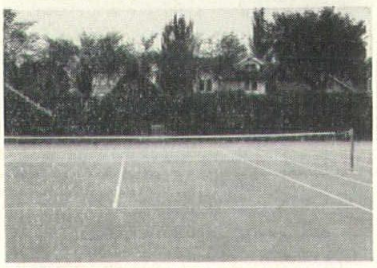
YOU NAIL TO STRAN STEEL FRAMING

STEEL STRUCTURES, INC.
821 NINTH AVENUE S. E.
MINNEAPOLIS 14, MINNESOTA
Fillmore 2786 Nestor 6078

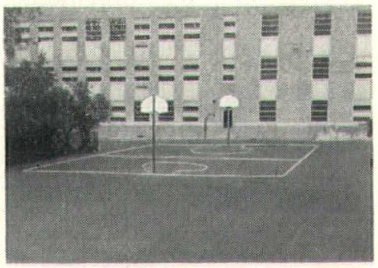
• QUONSET AND INDUSTRIAL LONG SPAN AND RIGID FRAME STEEL BUILDINGS • METAL ROOF DECK
• McKEE OVERHEAD DOORS • ALSYNITE • LONG SPAN BAR JOISTS



DRIVEWAYS built with "RAMCOAT" stand up for years under all kinds of weather conditions—add more value to homes.



TENNIS COURT surfaced with "RAMCOAT" resists water breakdown . . . maintenance costs are pared to the bone.



PLAYGROUND covered with "RAMCOAT" blacktop is safer for children. "RAMCOAT" is always smooth and easy to clean.

PARKING LOT blacktopped with "RAMCOAT" is always clean—always free of dust and mud, and inviting to motorists.

...the blacktop that actually improves under 20-ton traffic!

24 hours a day, giant semi-trailer units swing around this curve in a factory loading area—but the "RAMCOAT" surface is actually improving under the punishment. Reason: "RAMCOAT'S" amazingly high stability. Results of comparative tests made with ordinary blacktopping show that "RAMCOAT" has up to *three times* greater resistance to displacement!

Too, "RAMCOAT" is a pavement wearing surface of exceptionally high water repellancy—shows no trace of water breakdown even after 24 hours of complete submersion. "RAMCOAT"—non-skid, self-sealing, non-bleeding—is easy to apply, by hand or with standard paving equipment.

For full details, call your nearby "RAMCOAT" applicator listed below, or write Minnesota Mining and Mfg. Co., Dept. IP-125, St. Paul 6, Minn.

Wisconsin Sheet Asphalt Co.
120 Weston Avenue
Wausau, Wisconsin

Struck and Irwin
826 Williamson St.
Madison, Wis.

Blacktop Inc.
527 S. Van Buren
Green Bay, Wis.

Vilas Paving Co.
Boulder Junction, Wis.

Morgan Co.
Ironwood, Michigan

Hennepin Blacktopping Co.
2373 Territorial Road.
St. Paul, Minn.

American Asphalt Paving
5206 No. 124th St.
Butler, Wis.

"RAMCOAT" IS AVAILABLE WITH SPECIAL COLORED SURFACES, TOO. ASK ABOUT IT!

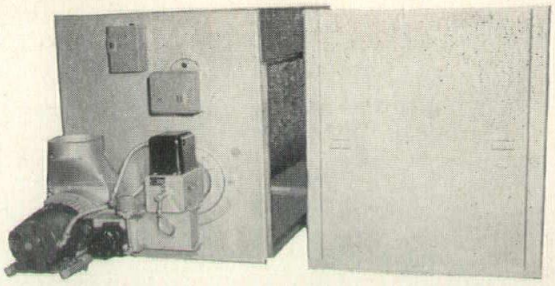
Made in U.S.A. by Minnesota Mining and Mfg. Co. General Offices: St. Paul 6, Minn. In Canada: P. O. Box 757, London, Ontario. Export Sales Office: 99 Park Avenue, New York City. Makers of "SCOTCH" Brand Pressure-Sensitive Tapes, "SCOTCH" Brand Magnetic Tape, "3M" Adhesives, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-slip Surfacing.

3M COMPANY

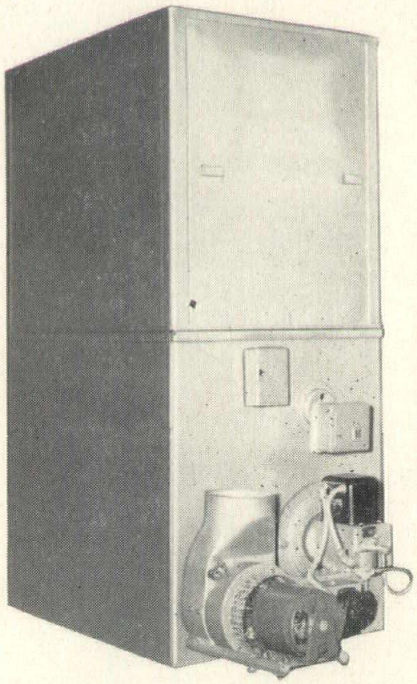
TJERNLUND

"Quick Heat"

OIL & GAS FIRED HEATING EQUIPMENT



Style "A" with integral draft inducing oil burner separate blower unit for face and by-pass installation.



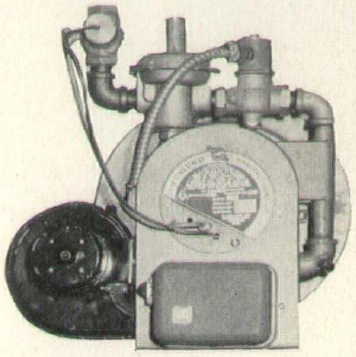
HEAVY DUTY UNITS

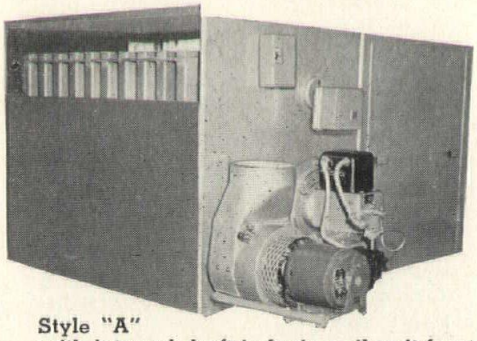
Output Up To 3,000,000 B.T.U.

7 MODELS

134,000-896,000

BTU OUTPUT





Style "A"
with integral draft inducing oil unit front discharge

- INTEGRAL DRAFT INDUCING OIL BURNERS
- POWER TYPE GAS BURNERS

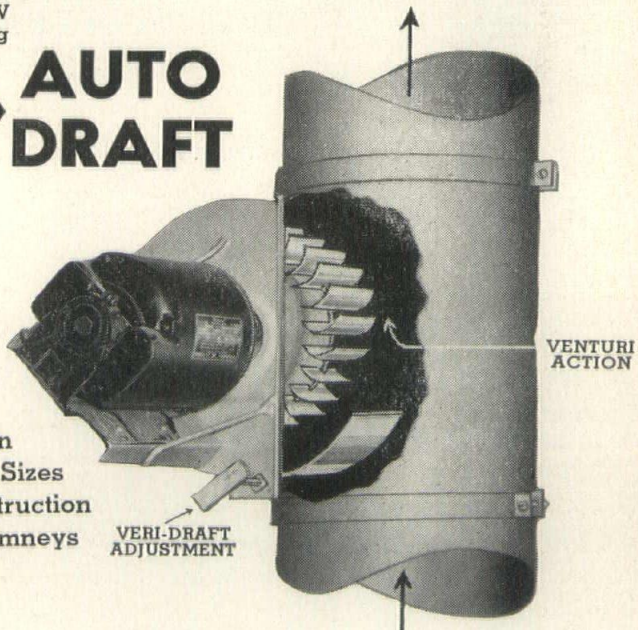
LO-BOY COUNTERFLOW

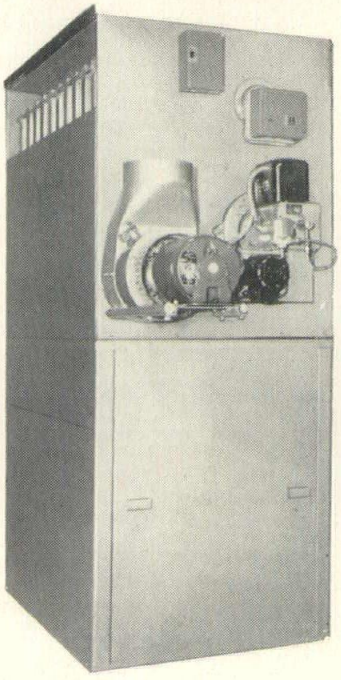
HI-BOY SUSPENDED

STYLE "E" COUNTERFLOW
with integral draft inducing oil burner

REQUIRES NO ALTERATION TO SMOKEPIPE

AUTO DRAFT





Please address inquiries to Dept. TN5. We are glad to handle special problems.

- Simplified Installation
- Complete Range of Sizes
- No Smoke Pipe Obstruction
- Eliminate Costly Chimneys

JET FIRE
POWER
GAS BURNER

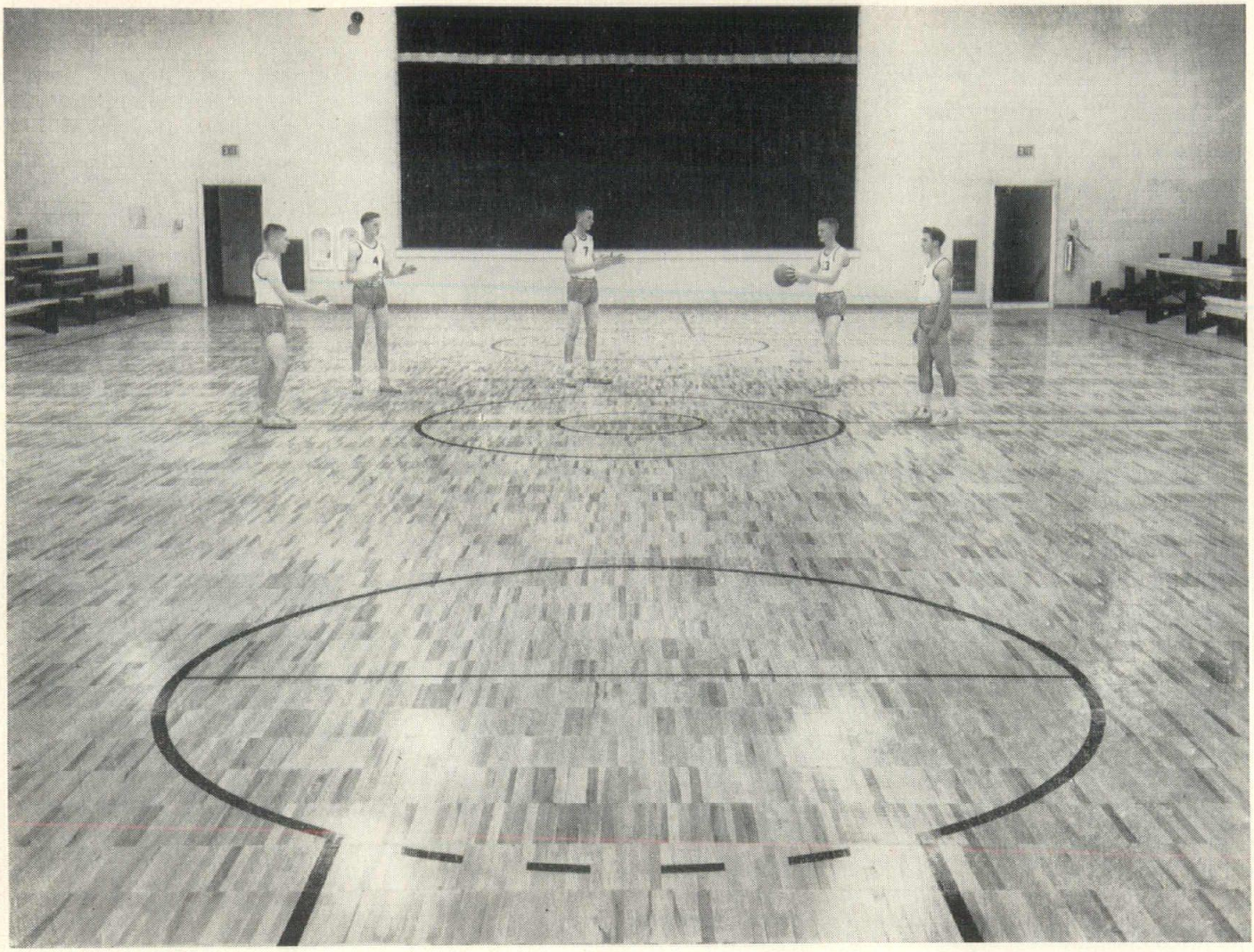
Optional Equipment

STYLE "H" HI-BOY
with integral draft
inducing oil burner

VERTICAL or HORIZONTAL INSTALLATION

Quality Heating Equipment Since 1938

Tjernlund Mfg. Co. 2140 Kasota Ave. St. Paul, Minnesota



SOUND FLOOR PLANNING

Pemberton School Gymnasium
Pemberton, Minnesota

Architects: WICK & STANSFIELD
Mankato, Minnesota

Contractor: KRATOCHVIL COMPANY
New Prague, Minnesota

Continuous strip Northern Hardwood Maple (M.F.M.A.) flooring 33/32 edge-grained, second grade and better, laid in a full bed of cold troweled mastic directly over slab.

The continuous strip pattern is tied together with steel splines.

Floor sanded and finished with two coats of Gerrard's No. 30 penetrating floor sealer . . . steel wool machine buffed while wet.

Gerrard's No. 40 gymnasium finish applied for a hard, durable playing surface.

For added resiliency ½" asphalt corkboard can be installed under flooring.

Complete Cost . . . Less Than $1.00 Square Foot

For Specifications and Information
CALL GIBSON 2879, OR WRITE

W. A. GERRARD CO.

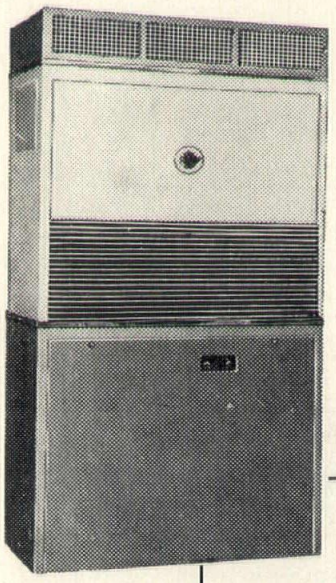
M.F.M.A. Flooring Distributors & Installers

3253 So. Bryant Ave. Minneapolis 8, Minn.

THE NAME MEANS A LOT!

- Advanced Engineering
- Tested and Proven Equipment
- Sizes for Any Type of Installation
- A Name with Prestige and Reliability

DEPEND ON



Airtemp
DIVISION
CHRYSLER CORP

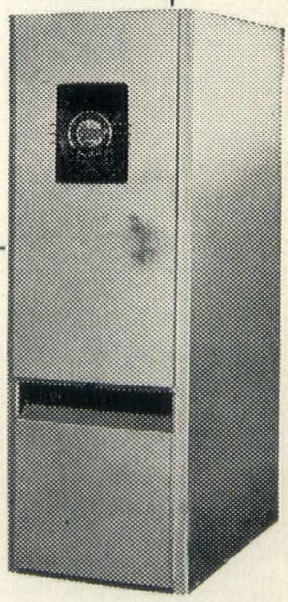
FOR THE MOST COMPLETE LINE OF AIR CONDITIONING AND HEATING EQUIPMENT

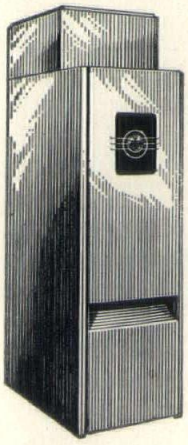
Packaged
AIR CONDITIONING

Pioneered by Chrysler Airtemp. Provides efficient cooling for offices, stores, restaurants. *No water required.* Available in many sizes. Entire refrigerating unit carries a 5-year warrantee.

New
GAS FIRED WARM AIR FURNACE

Designed for efficient low cost heating of small homes. Gives the greatest heat output per fuel dollar of any furnace yet designed.





AIRTEMP *"Space-Saver"*
FOR RESIDENTIAL HEATING and COOLING

An innovation by Chrysler Airtemp. A complete *heating and air conditioning* system for residences, occupying the smallest space yet attained. Makes complete air conditioning practical and advisable for even small homes. Gas or oil fired. Waterless or water cooled condensing unit. Can be installed in crawl space, attic, garage, or even outside the house.

FREE CONSULTING SERVICE

Globe Inc.
WHOLESALE DISTRIBUTORS

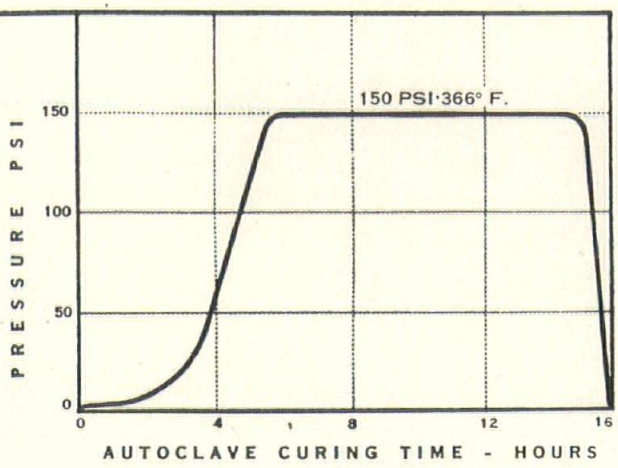
EXCLUSIVE AIRTEMP DISTRIBUTORS
• MINNEAPOLIS • MANKATO • BISMARCK

For Quality Concrete Masonry:

HIGH PRESSURE STEAM CURING

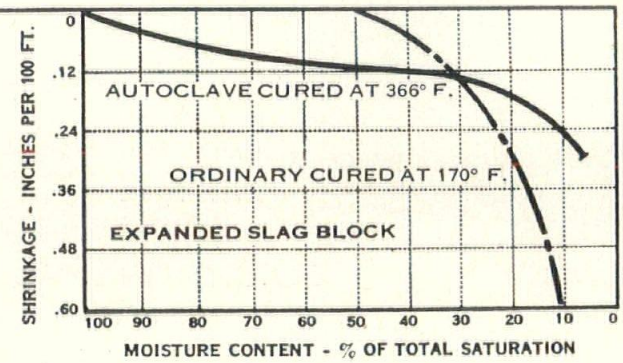
THE CURING PROCESS

High pressure steam cured or autoclaved blocks are molded in a standard block machine with special autoclave mixes. As each autoclave is filled with 3,672 eight-inch units, its door is closed and steam is admitted. The cement takes its initial set as the temperature gradually rises during the first two hours. There is no pressure in the autoclave until all the blocks reach 212° F. In the next three hours the saturated steam reaches a pressure of 150 psi with a temperature of 366° F. This pressure produces a force of 1,250,000 pounds against the autoclave door. During the next ten hours at 150 psi two reactions occur. Lime, which is freed from the cement, combines with the silica flour in the mix. This forms crystalline hydrated calcium silicate as found in autoclaved sand lime brick, noted for stability for 50 years. The other reaction is the complete hydration of the Portland cement. Both reactions are finished and the block has full strength at the end of the 10-hour period. The steam is exhausted in 15 minutes. By removing the pressure rapidly the boiling point drops to 212° while the blocks are still around 360°. This boils out nearly all the remaining moisture giving a uniform low moisture content.



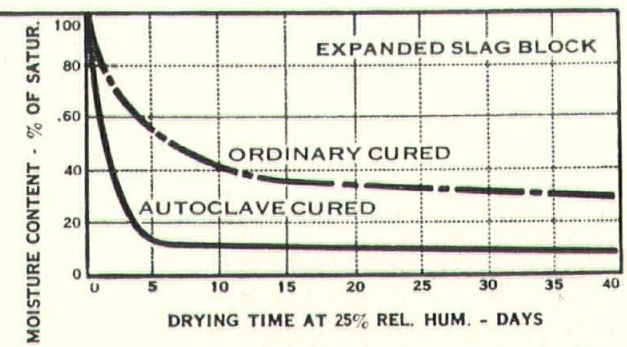
COMPARISON OF SHRINKAGE

The shrinkage-moisture content graph shows that the autoclaved block has only half the total shrinkage of the ordinary or high high temperature cured block. More important the autoclaved block shrinks gradually while the ordinary cured block shrinks rapidly in the normal job site moisture range from 50% to 20% of saturation. Saturation (100% moisture content) is the weight of water absorbed by a block when submerged for 24 hours. Normally an eight-inch unit absorbs about three pounds of water at saturation. Even the small shrinkage of Zenith autoclaved blocks is eliminated, because they are shipped from our covered warehouse with a moisture content between 8% and 12%.



RATE OF DRYING

Unfortunately blocks do get rained on at the job site. However, this wetting is much less serious with autoclave block than with ordinary block as the drying curve illustrates. In a few days the autoclaved block is dryer than the ordinary block will be in a month. In a recent test of Zenith autoclaved block, samples were placed in the rain for three days. Moisture content rose only to 50%, far from saturation, and within a week in the warehouse the original moisture content was reached. These curves are from tests conducted at the University of Toledo under the supervision of John K. Seldon, Co-ordinator of Housing Research.



DEMAND THE BEST

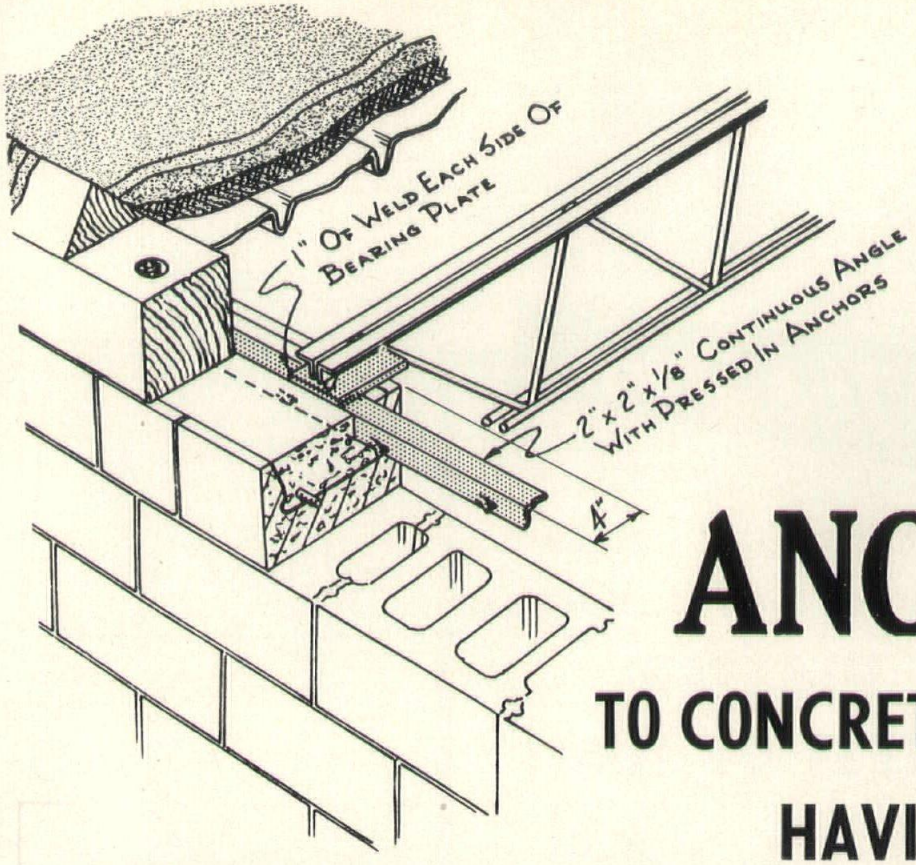
Protect your structures from the blight of shrinkage cracking. Specify autoclaved block and be sure of a 12% maximum moisture content and a fully cured block. Currently Zenith is the only manufacturer of autoclave block within a 500 mile radius, and was among the first 20 in the nation. Since then autoclaving facilities have been installed in Chicago, Detroit and Rapid City, South Dakota. The nationwide total is now approaching 50 plants, showing the rapid acceptance of high-pressure steam curing by the industry.

ZENITH CONCRETE PRODUCTS COMPANY

DULUTH, MINNESOTA

Plant and Yard
200 South Central Ave.

General Offices
Waterfront & 14th Ave. W.



STEEL JOISTS ANCHORED TO CONCRETE BLOCK WALLS HAVING NO PARAPET

The Above Construction Using Lintel Blocks for Top Course Has the Following Advantages:

- Forms a tie at top of wall.
- Anchor bolts can be cast in place for fastening the Cant Strip.
- Angle for anchoring joists being continuous requires no layout as do individual built in anchors.
- Joists are welded to angle providing solid anchorage to wall.
- Anchor angle is easily installed after concrete is poured. Angle is then pressed down into freshly poured concrete.

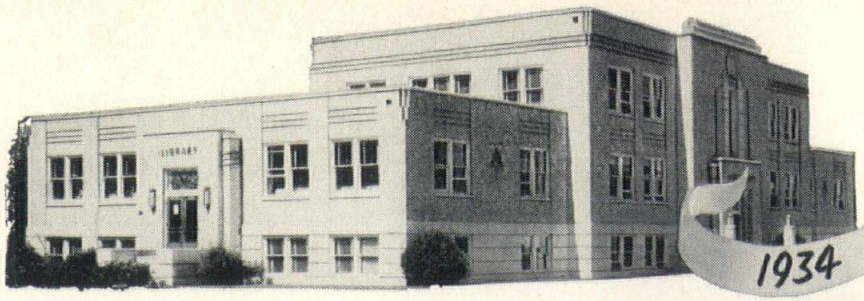
S&I W

A QUARTER OF A CENTURY OF SERVICE TO THE CONSTRUCTION INDUSTRY

Standard Iron & Wire Works, Inc.

2930 North Second St. • Minneapolis 11, Minn.

CHerry 4461



1934

Lincoln County Library, Libby, Montana: Zonolite Plaster Fireproofing. The *first* commercial building in America to use *light aggregate* for plastering. Recent check shows plaster *still* in A-1 condition.

1938

Time Tells The Story...

...Positive Proof That In America's Most Important Buildings

ZONOLITE® PLASTER STANDS THE TEST OF TIME!

Zonolite Plaster is *more* than a construction time-saver...*more* than a dead-weight saver...*more* than a fire-proofing material earning the highest attainable fire ratings. Zonolite Plaster is the lightweight champion that defies time. A recent check on the Zonolite plaster in a group of blue ribbon buildings (some of them constructed more than 20 years ago) shows the original plaster in A-1 condition! No wonder, today's building teams look to Zonolite, *the time-tested lightweight champion!*

ZONOLITE COMPANY
135 South LaSalle Street Chicago 3, Illinois

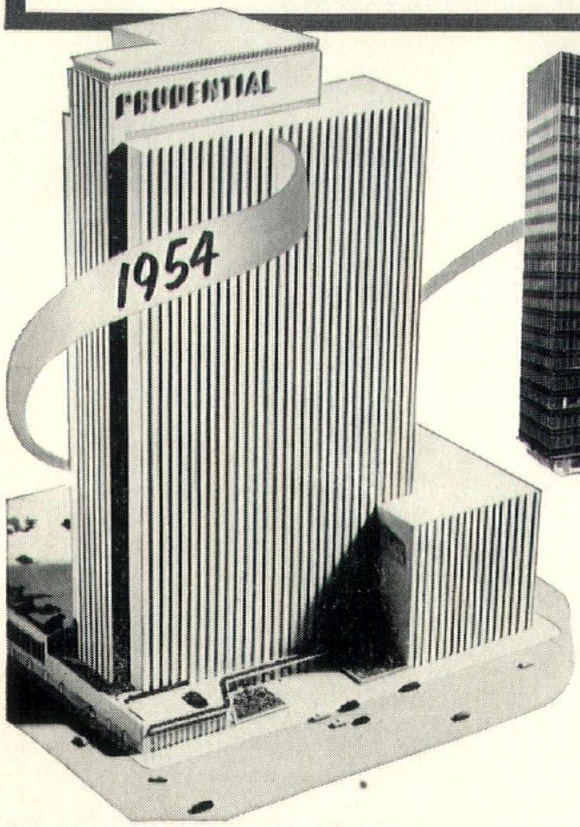
Com'l Nat'l Bank, Shreveport, La.: Zonolite Plaster Fireproofing. The *first* use of Zonolite in Shreveport.

Mercantile Nat'l Bank, Dallas, Tex.: Another granddaddy in the Zonolite family of famous buildings. Saved 1880 tons of steel worth $230,000.00. Weights of fireproofing materials slashed 94%.

1943

1948

Saxony Hotel, Miami Beach, Florida: Zonolite Plaster throughout. Use of Zonolite in plaster slashed weight 3 million lbs.; helped make possible construction speed record of 8 months.



