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aia

MAY-JUNE, 1955 ••• VOLUME XIX NUMBER THREE

.....appearance has influence



*These lines have been added
to our expanding service.*

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STAY-STRATE DOORS

HOLLOW METAL DOORS

HOLLOW METAL FRAMES

METAL WINDOWS

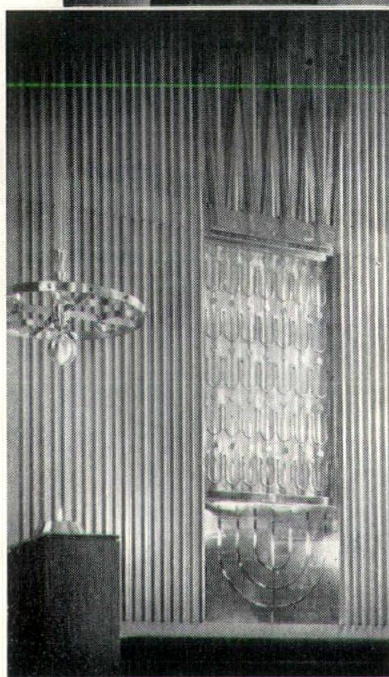
STEEL ROOF DECK

STEEL JOISTS

H. H. ROBERTSON CO. PROD.



Mount Zion Temple
St. Paul, Minnesota



Candelabra, Eternal Light and Ark Doors
by Crown.

Ark doors are fabricated from bronze sheeting, applied with aluminum ornaments . . . and are topped with ruby red plastic spheres.

Bergstedt & Hirsch, Architects

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It's in the news — It's Advertised in . . .

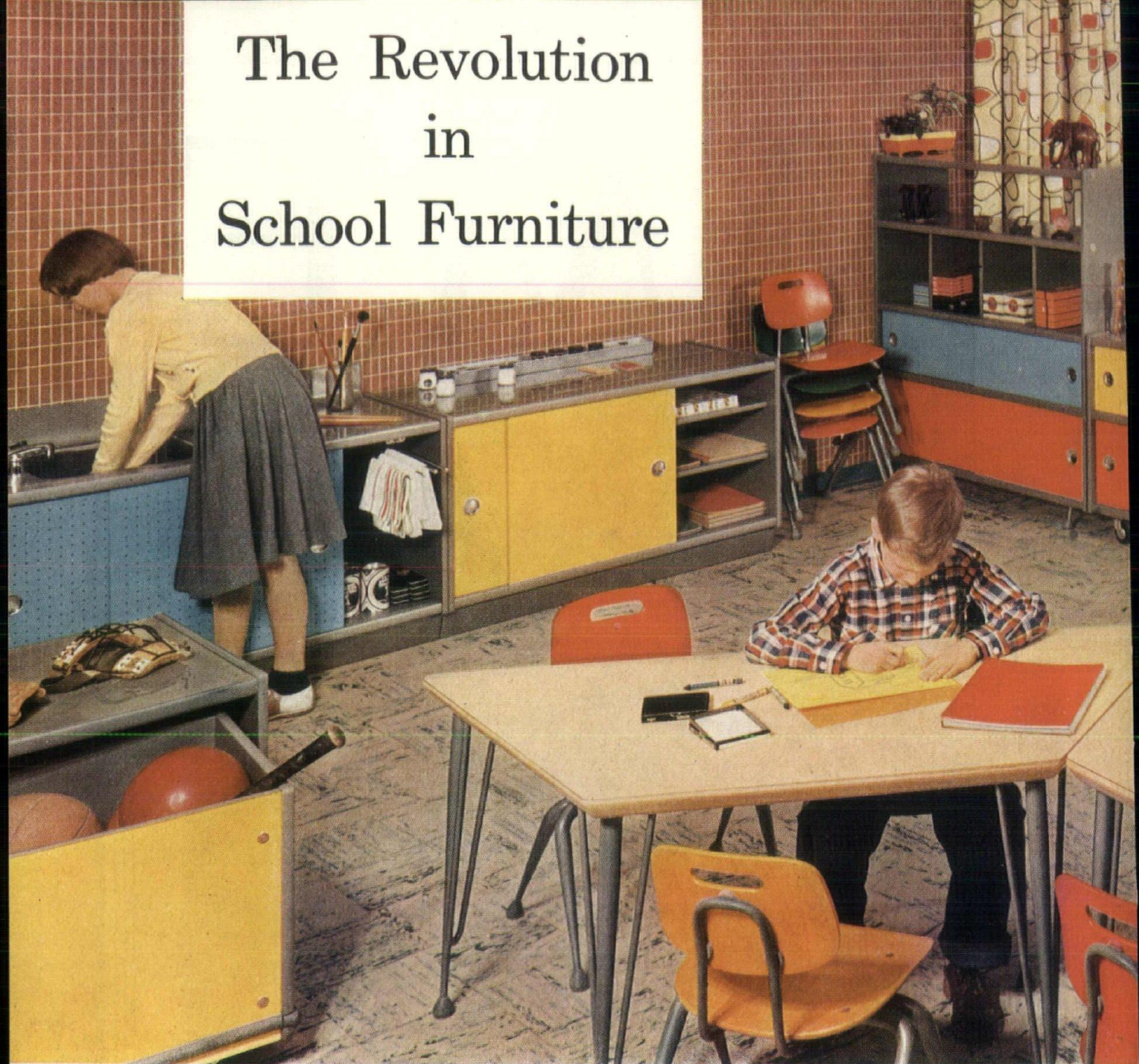
TIME

THE WEEKLY NEWSMAGAZINE

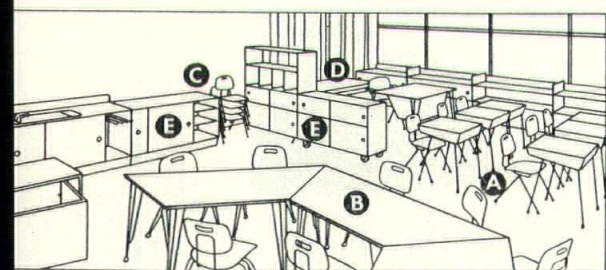


BRUNSWICK PACES THE REVOLUTION IN SCHOOL FURNITURE

The Revolution in School Furniture



BRUNSWICK turns classroom



Here is a new concept in school furniture that is already bringing a new way of life to students in more than 2,000 schools. From kindergarten through college, students welcome the flexible, friendly, modern design of Brunswick in the classroom.

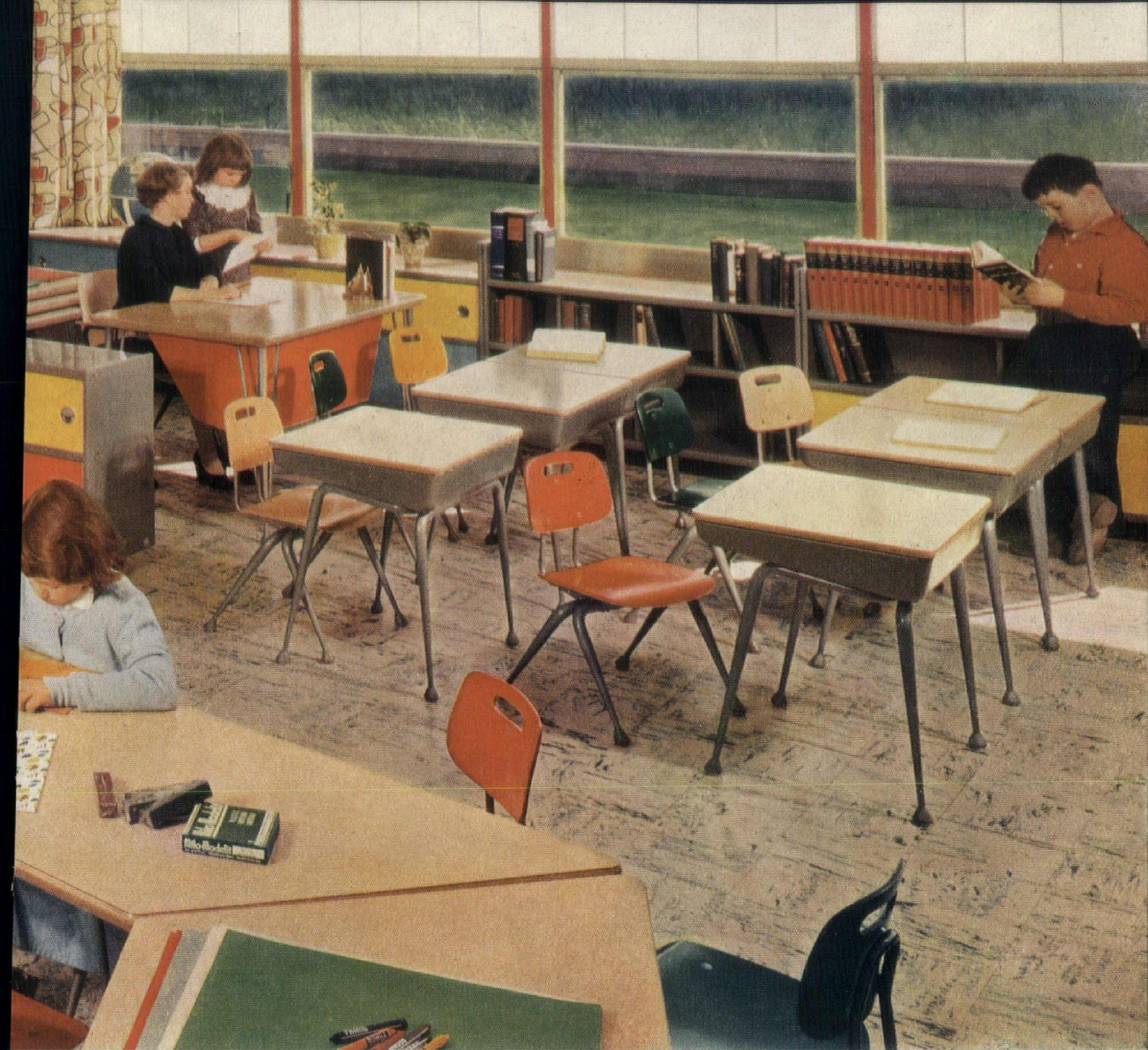
Chairs (A) are the kind that outlast children.