1954

Prudential Bldg., Chicago, Illinois: Newest of the new on Chicago's skyline, another monument to Zonolite. Fireproofed with plaster-placing equipment.

1952

Lever House, New York City: Winner of the AIA Gold Medal Award, this widely publicized building is fireproofed with Zonolite plaster.

Gen'l Petroleum Bldg., Los Angeles: Beam fireproofing with Zonolite saved $1.70 a sq. ft.

1949

Send For FREE Information NOW

ZONOLITE BRAND VERMICULITE AGGREGATES

Western Mineral Products Co.
1720 N.E. Madison St.
Minneapolis, Minn.

Please send me free new booklet "Systems of Lightweight Construction."

Name .....

Address .....

City ..... Zone.... State.....

the incomparable Versa-Lite window . . .

Now Available With Rydell's Removable Double Glazing

Saves 30 per cent of the cost of sealed double glazing!
Fastening hardware is self-retained . . . no screws to remove!

Available in any standard *Versa-Lite* up to and including 48" by 72", or 58" by 70" glass size; glass may be turned either way.

Rydell's removable double glazing can be specified for any custom-built architect-designed windows or doors.

Versa-Lite
Four Standard Components

2328 N. 2nd. Street — **A. T. RYDELL, Inc.** — Minneapolis 11, Minnesota

"Woodwork of Distinction"

• CHerry 3311 •

Minnesota Society . . .

. . . Shifflet, as New President, Outlines 1956 Aims . . . New Year's Committees Named . . . Auxiliary Officers Off to Good Year

The new executive staff of the Minnesota Society is shown above. Standing, left to right, are Ralph T. Keyes, executive director; Otto M. Olsen, Duluth, director; Richard F. Hamel, St. Paul, director; S. L. Stolte, St. Paul, director; F. D. Clark, St. Paul, secretary; Arthur C. Lucas, Jr., Duluth, treasurer. Seated, left to right are George C. Darrell, St. Paul, past president; Glynne W. Shifflet, Minneapolis, president; and Reinhold A. Melander, Duluth, director. R. V. McCann, Minneapolis, vice president, was absent when the picture was taken.

Glynne W. Shifflet of Minneapolis was elected president of the Minnesota Society of Architects as members gathered in St. Paul this fall for their 21st annual convention. A member of the firm of Shifflet, Backstrom & Carter, Mr. Shifflet succeeded George C. Darrell, Ellerbe & Co., St. Paul, as president.

New vice-president of the society is R. V. McCann, Minneapolis. Frank D. Clark of St. Paul was selected to be secretary and Arthur C. Lucas, Jr., Duluth, was re-elected treasurer. Directors are Reinhold Melander of Duluth, Otto M. Olsen of Duluth, Richard F. Hammel of St. Paul and S. L. Stolte of St. Paul. Ralph T. Keyes of St. Paul is executive secretary of the group.

Every aspect of the convention was paced at an accelerated speed. The seminars were well attended and lively, the products exhibits were increased over those of earlier conventions, the professional exhibits were full of interest and other recreational activities were well attended. The seminars and other presentations were grouped into the opening day's agenda and the business meeting on Saturday finished the sessions.

Our pictures on this and other pages show the highlights of the convention.

President Shifflet

SHIFFLET COMMENTS ON ACCEPTING PRESIDENCY

Glynne W. Shifflet, newly elected president of the Minnesota Society of Architects, in accepting the presidency commented on the accomplishments of the society during the past year and cited some goals for his term in office. He stated that he feels the society had able leadership under past president George C. Darrell and the course had been set for good work in the future.

During the last year the chapters of the society had been hosts for a most successful American Institute of Architects' convention and a fine state convention was held. A central office was established and the executive director was launched on his duties. The work of many committees, especially the AIA-AGC Joint Committee, had been outstanding. There have been improvements in the society publication, the NORTHWEST ARCHITECT,

making the magazine of more interest to architects and others in the construction industry, which was the result of good committee work and the co-operation of the publishers. With the help of society interest a study committee for a State Building Code was authorized by the last session of the legislature.

"In the year to come I hope to have a large number of the members of the Society serving on committees and sub-committees," Mr. Shifflet stated. "By spreading the load we can all carry our share without overworking. There are some problems which should have our attention, such as reported violations of the registration act, and a definite program of public relations should be formulated. Our legislative committee should have a tentative legislative program ready for submission to the 1956 annual meeting for approval, with attention given to obtaining a more realistic budget for the Building Code Commission. There is a place for some real work by the fee study committee. One of our members is regional chairman and a national committeeman for the AIA Centennial Celebration, which offers a challenge that the Minnesota society be in the lead on that endeavor. It would seem there is a fertile field for us to co-operate with other interests through special study and co-operative effort committees.

"The general public can and should look to the architectural profession to assume leadership in design, techniques, community planning, use of new materials and construction methods. If we all do our share in the activities of our professional association—its study and action committees—we will go a long way in supplying that leadership and rich rewards from the satisfaction of accomplishment will be ours."

MINNESOTA SOCIETY COMMITTEES NAMED

Committee assignments for the 1955-56 year, to serve through the 1956 annual meeting, have been announced by President Glynne Shifflet of the Minnesota Society of Architects. They are as follows:

Standing Committees

Audit committee: Edwin H. Lundie, chairman, C. H. Smith and Donald C. Heath.

Legislative committee: Allan H. Meinecke, chairman, Arnold I. Raugland, Thomas Shefchik, Grover W. Dimond, Jr., Victor C. Gilbertson, W. H. Tusler, James D. Voight, Robert G. Cerny, Thomas E. Ellerbe and Sidney L. Stolte.

Education committee: Winston A. Close, chairman, Norman C. Nagle, Walter K. Vivrett, William Berget, Robert Bennighof, Eino A. Jyring and James Brunet.

Budget committee: Edwin W. Krafft, chairman, E. Richard Cone, Rudolph Zelzer, Arthur C. Lucas, Jr., David J. Griswold, Frank D. Clark and Austin H. Lange.

Publications committee: Sidney L. Stolte, chairman, Donald S. Haarstick, Ralph Rapson, W. Brooks Cavin (advisor), George Rafferty (advisor), Harold Fridlund (advisor), Gordon A. Schlichting (advisor) and Edward Barber (advisor).

1956 CONVENTION DATE SET

Minnesota Society of Architects President Glynne W. Shifflet has announced the time and place of the 1956 annual meeting and convention of the society. The convention will be held June 7 and 8, 1956, in the Hotel Nicollet, Minneapolis.

In announcing the convention information, President Shifflet also announced the steering committee for the convention. J. Milton Leadholm is chairman, assisted by John Magney, R. V. McCann, Ralph B. Shimer, Eugene E. Hickey, Gerhard C. Peterson, and Charles McFarland.

Enforcement committee: George C. Darrell, chairman, Hubert H. Swanson, George Pass, Jr., Philip C. Bettenberg, Harold H. Crawford, Otto M. Olsen, R. V. McCann, Frank D. Clark and Gerald Beutow.

AIA-AGC joint committee: Gordon M. Comb, co-chairman to serve with the co-chairman of the AGC representatives on the committee, K. A. W. Backstrom, Loren B. Abbett, David J. Griswold, Milton V. Bergstedt and Earl Beddow. Alternates are Edgar W. Buenger and Fred Traynor.

Public relations committee: Robert E. Howe, chairman, Robert Kerr, Louis Lundgren, Earl Fullingim, Rogers George, *John L. Lindstrom, *G. Clair Armstrong, Warren Kane, Curtis Green and Francis Meisch.

**Serving only ex-officio as Regional Centennial Chairman and State Centennial Chairman, respectively.*

Exhibit committee: Warren T. Mosman, chairman, S. Bertil Fasth, Saul Smiley, Cecil Tammen, Robert Jackels, Merle Abbott, Gerhard Brandhorst and Paul Liebelt.

Special Committees

Election procedure and by-laws study committee: George B. Townsend, chairman, Max C. Buetow, Wilbur A. Backstrom, Herbert B. Crommett, George H. Carter, William T. Wick, Mark N. Hayes and Albert O. Larson.

Fee study committee: R. N. Thorshov, chairman, A. Reinhold Melander, vice-chairman, John Hayes, Donald P. Setter, Dale R. McEnary, Bernard J. Hein, Richard F. Hammel, Louis C. Pinault and Herbert B. Crommett.

School planning and financing committee: K. A. W. Backstrom, chairman, John S. Belair, Horace V. Matson, Eugene D. Corwin, Raymond T. Hermanson and Bruce R. Church.

Convention steering committee: J. Milton Leadholm, chairman, John Magney, R. V. McCann, Ralph B. Shimer, Eugene E. Hickey, Gerhard C. Peterson and Charles McFarland.

MSBA special committee: Victor C. Gilbertson, chairman, Richard F. Hammel, Sidney L. Stolte and Dale R. McEnary.

(See also pictures beginning on Page 38)

Minnesota Society Auxiliary officers are shown above. Mrs. Austin Lange, president, is in the center with Mrs. Oscar T. Lange, treasurer, and Mrs. E. H. Lundie, retiring president. Mrs. Frank Mikutowski, secretary, was not present when this picture was taken and she is shown in her home at the right.

AUXILIARY HAS CHRISTMAS PARTY

The annual Christmas party of the Ladies' Auxiliary was held on Thursday evening, December 8, in the Town and Country Club, St. Paul. A large gathering of Twin City architects and their wives assembled in the gaily decorated rooms for a turkey dinner at 7:00 p.m. Dancing to the orchestra of Wes Barlow rounded out the gala evening.

Mrs. Lawrence Hovick served as chairman of the event, with Mrs. E. Richard Cone acting as co-chairman. Other ladies who helped in the preparations were Mrs. James V. Hirsch, reservations; Mrs. S. Bertil Fasth, decorations; and Mrs. Donald W. Denzer, entertainment. Mrs. Earl Wesley is president of the Ladies' Auxiliary.

MINNESOTA SOCIETY OF ARCHITECTS TO BUY FILM

At a recent meeting of the board of directors of the Minnesota Society of Architects it was decided that the society should purchase the film "Architecture, U.S.A.," as an aid in the society's public relations program. The film was introduced to the profession at the June AIA convention in Minneapolis. Improvements have since been made in the film, based on comments and suggestions made at the premiere showing. Enthusiastic reports have come in from persons who have already seen it in its final form.

"The board of directors of the society believes this to be an extremely valuable public relations tool and particularly recommends its showing before lay audiences that represent users and potentional users of architectural services. Service clubs, civic organizations, church groups, school boards, parent-teacher associations and veterans' societies are among the groups to whom the showing of this film would be most effective," the announcement said.

While architects will enjoy the film, the board felt its greatest value will be derived from showings to non-architectural groups and, when the film is obtained, the showings will not be limited to chapter and committee meetings. The board has stated that tentative bookings for he showing of the film can be made and that the executive director's office should be contacted for final dates on showing the film.

PLANNING DIRECTOR SPEAKS TO TWIN CITY CHAPTERS ON METROPOLITAN PLANNING

C. David Locks, planning director for the city planning board of St. Paul, spoke to the November meetings of both the Minneapolis and St. Paul Chapters of the AIA. In his work as planning director he became convinced that a plan for the individual city—such as either Minneapolis or St. Paul—could not be advanced most advantageously unless it was part of and fitted into a regional framework, he stated.

Mr. Locks gave a review of some of the history of the bill that was introduced in the 1955 session of the Minnesota legislature which would have provided for a metropolitan planning commission for the Twin City area. There was a general recognition and approval of the concept of metropolitan planning but the bill failed to pass the legislature.

The bill provided for a 26-man commission which had two principal functions, to assemble and evaluate facts about the five county area and to develop a guide plan for the area. The speaker pointed out the value of the services of such a commission in the field of assembling facts in that as industry has expanded, it has tended to seek out the areas which have accumulated these studies as an aid in deciding on new locations.

Both chapters adopted resolutions urging the board of directors of the Minnesota Society of Architects to have the society legislative committee make this a study project in the coming year.

NORTH DAKOTA CHAPTER ELECTS BRUNNER

At the recent election meeting of the North Dakota AIA Chapter members elected Harold C. Brunner of Minot to the presidency for the year 1955-56. Other officers chosen are Byron E. Denbrook of Grand Forks as vice-president, Herman Skaret of Fargo as secretary and Leander F. Ross of Minot was elected to the board of directors.

SOUTH DAKOTANS RE-ELECT SPITZNAGEL

South Dakota architects, meeting this fall in their regular annual meeting in Mitchell, S. D., re-elected Harold Spitznagel, well known for his philosophy of

MINNEAPOLIS HOUSING AUTHORITY SEEKS APPLICANTS FOR EXECUTIVE SECRETARY

The Minneapolis Housing and Redevelopment Authority invites applications for the position of executive secretary to the authority. Applicants are to fill in the prescribed application form that can be obtained at the authority's office, 1210 Metropolitan Life Building, Minneapolis 1, Minnesota, and file the application addressed to John H. Bakken, secretary to the authority, by January 17, 1956. A brief description of the position is as follows:

Salary: $10,500 to $13,500 per annum to start.

Appointment: Annual, with renewal at the option of the authority (present action is for the filling of a long range position).

Age: Preferred age bracket is 35 to 45 years of age but can vary for appropriate reasons.

Qualifications: Prefer college graduate in some professional field; technical training in city planning, engineering or architecture not required but would be an asset; prefer education and training in administration, public relations, finance and accounting; experience in social and community welfare problems will be very helpful. A person with a pleasing personality, tact, alertness and the ability to get along with and understand people is important.

Duties: General administration of central office and project staffs (which are growing with federal approvals for additional projects), now 20 persons. Program already contemplates administration of expenditures totaling $17,000,000. Executive secretary must be able to organize, expedite and explain projects and the program to the commissioners of authority, individuals, groups, city, state and federal authorities; to digest the important points of an agenda or a project in order to make the maximum progress and conserve the time of officials involved; to clearly set forth financial statements and budgets for the activities of the office and projects; either be familiar with or become familiar with federal operating procedures in order to pursue a policy or project to accomplishment; to organize and handle financing details as directed or required which will involve tax levies, bond issues or other finance methods; become thoroughly acquainted with all the objectives and details of the authority in order to be in position to give correct answers and inspire the confidence of people with whom he deals; be able to analyze when additional talent or personnel are required whether such shall be professional, technical or clerical. Present staff includes legal counsel, consulting engineer, city planners, accountant, project managers, relocation supervisors, secretarial and clerical personnel.

"grass roots" architecture, as president of the group for the year 1955-56.

Wendell Fritzell of Sioux Falls was elected vice-president and Roland Robel, also of Sioux Falls, was named secretary. Adrian Forrette of Rapid City was re-elected to the board of directors for a three-year term.

FASTH EXPANDS

Fasth Hillstrom & Horty, Inc., is the new name for the expanded firm of Fasth Associates. The address continues to be 2242 Carter Avenue, St. Paul, Minnesota.

ST. CLOUD ARCHITECTS HAVE DINNER MEETING

The architects of the St. Cloud area held a dinner meeting November 17, to which they invited all the draftsmen from the architectural offices. This was the first time the groups had gathered in a joint meeting and it was decided to formalize the organization of the group, to be known as the St. Cloud Architectural League.

Fred V. Traynor was elected president and Alfred Nelson, secretary-treasurer. It is planned that the group will meet quarterly.

The new group will include architects, employes of the architectural offices and persons in the allied arts. It was felt that the formation of the league will answer a long known need for a means for the architects of the area to make a contribution of their professional skill to the community by assisting in community planning and by carrying out a local public relations program. All of the registered architects being members or associates of the AIA, the group will co-operate closely with the AIA and the Minnesota Society of Architects.

The St. Cloud group of architects at the meeting included (front row, l-r) James Galbraith, Ernest Krogh, James Hall, Virgil Siddens and Lloyd Weisskirk; (second row, l-r) Frank Barnard, Ralph Keyes, Fred V. Traynor, Rudy Sauerer and Lyle House; (third row, l-r) Gil Hahn, Al Nelson and Frank W. Jackson.

MSA Executive Director Ralph Keyes gave a report on the work of the interim committee for the study of a state building code. Frank W. Jackson, a member of the State Board of Registration, gave an interesting report on the registration of architects in Minnesota and the operation of the National Council of Architectural Registration Boards, which is doing extensive work to establish uniform registration examinations in all states and to create greater uniformity in reciprocity regulations.

The Problems of SOLAR HEATING in Urban Areas

By W. A. CLOSE

Minneapolis A.I.A. and University of Minnesota
Consulting Architect

The paper printed here was delivered by Mr. Close at the World Symposium on Applied Solar Energy which was held in Phoenix, Arizona, on November 3, 1955. The development of the energy potential from the sun has long captivated the imagination of men but it is only recently that technical developments have made possible any even partly definite and economical use of this source. It is with pleasure we present Mr. Close's material although it has been modified because our space does not permit use of all the slides he presented. . . . Editor.

The ever-increasing demands for energy for space heating become cause for alarm when viewed against a diminishing worlds supply of fossil fuel reserves. New energy sources practicable for other uses seem to offer little promise in this field. Impetus has been given therefore to renewed study and investigation of the age-old idea of using solar heat for space heating.

Experimental work in several areas of the United States demonstrates that effective use of solar heat for this purpose can be accomplished by means of flat plate collectors in combination with south windows. The technical problem is not difficult but it is wed to an architectural problem which may well be insurmountable within the present framework of urban site planning and zoning.

Most of the experimental solar houses have, of course, had unobstructed southern exposure, no shading problems, generous budget and no near neighbors to be disturbed by reflections. The economic significance of solar heating—if limited to houses possessing these advantages—would be negligible. It will be necessary within our cities to adapt solar heating to the existing urban pattern or, if that is impossible, then to adapt the urban pattern to one which is suitable for solar heating.

The typical lot in the older residential areas in most American cities is a sub-division of the section or square mile, taken from the original government surveys. In regular terrain the grid pattern of the streets is oriented on the points of the compass.

In St. Paul the section is divided by sixteen east-west streets and eight north-south streets, forming city blocks 330′ x 660′ with north and south lot facings. It might be assumed that this was done for compelling reasons of prevailing winds and solar orientation. However, in Minneapolis, the other Twin City, with the same climate and exposure, the street grid has been rotated 90° so that the lot facings are east and west! In both cities, the typical lots are 125 feet deep, with alley access at the rear. The early plates were often based on 40 foot lot widths but 60 feet or more is now customary for the street frontage.

Utilities have been installed in the city streets, some of them under lease to private companies. The heavy investment and legal involvements tend to fix the street pattern and make a total departure from it almost impossible. San Francisco and Warsaw demonstrate that even near total destruction will not erase the earlier street pattern when a city is rebuilt. Replanning or re-platting must be juxtaposed in some way over it.

We must, therefore, search for building forms that can be used within the general framework of existing city patterns. As existing dwellings become obsolete and are replaced, a gradual and orderly transition can then take place from present methods of heating to solar heating.

In 1950, there were approximately 45,500,000 dwelling units in the United States. More than 29,000,000 of these were detached single family houses. The total of all units in buildings which housed not more than four families exceeded 40,500,000. The balance of

a drafting board, tee square, a few miscellaneous supplies and your accounts receivable. This certainly is far from the true value of your ability and the goodwill you have established for yourself and for the firm with which you have been associated.

Each of you also is probably paying your silent partner, Uncle Sam, thousands of dollars unnecessarily each year because of your inability to control your current income and your inability to avail yourselves and your firms to certain sections of the Internal Revenue Code which give relief from this excess taxation. All of these problems I believe are somewhat common to most of you.

Let us consider for a moment the partnership and corporation in their own light. In general the partnership or sole proprietorship form of doing business contributes heavily to the creation and continuance of these problems. Partnerships and sole proprietorships certainly do not afford the opportunity to their members for the accumulation of cash through the business entity itself. All earnings must be distributed each year and only very limited surplus can be retained for operating expenses. This, in a period of prosperity in your profession, is like washing money down the drain. This situation in turn makes it almost impossible for the older men in the profession to retire with any comparative ease and this factor in turn makes it very difficult for the younger man to gain his foothold in the profession. You can see that a chain reaction results from your inability to accumulate and the presence of excessive taxation. The fact that a partnership or sole proprietorship cannot take advantage of certain sections of the Internal Revenue Code which provide specific relief for these problems only serves to make the problem more acute.

With the very limited legal life of a partnership or sole proprietorship certain other disadvantages occur. In death of one of the partners the only alternative the remaining partners have is to buy up the interests of the deceased partner, usually at a ridiculously low figure in relationship to his actual worth to the firm, or liquidate the firm and organize another. In either of these alternatives the loss to the family of the deceased partner and the disruption of normal business through reorganization to the remaining partners can only result in a serious financial loss to all parties concerned. This limited legal life makes it extremely difficult for the younger, more aggressive members of the firm to properly continue the established practice after the demise of one of its senior members.

The orderly replacement of superannuated persons in your profession can never be adequately accomplished with the use of the partnership or sole proprietorship entity. Most of you are making better than average incomes during your years of practice, yet because of your inability to control your income you are suffering tremendous tax losses. Your silent partner, Uncle Sam, could conceivably make as much from your efforts as you make yourself. Please don't get the impression that I am opposed to the payment of your proper income taxes. I am merely suggesting that if methods which result in a lesser tax can be found it would be wise for all of you to investigate their ramifications completely. Obviously the partnership or sole proprietorship offers no relief in any of these areas.

There is one problem, however, which is brought up each time this matter is discussed and that is the ethics involved in the various forms of doing business. As a partnership or sole proprietorship the professional client relationship is maintained purely on a personal level and the business entity per se does not become involved in any acts of wrong doing on the part of its members. Yet the principal people of a partnership become so involved for wrong actions on the part of their employes. The question is often raised whether the corporate form, which imposes a very limited liability on its members, can be considered a proper form for the practice of a profession. New corporate law demands that members and officers assume more liability for wrongful acts and other such actions than did the old corporate law but it still retains the basic principle of limited personal liability. One area in which I feel much misunderstanding has occurred is that we are not licensing the corporation to practice a profession but we are merely using the corporate form as a vehicle for the individual architect to carry on his ethical practice. Your own registration act sets forth the conditions under which an architect can use the corporate entity. It would seem that the ethical question, in your particular profession, is well covered and a corporate form acceptable. At times people have raised the question as to the legal status of a professional corporation because of certain judicial rulings and old common law. Let me say here that there is no reason to fear the legal position of the corporation. In working recently with a large architectural firm in the western part of the state, which is involved in architectural work in Wisconsin, Iowa and Minnesota, written opinions were secured from the attorney general of each of these states confirming our position that the corporation was an acceptable form to use for the practice of architecture.

I seem to sense that many older members of your group are raising an eyebrow at this concept. Most changes are received in this manner. I say this without any sarcasm but rather as a statement of fact. If Mr. Maynard Mayer had designed the Jewish Community Center 25 years ago, he might have been committed as an eccentric. Yet today, with modern thinking and changing times, it stands as the finest structure of its kind in the United States. Times change also in the business operation of professions. As a prime example, the 9th Circuit Court of Appeals recently upheld the contention of a medical clinic association that as an association it was taxable as a corporation and thus should be treated in all respects as a corporation. Here we have the practice of medicine using the corporate structure. Times are changing, so must your thinking keep pace with it.

I have talked much about the partnership and sole proprietorship and how it only serves to make your problems more acute, yet I have not given you any reasoning for making the corporate form a more plausible alternative. As you know the corporation is a legal body which can withstand the death or withdrawal of one

of its principals; it's adaptable for the capitalization of the human values; it's a business form in which the moneys you are currently earning can be utilized most effectively and efficient.

Let us consider these areas in terms of the advantages to you as individuals.

Life and Death Factors

The fact that the corporation continues even though its principals die or withdraw affords an opportunity to the individual stockholder to receive more closely a value for his worth and for the goodwill which will continue to live with the corporation. In terms of its value to your family and in terms of its value for resale purposes during your lifetime this factor of human values is extremely important. Certainly more accurate valuation figures can be accomplished using the corporate form. This in itself makes the stock interest more salable because of its readily recognizable value and thus it is more desirable to a young man starting out in the profession. In fact it helps create a market for a stock interest that might otherwise have been valueless. Through certain business agreements markets can actually be created with the younger members of the firm to assure the sale of your interest at a price more closely approximating its true value. The goodwill, or as I say, the human values, can for the first time be evaluated in their true light and recognition given them in terms of the stock valuation.

The corporate entity also gives its stockholders more discretion in the distribution of their annual earnings. You all are certainly anxious to make as much profit from your practice as is possible and yet most of you currently are probably not doing so. Your salary under the corporate operation is similar to your drawing accounts under your partnership agreements. Yet at the end of the business year the corporation can retain excess moneys rather than distributing them and pay a corporate tax rather than an ordinary income tax. The corporate tax on net earnings under $25,000 is only 30%. It doesn't take much personal income to place yourself in a tax bracket higher than that. A corporation under the new Internal Revenue Code is allowed to accumulate surplus funds to the extent of $60,000 without having to be concerned about that accumulation being unreasonable, which, as you know, the government frowns upon and taxes accordingly.

The corporation, and only the corporation, qualifies under the Internal Revenue Code for the establishing of qualified pension and profit sharing plans whereby specific amounts of money or specific percentages of gross profits can be set aside in trust each year for the benefit of the firm members. This contribution is taken as a deduction as a normal business expense to the corporation and is not considered ordinary income to the individual during the year that it is set aside. At age 65 or some other predetermined date the funds can be drawn in cash either as a lump sum, in which case it is treated as a long term capital gain, or in equal monthly installments and taxed as ordinary income. You will, however, at that time have reduced income and increased personal exemptions and thus the tax consequences will be considerably lessened.

I have spoken so far of the advantages of the corporate method of operation and have failed to take cognizance of some of the disadvantages. One of the most important disadvantages is the fact that certain states do not allow specific professions to practice as corporations. Architecture is one of the professions so specified. In such states it is quite a simple matter to accept the job as an individual architect, allow the corporation to do all the drawings and technical work and the corporation bill you for all services rendered and thereby circumvent a possible adverse situation. Public acceptance of the corporate method could be a factor, yet I feel that in the majority of the cases it will not even be discussed. The State of Wisconsin, as an example, has indicated that it would not be a factor in bidding on any of its public construction projects. Perhaps the greatest opponent you will have is your own personal stigma based on the time worn theory that the professions should not be incorporated. This theory, I fear, has long since outlived its usefulness.

Perhaps the best way to understand the effect of taxation and its application to the partnership versus the corporation is to set up a typical situation. Let us assume that we have a partnership with two partners, each having a 50% interest; the partnership employs 10 other persons. It has a net earned income, including the partnership drawing accounts, of $70,000 per year. The effect on the two partners would be as follows:

PARTNER A & B

Annual Income	$35,000
Federal Tax	10,760
State Tax	1,937
Social Security Tax	84
Self-Employment Tax	60 (ave.)
Total Tax	12,841
Net Income	$22,159

(We have assumed each is filing a joint return with two children.)

The same situation on a corporation basis with same net profit, but having a qualified pension plan to syphon off $15,000 a year of the profit of which two-thirds is going to the two stockholders.

PARTNERS A & B

Annual Income	$27,500
Federal Tax	6,300
State Tax	1,445
Social Security Tax	42
Total Tax	7,787
Net Income	$19,713
Pension Contribution	5,000
Total Tax Free Value Received From Corporation	$24,713

It becomes very apparent from the above example that the two stockholders in this situation would have

improved their individual position considerably through reorganizing the partnership into a corporation. At the same time it would provide very generous and welcomed benefits for other employes of the firm.

The pension and profit sharing philosophies have many advantages to modern business. They are definite aids in attracting and holding high caliber men. They tie these people more closely to your organization so that your turnover factor can be reduced to a minimum. They provide for the orderly replacement of older employes as well as the stockholders so that room can be made for the younger men in the field. You set up depreciation reserves for your equipment, why not carry the same thinking to the factor that is instrumental in making your profit, i.e., the human element?

Above all, these plans offer the necessary tax relief the professional man so desperately needs in the establishing of a vehicle for the accumulation of funds. No other method available today can accomplish this as well as a qualified pension and profit sharing trust. These plans, however, are available only to employes of the business and, as partners or sole proprietors, you are not classified as employes. Only on the corporation basis can you who are now partners or sole proprietors be considered employes.

Section 401 of the Internal Revenue Code spells out very clearly the do's and don'ts of pension and profit sharing plans. To go into the details of these plans at this meeting would require more time than is presently available. However, if you desire counsel regarding these plans, your individual situations can be considered at a time convenient to each of you. In closing, let me say that it is not my suggestion to have a mass movement toward the corporate operation but rather it has been my purpose to give you an awareness of the advantages which might result from such a reorganization. Your individual situation will determine the most appropriate basis for each of you to operate on. It is evident, however, from my travels that many of you haven't had the time or haven't taken the time to determine which of these methods would be the most advantageous. I urge each of you to review and analyze your particular case in the light of this discussion. A few hours well spent could mean tens of thousands of dollars to each of you during the course of your life's practice. If I have accomplished nothing else, I trust that I have stirred your imagination, at least to the curious point so that upon your return to your respective communities, you will have been moved enough to pursue the matter more completely.