Really comfortable and versatile too! Basic four-in-one chair becomes armchair, tablet armchair, or chair desk with easy-to-put-on attachments.

Tables (B) are round, half-round, rectangular, or trapezoidal. In five sizes they combine in an endless variety to suit any activity. Desks group together providing large work areas.

Chairs and desks stack out of the way (C), save valuable space. Tables nest (D).

Cabinets (E) are as flexible as the changing needs of the classroom. With or without sliding panels.



RESEARCH CLASSROOM, UNIVERSITY OF MICHIGAN

into learning-and-living rooms!

s, wheels, interior dividers, Brunswick cabinets
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aces. They are so colorful, so practical, folks
see them want them for their homes, too.
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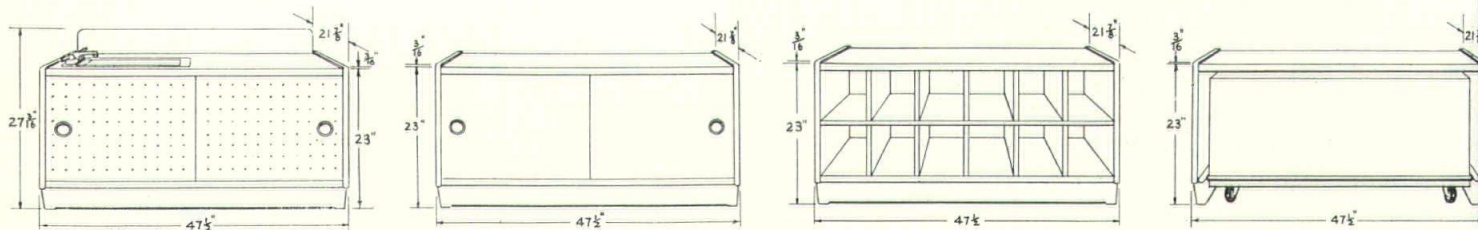
Brunswick

A Deserved Tribute to Architects

During the last decade, many changes have taken place in schools, in new teaching methods as well as a major change in the overall function of the school building. In the past, it was used almost exclusively as a school, whereas today it is a community center, used as much for outside activities as for classroom work.

Today's architects have worked out major design changes to meet these changing needs during a period of a very large volume of school construction. This is an excellent example of the ability of the nation's design leaders. Now Brunswick has designed cabinets to meet the changing needs of today's schools. This is the reason the new Brunswick cabinet line has been so overwhelmingly received with great enthusiasm by all architects who have seen it.

We at Hauenstein & Burmeister cordially invite all architects to our showroom at 2629 30th Avenue South, PA. 1-2415, to see and learn more about Brunswick's flexible cabinets.



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NORTHWEST ARCHITECT

Welcome, AIA

The Minnesota Society of the American Institute of Architects is happy to welcome the 87th Annual Convention of the AIA to Minnesota. We extend a cordial welcome to AIA members and their guests. We know time won't allow you to see all this area has to offer—where each new season in this "Theater of Seasons" brings new thrills in sport and entertainment. The special events scheduled during the convention have been planned to introduce you to the wonders of our region, which is famous for its thousands of beautiful lakes, its Arrowhead Country, its now internationally famous Minneapolis Aquatennial and St. Paul Winter Carnival as well as its commercial and industrial developments and the processing and marketing of the raw materials of the area—lumber, iron ore, native Minnesota stone, agricultural products, etc. Nowhere has more attention been given to the conservation of natural resources, producing such improvements as the taconite development and the use of scrub timber in the manufacture of wood products. From the seeds of new ideas industrial giants have grown and these are some things of which we are proud and which we wish you to enjoy with us.

On the professional side you should have time to see and inspect some of the new construction which has characterized the post-war era in the Northwest. The region has experienced a phenomenal industrial and commercial expansion, highlighted by the discovery of oil in North Dakota, the taconite industry's growth in the iron districts and the St. Lawrence Seaway development. More & more factories, shopping centers, homes, churches and schools are in the design stage and under construction. When you view this new construction notice the contributions of our fine architects in good design and function and the use of so many materials obtained or processed in our area.

Have a pleasant stay, a safe trip home, but hurry back to see us again!

George C. Darrell

President,

Minnesota Society of Architects

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VOLUME XIX
NUMBER 3 1955

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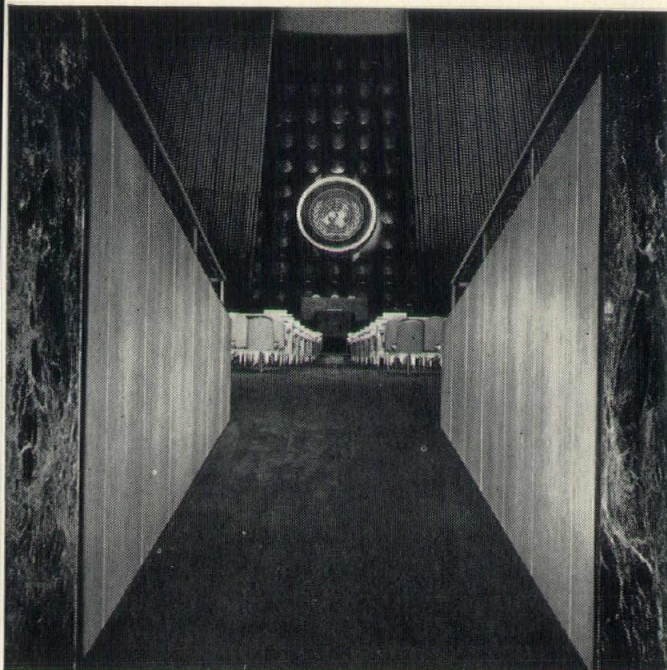
NOTE

WAYLITE 7 $\frac{7}{8}$ x15 $\frac{1}{2}$ FACE UNITS				WAYLITE MASONRY WALL PHYSICAL PROPERTIES							
Nominal Thickness of Unit	Average Face Shell Thickness Inches	Minimum % Solid	Average Weight per Unit lb.	Average Wt. per Sq. Ft. Wall lb.	Fire Retardant Rating Hours (1)			Decibel Reduction-Plaster 2 sides (2)	Noise Coeff. Plain Wall (2)	Thermal "U" Value (3)	
					Plain Wall	Plaster				Plain	Furred & Plastered
1 side	2 sides										
4" Hollow	1"	60	17	21	1 $\frac{1}{4}$	1 $\frac{3}{4}$	2 $\frac{1}{2}$	50	45%	.51	.32
4" Solid	1 $\frac{3}{16}$ "	75	20	26	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	50	45%	.48	.31
6" Hollow	1 $\frac{3}{8}$ "	62	25	31	2	2 $\frac{1}{2}$	3 $\frac{1}{2}$	51	45%	.35	.24
8" Hollow	1 $\frac{1}{2}$ "	62	34	41	4	5	6	53	50%	.32	.23
10" Hollow	1 $\frac{3}{4}$ "	60	40	48	5	6	7	55	50%	.31	.23
12" Hollow	1 $\frac{3}{4}$ "	50	40	48	5	6	7	55	50%	.31	.23
10" Cavity 2" air space	2-4" hollow	60	17	42	4	5	6	55	50%	.23	.18
4" Brick Back-up	1-4" hollow	60	17	57	5	6	—	55	50%	.33	.24

(1) Fire retardant ratings are values given in National Bureau of Standards Report, Fire Resistance Classification of Building Construction BMS92.

(2) Sound Reduction and absorption values based on tests at Riverbank Laboratories, Geneva, Ill.

(3) Thermal Insulation Values based on tests at University of Minnesota and National Bureau of Standards using the guarded Hot Box method.