S. F. 143

By S. L. STOLTE
St. Paul—AIA & PE

Many of you possibly do not recognize that the title above means a "Senate File" as introduced into the 1955 Minnesota legislative session which was a bill to create an interim State Building Code Commission to go into the required and pertinent study of factors relating to a state building code and report to the next legislative session not later than December 15, 1956.

The act as passed (and because it is quite brief) is reprinted here for reference:

AN ACT

RELATING TO BUILDING REGULATION; PROVIDING FOR THE PREPARATION OF A STATE BUILDING CODE SUITABLE FOR LOCAL ADOPTION BY REFERENCE, PROVIDING FOR THE STUDY OF LEGISLATION RELATING TO BUILDING REGULATION, AND APPROPRIATING MONEY THEREFOR.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. There is hereby created a temporary state building code commission of 11 members consisting of two members of the Senate appointed by the committee on committees of that body, two members of the House of Representatives appointed by the speaker of the House and seven members appointed by the governor. The members appointed by the governor shall include representatives of the construction design professions, building trades, construction contractors, residential and commercial, the public and governmental or other agencies or associations experienced in the field of building construction or regulation. Appointments to fill vacancies shall be made in the same manner as original appointments.

Section 2. The code commission shall study Minnesota statutes relating to state regulation of the construction, alteration and repair of buildings and shall make such recommendation for legislation as it deems desirable for the purposes of: (1) eliminating and correcting overlapping and conflicting statutory provisions, (2) minimizing overlapping of inspection and supervision by different departments and agencies, (3) modifying the organization of such departments and agencies insofar as they are concerned in the regulation of building construction, alteration and repair and (4) simplifying procedure in securing state approval of building plans when required. It shall also study and make its recommendations upon proposals for the promulgation of Part I of the proposed state building code as a statewide regulation but any recommended system for its enforcement shall be financially self-sustaining to the greatest practicable extent and shall place maximum reliance upon local government.

Sec. 3. No member of the code commission shall receive any compensation for the performance of duties as a member of the commission but members may be re-

imbursed for actual expenses necessarily incurred in the performance of their duties.

Sec. 4. Every state department or agency having any responsibility by law in the field of building regulation and every political subdivision and its officers and employes shall co-operate with the building code commission in the discharge of its duties and shall furnish it with available records, reports and other pertinent information upon request.

Sec. 5. The commission shall make its report to the legislature not later than December 15, 1956.

Sec. 6. There is hereby appropriated out of any monies in the state treasury not otherwise appropriated the sum of $2,500, or so much thereof as may be necessary, to pay expenses incurred by the code commission. The payment of such expenses shall be approved on behalf of the code commission by the chairman and at least two other members of the commission and then shall be made in the manner provided by law. A general statement of expenses of the code commission shall be included with its report.

—

Pursuant to the act, the following Commissioners were appointed:

Senators:

Martin H. Malone, Montgomery, Minnesota
Gordon H. Butler, Duluth, Minnesota

Representatives:

Reuben Wee, Malaton, Minnesota
John F. Howard, St. Paul Park, Minnesota

Private citizens:

S. L. Stolte, Minneapolis and St. Paul, Minnesota
Allen H. Meinecke, St. Paul, Minnesota
Russell Sweitzer, St. Paul, Minnesota
Nick J. Smith, St. Paul, Minnesota
Senator Marvin H. Anderson, Minneapolis, Minnesota
I. J. Oakes, Minneapolis, Minnesota
Lloyd G. Peterson, Hopkins, Minnesota

Now, for a brief discussion as it relates to this legislation. Actually, the sponsoring of legislation leading toward the drafting of acceptable minimum standards to cover buildings other than one- and two-family dwellings and farm buildings and another housing code to cover one- and two-family residences has been under consideration for a number of years. The League of Minnesota Municipalities has acted as the official sponsor for this activity and has been actively discussing it since the late 1940's. The introduction of the legislation in the 1953 session got as far as committee hearings and, in spite of efforts to avoid the rush at the tail end of the session, the legislation was "boxed in" to this undesired position, primarily by unforeseen delays and misunderstandings.

We, therefore, promoted meetings of interested parties well in advance of the 1955 session and I see that the first draft of the 1955 bill was published by the League on September 7, 1954. After considerable discussion by various groups and committees, the second draft was issued on December 6, 1954, and was so introduced in the house and senate of the state legislature early in the opening of the 1955 session. The hearings before the house and senate committees were followed closely and in many cases had to be prodded into action but our final hurdle before the respective financial committees was the most difficult. We, ourselves, were unaware of the final determinations until we saw it published in the bill as enacted, when we found that our request for $75,000 in funds had been cut to $2,500. We felt, however, that this type of act was better than none at all because it at least gave official blessing to the basic idea and it is now the purpose of the interim State Building Code Commission to arrive at practical and factual suggestions for the realization of the original intent of the bill.

Curiously, it is noted in the above copy of the act, in Section 2 thereof, that reference is made to a "Part I of the proposed state building code." However, there is no context for that reference except as one refers to the December 6, 1954, draft of the League of Minnesota Municipalities wherein Section 2, subdivision 1, of that draft explains the reference but was omitted in the final act. The only other section of the December 6, 1954, draft that was omitted related to the employment of a qualified code compiler who in turn was to act as secretary to the Code Commission. Obviously, or apparently, the intent of the legislature was to omit this at this time and they, therefore, in their wisdom cut out the referred to paragraph.

The State Building Code Commission had its organization meeting on October 10, 1955, at which time Senator Butler was elected chairman, Al Meinecke, vice-chairman, and I. J. Oakes, secretary. Certain procedural policies were established and it was immediately agreed that the commission would accumulate copies of existing building codes from throughout the state and country. A committee was appointed for this purpose and we are now actively soliciting copies of existing codes from municipal and state levels in our own state and from state levels throughout the United States, as well as accepted national codes. When this library of information is available, the commission will reconvene at the call of the chairman for its next meeting.

Significantly, our Building Code Commission is requesting an opinion of the attorney general whether or not the commission may accept contributions. The purpose of this inquiry is to guide our policy determination as to the propriety of trying to expand the funds made available through the act for our work.

In studying the private citizens appointed to the Building Code Commission, you will note that there are two members from the design professions, two contractors, a representative of the Contracting and Plastering Association, a representative of the building trades in S. Paul and another from Minneapolis. To me this is somewhat unfortunate because in many ways the building code, when made available, will be primarily to serve the municipalities throughout the state and there is not one bona fide city officer, such as mayor, councilman, city attorney, city engineer or city building inspector, on the Building Code Commission. Undoubtedly it will be advisable to buttress the deliberations of the code commission by an advisory committee representative of the municipalities.

We shall be pleased to keep you advised of important developments as they occur.

Fifth Annual Concrete Conference Keeps Up Record of Preceding Meetings

With about 200 persons attending, the Fifth Annual Concrete Conference in the Center for Continuation Study at the University of Minnesota in December kept up the unusual interest created by the earlier meetings.

Purpose of the conference was to improve concrete design, bring about better workmanship and develop construction procedures, all things vital to the continued growth of the industry. Upper Midwest architects, engineers, contractors and ready-mixed concrete and aggregate producers were joined in the conference by others interested in the work.

In addition to the featured speeches by leaders in the industry on new developments time was given over to general discussion of experiences of those present and to questioning.

Our pictures show some of those who attended and they are identified row by row, left to right, from top down—Hubert Woods, director of research for the Portland Cement Association, Chicago; Paul Rice, American Concrete Institute, Detroit; and John Swanberg, research engineer for the Minnesota Highway Department—John Horbach; Ed Young, Universal Atlas Co.; and Fred McComb.

Louis Pinault, AIA, St. Cloud; Carlos Bullock, Portland Cement Association, Kansas City; Tom Collins, construction engineer, San Gabriel, Cal.; Bert Thulin, Thulin Bros., Litchfield, Minn.—W. D. Darling, U. S. Corps of Engineers, St. Paul; Reinhold Melander, AIA Duluth; and Charles Russell, Minnesota Board of Health Hospitals.

Norman Fugelso, AIA Duluth; Cal Gould, C. H. Gould Co., Fairmont, Minn.; Ronald Anderson, Certified Building Products, Albert Lea, Minn.—E. C. Carsberg, Minnesota Highway Department; W. J. Brull, NW Concrete, St. Cloud; C. P. Hanson, St. Paul City Public Works; and Joe Onsrud, U. S. Navy construction superintendent.

W. C. Budge, Jr., Nasvik Construction, Bemidji, Minn.; Al Benzick, Glacier Sand and Gravel Co., Minneapolis; Gustave Reierson, Model Stone Co., Minneapolis; and Norman Arquette, Portland Cement Association, Minneapolis—R. H. Myhra, Portland Cement Association, Bismarck, N. D., and Jack D. Salo, consulting engineer, Duluth.

F. C. Robinson, Einar Olson & Sons, Albert Lea, Minn.; and R. H. Myhra, PCA—Chester D. Schwar and Howard Hagen, Zenith Concrete Products, Duluth; and Bob Randall, Portland Cement Association, Minneapolis.

Joe Morrissey, Ready Mixed Concrete, St. Paul; Joe Shiely, Jr., J. L. Shiely Co., St. Paul; and Fred McComb, district engineer, Portland Cement Association, Minneapolis—C. A. Armstrong, Rochester city engineer; John Horbach, Plasterers' & Cement Finishers' Union No. 20, St. Paul; Robert Penning, Cement Masons' Local No. 557, Minneapolis; and Art Bolier, Robbinsdale.

Pat Smith, engineer, Hopkins, Minn.; Phil Wood, Wood Construction Co., and Walter Milnar, Standard Ready Mix, South St. Paul—Gordon Chapman and Jack Forciea, North Central Supply Co., St. Paul.


LOF GLASS
OWENS-CORNING FIBERGLAS
JOHNS-MANVILLE JM PRODUCTS
PPG
ALCOA ALUMINUM COMPANY OF AMERICA
NATIONAL GYPSUM CO.
The Memory Stone
REG. U. S. PAT. OFF.
ROMANY TILES
Otis
CELOTEX
REG. U. S. PAT. OFF.
GOLD SEAL
ARMSTRONG CORK COMPANY
QUALITY Glidden PRODUCTS
EDISON ELECTRIC INSTITUTE
Northern States Power Company
Flexalum SPRING TEMPERED SLATS AND VINYL PLASTIC TAPE
ALBERENE STONE
KENTILE. The Asphalt Tile of Enduring Beauty
ZONOLITE VERMICULITE PRODUCTS
Andersen Windowalls
CRANE CO.
MOSAIC
H HONEYWELL
Wakefield
OVERLY MANUFACTURING COMPANY
AirXpeler EXHAUSTERS
NATCO QUALITY CLAY PRODUCTS SINCE 1889
KIMBLE K GLASS
NELWELD
Hamilton
THE AMERICAN INSTITUTE OF ARCHITECTS AFFILIATED WITH THE PRODUCERS' COUNCIL INCORPORATED
Frank Adam Electric Co.
GRANCO Keelor Steel, Inc.
FLOOR HILLYARD TREATMENTS
MERIT CHARACTER CORPORATION DISTINCTION
Suntile
STANLEY
MULTI-CLEAN
DEVOE PAINT
Fenestra
FC FLOUR CITY ORNAMENTAL IRON COMPANY
AMERICAN-Standard PRODUCTS
sparta tile
METAL MARK Penmetal 1869 OF QUALITY
Gate City AWNING WINDOWS
CECO STEEL
B&G
hufcor
Pella WINDOWS
Weldwood
Kawneer
Brasco SAFETY-SET STORE FRONTS
WESTINGHOUSE
CHAMBERLIN CHAMBERLIN COMPANY OF AMERICA
THE HALSEY W. TAYLOR CO. DRINKING FOUNTAINS. COOLERS
REYNOLDS ALUMINUM
Cupples ALUMINUM WINDOWS
For Wise and Families WINCO The Winco Way
HOLLOWCORE & HOME FOLDOOR
Sanymetal
Structural CLAY PRODUCTS INSTITUTE
CROWN
ZURN
modernfold DOORS
YOU NAIL TO STRAN STEEL

Porcelain Faced Building Graces Salt Lake City Skyline

The feeling of lightness is dominant in the design and material selection of the new office building.

The 12-story First Security Building, just completed in Salt Lake City, Utah, at a cost of $3,000,000, is an important addition to the roster of metal-faced, insulated skin wall buildings. In this case the exterior facing is 20 gauge porcelainized steel in three colors. The spandrel panels proper, embossed in 8″ by 8″ [illegible]rs are gray. The panels around the projected stair[illegible] are fluted vertically and are rust-colored. The tr[illegible] white.

Designed by W. G. Knoebel, chief architect of the Bank Building and Equipment Corp., St. Louis, Mo., First Security is one of the first major buildings to take advantage of the new method of machine-applying vermiculite concrete on panel or spandrel walls. The concrete backup is 2½″ thick on the fluted panels. The spandrel panels, 3½″ thick on the fluted panels.

These thin walls added more than 4,000 square feet of rentable floor area that will earn $18,000 a year, on a conservative estimate, although this is not a large building as office buildings go.

According to Associate Architect Slack W. Winburn of Salt Lake City, the wall as built provides insulation equivalent to about 17 inches of masonry and weighs between 12 and 15 pounds per square foot. This light weight, plus vermiculite plaster fireproofing of the structural steel framing, effected a tremendous reduction in dead load, reduced total steel tonnage even though the building was additionally stressed to sustain seismic loads and lowered foundation and piling costs.

The latter was particularly important since no bed[illegible]k was encountered in test drills 160 feet deep. The [illegible]ilding is supported on 236 cast-in-place concrete piles [illegible]at extend 72 feet below the boiler room floor level into [illegible] heavy clay bed and which cost $190,000. Conventional masonry walls would have increased the wall weight eight times and doubled the weight on the footings.

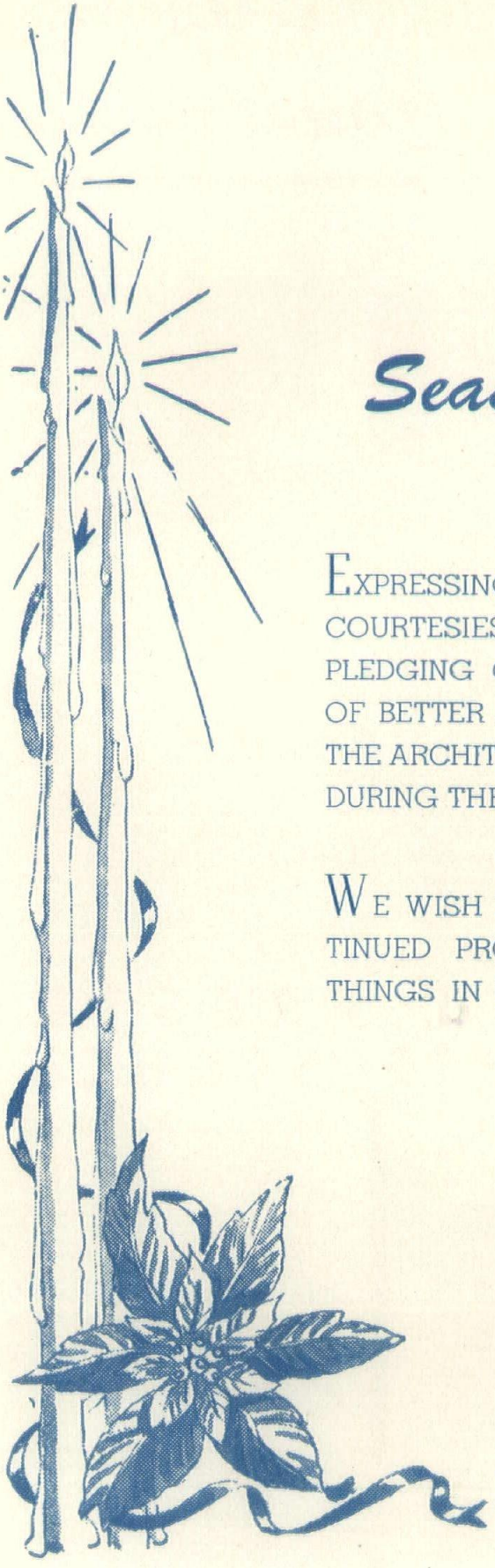
There are two basement levels and a penthouse for mechanical equipment. The building is 156 feet high to the main roof, plus an additional 35 feet to the top of the tower. Typical floor-to-floor height is 12½ feet. The basement is 100 by 135 feet, first floor, 85 by 125 feet, second floor, 75 by 100 feet and third through 12th floors, 79 by 108 feet. A three-story and basement annex, added at the south end, is 78 by 83 feet.

Cost of the over-all steel framing was $350,000. This is rigid frame welded construction. A 20 per cent saving in the weight of the steel was made with the welded

(Continued on Page 37)

ARCHITECT


MEMO:
Are your Specifications this Complete?
FOR FURTHER INFORMATION WRITE:
MINNESOTA
LATHING & PLASTERING
1912 Hennepin Ave. FR 7-1547 Minneapolis, Minn.
Certified Craftsmanship
NOTE:
"ALL LATHING AND PLASTERING SHALL CONFORM TO THE CODE OF STANDARD PRACTICES, AS ESTABLISHED BY THE NATIONAL BUREAU FOR LATHING AND PLASTERING"
10'-9"
3'-0"
2'-6"
11'-0"
11'-6"
5'-6"
8'-0"



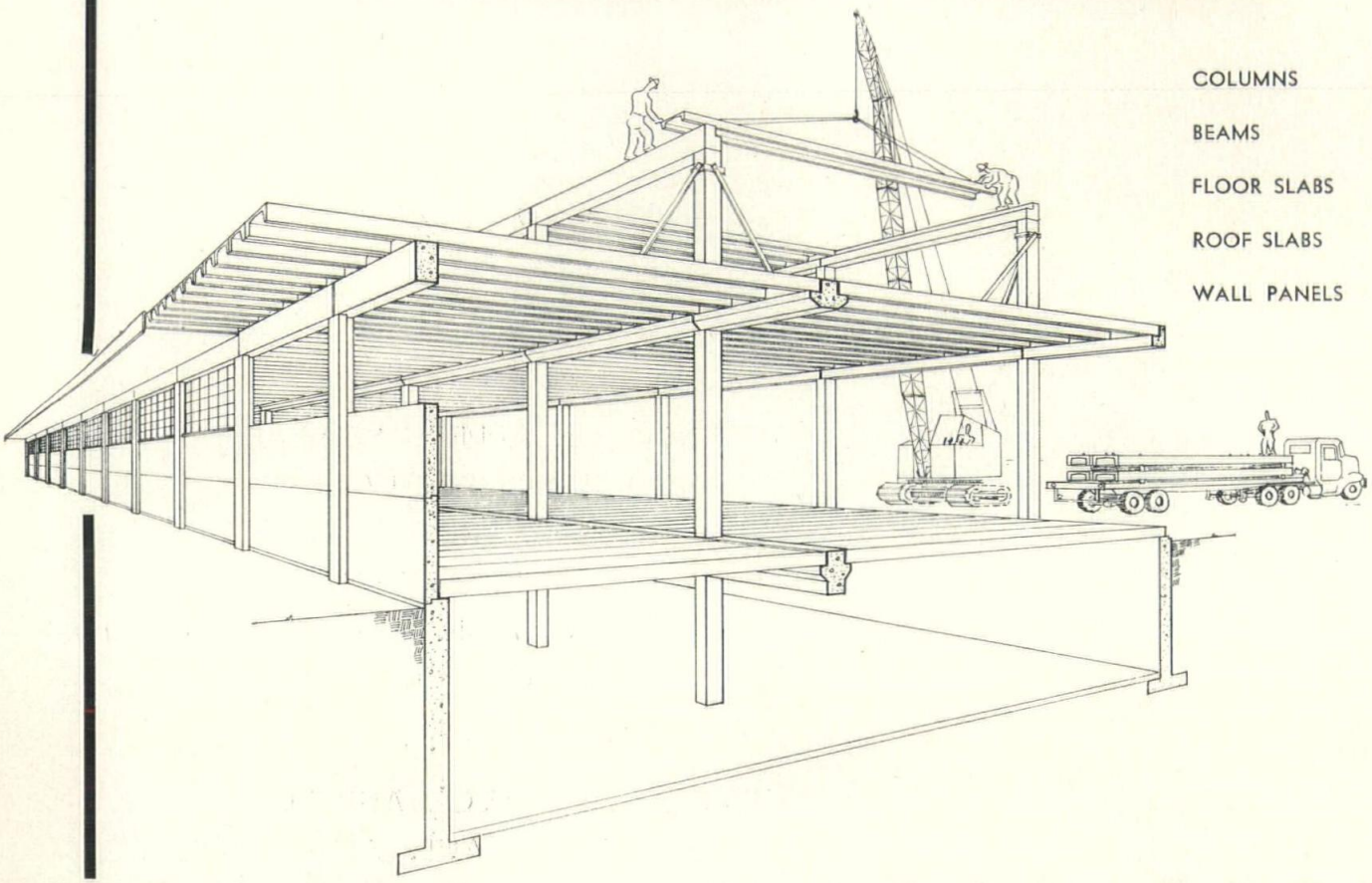
Season's Greetings

EXPRESSING OUR APPRECIATION OF YOUR COURTESIES DURING THE PAST YEAR, AND PLEDGING OUR SINCEREST EFFORTS TO BE OF BETTER AND MORE MODERN SERVICE TO THE ARCHITECTS OF OUR GREAT NORTHWEST DURING THE COMING YEAR.

WE WISH EACH OF YOU AND YOURS CONTINUED PROSPERITY AND ALL THE GOOD THINGS IN LIFE.

The Minnesota Lathing & Plastering
Public Relations Bureau

IDEAL
for Winter Construction



COLUMNS
BEAMS
FLOOR SLABS
ROOF SLABS
WALL PANELS

PRECAST and PRESTRESS *YOUR* CONCRETE STRUCTURE

BEAT the WEATHER
SPEED ERECTION
RETAIN QUALITY

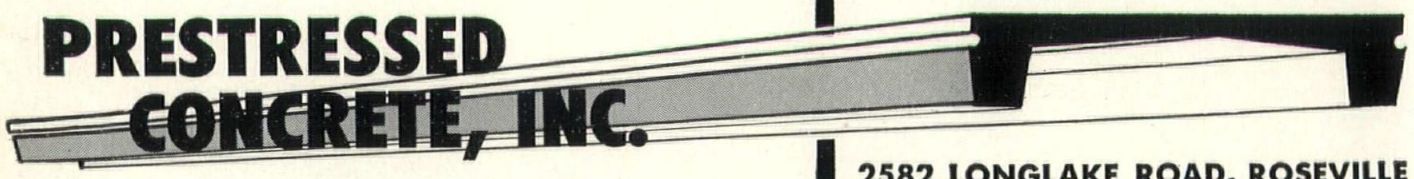
PRECAST and PRESTRESSED inside under ideal factory control, concrete construction can advance outside with little heed to weather extremes. The many advantages of high quality and production economy that this type of construction ordinarily possesses is multiplied even more when job progress continues where other types would stall.

BENEFIT from these ADVANTAGES

CRACKLESS for longer durability
FIRE-SAFE for lower insurance rates
RESILIENT for greater strength and safety
PRECAST for economy and erection speed

BUILD with PRESTRESSED CONCRETE

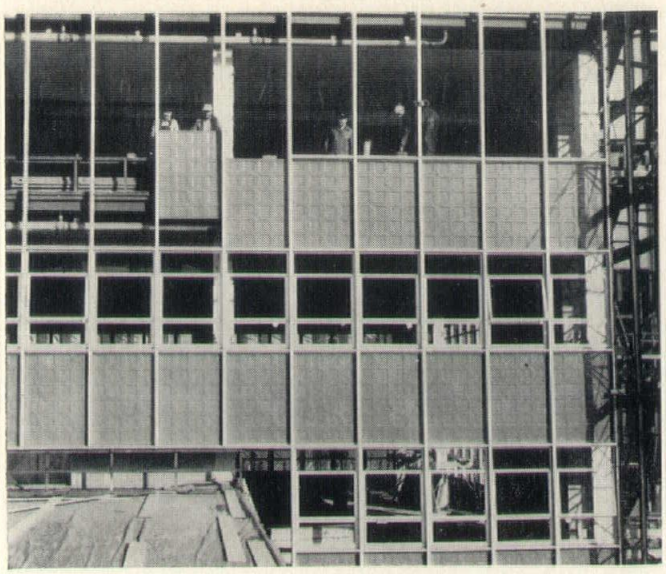
- Long Span Roof Decks
- Long Span Floor Slabs
- Beams and Girders
- Bridge Decks
- Wall Panels
- Columns



PRESTRESSED CONCRETE, INC.

PHONE MIDWAY 6-7458

2582 LONGLAKE ROAD, ROSEVILLE
SAINT PAUL 13, MINNESOTA



Workmen (at left) are shown sliding one of the embossed spandrel panels into place.

frame. About 900 tons of steel were used in the framework and approximately 100 tons of panel steel and aluminum.

The outside walls are cantilevered out 4½ feet from the center of the main columns so that continuous glass and muntin design could be used. These outside walls were framed separately from the top of windows on one floor to the sills of the windows above to form the spandrel. The frame is light steel channel iron framed into the main columns and welded. Foors are cellular steel topped with 2½ inches of lightweight concrete.

About 20,000 square feet of the wall area is plate glass. Windows are continuous on a 4-foot-2-inch module. On the east and west elevations the glass is heat resistant and tinted blue. The south elevation is equipped with aluminum sun shades that project about four feet.

Window casings and vertical mullions are aluminum. The mullions are 3½ inches by 4 inches and are continuous the full height of the building. They were bolted to the structural frame at the floor line and are grooved for the spandrel panel to slide into. The entire frame is interlocking and could be bolted up very fast, e.g., four steel spandrel panels could be installed in a matter of 20 minutes.

The porcelainized steel panels were delivered to the floor and were placed in position from each floor level. The typical spandrel is 4 feet, 2 inches wide and 6 feet, 4 inches high. Fabricated in one piece, these panels were placed in the mullions and are held by the windows. The spandrel panels comprise 7,000 square feet.

The remaining 45,000 square feet of fluted porcelainized steel was furnished in small 2-by-4-feet sections. These were bolted into a typical 4-by-12-foot panel on an angle iron frame and placed as a unit with block and tackle attached to the floor above. Joints between sections were calked. The embossed spandrel panels have a clearance of ⅛ inch for expansion and contraction. The major fluted panels have ½-inch clearance.

To provide a ¼ inch air space for condensate venting, paper-backed wire lath, to which the vermiculite concrete backup was sprayed, was tied to 1-by-1 inch clips spaced 12 inches o.c. around the perimeter of the porcelainized steel panel. These same clips were used in setting the panel to support its weight and force it into calking compound at the edges. The lath was reinforced with ¼ inch bars.

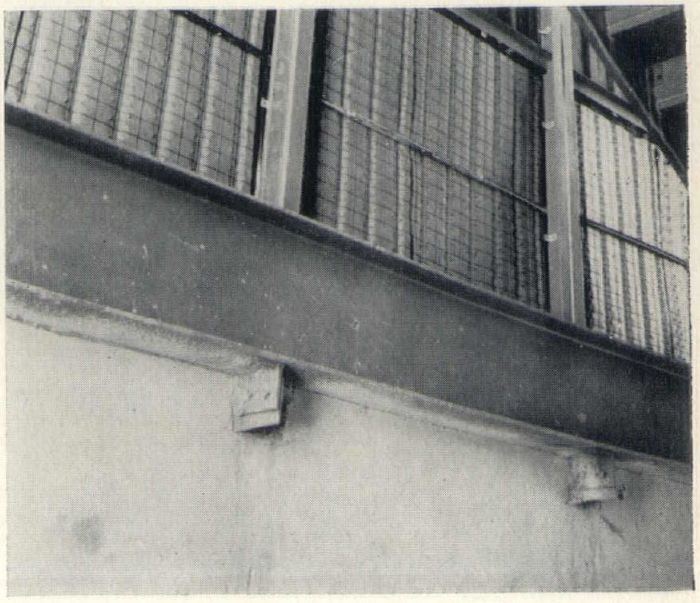
The insulating concrete is a 1:4 mix (1 part Portland cement to 4 parts vermiculite concrete aggregate), which was sprayed on in 1 inch thicknesses at 24-hour intervals. The first concrete was gunned March 8. Approximately 90 per cent of the work was completed by April 29, even though concrete was not applied every day. After it had cured it was sprayed with two coats of asphalt emulsion as a vapor barrier.

Depending on thickness, vermiculite concrete spandrel walls have an official fire rating up to five hours. Expert analysis of fire tests by Nolan D. Mitchell, consultant, gives 2-hour fire resistance to a 2.57 inch thickness and 4-hour resistance to a 3.63 inch thickness.

The steel columns and floor construction were fireproofed with vermiculite plaster, some manually, some machine-applied. The stairwells and spandrel walls, except where heating units occur under windows, were furred out with metal lath 6 inches from the vermiculite concrete, and were plastered with vermiculite plaster. Acoustical treatment consists of a half-inch of vermiculite acoustical plastic, machine-applied in two coats.

The entire building is air conditioned with a dual zone system. On each floor the toilet and mechanical rooms for air conditioning are concentrated behind the elevators in a service core at the southwest corner of the building.

First Security Bank will occupy the first two floors, the basement and part of the annex. The balance of the building will be rented. More than 70 per cent of the tenants are the large, commercial type and at least five complete floors will be occupied by single tenants. An extra corridor partition has been installed on three floors for smaller tenants so that partitions can be left out or put in at designated points to avoid variation from the grid pattern.



This picture shows stages of construction—at top back of a panel and below the concrete in place.

Society Convention Pictures

On the page opposite are some highlights of the Minnesota Society's convention, identifications being left to right, row by row. Top pictures show Secretary Frank Clark, AIA, St. Paul, Ralph Keyes, Minnesota executive secretary, and Mary Ann Schaps— discussion panel members Harold Weston of Hagstrom Construction Co., Minneapolis, G. O. Matson, AIA, Minneapolis, Arthur C. Lucas, AIA Duluth, who was moderator, Jim Coulter of Granco Steel Products, Minneapolis, and John Hustad of The Hustad Co., Minneapolis.

Bill Meyer, Roy Howard, Ray Thibodeau, executive secretaries of the builders exchanges in Minneapolis, St. Paul and Duluth— Gerald Stanwell Ariba with the Edythe Busch players, who presented a skit entitled "Chameleon of Out on a Limb"—Reinhold Melander and Claude Smith, AIA Duluth—Eldon Winkler of the St. Paul Arts and Sciences Center, Warren Mosman and Bob Howe, AIA St. Paul—Loyd Peterson, International Plastering president, Hopkins, and R. J. Hendershott of Minnesota AGC.

Frank Clark, Milton Bergstedt, Bryant E. Hadley, AIA regional director, and George Darrell—Ralph Rapson, head School of Architecture, University of Minnesota, Ken Peterson, AIA St. Paul, Gerald Korsunsky, AIA associate St. Paul, and John Magney, AIA Minneapolis.

Bill Shannon, AIA St. Paul, Mary Ann Shaps, Alyce Ferguson—Joe Jester of Minneapolis Honeywell and president Producers' Council, and Curt Johnson of Pella Products and Past PC president—S. L. Stolte, AIA St. Paul, and C. C. Ludwig, executive secretary of League of Minnesota Municipalities.

Mearl Peterson, Paul Liebelt, John Magney, AIA Minneapolis, and Claude Smith, AIA Duluth—O. E. Tichich, AIA associate Minneapolis, Louis Pinnault, AIA St. Cloud, and Glynne Shifflet, AIA Minneapolis and Minnesota chapter president.





YOU









Convention Talk Was of Many Things . . .

We picked up group after group in serious and in just plain conversation as we covered the convention. Results opposite show, l-r, row by row: Bob Hendershott, Minnesota AGC, Roy Thorshov, AIA Minneapolis, and Otto M. Olsen, AIA; Bob Anderson of Granco Steel, Mrs. Robert Hewitt, Mrs. J. A. Coulter, Mrs. Anderson, Jim Coulter and Tom Ellerbe (with back to camera).

Cy Bissell, AIA Minneapolis, and C. E. Heimbridt and E. P. Christensen, both of Benj. Moore paints; Lyle J. House, AIA St. Cloud, Mrs. and Warren Peterson, AIA Mankato.

Uldis Treibergs, AIA Minneapolis, Arthur Peabody, AIA Rice Lake, Wis., and W. J. Estebo, AIA St. Paul; Ed Hillstrom, Tom Ellerbe and William Pore, all AIA St. Paul.

Larry Hovik and George Townsend, AIA St. Paul; L. K. Hahal and Albert G. Voga, AIA St. Paul; Fred Voepel of Great Lakes Carbon and C. W. Potts of Minnesota Perlite Corpn.

Thomas Vecchi, AIA associate Hibbing, Jene Sigvertsen, AIA St. Paul, city consulting architect, and Robert McGee, AIA St. Paul; Alan Meinecke, AIA St. Paul, John S. Belair, AIA Minneapolis and Edward Lofstrom, AIA St. Paul.

Reinhold Melander, AIA Duluth, Frank Clark, AIA St. Paul, and R. V. McCann, AIA Minneapolis; Reuben Johnson and Lonnie Adkins, AIA associates St. Paul, and Bruce Abrahamson, AIA Minneapolis.

Tom Ellerbe (seated), AIA St. Paul, and Thomas Carpenter of Sperry Office Furniture; Pat Smith, Hopkins city engineer, S. S. Frissell, Hopkins city manager, and Francis Kerr, AIA Minneapolis; Charles Wahlberg, AIA St. Paul, Rolf N. Irgens, AIA associate St. Paul, and Richard Hammel, AIA St. Paul.

Exhibits Were Center of Study

In the products exhibits and related areas of the convention floor we found these industry members talking over materials and know-how. The numbered pictures are identified left to right.

1—Austin Lange, AIA Minneapolis, with John Homme of Haldeman-Homme, St. Paul; 2—Val Johnson of MM&M, Wausau, Wis., L. K. Mahal, AIA St. Paul, Hal W. Fridlund, AIA Minneapolis, and L. Walker of Hennepin Blacktopping Co.; 3—Bill Berget, AIA, and Jason Bass of Insulation Engineers, Inc., Minneapolis; 4—Ray Nelson, AIA associate Hibbing, and Ed Canton of Canton Redwood Sales Co.; 5—R. T. Jackels, AIA St. Paul, Loyd Peterson of Hopkins, Reynold Roberts, AIA St. Paul, and N. J. Anderson of Artcraft Plastering, Faribault.

6—K. E. Wilson of Chrysler Airtemp, Donald W. Danzer, AIA associate St. Paul, and B. E. Goldstein of Globe, Inc.; 7—George Melcher, W. H. Tusker, Glynne Shifflet, all AIA Minneapolis, and Allan Loux of Minnesota Perlite Corp.; 8—Robert Hanson, AIA Minneapolis, Bert Bercham of St. Paul Cement Works and Gordon Matson, AIA Minneapolis; 9—W. E. Neal and Neal Sorensen of W. E. Neal Slate Co., with Louis Lundgren, AIA St. Paul; 10—Harold R. Anderson of Master Builders Co., Gordon Matson, AIA Minneapolis, S. L. Stolte, AIA St. Paul, Jim Schuelke and Joan Carlson of Master Builders.

11—Everett Holes, AIA St. Paul, Clair Armstrong, AIA Minneapolis, and Arthur Bjerken, St. Paul; 12—George Saffert of American Artstone with Cap Sanders, AIA Minneapolis; 13—Vic Gilbertson, AIA Minneapolis, and Paul Buck of Fulton Aluminum; 14—Edward H. Enger, Minneapolis engineer, Wesley G. Ellis of Stanton Co., and Robert Wilson, AIA St. Paul; 15—John Nelson of Mason City Brick & Tile, Edward Lofstrom, AIA Minneapolis, Clifford Koplan, Mason City sales manager.

16—The Mankato Stone Company's exhibit; 17—Carl Buetow, AIA St. Paul, Dorothy Peterson and Lyman Jackson of The Tile House; 18—Edmund Rydell of A. T. Rydell, Inc., Gerold Buetow, AIA St. Paul, C. O. Miller of Rydell Co., and Everett T. Holes, AIA St. Paul; 19—George Darrell, AIA St. Paul, Jack Philbrick and Gene Rancone of Molin Concrete, and S. L. Stolte, AIA St. Paul.

SCHOOL CONSTRUCTION INSTITUTE PLANNED

The second annual conference on school planning and construction has been set by the University of Minnesota Center for Continuation Study for January 19 through 21, 1956, at the Center. The theme of the conference is "Dollars and Sense in School Planning." The conference is staged for architects interested in school construction, school superintendents and school board members. The University School of Architecture, the Minnesota Society of Architects, and the Minnesota School Boards Association are co-operating with the Center for Continuation Study in planning the conference.

The three-day meeting will begin with registration at 9:15 a.m. on Thursday, January 19. Study sessions throughout Thursday and Friday will include discussions on the Validity and Construction of School Building Codes; Minimum Requirements of the Codes; the Recommendations of the State Department of Education and Minimum as against adequate school facilities.

Anyone wishing further information on the conference should write or contact Mr. W. A. Porter, Program Director, Center for Continuation Study, University of Minnesota, Minneapolis 14, Minnesota.

Finally We Show, Not the Least Event, but a Major Event . . .

During dinner we snapped these table groups (identifications go around table, starting from left) —Mrs. Frank D. Clark, Edwin H. Lundie, Mrs. G. H. Carpenter, Mrs. Lundie, Mr. Carpenter, Mrs. and Glynne Shifflet and Mr. Clark; William and Mrs. Bloomquist, Clair and Mrs. Armstrong, Mrs. and George Darrell, Mrs. and Guy Tollerud.

Ralph T. and Mrs. Keyes, Mrs. and Arthur C. Lucas, Jr., Alfred J. and Mrs. Nelson; Mrs. and Robert E. Hewitt, Mrs. and Jim Coulter, Mrs. and R. J. Anderson.

Gordon and Mrs. Comb, Mrs. and R. Deegan, Reinhold Melander, Mrs. and S. L. Stolte; Gene and Mrs. Freerks, Robert E. Howe, Mary Kay Wheelan, Mrs. and Gene Flynn, Ora Miller and Everett Holes.

Bert Fasth, Mrs. W. T. Mosman, Lawrence Hovik, M. L. Fergestad, Mrs. Hovik, Mrs. Fergestad, Mr. Mosman and Mrs. Fasth; Mrs. and John T. Baker, Rolf N. and Mrs. Irgens, Reynold and Mrs. Roberts.

O. Ray and Mrs. Nelson, Mrs. and Thomas Vecchi, Mrs. and Thomas Shefchik, Jr.—Mrs. Arthur Naftalin, C. P. Erickson, Mrs. R. G. Zehn, T. J. Shefchik, Sr., R. G. Zelzer, Mrs. Shefchik, Arthur Naftalin and Mrs. Erickson.

Mrs. and Fred Traynor, Mrs. and William Shannon, Lyle and Mrs. House, Ray and Mrs. Hermanson and Donald Denzer—Roy E. and Mrs. Howard, Mrs. Ray Thibodeau, Robert and Mrs. Ashbach and Mr. Thibodeau.

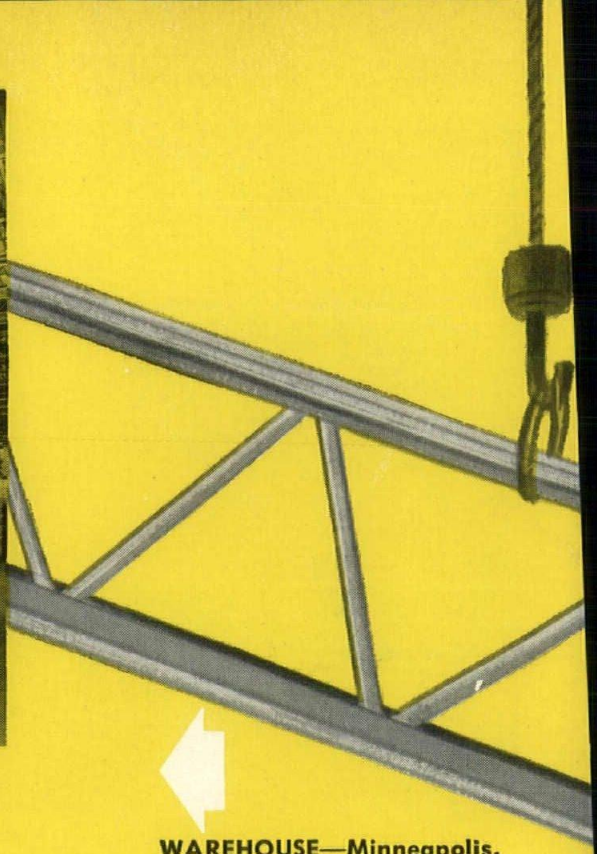
Mrs. Malcolm C. Forsyth, John R. Magney, Mrs. Robert Henderschott, Mr. Forsyth, Mrs. Magney, Mr. Hendershott, Mrs. and Kenneth Fullerton—Curtis W. and Mrs. Johson, Mrs. and K. A. W. Backstrom, Mrs. and Oscar T. Lang, Mrs. and Austin H. Lange.

Mrs. and Neil T. Sorensen, Robert and Mrs. McGee, Jene and Mrs. Sigvertsen, Mrs. and Wally Neal—Robert Schlafle, Paula Mathieu, Robert Mockenhaupt, Carol McLellan, Peter L. Racchini and Virginia Sherman.

. . . And in '56!

If these pictures are any indication, it is a good investment to go to the convention and the 1956 event promises ever bigger things!

We also saw these at the dinner—row by row, l-r—Mrs. and George Darrell; Mrs. and Ralph T. Keyes—Mrs. and R. J. Hendershott; S. R. and Mrs. Benson; R. Boyer and Mrs. Shimer, James D. and Mrs. Voigt, Warren and Mrs. Peterson, Bruce Church and William Wick; Milton and Mrs. Bergstedt, James V. and Mrs. Hirsch, Jack and Mrs. Witherspoon and Brooks Cavin.



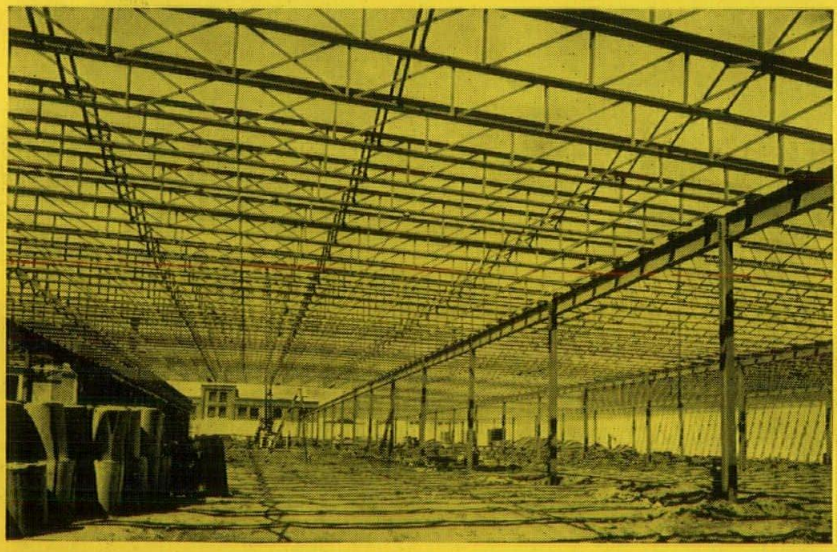
WAREHOUSE—Minneapolis, for Old Peoria Company

contractor: Adolfson & Peterson

architect: Saul C. Smiley

erector: Waylander & Peterson

Pacal supplied: standard and longspan open web joists, structural and reinforcing steel, steel roof deck.



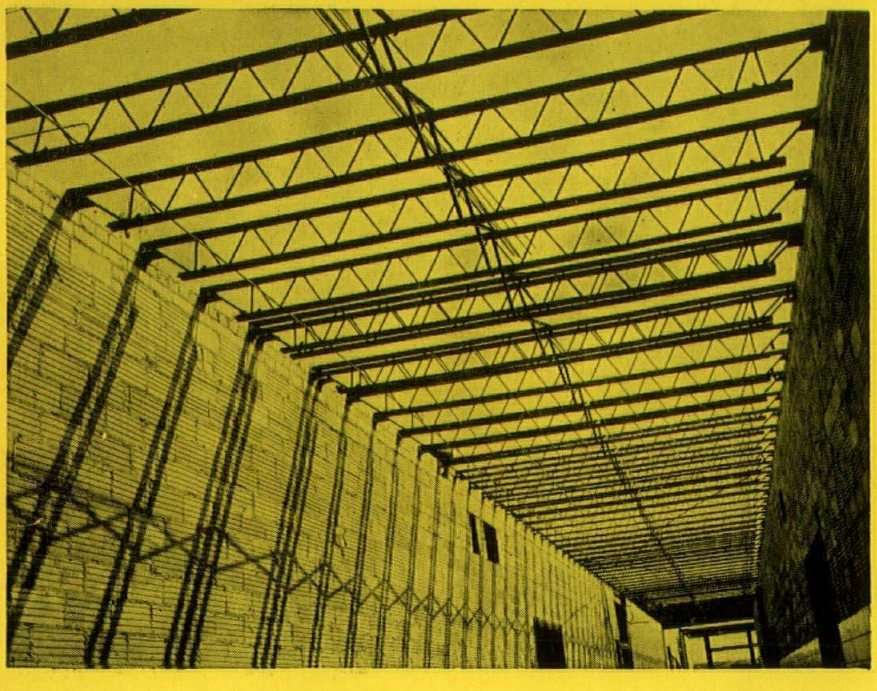
BUS GARAGE—St. Paul for Twin City Rapid Transit Co.

contractor: Ring Construction Corp.

architect: Loren B. Abbett

erector: Waylander & Peterson

pacal supplied: longspan and standard joists.



SCHOOL—Kenyon, Minnesota

contractor: Dean Contracting Company

architect: E. D. Corwin & Associates

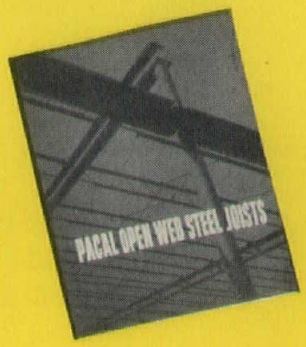
erector: Holman Erection Company

Pacal supplied: standard and longspan open web joists, structural and reinforcing steel.

JUST OFF THE PRESS...

A brand new 36-page brochure on "Pacal Open Web Steel Joists". It describes Pacal's complete line of open web joists and contains helpful information for architects and contractors. Includes standard practices and specifications, loading tables for Pacal standard and longspan open web joists and a complete description of Pacal Joist accessories.

WRITE TODAY FOR YOUR FREE COPY!



they're all going up with...

PACAL OPEN WEB STEEL JOISTS

In Standard and Longspan Lengths from 5 to 120 Feet
Made in St. Paul — Prompt Delivery Assured!

PAPER-CALMENSON & CO.
Telephone MI. 6-9456

County Road B and Walnut Street, St. Paul 8, Minn.
Duluth, Minnesota • Billings, Montana

UNIVERSITY of NORTH AMERICA

An Undergraduate Thesis Submitted in June, 1955, to the University of Minnesota's School of Architecture by

CARL R. NELSON, JR.
and
NORMAN D. DAY

INTRODUCTION

A. History and Objectives of the Project.—Sixteen years ago in 1939, Chief Henry Standing Bear, a Sioux Indian chief from South Dakota, conceived the idea of a memorial to the American Indian. He imagined a mountain carving similar to what he had seen at Mount Rushmore. He felt that the Indian by his heritage should have a lasting memento to his great leaders just as the white man now had. In 1939 Standing Bear saw an article in the *New York Times* extolling the work of a young sculptor named Korczak Ziolkowski. He wrote to Mr. Ziolkowski that year and asked him to come to South Dakota to discuss carving the memorial. The sculptor came to the Black Hills to talk to Standing Bear, but was worried about the real worth of such a project as an end in itself. He felt that a mountain carving as a memorial to the American Indians would do little to alleviate their present status. He conceived the idea of incorporating the university, museum and medical center into the project to help fulfill the Indian peoples' needs.

At first, Mr. Ziolkowski planned to establish the memorial near Deadwood, South Dakota, where the greatest number of tourists came each year. However, in 1946, after the war's interruption, Thunderhead Mountain near Custer, South Dakota, was brought to his attention. This mountain was an almost perfect single piece of granite 3,000 feet long, only about 100 feet wide at the top and rising 520 feet out of virgin ponderosa pine forest. The mountain lay in a northwest-southeast direction which would take the best advantages of the natural sunlighting of the sculpture. The real reason for choosing Thunderhead Mountain was that he could carve the memorial "in the round," not just as an etching on the face of a mountain as Mount Rushmore was.

Now that the site had been chosen, Mr. Ziolkowski bought the nearby homestead of William Eller and established his residence there. In the spring of 1948, work on the mountain began. That same year, Korczak Ziolkowski built his studio home, completed the groundwork for establishing a substantial dairy ranch and made a complete geological exploration of the mountain.

During the summer of 1948 the sculptor relied upon contributions to support the project but these proved to be grossly inadequate. Fearing outright federal aid would imply too much government regulation, he turned to charging admissions. This is the method of financing today.

The establishment of the Crazy Horse Memorial Foundation, consisting of a state and national com-

Because of the volume of this thesis certain introductory passages and credits have been deleted so the material will fit better into the scheme of this magazine. Nothing of the "meat" of the thesis has been disturbed. —Editor.

mission, in 1948 was followed by the federal government's making the foundation tax exempt because of its future educational value. The commissions operate presently in an advisory capacity. They employ a full time public relations man in Washington, D. C. During the last seven years, the sculptor has painted the outline of the carving on the face of the mountain, and has blasted off more granite than was removed from Rushmore in fourteen years. He has succeeded in cutting down as far as the Indian's upper lip. Mr. Ziolkowski plans to start construction of the museum within the next few years. The university and medical center will follow as resources allow.

B. **Crazy Horse the Indian**—The Indian known as Crazy Horse was born in 1843, a member of the Lakota tribe of the Teton Sioux. He was somewhat smaller than the average six-feet-three-inch Sioux warrior, standing five-feet-ten-inches tall and weighing 170 pounds. As a young man he so distinguished himself that, when he was eighteen, his father honored him by bestowing his own name, Crazy Horse, upon his son. An even greater honor came to Crazy Horse seven years later, when he was made a hairshirt warrior at the last council of the Teton Sioux in 1868.

The abilities of Crazy Horse as a leader of men drew praise from others not of his own race. General Crook of the U. S. Army made an official report to the effect that Crazy Horse was probably the greatest commander of light cavalry seen since the battle of Thermopylae in 400 B.C. At West Point today the name of Crazy Horse and his tactical skill are still held in the highest regard.

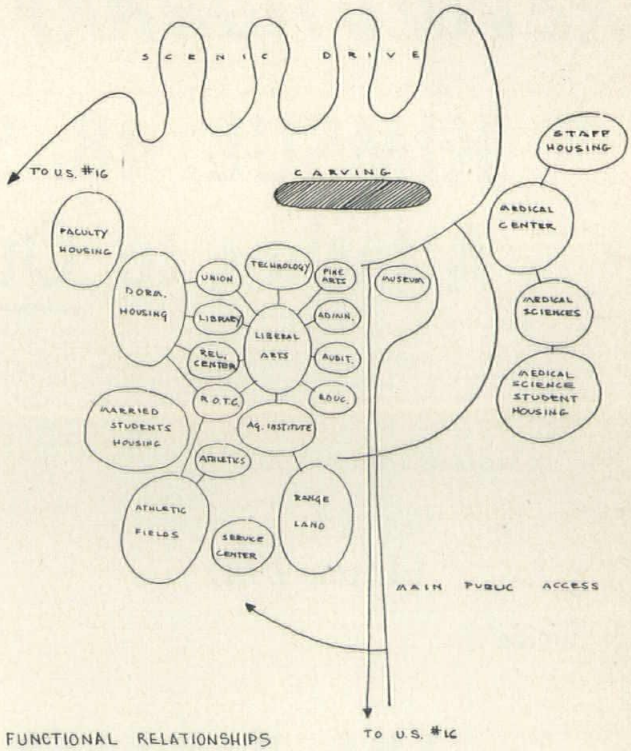
After his part in the decisive defeat of Colonel Custer at the battle of the Little Big Horn, Crazy Horse was sought by the federal government. He evaded them for some time but was finally persuaded to talk peace. Not knowing that the U. S. Army had orders either to kill him or to send him to the Dry Tortugas prison in Florida, Crazy Horse went to Fort Robinson. While there, he was accidentally bayoneted in the back on September 6, 1877.

Denied the warrior's death that he doubtless would have wished, the proud spirit of Crazy Horse lives on in the Sioux war chief's own words: "My lands are where my dead lie buried." The life and accomplishments of so great a leader make him a most fitting subject for a memorial to the Indian nations.

C. **Present Situation** — The present-day North American Indian is in a very low socio-economic position, with the exception of a very few fortunate persons who have been able to rise above the general economic condition of the Indians to gain knowledge and position through hard work or good luck. From the beginning the white man has assumed that the Indian was a pagan savage whose salvation lay in accepting the white man's way of life. This point of view has led to an utter disregard for the rights of the Indian whenever they conflicted with the desires of the white man.

The first Indian education in the ways of the white man came in the Spanish missions in the south and southwest. Later, day schools were started, followed by boarding schools. Possibly the most significant of the more recent Indian boarding schools was Carlisle, founded at Carlisle, Pa., in 1879 by Captain (later General) Pratt, an officer in the U. S. Army who had become familiar with the Indian problem while serving in the Oklahoma Indian Territory. Old abandoned army barracks were used for the school facilities until

The rendering above shows the layout of the proposed University of North America.



Study of this chart, in conjunction with the drawing above, indicates the grouping thoughts behind the plan.

the school closed in 1918.

For several years after its founding, the federal government gave no large grants for the maintenance and operation of the school, much of the support coming from the friends of Captain Pratt and from missionary societies. The students were boarded in the homes of the nearby Quakers and Pennsylvania Dutch. Many Indians never returned to their tribes but those that did helped establish closer relations with the white people. Dartmouth College, originally established for Indian ministers, had no Indian blood requirements for entrance and was soon taken over completely by the white students.

Between 1880 and 1895, many large Indian boarding schools were established. The other prominent ones being Chemwa, Chilocco, Haskell and Phoenix. During the same period criticism arose against the support of denominational schools, a cry which rose until 1901 when all federal support was withdrawn from mission schools. Some were still maintained by the tribes out of tribal funds but this removal of aid spelled the death of the great majority of Indian schools.

After 1928, some trade schools were established, but only one school, the University of Southern California, now offers any courses other than agricultural. Under the Indian Reorganization Act, $25,000 per year is loaned to Indian students to obtain higher education. Many of these people pursue courses enabling them to enter the Indian Service upon graduation, as teachers, clerks and stenographers. By 1946 over 50% of the employes of the Indian Service were of tribal blood.

The Indian people need better medical aid, a raised educational level, better agricultural methods and an intellectual stimulation to foster an appreciation and an awareness of the Indian people's role in the world's society. The average Indian's education is terminated at the end of the eighth grade at the present time. Prejudice is still prevalent on a large scale, mostly through the ignorance and intolerance of the white communities. We feel that this university would be a great help in removing the stigma on Indian education that exists today.

Presently the project is carried on entirely by Mr. Ziolkowski but the state and national Crazy Horse Memorial Foundation commissions have been established to lend advice for the duration of the project. . . .

To date the project has been financed almost entirely by the tourists' admissions. The sale of contributory bonds in amounts of from $50 to $5,000 is another method of financing which has been started by the commissions. This idea is still in its infancy but will gain momentum as the project grows. The third method of financing is through outright gifts to the fund. The project has had only a few donations of this type but many more can be expected in the future.

C. **Future Developments**—Since the tourist is to be the major source of income for the university and its operation for quite a number of years, there must be ample attractions to induce the greatest number of people to the memorial. The huge, spectacular mountain carving will be the major attraction but the establishment of the museum as the center for Indian culture and folklore in North America will also have a great drawing effect. It will become a center for the serious or casual study of archaeology, anthropology, paleontology and the related sciences. Statues and paintings of many famous Indian chiefs of North America will adorn the approach drive to the museum and other public functions. The museum will also become the center for the sale of Indian arts and crafts produced by the student body of the University.

It is difficult to give an accurate estimate of the length of time it would take for this university to build up to an enrollment of 6,000 students. However, the time intervals for the building groups would be somewhere close to these: the museum within three years; the liberal arts complex within 10 years; the agriculture complex within 13 years; the technology complex within 16 years; and the medical center and medical sciences within 20 years. All the special purpose buildings and housing will be constructed as needed during these intervals.

The surrounding area will undoubtedly develop into a supporting community consisting of faculty and employe housing as well as some low density housing of a transient nature for persons wishing to stay for short intervals only. Shopping and service facilities would become a part of this development.