Golden narra Weldwood paneling lines entrance of General Assembly Hall of United Nations Building

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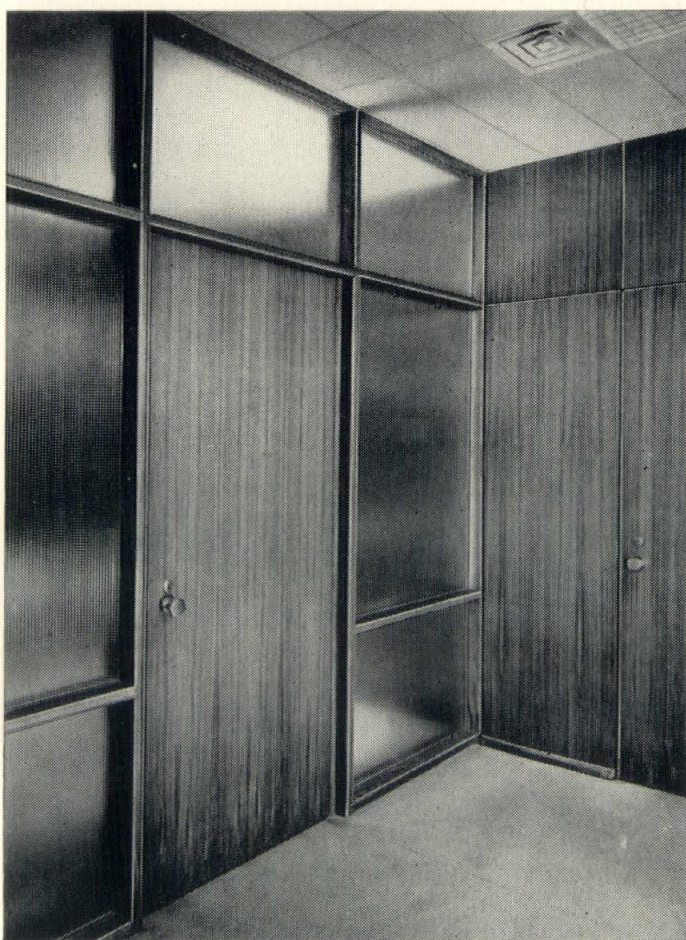
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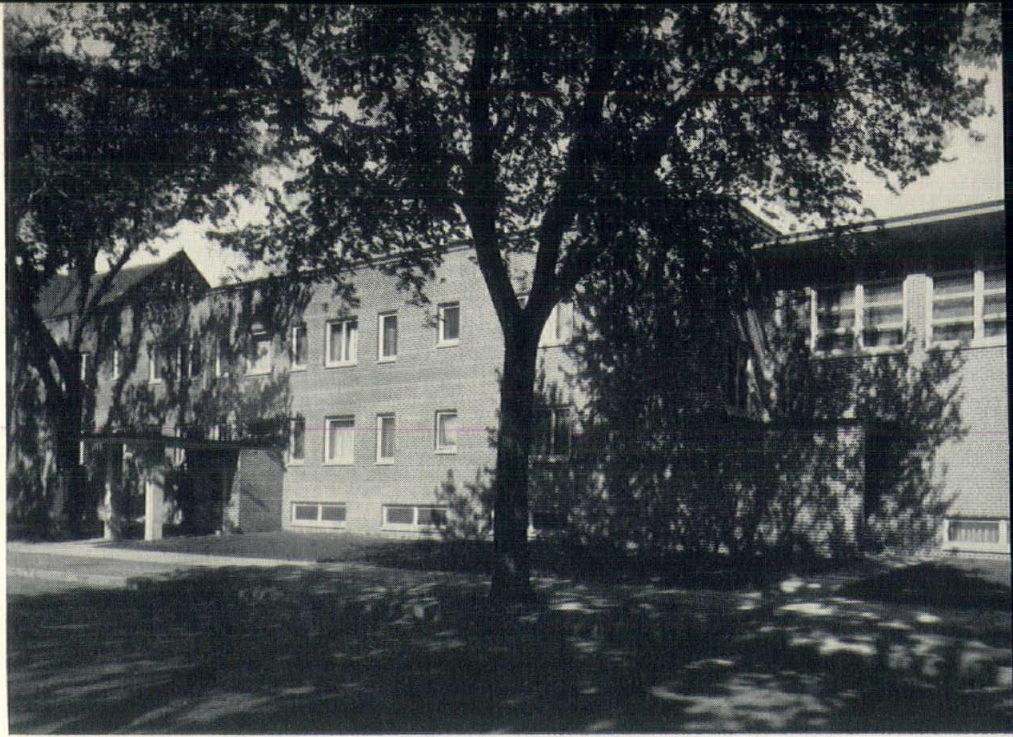


Rich-figured blond Korina® Weldwood from the Belgian Congo with matching Weldwood Fire Doors adds distinctive beauty to this office of an Assistant Secretary General. Korina is offered exclusively by United States Plywood.



Above you see an interesting application in the United Nations building of American walnut Weldwood and matching Weldwood Fire Doors. The facing veneer for the doors came from the same flitch used for the attractive paneling.

*St. Stephen's Catholic Church
Rectory, Minneapolis, Minn.*

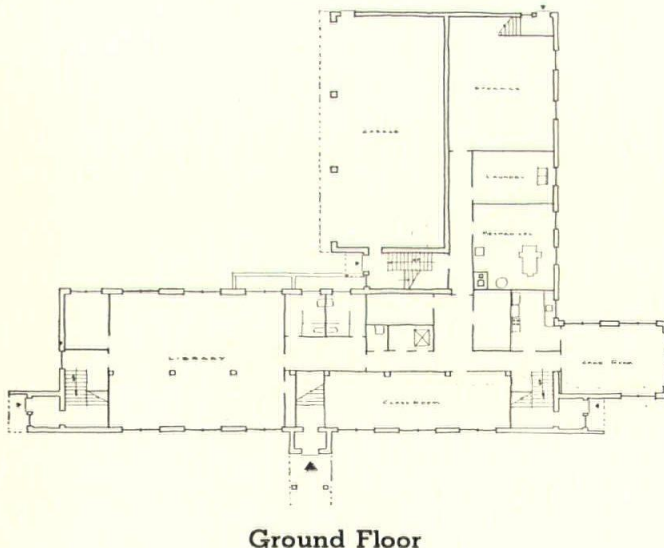
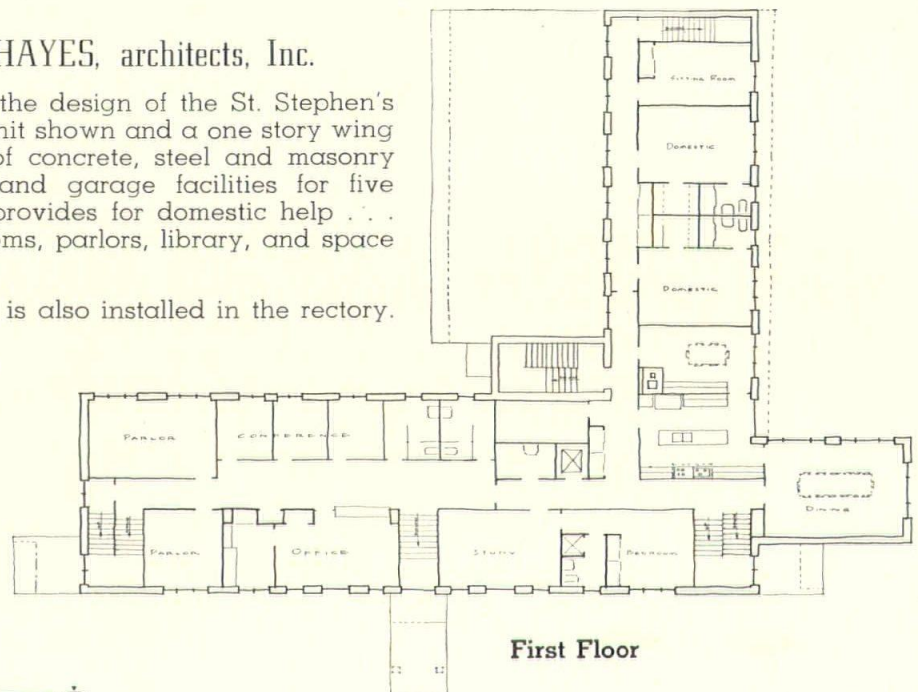


HILLS-GILBERTSON AND HAYES, architects, Inc.

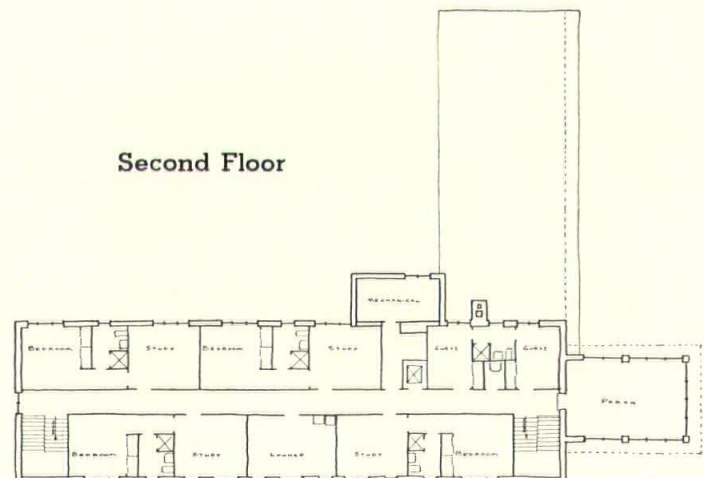
Pella Casement windows into the design of the St. Stephen's Rectory . . . for the two story unit shown and a one story wing behind this unit. This fireproof concrete, steel and masonry structure provides residence and garage facilities for five priests and their guests . . . provides for domestic help . . . provides offices, consulting rooms, parlors, library, and space for other parish needs.