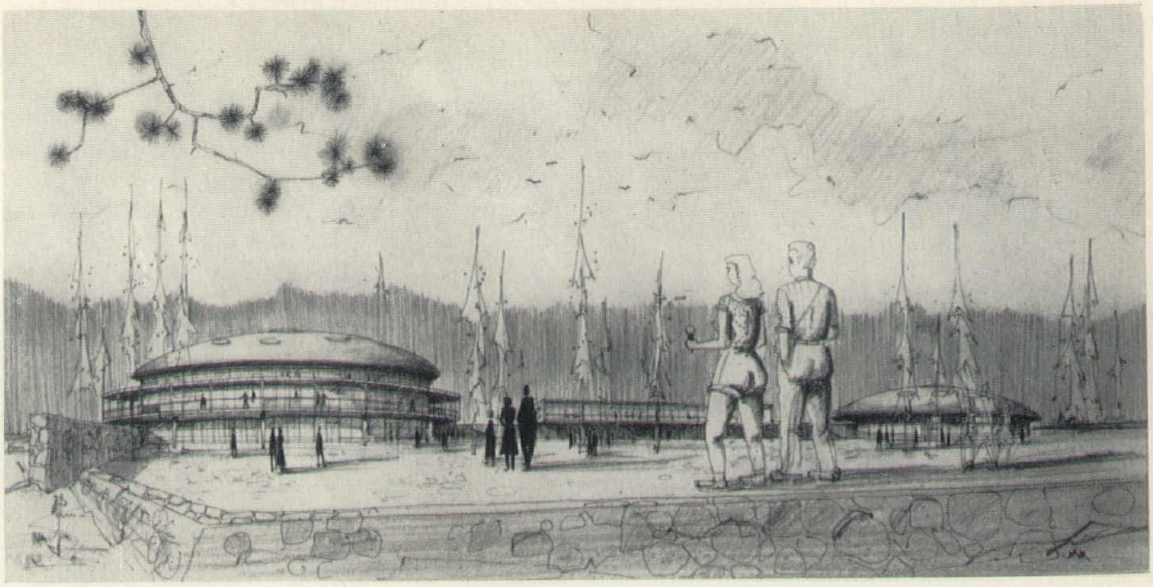
The tourist, as previously stated, will provide the major source of income for the construction and operation of the university physical plant. The sale of contributory bonds will continue but on a much larger scale than in the past. Grants of money for particular buildings from the federal government, such as medical center, veterinary medicine building, etc., and gifts from interested persons could be expected in the future. It would be required that any government grant would be unconditional as far as government regulation of the university is concerned. When the physical plant is essentially complete, the income from the tourists will form a living endownment to the operation of the university.

SITE

The site presently consists of 360 acres of virgin ponderosa pine in a national forest approximately four and one-half miles north of Custer, South Dakota. Additional land will no doubt be needed at a later date but the university proper will be situated within the bounds of the 360 aforementioned acres. The approach and landing strip, now on Ziolkowski's land, will eventually be turned over to the commission. Mr. Ziolkowski recently purchased 360 acres of land near Wind Cave National Park which the federal government wishes to acquire. He has completed negotiation with the National Forest Service for the trade of the 360 acres near Wind Cave for the 360 acres of national forest.

The Black Hills are an uplift consisting of an irregular dome-shaped anticline of an oval-shaped area 60 x 125 miles. They are an area of Pre-Cambrian crystalline rocks (schist) brought above the general surface level and surrounded by a complete sequence of Paleozoic rocks from Cambrian to Laramic, all dipping away from the central nucleus. It is a region of exceptionally

Museum of the North American Indian



fine and rugged exposures, having a great deal of erosion forming many cut canyons and gorges.

The Crazy Horse Memorial is located in the heart of the area of granite outcroppings and is typical of the extreme topography of the Hills. The ground is rocky and very irregular, with granite outcroppings of varying sizes and shapes. There are two creeks on the site, one flowing northerly from the northwest quarter of the site and off the property at its northwest corner and the other flowing southwesterly through the property. The latter creek, Laughing Water Creek, enters the site about one-third of the way south of the northeast corner, and flows in an almost straight line to a point about one-third of the way east from the southwest corner. Thunderhead Mountain, the location of the carving, lies in the center of the site in a southeast-northwest direction and about one-quarter of the way south from the north boundary. Immediately to the southwest of the mountain lie about ten natural springs which are in a position where they could easily be turned into a lake with the correct placement of a rampart.

Owing to the extreme elevation of the general area, the ground water supply is rather limited and uncertain. However, water supply is no great problem; the impounding of several streams in the area would be more than adequate for a community of the size we are contemplating. There are no roads on the site with the exception of a few logging and mining tracts. The land bordering the 360 acres is all national forest similar in terrain and features to the university site. The Ziolkowski Ranch, borders the site on the western half of the southern boundary. Much of the ranch will some day be turned over to the university to be used as it sees fit.

The climate is quite temperate, though changeable, throughout most of the calendar year with the temperature seldom dropping below zero. The amount of snow from year to year is not constant but, whenever it does come, it seldom stays for more than 48 hours and therefore is of little consequence. The wind coming from the nearby plains of Wyoming and Montana is very strong throughout most of the year. The prevailing storm path in the hills is from the Rocky Mountain areas of Wyoming and southern Montana and the prevailing ground breezes throughout most of the year are also from the northwest.

CHARACTERISTICS OF THE UNIVERSITY

Educational Aims

The educational aims of the university shall be to provide facilities and opportunities for higher education for all the Indian people of North America. It shall be an institution at which Indian students can pursue a course of study in their chosen fields free from the prejudice present in other institutions.

The Indian people need better medical aid, a raised educational standard, better agricultural methods and an intellectual stimulation to foster an appreciation and an awareness of the Indian peoples' role in the world's society. We feel that this university as it has been conceived would provide the impetus for such a technological, scientific, and cultural awakening among the Indian people which would be a great step towards fulfilling their needs. Segregation, however, is definitely not the aim of this institution. Its aim is to give back the pride that was once the American Indian's.

As stated in the history of Indian education in the introduction, there has never been an institution of higher learning for the Indians in the United States. An Indian with a higher university degree is uncommon today. The eventual development of the area into an Indian cultural center as we are proposing would serve to attract the many deserving and able Indian students of North America.

This university will be a general university, not a "type" school such as a trade school or teachers' college, and will provide the varied educational opportunities usually found in established institutions of a comparable size. Specifically, the university will include a liberal arts college, a basic technical college, a college of medical sciences and an agricultural institute.

The university will be primarily undergraduate in character, with only a limited amount of graduate research. It is generally agreed that to hold a young,

(Continued on Page 70)

Chapter, Club and other news . . .

KEYES GETS THE BIRD AT DULUTH CHAPTER MEETING

A dinner meeting of the Duluth AIA Chapter was held November 15 in the Duluth Athletic Club. A. Reinhold Melander, chapter president, presided. The chapter members were guests of the Athletic Club. During part of their "stag" night activities, Minnesota Society of Architects' Executive Director Ralph T. Keyes was the winner of a frozen turkey.

At the October meeting the chapter had voted to proceed to incorporate the chapter. The incorporation committee reported that articles of incorporation had been drawn for the chapter by the executive director and these were presented to the chapter. Formal action was taken adopting the articles of incorporation. The chapter president, vice-president and secretary were designated as incorporators to execute the necessary documents.

President Melander pointed out that the chapter had gone on record favoring a change in the administrative year to coincide with that of the St. Paul and Minneapolis chapters. Plans were made to institute the necessary changes in the by-laws to effect the change.

The December meeting was scheduled to be the annual meeting and election of officers for the chapter. Plans were also made for the Christmas meeting of the chapter.

ACKERBERG AND COOPERMAN FORM PARTNERSHIP IN MINNEAPOLIS

Sanders M. Ackerberg and James M. Cooperman have formed an architectural partnership in Minneapolis. Both partners previously were employed by another Minneapolis firm.

Messrs. Ackerberg and Cooperman received their bachelor of architecture degrees from the University of Minnesota. Mr. Cooperman also received a master of architecture degree from Harvard University in 1948. Both men were in military service. Mr. Ackerberg was an Air Force bomber pilot in the Pacific theater during World War II and Mr. Cooperman was a Navy deck officer. Mr. Cooperman was also on active duty with the Navy for two years during the Korean conflict and is now in the Navy reserve.

Both men are married, with families and have been life long residents of Minneapolis.

PAUL CROSIER DEPARTS

Paul E. Crosier, former Minneapolis architect, is now practising in Phoenix, Ariz., with the firm of Ed Varney Associates. He closed his Minneapolis office before the move west.

MINNEAPOLIS CHAPTER HEARS KLABER AIA CONVENTION REPORT

Site planning was discussed before a recent meeting of the Minneapolis AIA Chapter by E. H. Klaber and the group heard the financial report of the 1955 AIA convention held in that city under local sponsorship of the chapter. Secretary Austin Lange's report of the meeting showed:

Brian Hadley, regional director for the North Central District, spoke relative to the high quality of the convention held in Minneapolis and the fine work of the individuals and the Chapter. He also gave a general report on the Chicago Regional Convention. The 1956 national convention will be held in Los Angeles and the 1957 centennial convention will be held in Washington, D. C. John Lindstrom was announced as the centennial chairman for the North Central District.

Don Hanson, President of the Student Club at the University, introduced Eugene Henry Klaber, FAIA, who lectured on site planning. President McCann reminded members of the Minnesota convention in St. Paul and announced that the 1956 convention would be held in Minneapolis.

Victor Gilbertson presented a report of the national convention in Minneapolis and Mr. Tusler gave a report on the regional convention in Chicago. He reported that the hospital and health committee formulated the following agenda:

1. To increase interest in undergraduate schools.
2. Graduate schools on hospitals to have an architect on faculty.
3. Measures to prevent use of stock plans.
4. Survey of disaster planning (Civil Defense).
5. Analysis of hospitals' costs on square foot basis.

This committee will attempt to join with the American Hospital Association to raise a $600,000 fund to revoke research plan.

President McCann announced appointment of committee chairmen, and presented a list of all committees. John Lindstrom reported on the Centennial Celebration of American Institute of Architects, founded the 22nd of February, 1857. He announced an exhibit sponsored by The Octagon of buildings in all areas constructed during the last hundred years, and suggested ways and means that the chapter dedicate this occasion.

BORGMAN NAMED ASSOCIATE IN MAGNEY, TUSLER AND SETTER

Jack R. Borgman, chief structural engineer, has been named an associate in the firm of Magney, Tusler and Setter, Minneapolis architects and engineers, according to an announcement by W. H. Tusler, senior partner in the firm.

Mr. Borgman, 31, has been with the firm since May, 1953. He previously was employed by a St. Paul architectural and engineering firm. He graduated in civil engineering from the University of Minnesota in 1949. Born and raised in Minneapolis, he is married and has two children. He served three years with the army in World War II.

EUGENE HENRY KLABER

By RALPH RAPSON

Head of Department of Architecture,
University of Minnesota

Architect, town planner and housing consultant in both private practice and government service, Eugene H. Klaber recently delievered three lectures in Minneapolis. Two of the lectures were given at the School of Architecture at the University of Minnesota and dealt with general considerations and detail design of dwellings and building units. The third lecture was before a meeting of the Minneapolis Chapter, A.I.A. It dealt with the characteristics of site planning.

Since the discussion was concerned with design, Mr. Klaber first outlined a list of highly important factors which must be considered, such as:

1. Legal and financial problems; problems of zoning in relation to master plans, zoning ordinances and local practices; assessment and taxation; practices and trends, cost of land, land acquisition.

2. Community factors such as the availability of various utilities and capability to take the added loads; various services rendered by the community such as policing and fire protection, waste removal; schools, hospitals, major recreational areas, centers of employment and transportation.

3. Neighborhood factors; character of existing neighborhoods; evidence of health or blight and trends, shopping facilities, theaters, churches and public parks and programs.

Mr. Klaber then went on to speak in detail about the physical characteristics which govern the selection of a housing site and he outlined a number of factors such as:

1. Periodic flooding and areas blanketed by fog, land subject to subsoil shortcomings.

2. Smoke and industrial odors, noise caused by disturbing elements such as heavy traffic arteries, railroads, airports, etc.

3. The question of orientation in the placing of buildings, the effect of sunlight, prevailing winds, views, airborne noise, existing street patterns, size and shape of lots were described and illustrated in detail. Mr. Klaber said that most of these factors are present on every job and must be handled by the architect and that it is his job only after a thorough analysis to decide which offer the greatest potentials and which will keynote his site planning.

A number of problems of land topography were brought up and Mr. Klaber illustrated various ways of handling the placing of buildings on steep sloping land. In general, it was his feeling that the most successful housing solutions on land of rather rugged terrain were most successfully and skilfully handled when the architects develop buildings along the contours rather than perpendicular to the natural fall of the land.

The terms and meanings of coverage and density were described and Mr. Klaber pointed out the erroneous notion that the two terms arise out of common considerations. He emphasized that the control of maximum coverage and maximum density are both necessary but that the reason for controls are quite different and as a result the methods of obtaining them should have different bases. Coverage is a term used to express the percentage of a piece of property which may be properly occupied by buildings while density refers to the number of families that may be housed on the property. The purpose of coverage regulations is to insure adequate light, air, open space and privacy. High buildings must be more restricted than low ones. On the other hand, the causes which prompt regulation of density are social rather than physical and are quite independent of the type of building used on the specific site and express the density of population which is considered appropriate to a neighborhood or to an area of a community.

Mr. Klaber gave several considerations that should govern the architect in his planning of housing developments:

1. The projects of single family homes, row houses or semi-detached houses. The unit of planning is not the building but the house plus a predetermined area of private land attributed to it.

2. In all cases the open space should be distributed so as to afford the maximum light and privacy to each dwelling.

3. Where land is subdivided into individual properties, advantage should be taken of the depth as well as the frontage of the lots.

4. Care should be given to the inter-relation of houses, their layout, design, set-back lines and front side and rear set-backs, etc.

In larger projects, Mr. Klaber said, the designer should exploit existing boundary streets and utilities to the maximum, eliminate needless existing streets and plan only such new streets and drives as are essential. He should plan these interior streets and drives in order to slow down the automotive traffic; he must determine whether the project should be an "introvert" or an "extrovert"; the architect must avoid the monotony of too many parellel buildings, avoid buildings too long for the site and avoid the "college campus" look. The builder should give the occupant a feeling of intimacy which is associated with the home. Monumentality is out of place in the housing group.

Since buildings require recurrent services, a group plan should be studied to make the problems of man-

agement as simple as possible. Parking and garage area should be near the units they serve.

"Housing standards"—as currently used this term means a compendium of the worst that the building code and a governmental or private lending agency is willing to permit in a private housing project. Those "standards" which are motivated by a concern for structural and fire safety are often good but by and large codes and regulations take no cognizance of the living needs of the people who will occupy the houses. Architects have often been obliged to design their housing projects down to minimal tolerances rather than up to a true standard. They are based on what people can afford and not on their essential needs.

Mr. Klaber said that in practice some compromises are inevitable but necessary with respect to various details of planning but compromises, like drinking, should be done in moderation. It is up to the architect to see that our standards must consistently be raised and approved.

RADMAN ELECTED SECRETARY OF ST. PAUL BUILDING TRADES COUNCIL

Richard C. Radman, Jr., was recently elected secretary and business representative of the St. Paul Building and Construction Trades Council. He was president of the group at the time of his election and has been business representative of the Operative Plasterers' Union No. 20 since 1947. He also is chairman of the Minnesota Lathing and Plastering Public Relations Bureau and has been active in the Minneapolis-St. Paul Area Apprenticeship Council.

JESTER BECOMES PRODUCERS' COUNCIL PRESIDENT ON HAMMERSTROM RESIGNATION

Joseph H. Jester has assumed the presidency of the Minnesota-Dakota Chapter of the Producers' Council,

succeeding A. D. Hammerstrom, who was forced to resign because of the press of business.

Mr. Jester is sales manager for the Twin City Branch Commercial Division of Minneapolis Honeywell Regulator Company. He has charge of sales in Minnesota and North Dakota. A graduate of Carleton College, he served in the Navy's amphibious forces until 1948 when he joined Minneapolis Honeywell. He is a resident of Wayzata, is married and has three children.

Active in the American Society of Heating and Air Conditioning Engineers, he is chairman of one of that group's committees.

MANKATO FIRM REORGANIZES

The well known Mankato, Minn., firm originally organized in 1878 by George Pass has been reorganized and is now known as Pass, Rockey, Church & Townes. William T. Townes, Wayzata, has been added to the firm makeup.

Before Mr. Townes joined the firm it had been known as Pass & Rockey, Bruce R. Church, Associates. Under its several names during its long service to the area in which it is located it has designed a large number of buildings. Its offices are at 124 E. Jackson St., Mankato.

Mr. Townes has been a specialist in school design since 1945.

150 ATTEND CONCRETE PRODUCTS CONVENTION, ELECT HAMMEL

The 150 industry members who attended the third annual convention of the Minnesota Concrete Products Association chose D. L. Hammel of the Owatonna Concrete Products Co. as 1956 president. He succeeded W. J. Brull of Northwest Concrete Co., St. Cloud. Speakers included Gordon Matson of Magney, Tusler & Setter, who presented the architects' views, E. W. Dienhart, National Concrete Masonry Ass'n executive secretary, and W. A. Noggle, Alpena, Mich.

Our pictures show some of those who attended and they are identified l-r, top down . . . Pete Neitzke of Detroit Lakes, second vice-president; Joe Chalupa of St. Paul, secretary; C. J. Goodman of Bemidji, treasurer; T. M. Seppi of Virginia, first vice-president; and D. L. Hammel, president. . . . Members of the board of directors, W. J. Brull of St. Cloud, H. C. Lampy of Fergus Falls and R. A. Anderson of Minneapolis (absent were Directors S. G. Dickinson of St. Paul, Obert Anderson of Wadena, Palmer Hanson of Redwood Falls, Harold Flittie of Minneapolis and Warren Barns of Pipestone. . . .

Donald Erickson and Al Benzick of Glacier Sand & Gravel, Minneapolis. . . . F. M. Cook of Gene Olson Corp'n., Adrian, Mich.; Jack Forciea and Gordon Chapman of North Central Supply, St. Paul. . . . W. H. Bartlett of Cedar Rapids Block Co., Cedar Rapids, Iowa; Ed Young of Universal Atlas, Minneapolis; and E. B. Croft, AIA, Minneapolis.

NUMBER OF BRICK SINGLE FAMILY HOUSES UP 14%

Thirty-three per cent of the single family houses being built today are brick houses, according to Dr. Robinson Newcomb, Structural Clay Products Institute market analyst. This represents a rise of 14% over last year's figure of 29%, Dr. Newcomb told the Structural Clay Products Institute convention recently.

Quoting from a special U. S. Bureau of Labor Statistics survey just completed, Dr. Newcomb reported that this significant increase in the use of brick in the residential market in the past year is related to an unprecedented amount of home construction which will reach $16,600,000,000 by the end of 1955.

RIVKIN JOINS BAKER ENGINEERS

J. T. Baker & Associate Engineers, consulting firm located at 1835 University Avenue, St. Paul, have announced the appointment of Sol M. Rivkin, who received his B.E.E. degree from the University of Minnesota in 1931, as an associate and electrical engineer.

He has been employed by the Northern States Power Company, Kvalsten Electric Company, Magney Tusler & Setter, G. M. Orr Engineering Company and Haarstick Lundgren & Associates.

"Mr. Rivkin brings to the firm a varied knowledge and experience of many phases of the electrical industry and is registered electrical engineer in the State of Minnesota," the announcement said.

ST. PAUL BUILDERS ELECT

Robert O. Ashbach has been named president of the Builders' Exchange of St. Paul, succeeding Evar Cedarleaf. W. F. Poppenberger was elected vice-president and new directors named for two-year terms are Alfred Arrigoni, Peter M. Bies, Ray C. Edlund, John L. Hughes, Lawrence Petersen and Robert Sandberg. Ray Thibodeau continues as executive secretary of the exchange.

Our pictures show (top) Mr. Ashbach, left, and Mr. Cedarleaf; bottom, l-r, Messrs. Bies, Ashbach, Hughes and Thibodeau.

MINNESOTANS' SAFETY EFFORTS RECOGNIZED, NEW FILM TO PREMIERE HERE

Three Minnesotans were recognized for outstanding safety efforts during this fall's National Safety Congress and the premiere showing of a new safety film has been scheduled for the annual meeting of the Associated General Contractors of Minnesota in St. Paul in January.

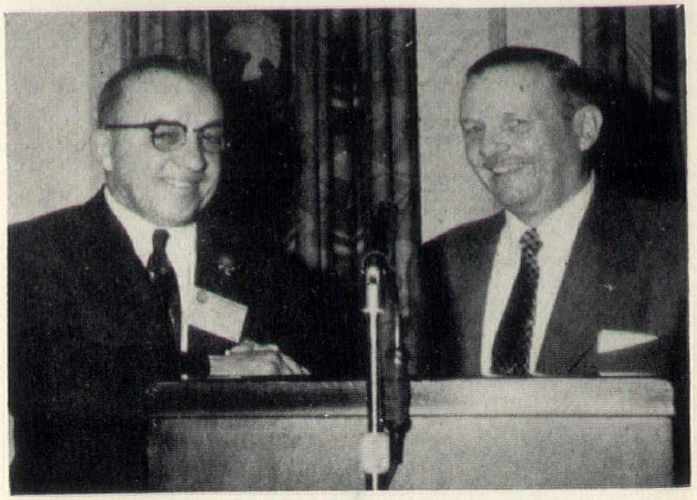
D. F. Manguson, administrative assistant of AGC-Minn., was named associate editor of the monthly Safety News Letter for the construction section of the congress, Wm. G. Hawkins of Winston Bros. Co., Minneapolis, was named vice-chairman of the section and J. L. Junkert of Minneapolis was elected secretary.

"The Last Mile," new safety film made for the Caterpillar Tractor Co., is the picture to be shown in St. Paul. It is a presentation of the dangers involved in the reconstruction of an old highway, both to motorists and the workmen doing the construction. It will be made available to service groups and others interested after its showing in January.

L. G. PETERSON HEADS INTERNATIONAL PLASTERING ASSOCIATION

Loyd G. Peterson of Peterson & Hede Co., Hopkins, Minn., plastering contractors, has been elected president of the Contracting Plasterers' International Association, a group made up of the leading lathing and plastering contractors in the United States, Canada, Japan, Brazil and Guatemala.

Mr. Peterson was the first vice-president of the group and succeeded R. Floyd Jennings of Bethesda, Md.,



Mr. Peterson (left) and Mr. Jennings

as president. As vice-president of the group he was an extremely active leader and one whose ideas were recognized in many countries. In a recent industry publication his "The Veep Reports" commented:

"Here in the Upper Midwest we are enjoying a building boom of considerable magnitude. Because of certain distressed bidding practices, so common the past few years, we are also enjoying what Ed Whalen of Chicago so aptly calls 'Profitless Prosperity.' The evils of price cutting, inferior workmanship and over-the-scale bidding for non-existent labor becomes crystal clear when the profit and loss sheets are brought up to date . . .

". . . I am happy when we produce a real nice job with a normal profit. That is why we are all in business, to give the architect, owner and general contractor a fine job, left clean and neat, which gives us a sense of pride as well as a decent profit . . .

"Good wages, good working conditions, with steady employment is our goal. Apprentice schools that are properly set up and managed are a must. Double the size of our international unions in five years by promotional efforts on a national basis. Educate all contractors to insist on quality first, last and always. Have better housekeeping methods, new and modern machinery of every type without restrictions as to use. Streamline, modernize, improve our relations with the public. Compete fairly with each other for competition is the life of business when properly conducted. Respect the other fellow's bids, live and let live . . ."

Group Flies to Attend Three South Dakota Meetings

Attending the 37th annual convention of the South Dakota Society of Architects and Engineers in Rapid City, S. D., was a group of representatives of the Minnesota-Dakota Chapter of the Producers' Council. The Associated Contractors and Associated General Contractors of South Dakota also held their annual meetings at the time of the PC visit.

The group flew to the convention city on the Minneapolis-Honeywell special plane shown in our top picture through the courtesy of the company and its PC representative, Joe Jester, chapter president. Making the trip were Myron Olson of Owens-Corning Fiberglas, Bert Powers of Pittsburgh Plate Glass, Carl Fogelberg of Reynolds Metals, Mr. Jester, Rollin Child of U. S. Ceramic Tile, Will Hamilton of Chamberlin Co. of America, Red Homuth of Western Mineral Products, Vern Larson and Sam Dittenhoefer of Kimble Glass Co., Jim Coulter of Granco Steel Products, Jack Davies of Tuscon Steel and Clair Loretz of NORTHWEST ARCHITECT.

Our montage shows (l-r)—1, Mr. Jester and Earl McLaughlin, vice-president of the South Dakota Society—2, Associated General Contractors' officers H. M. Pierce, secretary, Robert Brezina, president, Roy Rose, first vice-president, and W. H. Hackett, second vice-president—3, Associated Contractors' officers Paul Freeburg, secretary-treasurer, Gus Jacobson, councilman, John Wright, L. Earl McLaughlin, vice-president, and Emery Johnson, president—4, "Red" Homuth, Harold J. Sliper, member of S. D. State Board of Engineering & Architectural Examiners, W. F. Blatherwick and E. D. Finnell—5, Rollin Child with Calvin Vaudrey and Neil E. Bergstreser of S. D. State College—6, Carl Fogelberg, Ralph R. Koch and Vinal Francis, Rapid City city engineer—7, R. N. Kyberg, Bert Powers and Jim Coulter.

St. Paul Builders' Exchange Stag Draws Record Crowd

The annual fall stag of the St. Paul Builders' Exchange set an all-time record for attendance when the event was recently held in one of the city's larger ballrooms. Architects and others in the building industry were guests at the affair at which numerous door prizes and a cocktail hour were provided by the Minnesota Lathing and Plastering Public Relations Bureau.

Our cameraman was among those present and the pictures on this and the opposite page resulted. In each picture the identifications are left to right.

On this page the four pictures (top-down) show the men of the entertainment committee who were thanked for the outstanding event, George Shetka, Ed Schroeder, Gil Holm, John Bush, John Matthews, Gene Valentine, Bob Danberg, Al Arrigoni and Evar Cedarleaf, Jr.—the turkey presentation by Evar Cedarleaf, exchange president (right) to Dick Schmit and Chuck Heitzmann—John Bush of Anchor Block and Frank Bartholet of Lieberg-Peterson Co.—Jay Ledy of Villaume Box & Lumber, Jim Shiely of J. L. Shiely Co., and Art Lampland of Lampland Lumber.

Opposite page—1, Tom Sheehy of Suburban Lumber wins a turkey—2, Dick Radman, Clayton Gausman, Loyd Peterson, Evar Cedarleaf, Ron Gallagher, Ben Gardner, executive secretary of the Minnesota Lathing & Plastering Public Relations Bureau, and Arnold Hede—3, John McFarlane, president of Minneapolis Builders' Exchange, Tom Comfort of St. Paul Structural Steel, and Bill Meyer, Minneapolis exchange secretary—4, Harland Erickson, Edward Anderson, of Kehne Electric and Joe Mitchell, St. Paul comptroller.

5, John Matthews—6, Jerry Hanson, George Dehler, Slim Rasmussen and Ted Carlson—7, Sid Stolte, AIA, and E. J. Kropp—8, Jay Ledy of Villaume Box & Lumber, Roy Shelgren of Roy Shelgren & Sons—9, Gordon Matson, AIA, and Lyle Eastling of NW Cement Co.—10, George Nelson, Joe Larson, Howard Mason and Ed Hubbard, all of The Anderson Corporation, Bayport—11, Carl Steenberg, Harold Anderson of Master Builders Co., Roy Christianson of Rydeen Construction and Jim Schuelke of Master Builders.

12, Ralph Lee, John Bush and Alf Lee of Anchor Block Co., with Marty Lieberg, Frank Bartholet and Hank Erlbeck of Lieberg Construction Co.—13, E. Reilly, Ray Koehnen, Carl Larson and William Rivers, J. L. Shiely Co.—14, Willard Wheeler, Bob Nelson and Jim McCulloch, Wheeler Hardware—15, J. E. Carten of Crown Iron, Gordon Chapman, Jack Forciea of North Central Supply and Roy M. Jones of Crown—16, Carl Fogelberg of MacArthur Co., George Townsend, AIA, and Bert Flick, AIA.

17, Bob Henning, Ted Loveland, Gene Schnagl and Tom Macklin of D. W. Hickey & Co.—18, R. J. Shepherd, Tom Klein and Barney Gausman—19, Kenneth Whitehead, AIA, Jack Meyer, engineer, and Cec Tammen, AIA—20, Gene Flynn, AIA, John Baker, AIA, Carl Carlson and Al Bossard of Steenberg Construction Co.—21, Farrell Johnson of C. W. Olson Mfg. Co.,

Frank Clark, AIA, Carl H. Buetow, AIA, and Tom Comfort, St. Paul Structural Steel—22, Ray Thibodeau, secretary of St. Paul exchange, Emil Berglund of Berglund Lumber, Ray Rueth of Dox-Blox and Charles Sandtrock of Roe-James Glass.

23, Bob Jackels, AIA, registers with Ray Thibodeau and Bill Rezanka of Wood Conversion Co.—24, Ken Anderson, Joe Fitzgerald of Geo. Shetka & Sons, Jene Sigvertsen, AIA, and Bob McGee, AIA—25, Jim Coulter of Keelor Steel, Joe Jester of Minneapolis Honeywell and president of Producers' Council, Cal Westphal of Molin Concrete and William A. Jacus, engineer—26, Dick Radman, St. Paul Building Trades Council secretary, Ron Gallagher, plasterers' business agent, Bud Holland, St. Paul commissioner of parks and playgrounds, Paul Liebelt, AIA, and Loyd Peterson of Peterson & Hede—27, Warren Fall of Steenberg Construction, Charles Peterson of Kehne Electric and Rudy Zelzner, AIA—28, Ray Thibodeau, exchange secretary, Robert Ashbach, exchange veep, and Evar Cedarleaf, exchange president.