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Pella
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Construction view of 10-story, 500-bed Veterans Administration Hospital, Iowa City, Iowa. Ellerbe & Co., St. Paul and Leo A. Daly Co., Omaha, architects and engineers. Gust K. Newberg Construction Co., Chicago, general contractor.

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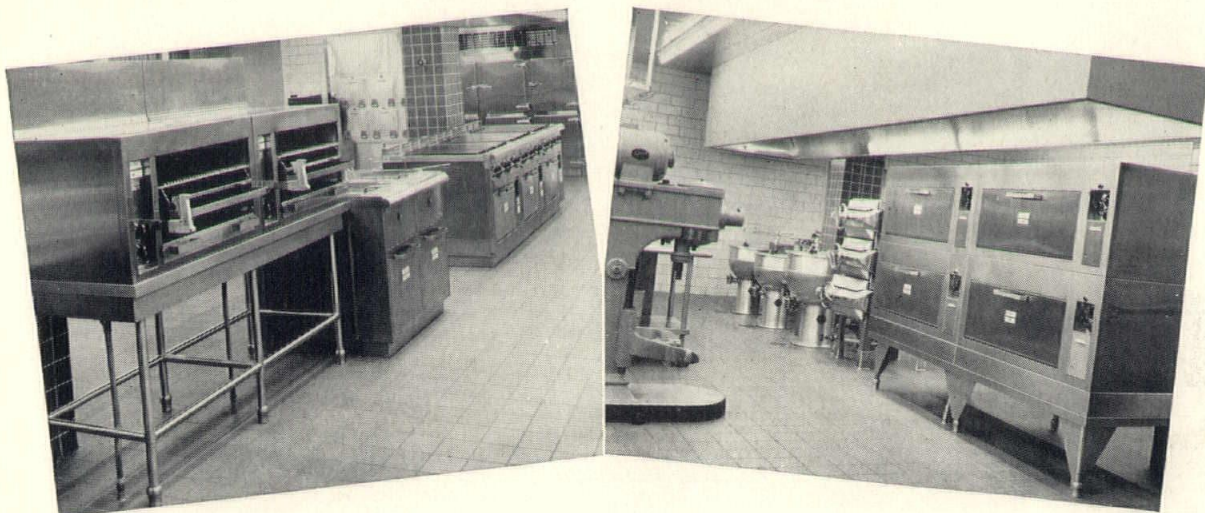
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Architecture

the Philosophy of Form



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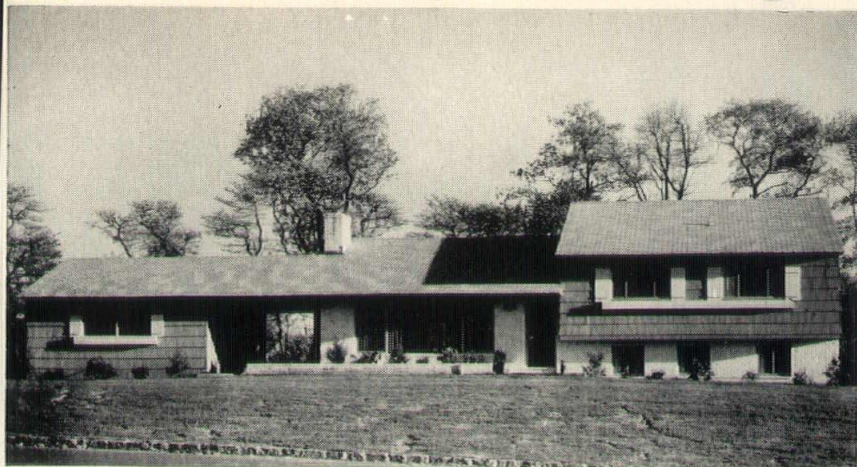
What other endeavor presents so noble a field for the display of the grand and the beautiful, yet is so intimately connected with the essentials of life.

At this, the 87th annual convention of the American Institute of Architects, the Georgia Marble Company is proud to pay tribute to the profession it has served for seventy years.



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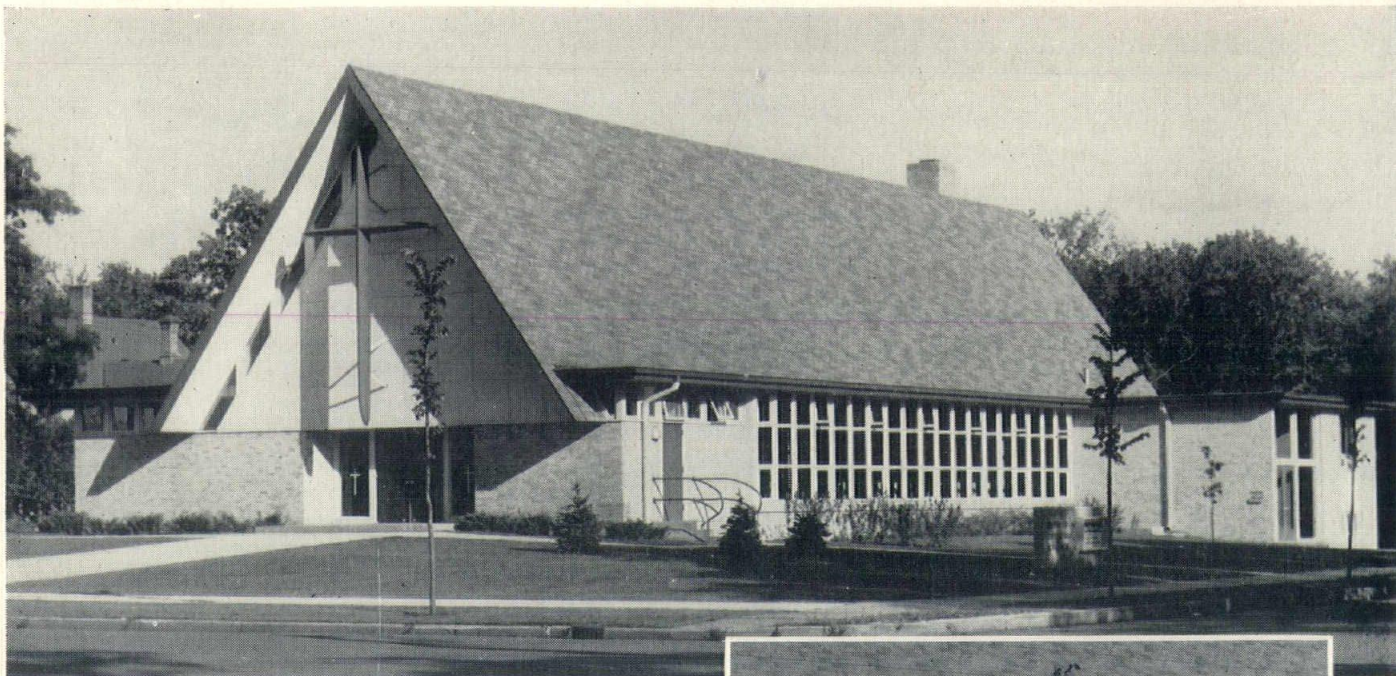
RUSCO HORIZONTAL-SLIDE PRIME WINDOW



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RUSCO FULVUE PRIME WINDOW



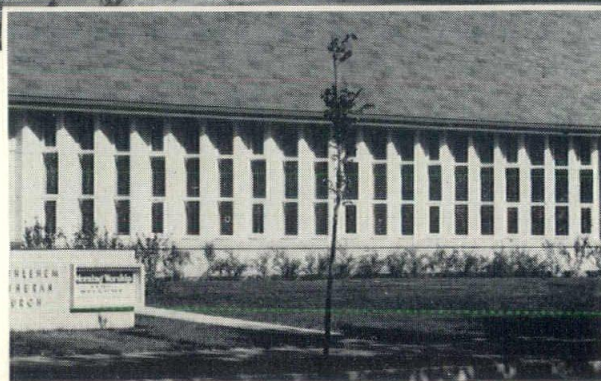
Davidson Architectural Porcelain is used on the Bethlehem Lutheran Church in St. Cloud, Minnesota for the attractive gable at the front and for the "baffle" design between windows on both sides. Smaller picture shows "baffle" treatment from another angle. Architects: Traynor & Hermanson, St. Cloud, Minnesota.

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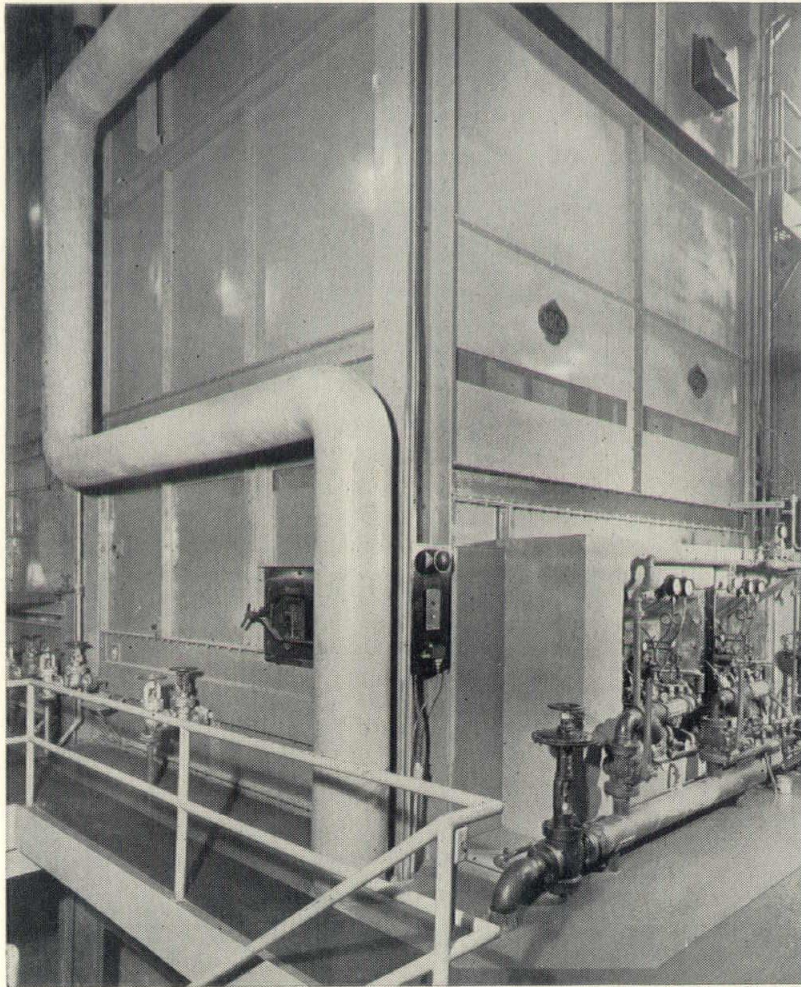
This complete architectural file on Davidson Architectural Porcelain contains illustrations, details of basic and special panel shapes and their installation. Write for your copy.

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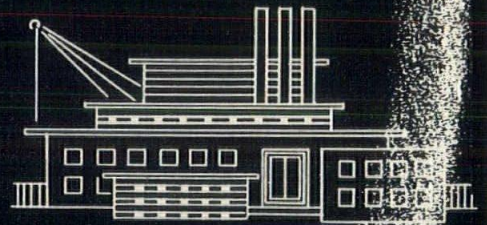
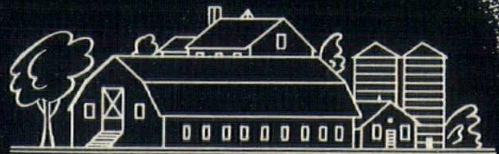
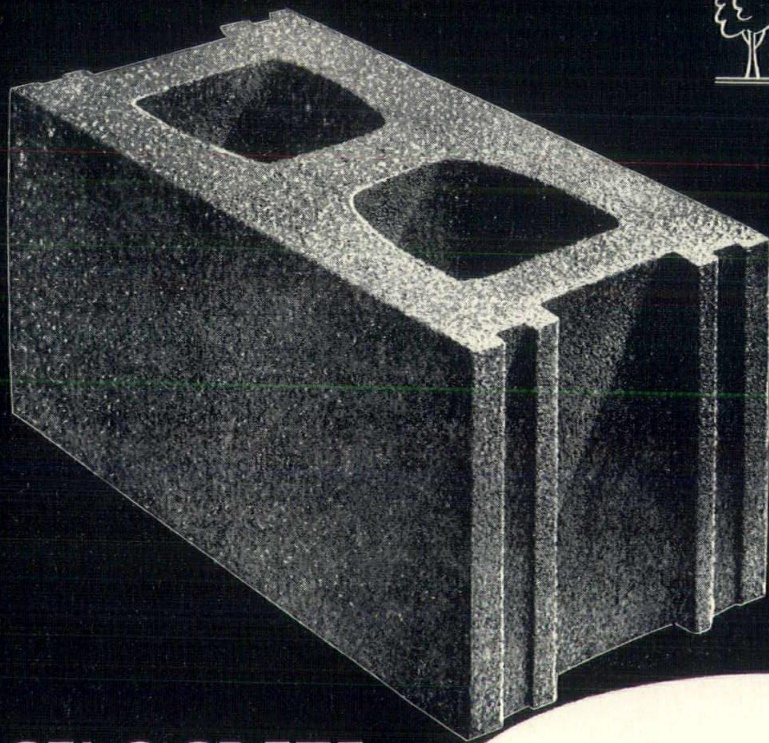
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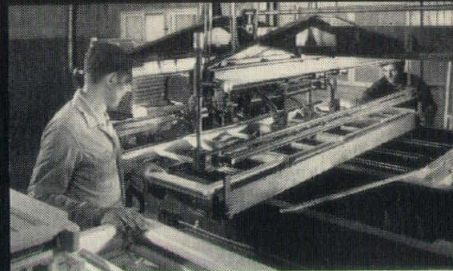
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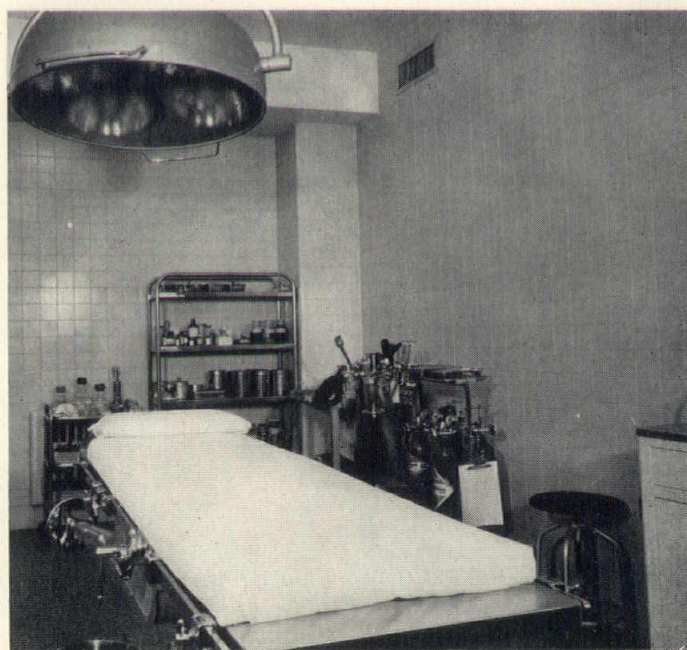
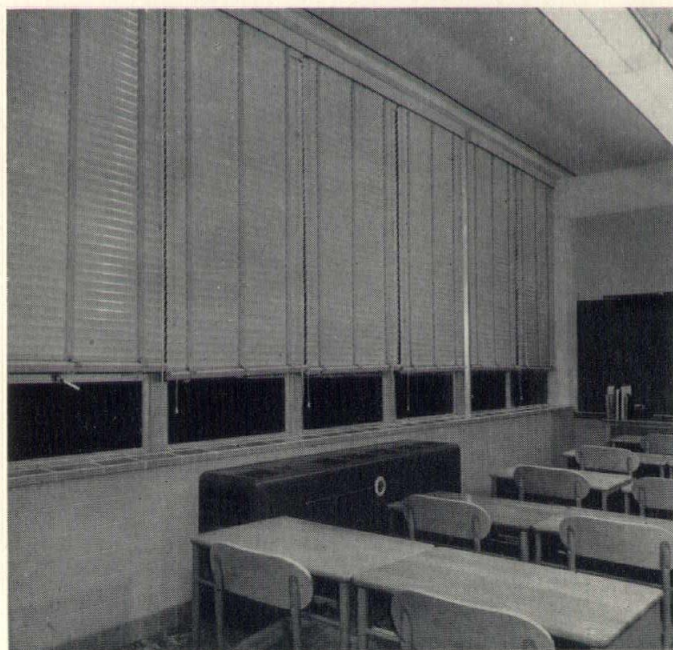
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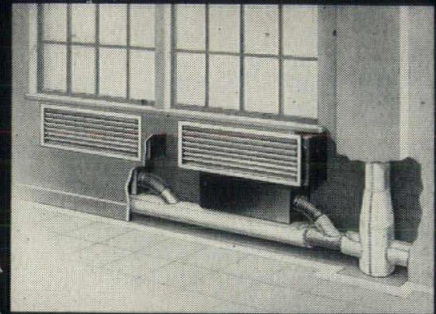
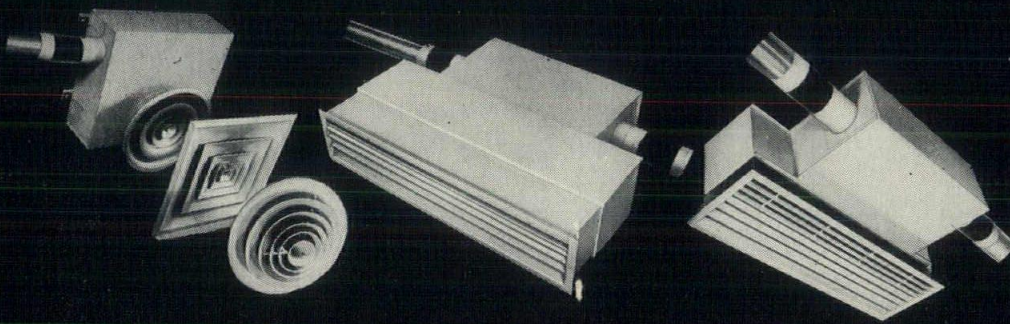
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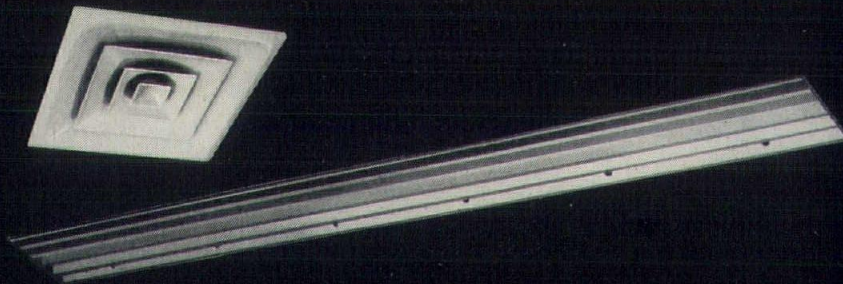
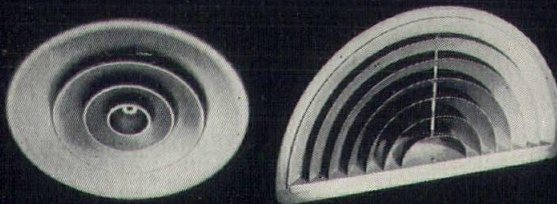
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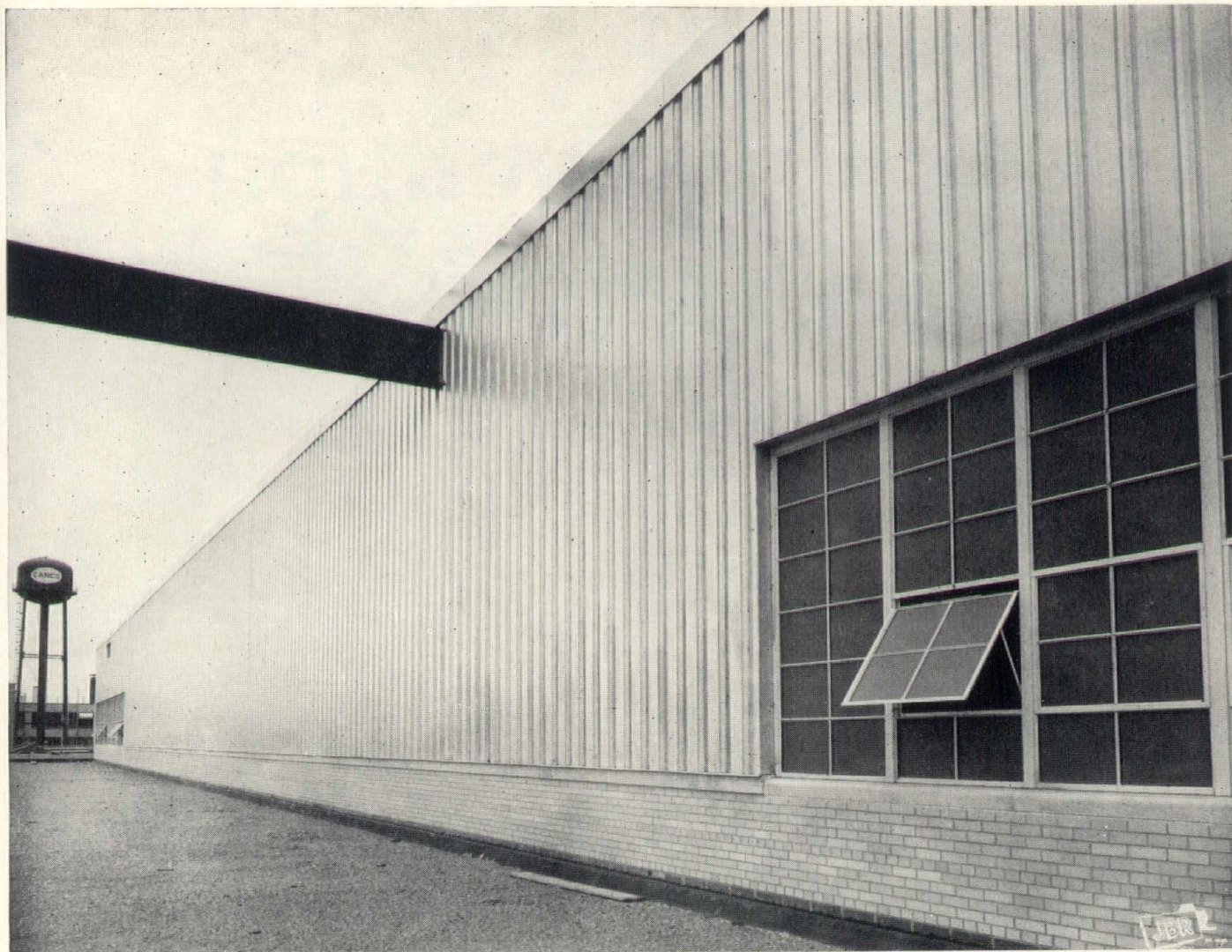
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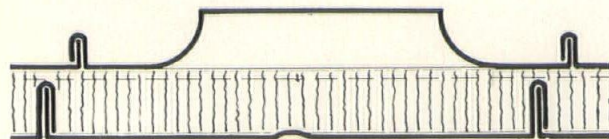
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NORTHWEST