SOLAR HEATING

(Continued from Page 25)

The Etruscan house with its peristyle court was designed as much against the heat as against the cold. It turns inward and creates beautiful spaces within its walls. If the peristyle court were larger, a solar collector might be incorporated in its design. Heat losses are minimized by common party walls.

Pompeian house is very large and elaborate and its relationship to the street leaves something to be desired from the standpoint of present day high speed traffic. But here again is a house which not only creates a beautiful living environment within its walls but offers an excellent opportunity for the incorporation of solar heating. Imagine houses of this type built side by side and set back from the front property line to allow for a park-like strip on either side of the pavement. Architecturally this would offer far more to townscape than our present rows of little boxes, each striving for self-expression, and such houses could be adapted to our existing street patterns.

Our illustration shows a solar house study made by a student of architecture at the University of Minnesota. The existing city block is divided by a party wall at the center of the alley. The lots are then separated by party walls extending to the front building line. The houses are built against these party walls. Each house places its solar collector against the party wall at the back of the next house. This gives the occupant control of his own collector, which becomes a decorative garden feature in summer, to be covered for example by a trellis and flowering vines. No height control of houses is needed because obviously one would not shade his own collector. The collectors here are kept to garden wall height so that the next house can get sufficient direct south glass area to carry its heating load on a clear winter day. This student has calculated that the collector alone would take a heating load of about 2800 degree days, which is 35% of the annual heating load in the Minneapolis area. This percentage could be greatly increased if a heat pump were incorporated in the collector design.

Regional adaptations of this type of house undoubtedly would be marked by additional roof collectors and generous top light for cold climates and by a minimum of top light in the lower latitudes.

I should like to summarize my remarks into five observations:

1. Solar heating of houses, to be of economic significance, must be applicable to the typical house on the typical lot in our cities.

2. The typical lot pattern is an outgrowth of a street system which is likely to outlast our fossil fuel reserves.

3. The detached, free-standing single family house in built-up urban areas does not lend itself to solar heating by means of flat plate collectors.

4. A courtyard type of house could be developed which would lend itself to solar heating by means of flat plate collectors. It could be adapted to existing lot and street patterns.

5. Therefore, if the flat plate collector proves to be the most practicable method for converting solar energy to space heating for the single family house, major revisions are needed in zoning regulations and building codes to permit efficient development of courtyard type houses.

N. D. ASSOCIATION CHOOSES NEW OFFICERS

Harry L. Hoeffel of Minot has been elected president of the North Dakota Association of Architects. Others named are Gilbert E. Horton of Jamestown, vice-president, Robert E. Ritterbush of Bismarck, secretary-treasurer, and Robert L. Kennedy of Grand Forks and Walter E. Bohrer of Minot, board members.

Our picture shows the officers and others at the meeting. Left to right, front series as they appear, are Maurice Haukum, A. Braseth, Jack Askew, Kenneth Johnson, Myron Denbrook (hidden), Harry Hoeffel, Robert Kennedy, William Seifert, Robert A. Ritterbush, L. Ross, Gilbert R. Horton, Walter Bohrer (hidden), and Paul Grosz—back row, William E. Harrie, Knute Henning, Leslie Blake, Herman Skarat, Harold Brunner, Algot Anderson, Herman Leonard, Walter Johnson and Harold Bechtel.

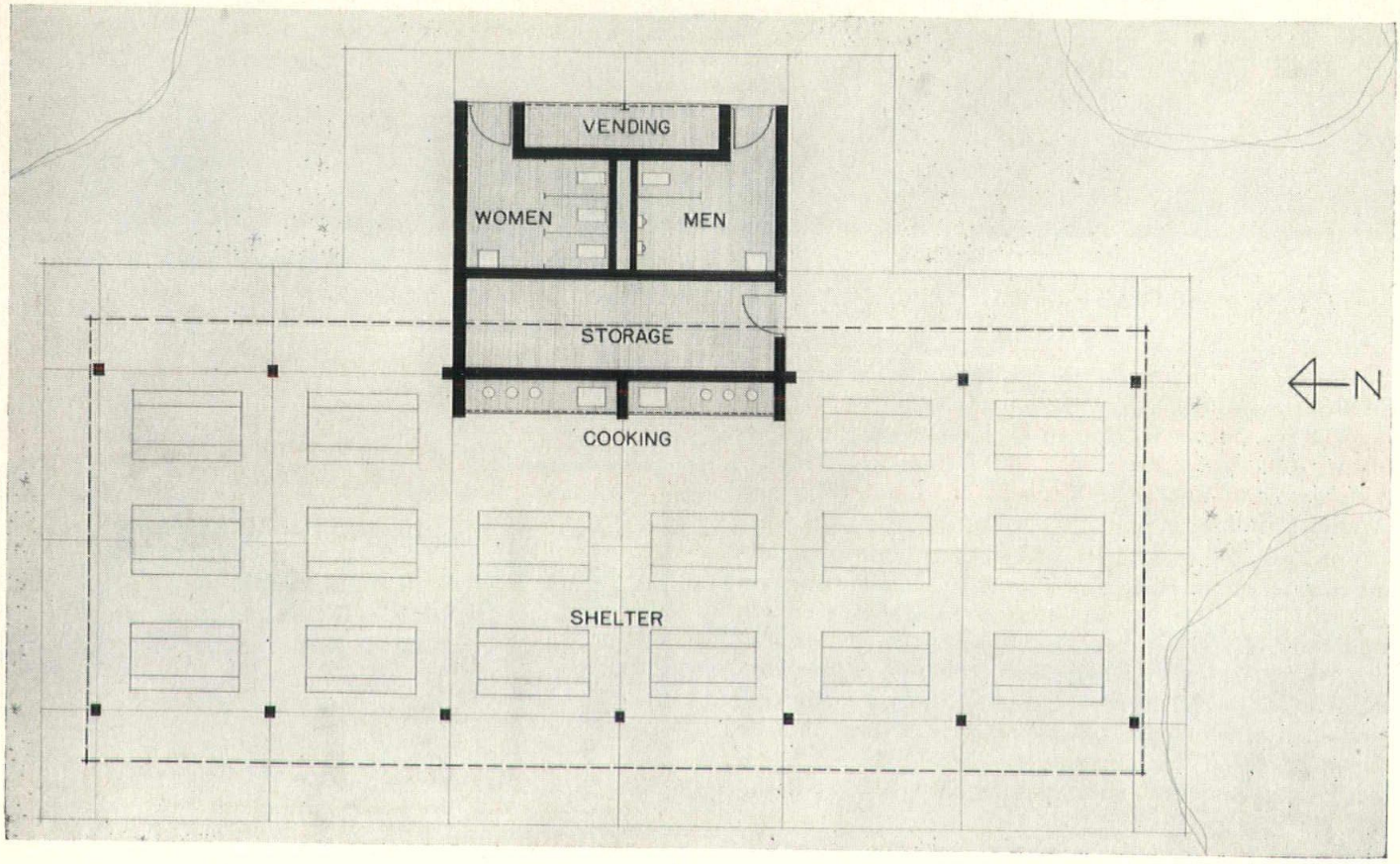
GILLETT RE-ELECTED PRESIDENT OF PRODUCERS' COUNCIL

William Gillett, Detroit Steel Products Company, has been re-elected to a second term as president of the Producers' Council, Inc., the national organization of building materials and equipment manufacturers and associations. All other officers and directors were also re-elected by unanimous vote of officials and representatives attending the organization's 34th Annual Fall Meeting and Chapter Presidents' Conference in Detroit.

During the three-day meeting, which had as its theme, "What the Next Decade Holds for the Construction Industry," the representatives of member companies and associations and their guests heard Urban Renewal Commissioner James W. Follin point to the urban renewal programs as being a $50,000,000,000 market for materials producers. They also heard

(Continued on Page 75)

Student at Minnesota Designs Picnic Shelter for Columbia Park

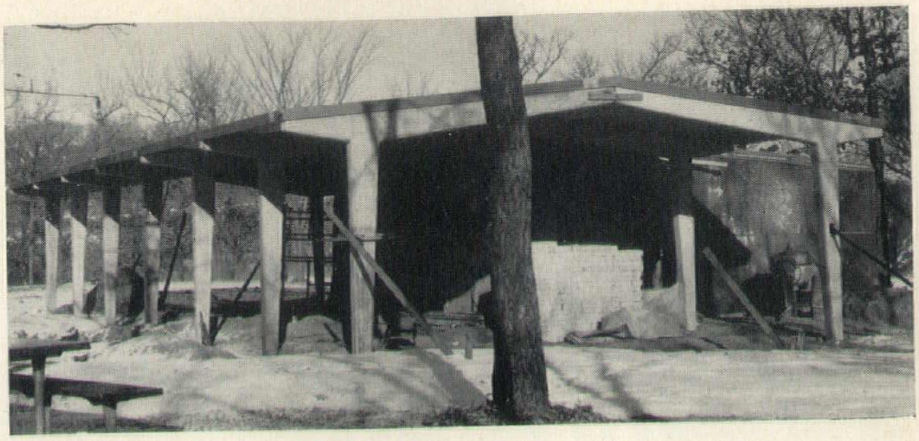


Shown above is Miller's Winning Plan.

First prize in the competition for the design of a picnic shelter for Columbia Park in the fall of 1954 was won by John R. Miller of Minneapolis. This competition was sponsored by the Northeast Minneapolis Lions Club, whose members had visualized the great need of a shelter in the park. They had approached the Minneapolis Park Board with the suggestion that they would be interested in contributing a substantial sum of money towards the erection of a picnic shelter in Columbia Park and obtained a tentative agreement of city officials to their proposal of sponsoring a first stage competition at the University of Minnesota School of Architecture.

More than 40 designs were submitted in the competition in which Mr. Miller took first place. His design was particularly highly praised by the committee from the Northeast Minneapolis Lions Club which reviewed all of the designs submitted in the competition and once it had been presented to the Lions Club as a whole, the club was most enthusiastic in urging that the shelter be built in Columbia Park.

A series of meetings among the School of Architecture, the board of directors of the Minneapolis Chapter of the American Institute of Architects, the building committee of the Northeast Lions Club and the Minneapolis Park Board led to the decision to engage Mr. Miller to complete the working drawings and specifications for the project under the direct supervision of a faculty member at the School of Architecture. This work was carried out and bids for the



Shown here is the prize plan shaping into reality in Columbia Park.

construction of the shelter were opened at Columbia Park Chalet in July of 1955, the total amount of lowest bid being $22,200 by the Cook Construction Co.

Construction on the project was begun November 7 and construction progress photograph dated November 23 gives some approximate idea of the appearance of the completed structure to be. The shelter proper is constructed of pre-stressed concrete channels placed on pre-cast rigid concrete frames and will have a concrete slab floor. A small enclosed structure on the east side of the shelter is of masonry construction with Chicago common brick exterior, light steel roof deck. This structure when completed will house toilets for both men and women and a small storage unit which will provide for maintenance equipment, supplies, etc. Opening into the shelter proper is an alcove with rolling steel enclosure which will house two kitchenette units, each containing coin operated cooking units and electrical outlets and sinks. On the opposite side of the enclosed structure is an alcove similarly controlled by rolling steel enclosure which will be used to house coin operated vending machines for charcoal, soft drinks, cigarettes, etc. It is anticipated that construction of this project will be completed in the early spring.

Professor Vivrett of the School of Architecture in commenting on the work of Mr. Miller on this project stated that the educational value to Mr. Miller had been unusually high, that as an extra-curricular interest Mr. Miller was following through on regularly scheduled inspections and supervision of the work at the site and that once the project is completed, Mr. Miller will probably have received a well rounded practical experience such as he would have been unlikely to receive in a great many architectural offices. It is particularly interesting to note the unusual construction of the shelter proper as it was carried out since it represents not only a radical departure in shelter types for the City of Minneapolis but also a relatively new technique of construction employed in the Twin City area (the fabrication and erection of the pre-cast concrete was accomplished by Prestressed Concrete, Inc., with Gilbert H. McMillan as consulting engineer.)

It is particularly interesting to note that not only does this new shelter provide for the City of Minneapolis a fireproof and low maintenance cost structure, but that it was also accomplished at a cost approximately 10 to 15% less than similar structures which the city was currently building.

Inherent Qualities and Finishing of

Northern Hard Maple, Beech and Birch

By W. A. GERRARD
W. A. Gerrard Co., Minneapolis

General Characteristics

Northern hard maple, birch and beech offer a wide range of uses and color possibilities, yet in general characteristics the three are kindred woods. All three are close grained, hard fibered and are free from slivering and splintering. They take an excellent polish under friction in a way which increases their wearing qualities.

All three have distinctive natural beauty when sealer-finished and are suitable for use in any room of a fine dwelling, as well as for hard commercial, industrial and school building service. All three have a subdued grain pattern, in keeping with the changing taste, which is away from gaudiness in woods.

All three are particularly clean and sanitary, since their closeness of grain and smoothness of surface offer no lodging place for germ-laden dirt. Once laid, a northern hard maple, beech or birch floor is like a smooth, one-piece area of hardest wood because each piece is accurately side- and end-matched.

Individual Characteristics

Northern hard maple is dense, strong, heavy, remarkably hard, resilient and supremely durable. The color of the heartwood is brownish but the sapwood is much lighter. The grain is close, sometimes curly or birdseye. Hard maple has unusual ability to resist pointed pressure without denting and scuffing without abrasion.

Northern beech and birch show slightly more grain pattern than hard maple and have more natural color. In physical properties they are very close to maple and are frequently used instead of maple.

Beauty

Due to their leadership in wearing qualities these three woods have long been favored for service uses, to the exclusion of any consideration of their beauty. Yet no one who has noted the mirror-like luster of a maple dance floor can deny that such a floor has outstanding beauty.

Color Possibilities of Hard Maple

Hard maple flooring reflects a soft luster and velvety sheen when finished with a natural penetrating sealer. Research work, however, has resulted in the development of improved acid stains by which the extremely hard texture of northern maple, hitherto impervious to attractive color staining, is made to take a variety of delightful, transparent, permanent color finishes.

Another development in color finishing is the color-sealer combination, which is very effective and less expensive than acid stains in application. This product stains and seals floors at one and the same time and has the added advantage of making it possible to patch up worn spots easily with finishes of the same color. The popular colors are Early American, Spanish Brown and Autumn Brown.

The application of acid stain and the color-sealer combination finishes brings out the delicate grain of the wood and enhances the pleasing effect of birdseye, fiddle-back, burl and similar grain patterns, thus creating a distinctive type of beauty in wood floors.

Color Possibilities of Beech and Birch

The grain pattern of beech and birch, like that of

hard maple, is a delicate tracery, without fibrous ridges. Beech and birch take approved stains readily and evenly, so that a floor laid with either of these woods will present an attractive appearance which lasts for years.

In residential buildings, beech and birch are often used in place of maple where darker floors are desired. Their hardness and their susceptibility to staining places them in a class with hard maple for residential purposes.

Wearing Qualities

Tests show, in the order named, the following comparitive values for wearing qualities, under practically the same conditions, of woods used for flooring:

(1) Hard maple, (2) beech and birch, (3) oak, quarter sawed, (4) yellow pine, edge-grain, (5) fir, edge-grain, (6) oak, plain sawed, (7) yellow pine, flat sawed, (8) fir, flat sawed, (9) Norway pine, (10) white pine.

Abrasive tests of flooring materials, conducted by the Mellon Institute of Industrial Research, show comparative values for wearing qualities of maple and non-wood materials as indicated in the table below. The tests were made with a machine which ingeniously brought to bear on the samples of flooring material an action similar to that of human footsteps. After a test period of the same duration for each material, the percentage loss by abrasion was determined. The indentation test reveals inherent resilience and hardness and the abrasive test more particularly the resistance to friction.

Material	Average Percentage Loss	Indentation Test*
Vitreous Tile	4.57	0.0
Marble	23.18	0.0
Maple Wood	23.79	0.0
Rubber	20.59	4.0
Linoleum	56.57	13.6
Oxychloride Cement	50.10	0.0
Neat Portland Cement	16.79	0.0
Asphaltic Composition	80.11	61.9
Cork Tile	45.93	26.7

*NOTE that maple was the only wood selected for comparative tests with vitreous tile and marble. The maple used was untreated and without benefit of surface finish.

Facts About Finishing

Northern hard maple is a very hard, dense, fine fibered wood. That's why it is the ideal floor for factories, offices, schools, and stores—all places where a non-splintering, long wearing resilient wood is the primary requirement. Maple, for instance, will outwear stone—yet gives the resilient footing which is an essential to maximum human efficiency.

Because of maple's remarkable wearing qualities the matter of a suitable finish is too often neglected. Many finishes have been developed to protect floors against unusual and unfavorable conditions. These finishes have their place. In addition to these older types of floor finishes still other finishes, applied in a different manner, have been developed to give the maple floor maximum protection, keep it in good appearance under severe traffic conditions and reduce cleaning and maintenance costs.

Laying the hardwood floor

Careful sanding with Nos. 0 or 00 sandpaper pays

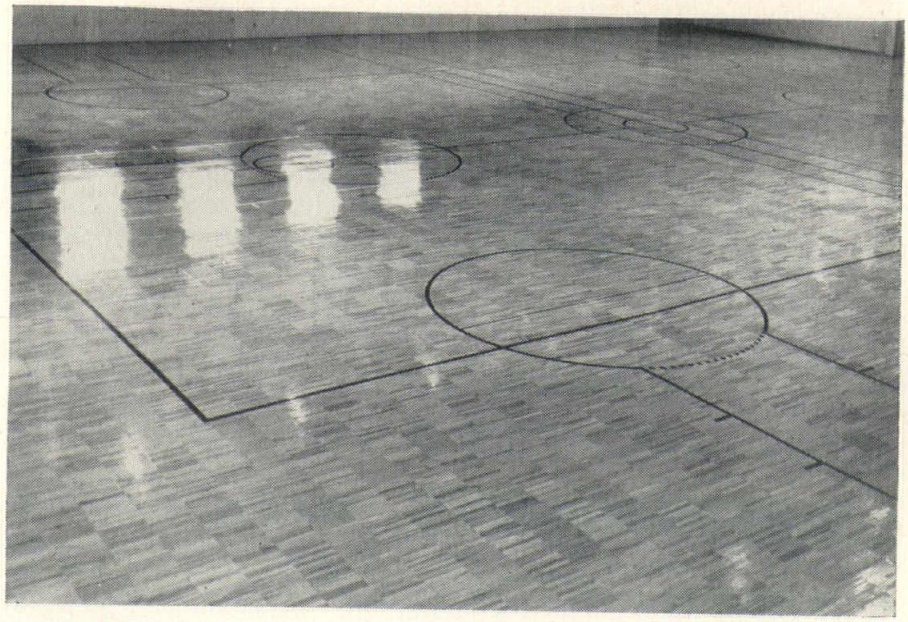
Finishing with a wood seal buffed into wood by steel wool machine.

These are the recognized MFMA requirements of a good service finish:

1. The finish must penetrate well below the top surface of the wood. The penetrating finish must permeate the wood and became an integral part of it so that after application it will wear away only as the wood itself wears away.

2. The finish must seal the pores so as to keep out dirt and resist soil stains.

3. The finish, with its penetrating qualities, must not



This finished gym floor shows the continuous strip pattern as it looks when completely laid and properly finished, using a special gymnasium finish.

darken the wood but must give the floor an attractive, satin-like sheen, allowing the varying natural color of the wood to show.

4. The finish must reflect light, so as to improve illumination.

5. The finish should be non-slippery.

6. The finish must not mar, scratch or flake off.

7. The finish must be of such quality that, if it becomes necessary to touch up worn spots in heavy traffic lanes, it can be done without complete refinishing and still present a uniform appearance.

8. The finish (sealer) should be resistant to water.

9. The finish, after application, must not present a maintenance problem. Maintenance must be economical, without need, under normal service conditions, for constant resanding and complete refinishing.

Special Finishes for Gymnasium Floors

Through further research another type of floor finish has been developed that is particularly effective on gymnasium floors, especially those used primarily for sports activities. It can also be used for other floors subjected to light traffic. The finishes are compounded of tough, resilient, long wearing ingredients of the "bakelite" type, which penetrate the surface of the wood yet leave a varnish-like film on the surface. These finishes do not darken the wood, nor show rubber burns. Floors finished with these products are non-slippery and are noted for fast playing. Attractive appearance, ease of cleaning and economical maintenance are assured.

In applying finish it is imperative that instructions given by the manufacturer of the finish be followed carefully. Through tests and experience he knows how to prepare the floor for finishing, how the finish should be applied, how many coats are required, how long each coat should be allowed to dry, how a stained effect can be best obtained, how the finished floor should be cleaned and how and when the floor should be refinished.

Make sure that the finish manufacturer's instructions are followed and you can be sure of a floor that will provide the utmost in service and appearance, a floor that can be kept clean easily and in proper condition at the lowest possible cost. All hardwood floors should be given some find of finish. A proper finish, correctly applied, enhances the appearance of the floor, protects it and makes scrubbing unnecessary, thus greatly prolonging the life of the wood.

Modern methods of cleaning maple floors have been simplified and made quite inexpensive through buffing with steel wool, usually with electrically driven equipment. Smoother floors result. The smoother the floor, the easier to clean. Floor seals can be applied and buffed-in with this equipment. In writing to finish manufacturers for information, be sure to mention the type of building in which finish is to be used, whether flooring is maple, beech or birch, and whether it is an old or new floor.

Northern hard maple, beech and birch flooring comes from the mill smoothly surfaced but, in laying any floor, slight inequalities, scratches and other marks will appear. These can be removed by sanding. A really smooth sanding is essential for a good finish job. Newly laid floors should be sanded lengthwise with the grain. No. 2 or No. 2½ sandpaper is suggested for cutting off high spots and joints and No. 1 for the second cut. The final step, and this is the most important of all, is to finish with No. 0 or No. 00 sandpaper, or both, if necessary. The finest finish cannot conceal a poorly sanded floor surface.

UNIVERSITY OF NORTH AMERICA

(Continued from Page 53)

competent faculty, it would be necessary to offer advanced degrees so that the members of the faculty can be working towards them while teaching.

The only research to be carried on, other than that of faculty members pursuing advanced degrees, will be generally limited to medicine with the emphasis placed on radiology. Also, a small amount of nuclear research

would be carried on in conjunction with the physics and chemistry departments. The radiological and nuclear research would be carried on as an added justification for the installation of a nuclear reactor heating plant.

We feel that such a general, versatile university curriculum, coupled with the proposed Indian medical center and the draw of the mountain carving and museum, will eventually cause the whole area of the Crazy Horse Memorial to become the center for Indian culture, learning and medical care for the whole North American continent.

Our design of this university shall be based on an enrollment of 6,000 full-time students. The university will be established with a much smaller enrollment and may become much larger in the eventual development. However, this number of students has been picked because it represents a substantial development of the university complex. At this level of enrollment all the curriculum, services and special purpose buildings will have been established to make this a complete, functioning university.

Assuming an instructor-student ratio of 1 to 15, the faculty will number approximately 340 full-time staff members, not including civil service employes. . . .

The sports program at this university will consist of active participation on four levels: 1. varsity competition on an intercollegiate level with other state and regional schools of a comparable size; 2. intramural competition within the study body and an organized athletic program of a year around variety; 3. physical education participation other than varsity competition by those students enrolled in physical education as related to classroom studies in coaching and refereeing; 4. unorganized athletics of a casual, spontaneous nature.

We can only assume which sports will be popular at such a time when our plan might be realized but we feel that the following sports will be carried on at an intercollegiate level: football, basketball, tennis, swimming, baseball, track and field, bowling, wrestling, gymnastics and lacrosse. The sports for competition on the intramural level are touchball, basketball, softball, swimming, bowling, badminton, track and field, archery, fencing, volley ball, squash, handball, wrestling, horseback riding and rodeo shows. The physical education department will use the space for the above sports while carrying out their teaching program.

No additional facilities will be necessary for the casual athlete engaging in unorganized social competition. They will have access to all of the athletic facilities except the varsity practice fields, when they are not being used for one of their preassigned purposes. These casual participants should also make use of some of the yard spaces among the dormitories and other buildings for some phases of their athletic indulgence.

The extra curricular activities that the students of this university will engage in are rather hard to estimate but for our planning purposes we shall assume that the following activities will be prevalent.

Cultural Activities—recreational reading and record playing, convocations and lectures of special interest,

art exhibits, creative art and crafts, concerts and other musical attractions, musical participation in a band, chorus or orchestra, university theater, both as a spectator and a participant, exhibits of the Museum of the North American Indian and religious worship.

Social Opportunities—casual eating facilities, game and ballroom facilities of the student union (bowling, cards, pool, dancing, etc.), special activities clubs (sports, nature study, music, etc.), special group societies and religious clubs.

Service Opportunities—student government and student publications.

Because of the location of this university 4½ miles from the nearest town and its situation in the midst of a national forest, practically all the students and the majority of the faculty will be housed as part of the university community. The housing program will divide into dormitory housing for male and female single students, apartment housing for married students, apartment housing for the faculty and a small amount of housing for university employes other than instructors. The last category of civil service employes is not wholly within the scope of our project but rather is an eventual part of the expected development of the surrounding area as an Indian community. However, some provision for the housing of some of the key hospital and maintenance personnel on the site in an apartment-type development will be made.

It is assumed that some of the faculty will prefer living at some distance from the university complex. The surrounding area could become a delightful residential development offering good psychological separation from the university without a great deal of physical separation. The city of Custer would offer some housing facilities for both faculty and employes.

Characteristics of the Students, Faculty and Employes

This university will attract the promising Indian students from throughout the North American continent. They will be of mixed blood as well as full blooded, with no discrimination for admission. This university will be established primarily for Indian students with some Indian blood required for admission. This criteria will enable the school to regulate enrollment very effectively. However, it is to be remembered that the vast majority of the Indian race is being assimilated into the white race and that in 50 or 100 years the Indian race as such will no longer exist. Therefore, this criteria will have to be altered in the future to comply with the contemporary situation.

In contemplation of this university's developing into the center of Indian culture in North America, it is logical to assume that many white students of anthropology, early history, art, natural science, etc., will be drawn to this institution for various short term studies on a more or less casual basis. Perhaps this will be especially true in the summer.

Indian people are highly gregarious; they love to live together in large groups. Perhaps this is a tradition from their past. This factor may affect the character of the student housing. We shall assume the same ratio of married to single students among the Indians as is found in comparable institutions. Some physical separation of the married students' apartments would be desirable.

It is hoped that in the eventual development of this university, the entire faculty will be of Indian extraction. However, as there are few Indians now qualified to teach on a university level, during the formative years the faculty will of necessity be predominantly white. This might indicate a marked physical segregation of faculty housing from the university complex. A good amount of separation would be desirable in any case. Special requirements of the faculty would be as follows: 1. offices and research spaces for the pursuit of their advanced degrees; 2. separate apartment units for their housing; 3. a portion of the student union for a faculty club and alumni club for their social and recreational activities. It is assumed that the faculty will use the student athletic facilities for any spontaneous participation in sports.

Again it is hoped that in the eventual development of the university, the entire civil service staff will be of Indian blood. However, as is the case of a lack of qualified instructors of Indian blood, it would be expected that many of the technical positions on the supplementary staff would be held by white persons for a number of years. The inclusion of some housing for the staff of key personnel such as hospital technicians and maintenance engineers would be advisable. This housing could become part of the faculty facilities. The bulk of the housing for these employes, however, would

be outside the scope of our design. They would be accommodated in Custer or the surrounding area. Eventually these people would constitute a large part of the Indian community development.

Building Character

The climate, topography and ground cover will dictate much of the site planning and building character. The climate, although milder than that of the Twin Cities, is severe enough to require a reasonable amount of interior circulation between buildings and building groups. This is especially true in the hospital-medical complex. The use of a central mechanical system affords many chances for interior circulation following utilities tunnels between buildings. An extremely windy climate would seem to indicate the desirability of keeping the majority of the buildings rather low. Snow is not a major problem, seldom remaining for more than 48 hours.

The rugged character of the land would seem to require an integrated plan, not a superimposed rectangular scheme. Stream beds, rock outcroppings and heavy timber cover offer unlimited opportunities in site planning for the university complex. The topography and ground cover will make it extremely easy to segregate elements of the total complex for reasons of privacy or convenience.

The use of native granite (waste from the mountain carving) will be very economical and will set the tone of the whole complex. An abundance of this fine, buff granite will be used in the plan for walls, walks, etc. This will be true especially in the public and special use buildings. Some use will also be made of native ponderosa pine in some of the more informal buildings and the dormitory groups. A standard structural system will be adopted to help regulate the character of the entire project.