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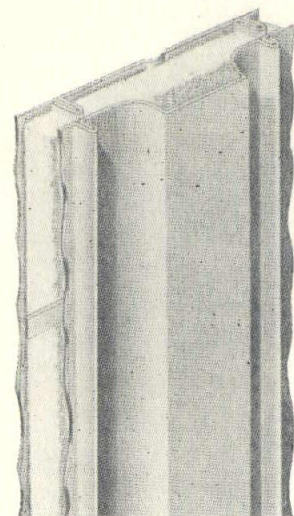


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These Officers Will Guide **AIA Convention** in Minneapolis, June 20-24

**Theme of "Designing for the
Community" Will Encompass
Wide Range of Vital Problems**



PRESIDENT CLAIR W. DITCHY

Cair W. Ditchy was re-elected president of The American Institute of Architects during the Institute's 86th annual convention in Boston. Mr. Ditchy was formerly secretary of the organization.

A distinguished member of the architectural profession, he has been in private practice in Detroit since 1921 and specialized in the design of schools, hospitals and housing projects. Of particular note are his Alice Crocker Lloyd Dormitory at the University of Michigan, the grade school and convent for Shrine of the Little Flower, Climax Molybdenum Laboratory and Highland Park General Hospital, all in or near Detroit. Among housing projects on which he collaborated with others are Brewster Homes and Parkside Homes, both located in Detroit.

Since 1924, when he became a member of The American Institute of Architects, he has devoted much of his time to the society. He served as director, secretary, vice-president and president of the Detroit Chapter, AIA, and as director, vice-president and president of the Michigan Society of Architects. From 1938 to 1941 he was a regional director of the AIA and in 1941 acted as president pro tem of the annual convention.

In 1944, President Ditchy was elevated to the rank of Fellow of the AIA. From 1945 to 1948 he served on the Jury of Fellows which each year elects the new AIA Fellows. Other Institute activities included work on the committees on by-laws, unification, the national capitol, housing, and chapter affairs. He has represented the Institute in Europe, Mexico and at many official functions in America.

Mr. Ditchy was born in Kelley's Island, Ohio, in 1891. He received his A.B. in 1911 from the University of Michigan and his B.Arch. in 1915. His first architectural experience was gained in the office of Albert Kahn, where he was employed from 1915-17 and from 1919-21, the intervening years being spent as a lieutenant in the American Expeditionary Forces. In 1927 he was appointed Instructor in design in the College of Architecture at the University of Michigan.

The president of the Institute is a past director of

NORTHWEST

American Institute of Architects

87th Annual Convention

Minneapolis, Minnesota

June 20-24

Tentative Program

MONDAY, JUNE 20

9:30 A.M.:

Registration Opens

11:00 A.M.:

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

TUESDAY, JUNE 21

9:00 A.M.:

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

9:30 A.M.:

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

12:45 P.M.:

Address on Urban Renewal

2:15 P.M.:

Honor Awards Presentation

2:45 P.M.:

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

5:45 P.M.:

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

7:30 P.M.:

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

WEDNESDAY, JUNE 22

9:00 A.M.:

Registration Continues

9:30 A.M.:

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

12:30 P.M.:

Luncheons as arranged
College Alumni Groups

State Organization Groups

Architectural Fraternity Groups

2:15 P.M.:

Local Tours as arranged by Host Chapters

2:15 P.M.:

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

5:00 P.M.:

Deadline for Presenting Resolutions

6:30 P.M.:

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

THURSDAY, JUNE 23

9:00 A.M.

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

9:30 A.M.:

Third Business Session
Report of Resolutions Committee

10:00 A.M.:

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

12:45 P.M.:

The Awards Luncheon

2:45 P.M.:

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

7:30 P.M.:

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

FRIDAY, JUNE 24

9:30 A.M.:

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

1:30 P.M.:

Luncheon, The College of Fellows

2:30 P.M.:

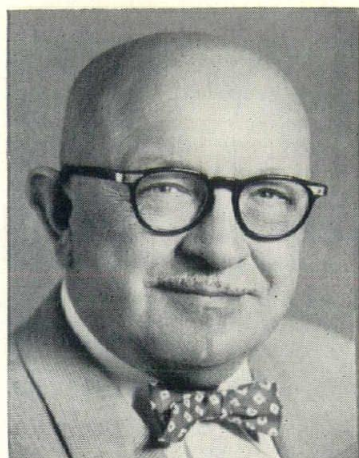
Seminar—Regional and Chapter Problems

4:30 P. M.:

Adjournment sine die.

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

the Michigan Engineering Society and was on the board of founders of the Engineering Society of Detroit, of which he has been first secretary, director and assistant treasurer. He has been chairman of the Associated Technical Societies of Detroit and secretary and vice-president of the Detroit Interprofessional Council. He has also been active in the Citizens' Housing and Planning Council as director and secretary. He is an honorary member of Tau Sigma Delta and Sigma Rho Tau and has been national president of Alpha Rho Chi.



FIRST VICE-PRESIDENT EARL T. HEITSCHMIDT

Earl T. Heitschmidt of Los Angeles, first vice-president of the American Institute of Architects, has been active in civic and professional organizations for many years. He has served on many important Institute committees as well as those of his chapter and California Council of Architects. He is a candidate for re-election at the Minneapolis convention.

A native of Portland, Oregon, the Los Angeles architect attended the University of Oregon and graduated with the class of 1919. He entered M.I.T. following his undergraduate work and received his degree from the eastern school in 1922. Following his graduation he became Pacific Coast Manager for Schultz and Weaver and served in that capacity until entering private practice in 1929.

He has served AIA as a regional director, on the Octagon Endowment Fund Committee, Committee on Architect and Government, Committee on Building Codes and the National Joint Co-operative Committee of the AIA and the AGC. He has been vice-president of the Southern California Chapter and served as treasurer of the chapter for two years. He has also been a delegate to the California Council of Architects. He is very active also in civic affairs.

Since 1951 Mr. Heitschmidt has been a member of the State of California Board of Architectural Examiners and in 1954 Governor Goodwin Knight re-appointed him to the Board for another four-year period. He has also been a member of the Advisory Committee on Building Codes for the City of Los Angeles since 1941.



SECOND VICE-PRESIDENT HOWARD EICHENBAUM

Howard Eichenbaum, prominent architect of Little Rock, Arkansas, is second vice-president of The American Institute of Architects, being re-elected at the Boston convention.

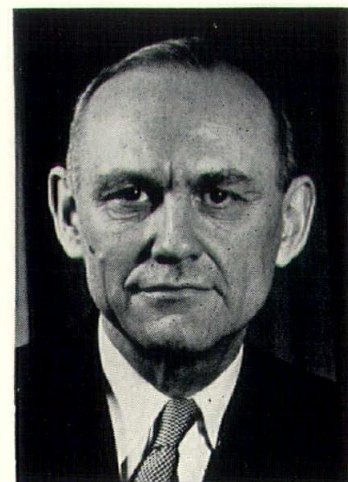
Active in community affairs, Mr. Eichenbaum is a past president of the Little Rock Club of Lions International and of Temple Men's Club, Little Rock, past president of the Quapaw Area Council of the Boy Scouts of America. He has served as a member of the Little Rock City Planning Commission for six years and has been chairman for the past two years. Mr. Eichenbaum was twice elected president of the Arkansas Chapter of The American Institute of Architects.

From 1938-1939 Mr. Eichenbaum was a member of the Arkansas State Safety Council and served as secretary of the Arkansas State Board of Architecture from 1939-1941. From 1932-1934 he was chairman of the Pulaski County Relief Commission and vice-president of the Social Welfare Bureau.

Born in Little Rock in 1904, Mr. Eichenbaum was graduated from Washington University in St. Louis, Missouri, in 1924 with a degree of bachelor of architecture. He was a junior associate member of the AIA in 1925 and became a corporate member in 1939.

Mr. Eichenbaum, member of the firm of Erhart, Eichenbaum and Rauch, served for three years as a regional director. He organized the first regional

Regional Director Edgar H. Berners of Green Bay, Wis., is active in the liaison work, handles the area in which the Convention City is located.



council of the Institute, the Gulf States Regional Council. During the past year he has served as a member of the AIA Committee on National Capital, chairman of the Committee on reorganization of Institute Committees and member of the National Committee on By-laws.



SECRETARY GEORGE B. CUMMINGS

George Bain Cummings of Binghamton, N. Y., re-elected national secretary of AIA in Boston last year, is a member of the firm of Conrad and Cummings of Binghamton. He is a candidate for 1955-56 president of the Institute.

A leader among New York State architects, Mr. Cummings is well known for his work in city planning and civic improvement. At present he is vice-chairman of the New York State Building Code Commission. He also served for many years as a member of the Panel of Community Consultants for the New York State Department of Housing, on Binghamton's City Planning Commission and on the Broome County Planning Board. In 1949 the Central New York Chapter, AIA, awarded Cummings a citation for "Public Service in Civic Improvement."

Born in New Ipswich, New Hampshire, in 1890, Mr. Cummings received his architectural training at Cornell University and for five years after graduation was employed by Carrere and Hastings, famed New York architectural firm. He has worked in Binghamton since 1920 and has been a partner in his present firm since 1926.

He became a member of AIA in 1921 and was elevated to the rank of Fellow in 1948. He held offices in the Central New York Chapter from 1921-25 and served two terms as New York Regional Director of the Institute in the 1940's. In 1950 he was elected second vice-president of the New York State Association of

Architects. In addition to his architectural work, he is a frequent contributor to the *Journal of the A.I.A.* and to the *Empire State Architect*.



TREASURER LEON CHATELAIN, JR.

Leon Chatelain, Jr., of Washington, D. C., was elected treasurer of AIA in 1954 and is a candidate for re-election this year.

Born in Washington on March 8, 1902, Mr. Chatelain attended the public schools there and was graduated from George Washington University with a B. Arch. He has practiced architecture in his own name in the Washington area since 1930. Among his executed works are Chesapeake and Potomac Telephone Company structures since 1934, the Washington Gas Light, Kiplinger and other commercial office buildings, several Georgetown University structures, churches and facilities for the armed services. He is a member of the District of Columbia Board of Examiners and Registrars of Architects.

Treasurer Chatelain became an associate member of the Washington-Metropolitan Chapter in 1922 and a corporate member in 1930. He was elevated to Fellowship in 1953. Through the years he has held many committee and elective offices and is a past-president of his chapter. During the current year he has served as a member of the special Institute Committee on Organization, the Joint Committee of ASPE-AIA, and as chairman of the sub-committee on Judiciary. He is a trustee of the AIA Insurance Trust.

He has been active in business and civic affairs and is a past president of the Washington Board of Trade and of the Washington Building Congress. He has conducted the Red Feather and numerous charitable campaigns in Washington and has served on many local committees on public works, redevelopment and for the preservation of historic buildings.

GEORGE MELCHER OF MINNEAPOLIS MADE HONORARY MEMBER OF AIA

George B. Melcher, Flour City Iron Works of Minneapolis, will be made an honorary member of The American Institute of Architects for his work in an allied field. The membership will be given during the annual convention of the group in Minneapolis.

The Danish architect, Kay Fisker of Copenhagen, will be made an Honorary Fellow. Honorary memberships are to be awarded also to the poet, writer and historian, Carl Sandburg of Flat Rock, N. C.; James W. Follin, commissioner, Urban Renewal Administration, Housing and Home Finance Agency, Washington, D. C.; and C. D. Spragg, Secretary, Royal Institute of British Architects, London.



Mrs. A. O. Larson
AIA Co-Chairman

OUR HOSPITALITY FOR THE LADIES

A hospitality room exclusively for the use of the ladies attending the AIA convention is being sponsored jointly by the Duluth, Minneapolis and St. Paul chapters of AIA and the Minnesota-Dakota chapter of the Producers' Council. All ladies of the AIA and PC are cordially invited by the sponsors to use the room, where tea and coffee will always be available.

The room is #329 in the Radisson Hotel. It will be open beginning with Sunday noon, June 19, until 5 p.m., that day. Thereafter it will be open from 8:30 a.m., to 5:30 p.m., daily through Thursday, June 23.

Come see us!



Mrs. V. L. Larson
PC Co-Chairman

Special Plans for Ladies Promise Full Convention Program

While the official business of the AIA convention goes forward a special ladies' committee will see to it that the distaff side activities are taken care of. Under the co-chairmanship of Mrs. A. O. Larson for AIA and Mrs. V. L. Larson for the Producers' Council, the following features have been planned for the ladies.



Mrs. Donald Parsons of Minneapolis was Chairman of the publicity committee on ladies activities.

Other members of the ladies' committee are—for the AIA, Mesdames John Magney, George Carter, O. T. Lang, Arnold Raugland, Glynne Shifflet, Lyle Halverson, Robert Hendershot, Fred Gabbert and Austin Lange of Minneapolis, Mesdames Lawrence Hovik, Edwin Larson, William Witherspoon, George Darrell, John Dawson, Phillip Bettenberg and R. B. McCann of St. Paul and Mesdames R. Melander, Otto Olsen, Thomas J. Shefchik, C. H. Smith and Nelson Willis of Duluth—and for the PC, Mesdames R. E. Olsen, Norman Nelson, S. M. Olson, W. H. Rabe, L. B. Reak, E. R. Deegan, Rollin Child, James Coulter, S. Q. Dittenhoefer, A. J. Fischer, F. E. Homuth, A. C. Longtin and B. J. Mulcahy.