Mechanical Plan

The design of the mechanical plan will be based on complete central utilities, maintenance and protection. Bearing in mind the long range aspects of this project, we have assumed that the installation of a nuclear reactor heating plan for the varied purposes of heating, radiological medicine and nuclear research is entirely feasible. The actual heating of the building complex will be accomplished by warm water or low pressure steam. However, during the first few years of the project a more conventional, boiler-type installation would be used.

Power requirements would be filled by steam-electric generating facilities of nearby Osage, Wyoming, much more economically than could be accomplished by nuclear power generation at the site of the university. Water will be supplied by impounding several streams, namely Laughing Water, Spring and French Creeks. All these utilities will be distributed to the university complex through utility tunnels containing all distribution means.

PHYSICAL PLANT

ACADEMIC BUILDINGS

1. Liberal Arts Complex

a. Central Classroom Building of approximately 60,000 sq. ft. This building contains facilities for instruction in English, history, political science, geography, anthropology and all of the language courses. It will also contain a liberal arts book store, the liberal arts college administrative facilities, and various other faculty offices.

b. Humanities Building of approximately 18,000 sq. ft. This building contains facilities for the instruction of humanities, sociology, social studies, psychology, philosophy and journalism with all of the necessary faculty offices.

c. General Science Building of approximately 20,000 sq. ft. This building will be divided into three separate areas: a classroom area, a chemistry and physics area and a natural science area. The classroom area will contain classroom and lecture space for instruction in chemistry, physics, zoology, biology, botany and mathematics, with the necessary faculty offices included. The chemistry and physics area will contain all of the necessary laboratory and research space for the two courses. The natural science area will provide the laboratory and research space for all of the natural sciences.

d. Creative Arts Building of approximately 50,000 sq. ft. The creative arts building will house the entire facilities of the fine and commercial arts, the speech and drama schools and the music department. In addition to the above a small public theater will be incorporated with the building.

e. Useful Arts Building of approximately 16,000 sq. ft. The useful arts building contains all of the facilities for the instruction of industrial education, industrial arts, home economics, engineering drawing, business and economics.

f. Education Building of approximately 70,000 sq. ft. This building will be divided into three parts: the first will include all of the facilities for the instruction of courses in education; the second will consist of an area where the education students will do their practice teaching on the grade school level; and the third will include the facilities for practice teaching on the high school level. Children from the surrounding area as well as children of staff members will provide the students for the practice instruction.

2. Technology Complex

a. Central Classroom Unit of approximately 52,000 sq. ft. This area contains a bookstore, a technology library, the college administration and faculty offices and classrooms and lecture rooms for the general instruction of chemical, civil, electrical and mechanical engineering and mining.

b. The Civil Engineering Laboratory Area of approximately 10,000 sq. ft. This area will include the following labs: surveying structures, sanitation, soils, highways and hydraulics and materials testing. Drafting rooms and research space must be included with the above labs.

c. The Mines Area of approximately 20,000 sq. ft. This area will include drafting rooms, research space, a shop and laboratories for mineral dressing, petroleum engineering, ventilation, mine plant operation, rock drilling and dust control.

d. The Mechanical Engineering Area of approximately 20,000 sq. ft. This area will include a machine shop, a foundry and forge shop, a welding and heat treating shop, a machine design lab, an instrumentation shop, a heat and power lab, a heating, ventilating, and air-conditioning lab, a refrigeration lab, an internal combustion lab and an industrial engineering lab. In addition to the above general shop space will be provided as will drafting rooms and research space.

e. The Electrical Engineering Area of approximately 8,000 sq. ft. This area will include laboratory facilities for power control, communications, industrial electronics and servo-mechanisms. Drafting rooms, general shops and research space will also be provided.

f. The Chemical Engineering Area of approximately 15,000 sq. ft. In this area shops and research space will again be provided in addition to the following labs: fluid flow, heat transfer, drying and distillation, fuel analysis, electro-chemistry, servo-mechanisms and instrumentation and crushing and grinding.

(The second part of this thesis will be presented in our next issue . . . we regret this necessity of splitting brought about by space limitations.)

C. A. CARLSON OF MINNEAPOLIS ELECTED TO HEAD WOODWORK INSTITUTE

New president of the Architectural Woodwork Institute is C. Albert Carlson of Aaron Carlson, Inc., Minneapolis, long an active member of the special millwork industry in that city. Mr. Carlson succeeds

Mr. Carlson

Charles A. Rinehimer, who was named to the new post of chairman of the board.

The AWI elected at its third annual convention and announced plans for expanded activities during the coming year. Mr. Carlson was one of the founders of the national group. Other members of the industry from this part of the country who were elected to office included Elmer Root of Standard Manufacturing Co., Appleton, Wis., as third vice-president, and F. P. Delany of Metz Manufacturing Co., Dubuque, Iowa, as treasurer.

Panel discussions were the pattern of the convention and one of the most popular was that concerned with the AWI's architect relations program. The group's brochure series is now being sent to 10,000 architects and members of allied industries and response was reported as very good.

Robert C. Taylor, AIA, Oak Park, Ill., spoke to the group on "Presenting the Woodwork Story to Architects and Architectural Schools."

PRODUCERS' COUNCIL

(Continued from Page 65)

Dr. George Cline Smith, F. W. Dodge Corp., forecast that the "American economy would pour some $600,000,000,000 into construction in the next ten years. Perry I. Prentice, publisher of *House and Home,* told the representatives that "home building costs can be cut nearly $1,000,000,000 a year if manufacturers accept a few basic dimensions and make their products in sizes that will fit together and look right together when assembled by the builder."

One of the panels had as participants the presidents or past-presidents of the major construction industry associations. Speaking for their associations were Clair W. Ditchey, AIA; Walter L. Couse, AGC; Watson Malone, III, NRLDA; and Mr. Gillett.

DIMOND ASSOCIATES PLAN 600 HOME DEVELOPMENT

A suburban development south of the Twin Cities to be known as Friendly Hills, Inc., has been announced by Grover Dimond Associates, St. Paul architects and engineers. The development will contain 600 homes when finished, of which five model structures are planned for early construction. Some 150 houses are to be scheduled for erection during 1956.

PRODUCTS and SERVICES

Cross Section of What's NEW

PELLA IMPROVES ITS BASIC DESIGNS

The Pella multi-purpose window for 1956 has a new underscreen sash operator that offers positive positioning. A pin-and-socket device firmly locks the sash in any position between fully open and fully closed. The operator guide is now made of nylon for increased wear resistance and quiet operation. This underscreen operator feature is furnished at no extra cost. The multi-purpose windows are now available in several new sizes, making a total of 3 fixed and 11 fixed-or-ventilating sizes.

Pella's wood folding door operates quietly because new type concealed spring connectors create uniform tension from one end of the door to the other. So when the door is opened, the panels fold uniformly and come together flat. The resulting air cushion effect muffles sound and, with panels fitting so closely together, doors fold to a compact stack only 2" or less for each foot of opening width. Even tension also prevents door panels from bunching up in one area, spreading widely in another. New nylon rollers also add to the quiet operation by eliminating metal-to-metal contact.

Free literature on these Pella items is available from Rolscreen Company, Pella, Iowa.

BOGUCKI JOINS BJERKEN

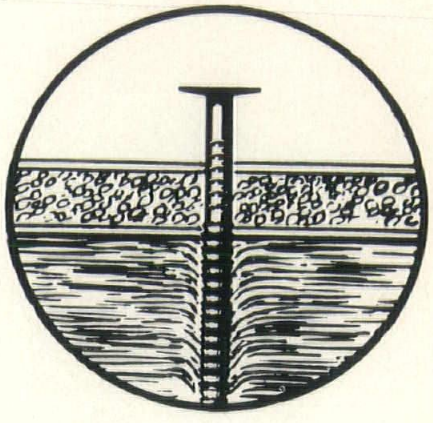
Henry J. Bogucki is now associated with A. C. Bjerken and Associates, St. Paul, Minnesota. The firm represents many of the nation's leading producers of plumbing specialties, including Symmons Engineering Co., Haws Drinking Faucet Co., Delta Detroit Corp., Carrollton Mfg., Tubdor, Inc., and Coyne and Delaney.

Representation includes upper Iowa, Minnesota, North Dakota, South Dakota and northwestern Wisconsin.

THREADED NAILS STOP "POPS"

Nails that "pop" to mar the appearance of beautiful walls have long been one of the biggest problems in gypsum board drywall construction, extensively used in homes in all price ranges. Many a purchaser has been dismayed after moving into his new house to discover nail heads protruding to disfigure otherwise smooth walls.

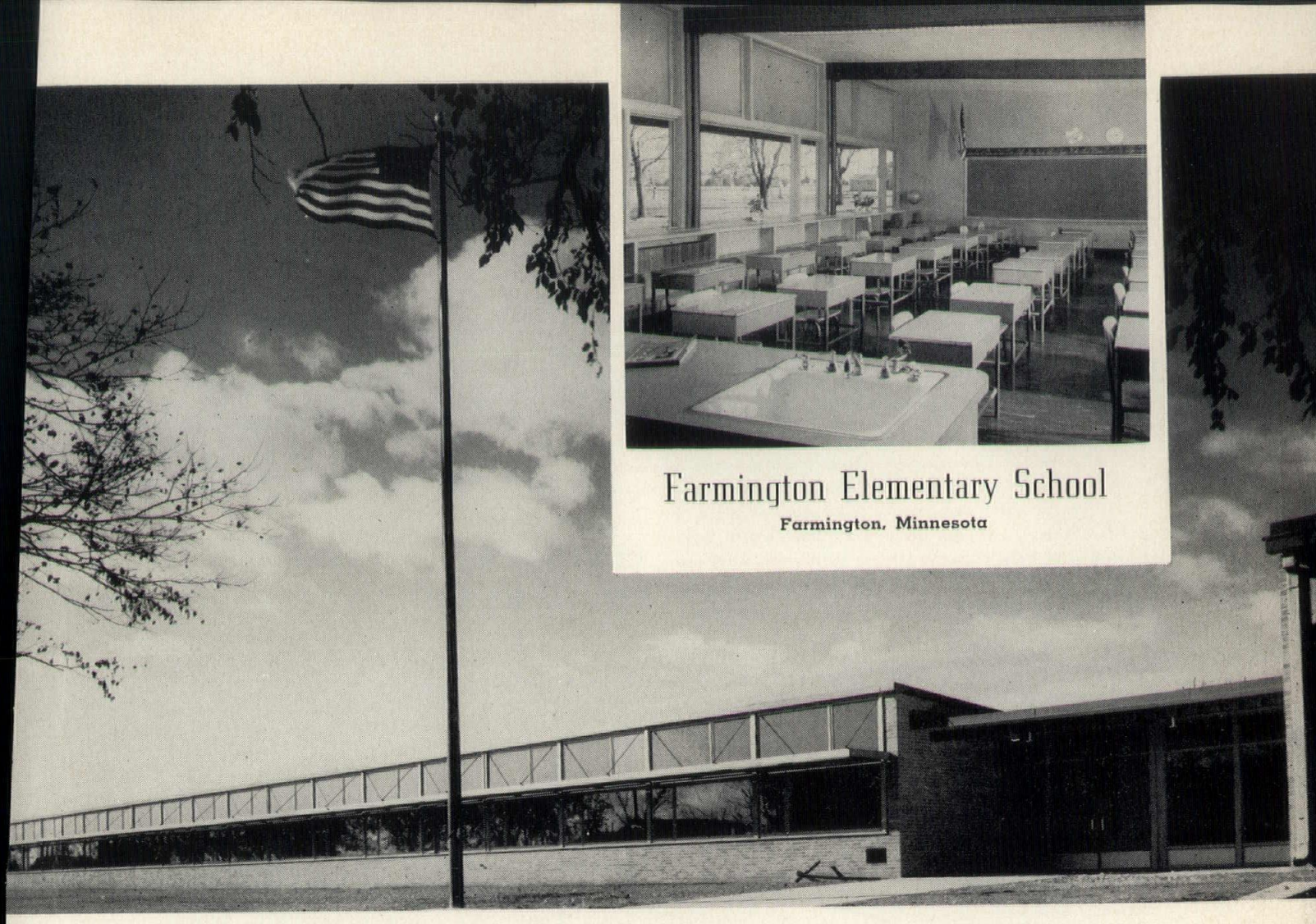
Often the nail popping does not occur until weeks or months after the house has been finished and the walls decorated, when the wood into



which the nails are driven has had a chance to season. Leading drywall applicators found that in nail popping they had a major problem. They put the problem up to a nail manufacturer who had been developing threaded nails for many applications. The result was Stronghold drywall nails, with scientifically engineered threads which lock with the wood fibres, giving several times the holding power of ordinary smooth shank nails. They actually gain holding power as the wood into which they are driven seasons.

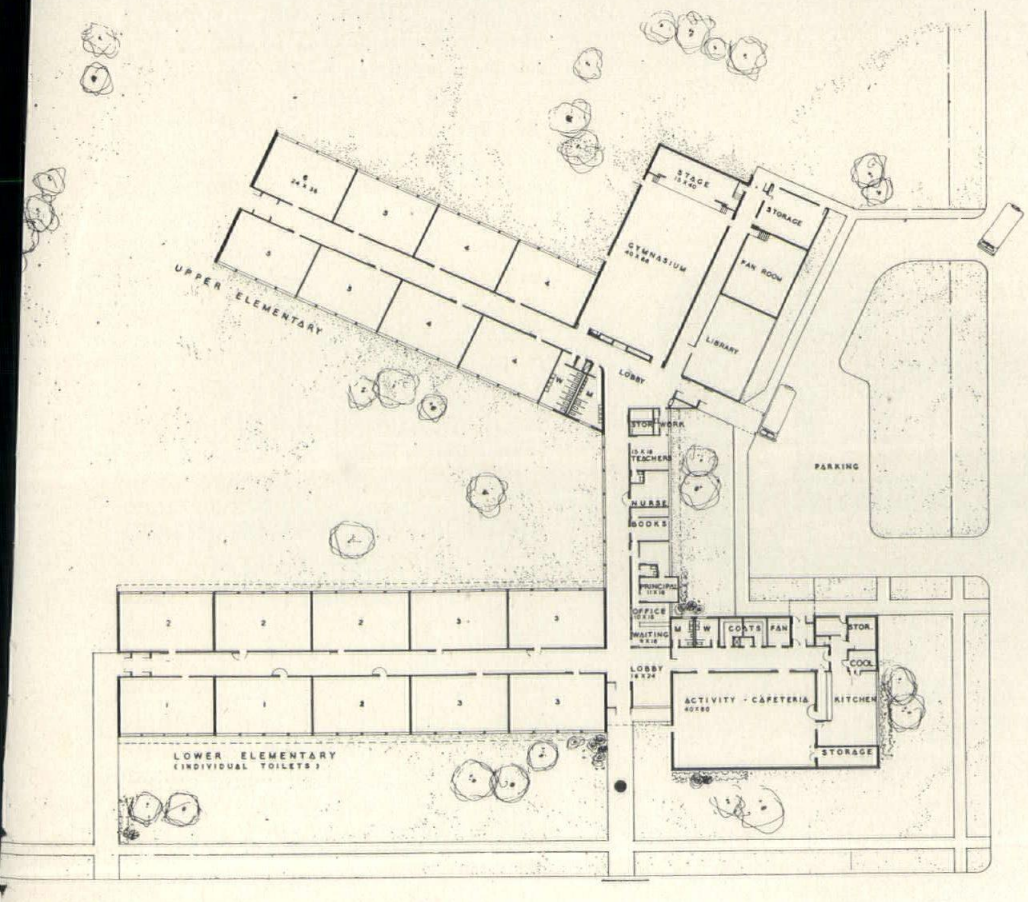
Even while these nails were being field tested, the makers, Independent Nail & Packing Company of Bridgewater, Mass., sent a quantity of the new Stronghold drywall nails to the wood research laboratory of Virginia Polytechnic Institute, with instructions to put them to scientific laboratory tests as part of a continuing research program which the company has sponsored for a number of years.

The results of these tests confirmed the satisfactory holding power of the nails, both immediately on driving and after alternating periods of expansion and contraction of the wood into which they were driven. Copies of the results are available either from the manufacturer or from Wood Research Laboratory, Virginia Polytechnic Institute, Blacksburg, Va.



Farmington Elementary School

Farmington, Minnesota



THORSHOV & CERNY, INC.
Architects — Minneapolis, Minnesota

There is no constriction in the atmosphere for Farmington youngsters, who travel daily from home into this fine school, fitted with economical standard Pella casement windows . . . no change in the high standard of sunshine and freedom which should surround their daily growth.

Pella
casements

PAPER CALMENSON ANNOUNCES NEW THREADING SERVICE

Threaded rods for most general construction applications are available in all sizes from Paper-Calmenson & Co., St. Paul 8, Minn. A new rod threading machine makes possible quick delivery of ¼" to 4" threaded round rods of any desired length.

A complete stock of nuts and turnbuckles have been installed to provide a one-stop-service for all types of tie-rod assemblies, the company reported. In addition, threaded anchor bolts of all sizes are available for use with rod and turnbuckles in such applications as laminated arch structures and wall support assemblies. Anchor rods are also made for machinery and tower installation and building construction.

To facilitate shipment, easy-to-handle lengths of threaded rod can be provided with turnbuckle connections.

RUBBLE STONE REPRESENTS MINNESOTA GRANITE INDUSTRIES

Minnesota Granite Industries of Delano, Minn., has appointed Rubble Stone Co. of Minneapolis as its representative in Minneapolis and St. Paul, according to E. W. Blycker, its sales manager.

Minnesota Granite Industries operates quarries in Minnesota and several other states and fabricates granite for business and industry throughout the United States. The appointment means that Minnesota Granite will be better able to serve the building trades field in this area, Mr. Blycker said. Ben F. Meltzer is sales manager of the Minneapolis company.

HAUENSTEIN NAMED RILCO REPRESENTATIVE

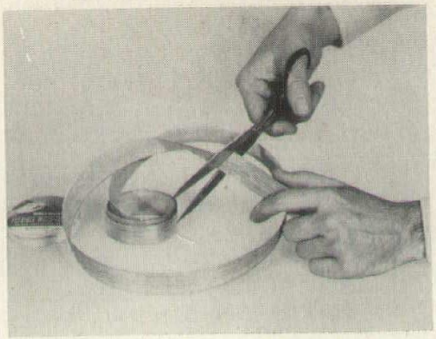
The Hauenstein Company, Minneapolis, has been appointed sales representative for Rilco Laminated Products, Inc., St. Paul, for the Twin Cities, Duluth and northern Minnesota. Rilco designs and fabricates glued laminated wood arches, beams and trusses for church, school and industrial building construction.

"Well known in the building industry, The Hauenstein Company will give consulting service to architects, contractors and building committees regarding economical use of laminated structural assemblies," said John G. Marinos, Rilco commercial products sales manager.

U. S. PLYWOOD SOLVES PLYWOOD EDGE PROBLEM WITH WOOD TAPE

An inch-wide tape of wood veneer, so thin and flexible that it is packaged in rolls, is being introduced by United States Plywood Corporation to solve the long standing problem of exposed plywood edges.

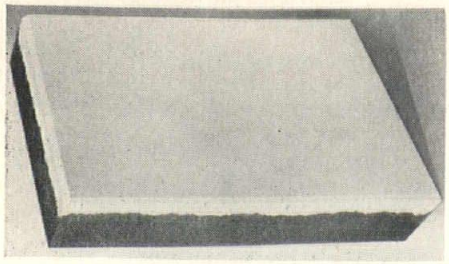
The new material is called Weldwood Flexible Wood-Trim. It is available in mahogany, oak, walnut, birch and Korina to match the most popular plywood faces. The veneer, one eighty-fifth of an inch thick, is



flexed by a patented process and mounted on a latex impregnated paper backing.

Wood-Trim can be cut with scissors, knife or razor blade and can be applied with any high quality wood glue. No heat or clamping is required.

The exposed edges of plywood, showing the layers of wood which make up the panel, have long been a major problem for both professional woodworkers and home craftsmen. With Wood-Trim they can match these edges to the face of the panel, even when edges are curved. The new product can also be used for lumber edging and decorative purposes in the home. Flexible Wood-Trim is sold in rolls of eight feet packaged in reusable plastic containers. Retail lumber and hardware dealers throughout the country offer the material at 79c per package.



PITT-CORNING'S DURAFACE DETAILED IN FREE FOLDER

A four-page folder describing the recently introduced Duraface Foamglas is now available from the Pittsburgh Corning Corporation. Duraface Foamglas is a unique new material which combines insulation and integral finish in a single block. The hard white crust is fused to one surface of the Foamglas block during the manufacturing process. The new product makes possible the construction of an insulated and finished wall in one operation.

The folder describes the manufacturing process, lists physical properties and details the sizes available. Copies can be obtained from the Pittsburgh Corning Corporation, One Gateway Center, Pittsburgh 22, Pennsylvania.

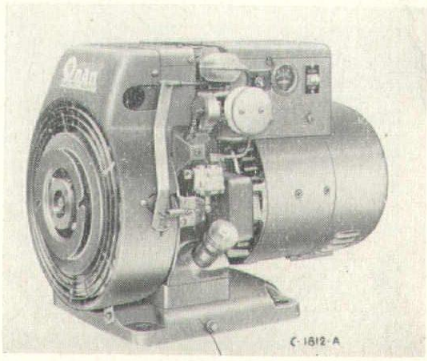
NORTHERN WHITE PINE QUALITIES REPORTED IN NEW BOOKLET

Just off the press is a new book, "Northern White Pine, Its Properties, Uses and Grades," published by the Northern Pine Manufacturers' Association, Minneapolis. It is 8 x 10½ inches in size and has 28 pages.

Primarily designed for architects in Minnesota, the book contains pictures of woods, logging and sawmill scenes, emphasizing the availability and assured future supply of northern white pine, pictures of a 100-year-old northern white pine home and a church built in 1861 in Minnesota, testifying to its durability, and full-page photographs illustrating the grades of selects, common and knotty pine paneling. The book can be obtained by writing the Northern Pine Manufacturers' Association, 4329 Oakland Avenue, Minneapolis 7, Minnesota.

NEW 2,000-WATT A.C. ONAN ELECTRIC PLANT ANNOUNCED

A new, truly "heavy-duty" electric generating plant, Model 2LK, has been announced by D. W. Onan



& Sons, Inc., Minneapolis manufacturers of generating equipment.

Onan Model 2LK produces 2,000 watts, 60-cycle, A. C. at 1800 RPM (or 1500 watts in 50-cycle) in all standard frequencies and phases. An extremely compact unit, weighing 235 pounds, the LK unit was built specifically for rugged, heavy-duty service on scores of jobs requiring economical, long-life performance in an independent source of electric

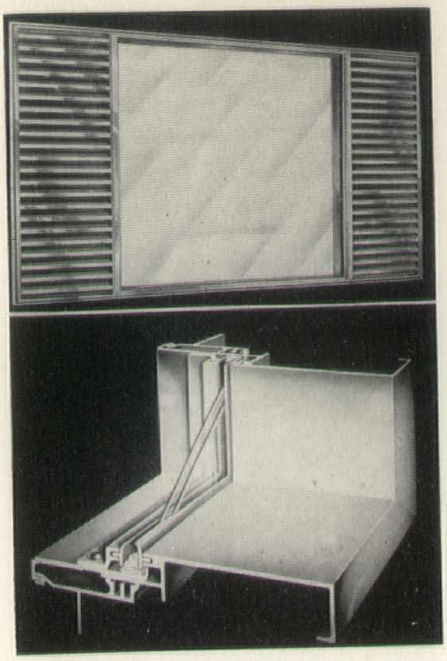
power. It is a tough little unit that can take rough handling on mobile and portable jobs and stand up under long hours of continuous service.

Model LK is powered by an Onan single-cylinder, air-cooled, 4-cycle gasoline engine with Stellite-faced rotating exhaust valve, large long-wearing bearings and efficient trouble-free air-cooling. A conservatively rated, blower-cooled Onan generator is direct-connected to the engine for permanent alignment. Radio shielding on high tension wire and spark plug is standard equipment for all models.

For complete information on the new Onan Model LK, write D. W. Onan & Sons Inc., Minneapolis 14, Minnesota.

NEW, QUALITY ALUMINUM WINDOW OFFERED BY MACO

An extruded aluminum window designed expressly for the quality residential and commercial markets has been announced by the Maco Corporation, Huntington, Indiana.



The new window is manufactured in a wide variety of types, layouts and sizes to permit complete flexibility for the architect. Types include layouts incorporating a picture window with side or bottom louvers, casement or projected-out sections. The louvers are a unique all-weather design and are ideal for year-round air conditioned homes. Interior sliding doors act as closures for them, and are designed so as not to interfere with drapes or other hangings. Louvers may be fitted with filters, if desired.

Basic frame sections have a 7" minimum depth, which not only provides for insulated glass, but affords the eye appeal of shadow lines without sacrificing modern narrow-frame appearance. H. D. LaMont, president of Maco, pointed out that special attention was given to the finish, in order to eliminate all metallic lustre. A satin finish, plus a lacquer coat, does away with the metallic appearance, letting the window blend with traditional appearance.

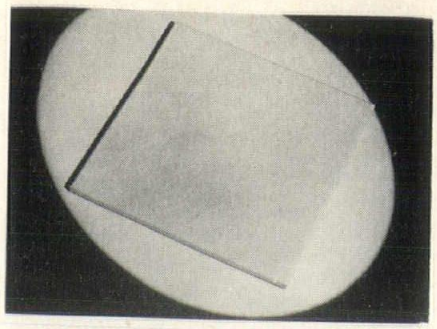
Complete technical data can be obtained from The Maco Corporation, Huntington, Indiana.

When you write our advertisers, please say, "I saw it in Northwest Architect."

OWENS-CORNING INTRODUCES TEXTURED ACOUSTICAL TILE IN SONOFACED FORM

Distinctive eye appeal of the company's Textured Acoustical Tile and the maintenance economy and efficiency of its Sonofaced Tile now are available in a single product, Textured Sonofaced Acoustical Tile, the Owens-Corning Fiberglas Corporation has announced.

The Sonofaced Tile is encased in a plastic film which, without impairing the noise control function of



the sound absorbing Fiberglas, permits limitless cleaning by washing and requires no painting maintenance. Owens-Corning has combined these features by developing a plastic film that duplicates the surface appearance of the Textured Tile and has light reflection 10 points greater than that of the regular Sonofaced Tile.

Like other Fiberglas Acoustical products, the new tile is fire safe and has a high acoustical efficiency. Sonofaced Textured Acoustical Tile is available in 12 by 12 inch and 12 by 24 inch tile and has 24 by 48 inch Ceiling Board.

NEW IDEAS DESIGNED INTO DYNAPAC CONDITIONER

A new low-priced, self-contained, packaged air conditioner, available in both water and air cooled models, has been introduced by the Union Asbestos & Rubber Com-

pany's heating and cooling division. The new unit designed for commercial installations will be marketed in two, three and five horsepower models.

"This is the first Unarco package designed and built as an integrated unit. The hermetically sealed compressor, condensor and coils are all welded together," R. M. Anderson, sales manager, said.

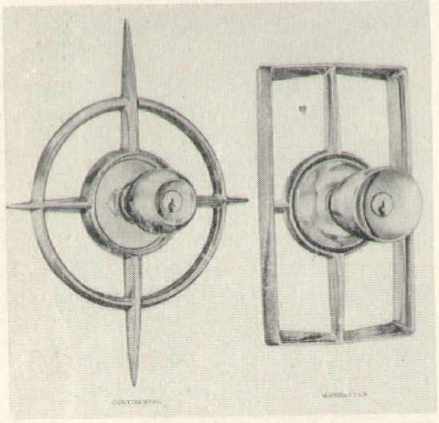
The new model is to be known as the "Dynapac," Mr. Anderson said, and has a built-in plenum chamber and a high capacity blower. He continued:

"The discharge grille on top presents a new concept in design. A series of individual louvers can be adjusted to direct air in any direction desired or in any combination—front, rear or sides. The 'Dynapac' is also equipped with standard connections, enabling it to be used with duct work. Return air connections

are located at the rear of the cabinet."

He pointed out that dimensions of the "Dynapac" are unusually compact, with the two horsepower models standing only 58 inches high, 28 inches wide and 19½ inches deep. Height of the three horsepower unit is 69 inches by 30 inches wide, by 22 inches deep, while the five horsepower model is 72 inches high, by 40 inches wide, by 24 inches deep.

NEW IDEA FOR DOOR DECORATION INTRODUCED BY SCHLAGE



A new concept in lock background design for entrance and interior doors has been announced by the Schlage Lock Company with the introduction of its Manhattan and Continental style escutcheons.

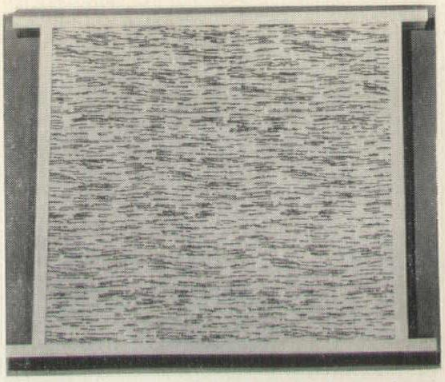
Designed with an open back, the new Schlage escutcheons allow architects and interior decorators wider latitude in planning door treatment and make possible the use of an infinite variety of background colors, materials and textures, providing an opportunity to select ornamental lock backgrounds to suit individual requirements without the cost of custom manufacture. Interesting interior and exterior door decor can now be accomplished with lock backgrounds of wallpaper, grass cloth, pigskin, patterned metal or paint, to mention a few possibilities. Most important—lock backgrounds can be used to match or complement surrounding doorway treatments such as drapes, door frames, adjoining walls and other arrangements.

Write to Schlage Lock Company, 2201 Bayshore Boulevard, San Francisco, California, for a new, colorful brochure illustrating the many possibilities of the new designs.

CELOTEX INTRODUCES STRIA-COLORED STEEL-ACOUSTIC

Stria-Colored Steelacoustic, a new sound conditioning product that combines color, effective noise reduction, incombustibility, economy and easy maintenance, has been introduced by The Celotex Corporation.

It is a white baked enamel steel panel with attractive overlay striations of black, green or brown that create a pleasing ceiling texture. Sound passes through the steel facing and into the absorbent material laminated behind it.



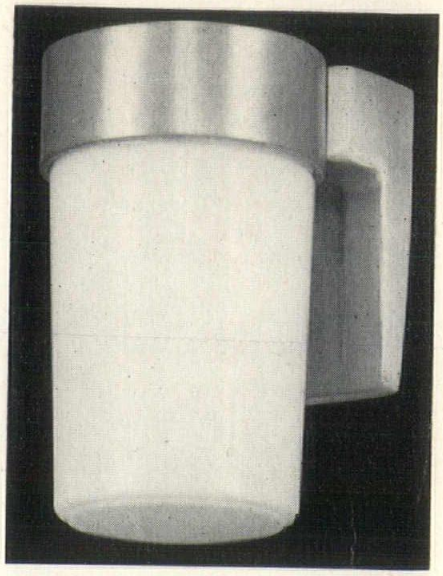
Stria-Colored Steelacoustic is in-

stalled on the Celotex "T" and "T" Suspension System, a suspended ceiling grid which is also finished in white baked enamel. Hold-down clips fasten the panels to the grids, but they permit easy access to the area above when servicing is needed. Recessed light fixtures, air diffusers, sprinkler heads, and other outlets can be incorporated into the ceiling plan.

Made of cold rolled zinc bond steel, the panels are 2' by 2'. They can be washed or painted repeatedly with no effect on their sound absorbing efficiency.

LOW MAINTENANCE, NEAT LOOKS FEATURED IN McPHILBEN FIXTURES

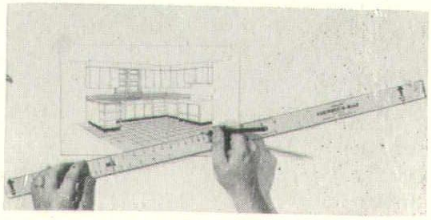
Designed for low maintenance, high performance and good looks are the McPhilben Manufacturing Company's lines of new wall and ceiling fixtures, the No. 43-40W design of which is shown here. They are of particular value in institutional use, their clean lines blending with modern design of schools, hospitals, motels, hotels, shopping centers and the like.



Vapor and dust tight, versatile in installation and competitively priced, the fixtures are of die cast aluminum. The wall units can be used indoors or outdoors and the ceiling units can be adapted to use on walls. Finishes are satin anodized aluminum and specials-on-order.

Further details can be obtained from the company at 1329 Willoughby Ave., Brooklyn 37, N. Y.

PERSPECTIVE RULER EASES WORK, CUTS DRAWING TIME



Perspect-O-Rule, a complete perspective drawing system on a one piece instrument, has been developed for architects, artists, designers, and draftsmen by Canlen Company, Wyomissing, Pa.

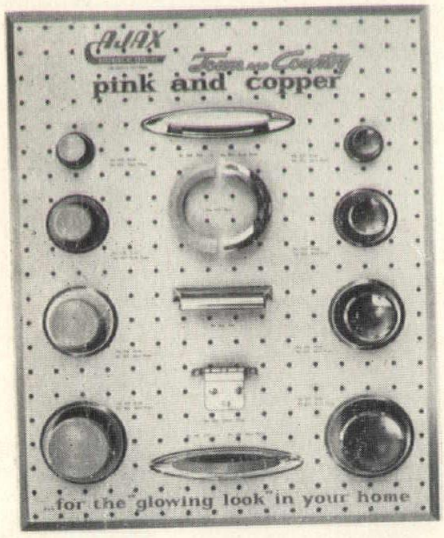
The first perspective ruler ever devised, Perspect-O-Rule has all the information necessary to draw unlimited variations of two point perspectives, is easy to use, and renders accurate drawings in less than half the usual time, its makers reported.

Accurate pre-calculated perspective measurements and pre-determined locations of vanishing points

are printed on a satin-smooth, clear plastic straightedge. In addition to measuring, Perspect-O-Rule is used to draw receding lines quickly, automatically and accurately to the vanishing points.

Three sizes are available. Model 50 for use on 23″ drawing boards makes drawings up to 15″ wide. Model 100 for use on 30″ drawing boards makes drawings up to 17″ wide. Model 200 for use on 48″ drawing boards makes drawings up to 26″ wide.

Free literature may be obtained from Canlen Company.



AJAX INTRODUCES NEW "TOWN AND COUNTRY PINK AND COPPER"

"Town and Country" is the intriguing name for a new line of pink and copper cabinet hardware by Ajax Hardware Manufacturing Corp., Los Angeles. Inspiration for "Town and Country," according to Norman Louis, president of Ajax, came from the growing trend toward the use of pink and copper in major appliances, accessories and home decor.

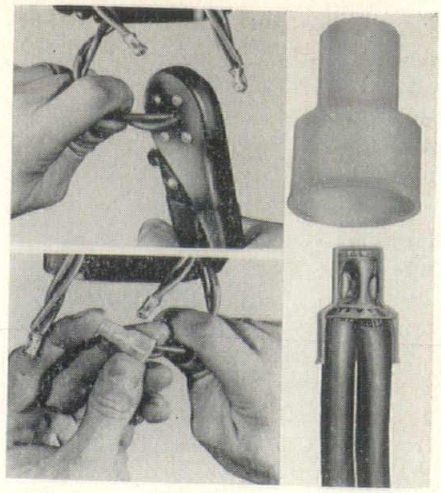
"Town and Country" drawer knobs and pulls in pink or copper can be obtained with companion solid copper back plates. Pink and copper are "naturals" for modern living, maintains Mr. Louis. Pink symbolizes glamour and up-to-the minute home charm and copper supplies the rich warm look in a home. Ajax also supplies semi-concealed Cabinet Hinges in copper finish.

BUCHANAN INTRODUCES NEW NYLON SPLICE INSULATOR

The new Buchanan Nylon Splice Cap Insulator features extreme ease, speed and simplicity of installation and provides excellent electrical and mechanical protection to spliced joints. An exclusive "snap-on-lock" design assures factory perfect insulation of wire splices and makes it easy to install, even on very flexible wires and even in extremely hot or cold weather.

The unique construction of this completely new insulator eliminates threading, wrapping, or twisting of insulator during installation and any possibility of its loosening in service—even under extreme vibration.

Ease and speed of installation and security of attachment are made possible by "one-piece" Nylon construction with internal metallic retainer ring which allows the insulator to be quickly snapped in place over an installed splice cap and yet prevents its accidental removal in service. Translucent nylon body of insulator permits easy inspection of completed splice.



New snap-on insulators are available in two sizes for use with two sizes of Buchanan Splice Caps which splice normal circuit wiring from two #18's through three #8's or two #6's. They are fully approved by Underwriters' Laboratories, Inc., and Canadian Standards Association for building wire to 600 volts and in fixtures to 1000 volts—in applications up to 105° C.

SHANA ANNOUNCES HEAT CONDITIONERS

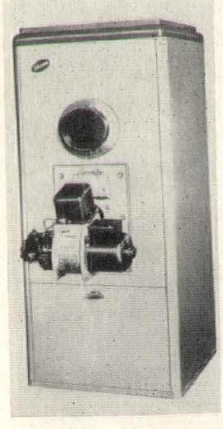
A complete line of "Shana-Heat" winter air conditioners that will augment the firm's extensive summer cooling lines has been announced by Shana Manufacturing, Inc., 188 West Randolph Street, Chicago 1, Illinois.

"Shana-Heat" hi-boy and counterflow oil or gas fired winter air conditioners have stainless steel and refractory combustion chambers to insure instant and complete combustion of the fuel. Features of the "Shana-Heat" units include aluminum foil-faced glass wool blanket insulation to keep the cabinet cool

and act as a sound absorber; all steel heavy gauge one-piece body construction; beautiful enclosed baked enamel cabinet with a steel base pan; built-in filter rack and a 10-year warranty.

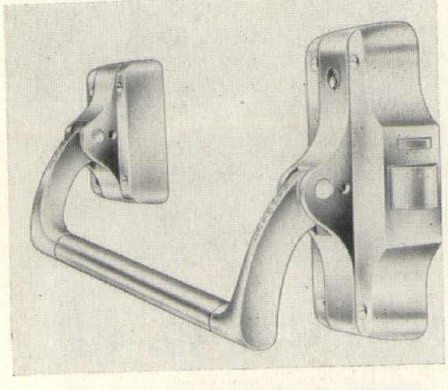
The new winter air conditioners have automatic overload protector switches and the burners are fully approved by the Underwriters Laboratories and bear their label.

This series of winter air conditioners is designed to eliminate noise effectively and vibrations and to remove dirt, dust and other impurities from the air and to meet all and any specific heating requirements. Automatic controls regulate the



operation of the furnace and supply just the right amount of heat to each room.

In addition to these units, ten other complete lines of factory assembled winter air conditioners are available. These include cast iron units, lo-boy gas or lo-boy oil fired furnaces, gas fired horizontal units, gravity furnaces, etc., available from 50,000 B.T.U. to 235,000 B.T.U.



NEW PANIC-PROOF EXIT DEVICE

An entirely new concept of latch bolt action is the heart of the "Quick Exit" panic bolts recently introduced by Sargent and Company.

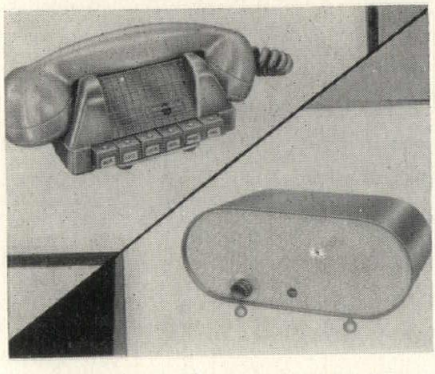
A touch of the cross-bar releases the locking mechanism and allows the latch bolt to "collapse"—or pivot—freely back into the lock case as the door is pushed. The bolt does *not* retract—its makers pointed out, and the device cannot bind because the rounded, pivoting bolt offers no resistance against the strike.

Outward pressure of the bolt against the strike, which sometimes causes a conventional retracting bolt to bind, is the force that pushes the Sargent bolt clear of the strike and provides instant safety in case of emergency.

On closing, the bolt pivots back into the case as it contacts the strike, and then springs back into the strike when the door is fully closed.

For complete information, write Sargent & Co., New Haven 9, Conn.

LOW-COST 2 TO 10 STATION INTER-OFFICE TELEPHONE AVAILABLE



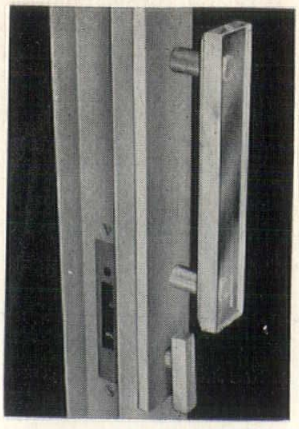
A modern, low-cost, two-to-ten station inter-office telephone system that offers the advantages of a telephone communication combined with such versatile services as two-way loud speaker station, voice pag-

ing, conference circuit and loud bell signals for noisy areas—all linked into one system—is currently being produced by the Connecticut Telephone & Electric Corp., Meriden, Conn. The new telephone, called the Connecticut Direct-A-Call, operates from a standard electrical outlet and uses no batteries or tubes.

Designed so it can be used either on top of or mounted on the side of a desk without alterations of any kind, the compact Direct-A-Call occupies only a 4" x 6" space.

Molded of impact-resisting, light grey thermoplastic in a modern design the Direct-A-Call is so simple to install the purchaser can do it himself. The compact power supply, measuring 3 1/16" high by 4⅝" long by 3 5/16" wide, is simply plugged into any 110 V outlet. Color-coded wires leading from the power supply are attached to the telephones at their desired location. There are no soldered connections to make—the only tool needed is a screw-driver.

Plan now for the '56 Convention
See page 21



NUDOR HANDLE OF CLEAR PLEXIGLASS

Another innovation for the aluminum sliding glass doors made by Nudor Manufacturing Corp. of North Hollywood is a door handle made of sparkling clear plexiglass. Architects and builders who have previewed this new hardware enthusiastically described its appearance as luxurious, its makers said. Murrell Spence, Nudor president, announced "this luxury plexiglass handle will soon be standard equipment on all Nudor aluminum sliding glass doors."

NEW AERODYMIC FEATURES OFFERED IN CHICAGO FANS

A free illustrated bulletin by the Chicago Blower Corporation describes its newly redesigned, improved line of "Chicago" Axial Airfoil Fans.

These heavy-duty fans are de-

signed in eight general categories for ventilating under all kinds of conditions. Developed after more than 50 years of research, the fans provide high efficiency and low noise level. Of heavy steel construc-

tion, they are available with direct or V-belt drive.

Bulletin AA-101, which explains their function and design in detail, can be obtained by writing on your letterhead to Chicago Blower Corporation, 9869 Pacific Avenue, Franklin Park, Illinois.

COMBINATION SOAPER-SHELF SERVES PUBLIC NEEDS

Two necessary conveniences in any public washroom are a soap dispenser and a shelf for personal articles but, since both of these items must occupy the same wall space over the basin, one or the other is usually left out for lack of space. Lathurshelf, a new self-contained combination shelf and soap dispenser announced by American Dispenser Co., Inc., 115 East 23rd St., New York 10, N. Y., eliminates this problem.

Lathurshelf, made of polished stainless steel, provides a glistening, sanitary surface 20" long x 4¾" wide for toilet articles and personal effects. It is available with one or two soap valves for installation over one or two basins. Valves can be either "lather" or "straight liquid" and any grade of 10 to 20% liquid soap can be used. Leaking or dripping is avoided because the soap must be pumped.

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF
Northwest Architect published Bi-monthly at Saint Paul, Minnesota, for January, 1955.

1. The names and addresses of the publisher, editor, managing editor, and business managers are:
Publishers—Minnesota Society of Architects, 2642 University Ave., St. Paul 14, Minn.
Associate Editor—Fred Miller, Jr., 2642 University Ave., St. Paul 14, Minn.
Managing Editor—C. J. Loretz, 2642 University Ave., St. Paul 14, Minn.
Business Manager—C. J. Loretz, 2642 University Ave., St. Paul 14, Minn.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)
Glynne W. Shifflet, President, Minnesota Society of Architects, 17 West Franklin Ave., Minneapolis, Minn.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)
None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bonafide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

C. J. LORETZ, Managing Editor

Sworn to and subscribed before me this Ninth day of December, 1955.

OLIVE V. SEIBERT

[SEAL]

(My commission expires Dec. 5, 1958)

Index to Advertising

Airxpeler 60
American Artstone Company..... 56
Ammerman Co., C. L..... 60
Anchor Block Co..... 6

Babcock Co. 58
Bartley Sales Co..... 52
Bjerken, A. C..... 38
Bros, Wm. Boiler Co..... 8

Canton Lumber Sales.....Back Cover
Capitol City Stone Co..... 75
Carpenters & Joiners Unions..... 10
Cedar Rapids Block Co..... 60
Central Building Supply Co..... 78
Chamberlin Co. of America..... 86
Child, Rollin B..... 83
Crown Iron Works.....Cover II

Dakota Plate Glass Co..... 52
Davidson Enamel Products..... 9
Denesen Company 50
Dur-O-Wal 60

Gardner Hardware Co..... 87
Gerrard Co., W. A..... 14
Glacier Sand & Gravel..... 6
Globe, Inc. 15
Gopher Stone & Brick Co..... 89

Hall Co., W. L..... 42
Hauenstein and Burmeister..... 81
Hebron Brick Co..... 86
Heltne Ventilating Co..... 74

Insulation Engineers 4
Insulation Sales Co..... 79

Joel F. Jackson..... 9

Keelor Steel Co.....Cover III

Lathing and Plastering Council.....34, 35
Layne-Minnesota 56
Lewis, Geo. R. 40

Mankato Stone Co..... 60
Mason City Brick & Tile Co..... 50
Master Builders..... 40
Minneapolis Blue Printing..... 89
Minnesota Granite Industries..... 84
Minnesota Mining & Mfg. Co..... 12
Minnesota Paints, Inc..... 85
Minnesota Perlite Co..... 42
Mitchell Products Co., J.M..... 52
Molin Concrete Products Co..... 80
Moore & Co., Benjamin..... 67
Morse Co., F. J..... 85

Neal Slate Co., W. E..... 84
Neubauer Mfg. Co..... 64
North Central Supply Co..... 71
Northern States Power Co..... 7
Northwestern Sash & Door Co..... 88

Ochs Brick & Tile Co..... 58
Olson Mfg. Co., C. W..... 67
Overhead Door of Minneapolis..... 5
Overhead Door of St. Paul..... 5

Paper-Calmenson Co. 46, 47
Pella Products 77
Prestressed Concrete Co..... 36
Producers' Council 32

Raymer Hardware Co..... 78
Rich-McFarlane Cut Stone..... 71
Rogers, H. A., & Electric Blue Print..... 71
Roofings, Inc. 65
Rubble Stone Co..... 87
Rydell, A. T., Inc..... 19

St. Paul Stamp Works..... 60
St. Paul Structural Steel Co..... 60
Schultz Co., Albert W..... 89
Smooth Ceilings System..... 38
Standard Iron & Wire Works..... 17
Stanton, R. E..... 58
Steel Structures 11
Stremel Bros. Mfg. Co..... 58
Structural Clay Products Institute..... 82

Thermal Co., Inc..... 3
Tjernlund Mfg. Co..... 13
Twin City Brick Co..... 73
Twin City Testing & Engineering..... 40
Twin City Tile & Marble..... 74

Union No. 2 Bricklayers..... 72
Unit Structures, Inc..... 52

Venice Art & Marble Co..... 88
Villaume Box Co..... 56

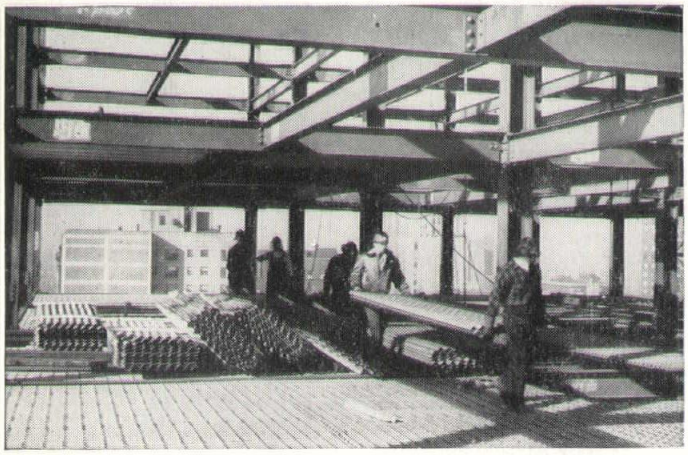
Western Mineral Products..... 18

Zenith Concrete Products..... 16
Zonolite Co. 18

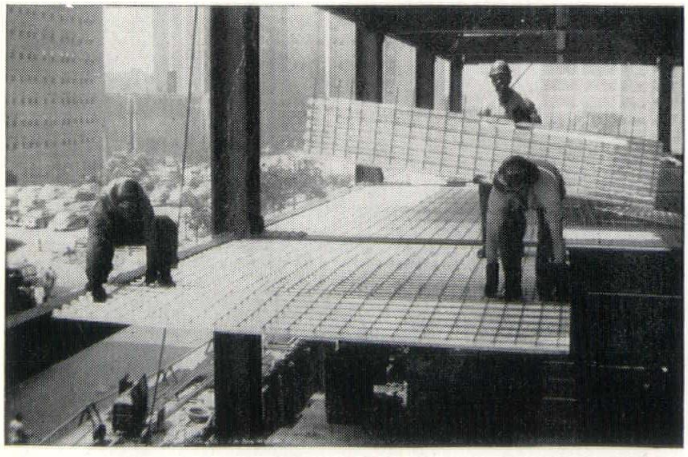
Here's why architects and engineers specify

COFAR and CORRUFORM

THE REINFORCEMENT THAT FORMS



COFAR, a deep-corrugated steel sheet with T-wires (transverse wires) welded across the corrugations performs the dual function of reinforcing and forming concrete slabs. All Cofar units are cut to fit the building frame and are ready for immediate placing upon arrival at the job site. Placing form, positive reinforcing and temperature reinforcing in one operation produces economy and construction speed not attainable with conventional forming.

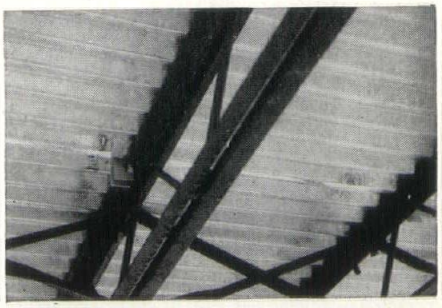


COFAR placing follows directly behind structural steel erection. Weighing only 2 lbs. per square foot, Cofar sheets are easily handled. Sheets interlock by a one corrugation sidelap assuring a tight form for concrete. In position, they provide a safe, unobstructed working platform for construction activities.

CORRUGATED STEEL FORMS

ECONOMICAL Corruform eliminates waste. Light rigid sheets quickly placed won't bend, sag, stretch, or leak. The concrete you save actually pays for CORRUFORM. Clean-up time and expense are minimized, too!

SAFE Corruform provides an extra-tough, secure steel base for trades and concrete . . . a form which maintains structural principles and integrity, with no side pull on joists, beams or walls.



DURABLE Corruform is nearly twice as strong as ordinary steel of equal weight. It's an ideal vapor seal, too! With coated Corruform, insulating slabs serve better, last longer.

FOR INFORMATION AND ENGINEERING ASSISTANCE, CALL

KEELOR STEEL, INC.

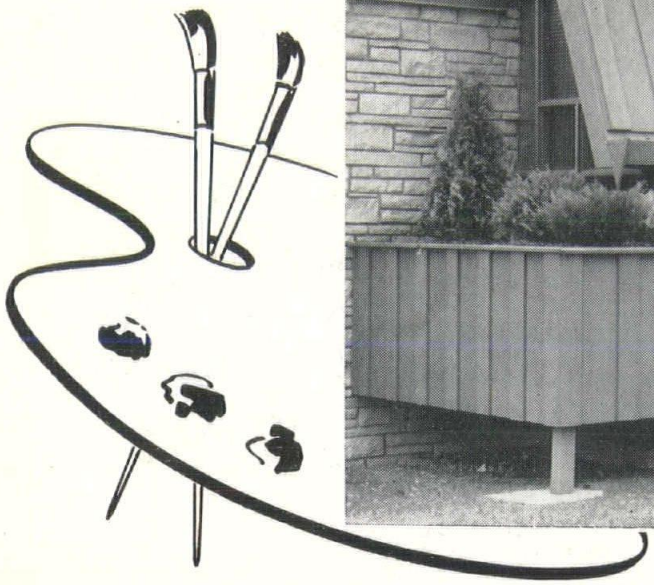
Northwest Distributors

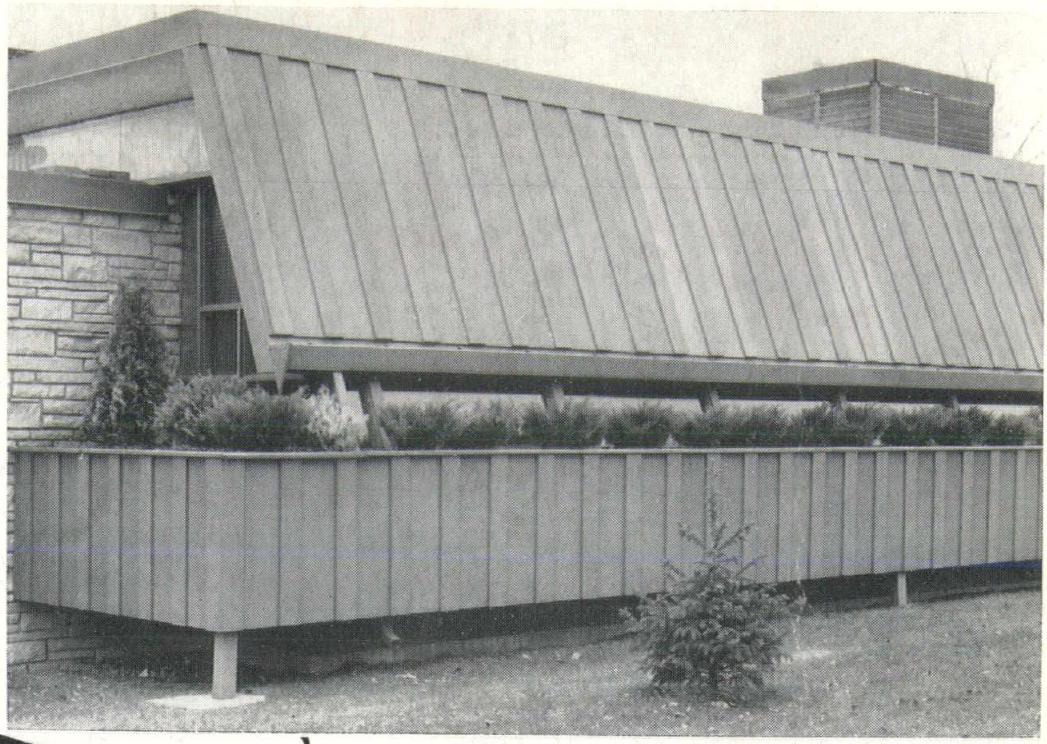
Phone: FE 3-4291—Ask for Jim Coulter or Jerry Halseth

909 NINTH ST. S.E. • MINNEAPOLIS 14, MINNESOTA

OUTSTANDING DESIGN SOLVES A PROBLEM

WORWA'S CAFE
Minneapolis



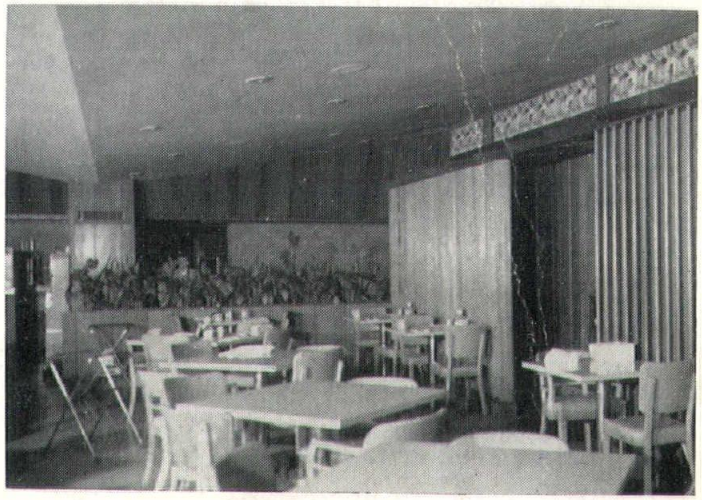


The problem was to double the size of the restaurant (located in a congested residential area) without reverting to four solid walls. A Palco Redwood Board and Batten Window Box-Planter and Plunging overhang was the distinctive answer. Palco Redwood 1 x 12″ boards and 1 x 6″ Battens, in this case, give an effect half way between a typical Board and Batten and the "Board on Board" designs. Note the built-in gutter. The cooling tower is Redwood, of course.

PALCO Redwood is tops in ALL these qualities

- ✔ High Dimensional Stability
- ✔ Low Swelling and Shrinkage
- ✔ Finest Paint Retention
- ✔ Greatest Durability
- ✔ Good Workability
- ✔ Glue-holding Ability

The board and batten effect was continued in the interior, as partially shown in the picture to the right. Note the vertical Redwood louvres used to separate work and dining areas. These louvres can also be used to advantage in exterior situations that require privacy, such as patios, entry-ways, and carports.



Specify PALCO REDWOOD

CANTON REDWOOD SALES CO.

Wholesale Distributors of Palco Redwood Since 1930

221 West 78th St. Minneapolis, Minnesota ROckwell 9-3221

BUILD WITH REDWOOD — THE WOOD ETERNAL