SUNDAY, June 19

There will be a boat trip on Lake Minnetonka for the board members and their wives. This trip starts at 5:30 p. m., and will end at 9:30 p.m. There will be a box supper served. Cost of trip and supper \$3.50 per person. This boat will accommodate 231 and the boat will leave the Excelsior Boat Docks, at Excelsior, Minn.

MONDAY, June 20

There will be an all-day tour of the Cold Spring Granite Co. plant. You will take the bus at the Hotel Radisson for the Great Northern Depot at 10:30 a. m., and your special train (with a diesel engine and air conditioning) will leave at 11 a. m. for a ninety-mile trip to the quarry where we will be met at headquarters and shown the displays of granite, etc. There will be fifty guides to show us through the plant in groups of ten and twelve. This tour will take about two hours and then we will board the train back to Minneapolis. There will be a complimentary luncheon served on the train. Out-of-town ladies are welcome. This will be an interesting and unusual opportunity to see architectural stone work in the making. There will be buses waiting your return to take you back to the Radisson Hotel. Complete cost of the tour is \$5.00. You will arrive back at the hotel at 6:00 p. m.

Registration will start at 9:30 a. m.

Dinner hour is open.

The Producers' Council will open their displays at 8:00 p. m., and following the displays there will be a show of some kind in the main ballroom of the Hotel Radisson.

All ladies attending the convention are requested to

visit our headquarters and register. There will be hostesses there to greet you from 9:00 a. m., to 5:00 p. m.

TUESDAY, June 21

Registration continued at 9:00 a. m.

9:30 a. m.—opening of business sessions as per program.

Ladies' luncheon—there will be a ladies' luncheon at 1:00 p. m. in Calhoun Beach Club. There will be buses at the Radisson Hotel to take you to the club and return you to the hotel after the luncheon. \$3.50 per person, including bus fare and tips. Favors, cigarettes, ear rings by AIA Auxiliary. There will be door prizes.

President's Reception, 5:45 p. m. The President's Reception at the Prudential Life Ins. Co., on Superior Blvd. There will be drinks and canapes served. This reception is for members of the AIA chapters and their wives and regardless of weather there will be shelter. This is free.

Tuesday evening—dinner and exhibition. Immediately following the President's Reception buses will take you to the Minneapolis Institute of Arts for a buffet dinner and a showing of Edward Steichen's photographic exhibition "The Family of Man," coming directly from the Museum of Modern Art in New York. This is one of three showings of this much publicized collection of outstanding human interest photographs. Maximum accepted for dinner, 300 persons. Total cost \$4.00 per person.

WEDNESDAY, June 22

Registration continued, 9:00 a. m.

9:30 a. m. second business session.

Wednesday morning is free for the ladies to go shopping, etc.

Luncheon—open to go where you desire.

At 2:00 p.m. there will be a tour of the Swedish Art Institute. Cost is \$1.50 per person, which includes your bus to and from Hotel Radisson. The ladies of the Institute will put on one of their beautiful teas. Producers' Council wives are invited.

There also will be a tour of the Betty Crocker Kitchens at 400 2nd Ave. Tickets may be secured when registering. This tour is free and Producers' Council wives are invited.

There will also be other tours to plants of Minneapolis-Honeywell Regulator Company, Flour City Ornamental Iron Works and the Andersen Corporation, also tours of buildings of architectural interest and to points of scenic beauty in the Minneapolis and Saint Paul area. Minimum transportation costs will be determined later.

Wednesday evening dinner and evening—a unique Minnesota Smorgasbord Dinner and Ice Skating Exhibition with orchestra in the St. Paul Auditorium. Buses will leave the Hotel Radisson at 6:00 p.m., and take you to the St. Paul Auditorium and return you to the Hotel Radisson after the entertainment. Cost, \$8.50 per person. This includes bus fare and a bottle of wine on each table. Producers' Council members are invited.

THURSDAY, June 23

Thursday morning at 9:00 a. m., there will be a Scramble Breakfast put on for the architects and their wives in the Flame Room of the Radisson Hotel. This

ARCHITECT

Host Committee Welcomes Conventioneers

**Chairman
Armstrong**



The architects of Minnesota are privileged to welcome the AIA convention to Minneapolis. Only a limited few of our members can recall the last such occasion as it took place nearly 40 years ago. In that period of time, however, the Twin Cities have flourished and we are proud now to be able to display our architecture, our lakes and parks and our people. We hope our visitors will find that midwestern hospitality is not just an empty phrase and the members of the host chapters of Minneapolis, St. Paul and Duluth are ready and anxious to see that their stay here is an enjoyable one. To that end there will be host members available at all times to help our guests in any way possible to insure that they do and see the things that interest them. The time of year selected for this convention should provide the most enjoyable weather of the year as June in Minnesota is normally delightful. We sincerely hope this will be a memorable trip for all who come. We of the host chapters want all our guests to let us help them in any way possible to insure their enjoyment.

Host Chapters Committee—
G. Clair Armstrong, chairman
Victor C. Gilbertson
David J. Griswold
Allan H. Meinecke
Roy N. Thorshov
George B. Townsend
Wilbur H. Tusler

breakfast is a yearly event at the national convention.

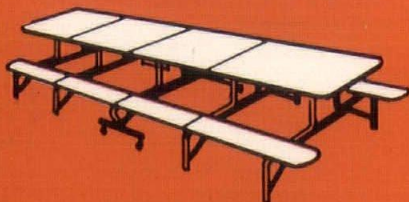
For the ladies there will be a boat tour of Lake Minnetonka at 11:00 a. m. This boat will accommodate 231 guests and it leaves the Excelsior Minnesota Boat Docks and returns to same, where you will find your buses to take you back to the Hotel Radisson. You will also catch this bus at Hotel Radisson to go out to the lake. There will be a box lunch served on this tour and the cost is \$3.50 per person.

Thursday evening is the annual banquet in the Radisson Hotel's Grand Ballroom; \$6.50 per person. These banquets are formal.

FRIDAY, June 24

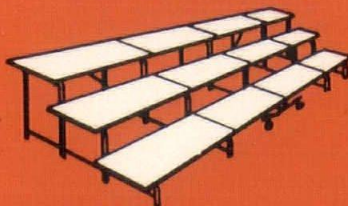
There will be a breakfast and style show in the Sky Room of Dayton's at 9:00 a. m. This breakfast will cost \$2.50. Producers' Council wives are invited.

TABLES WITH PLASTIC LAMINATE
TOPS AND BENCHES



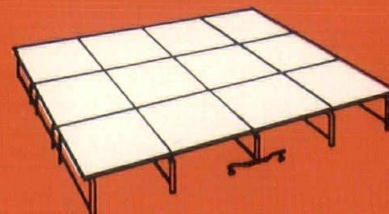
CONVERT YOUR GYM
TO LUNCHROOM
... in minutes

CHORAL RISERS



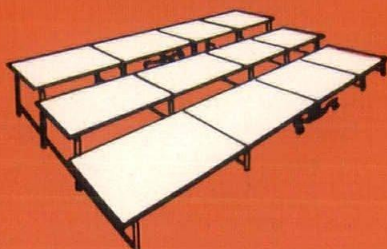
CONVERT ANY CLASSROOM
FOR CHOIR PRACTICE
... in minutes

PORTABLE STAGES



CONVERT ANY CLASSROOM
TO LITTLE THEATER
... in minutes

BAND STANDS



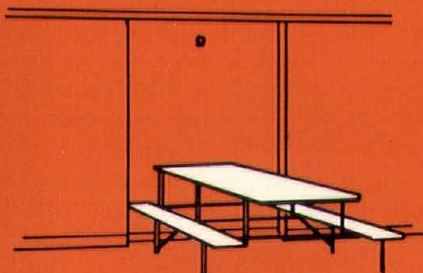
CONVERT ANY HALL
TO CONCERT HALL
... in minutes

BANQUET TABLES



CONVERT AN AUDITORIUM
TO BANQUET HALL
... in minutes

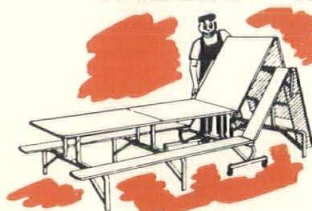
WALL-ATTACHED TABLES



CONVERT A CORRIDOR
TO LUNCHROOM
... in minutes

Hello-A.I.A.!

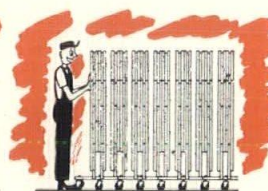
welcome to Minnesota—home of
Erickson products for multiple use of space
TABLES—RISERS—STAGES—STANDS



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in only 15 seconds



THEY WHEEL-A-WAY
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Here is the exciting new way to achieve *efficient* multiple use of floor space. With Erickson *extremely portable* Fold-A-Way equipment you can convert *any* area . . . gyms, classrooms, corridors, auditoriums, halls, etc. . . . into the extra space you need.

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Send us your floor plans. Let our engineers show you how to solve your space problems. No obligation, of course. Write Dept. NA-6 for New Catalog.

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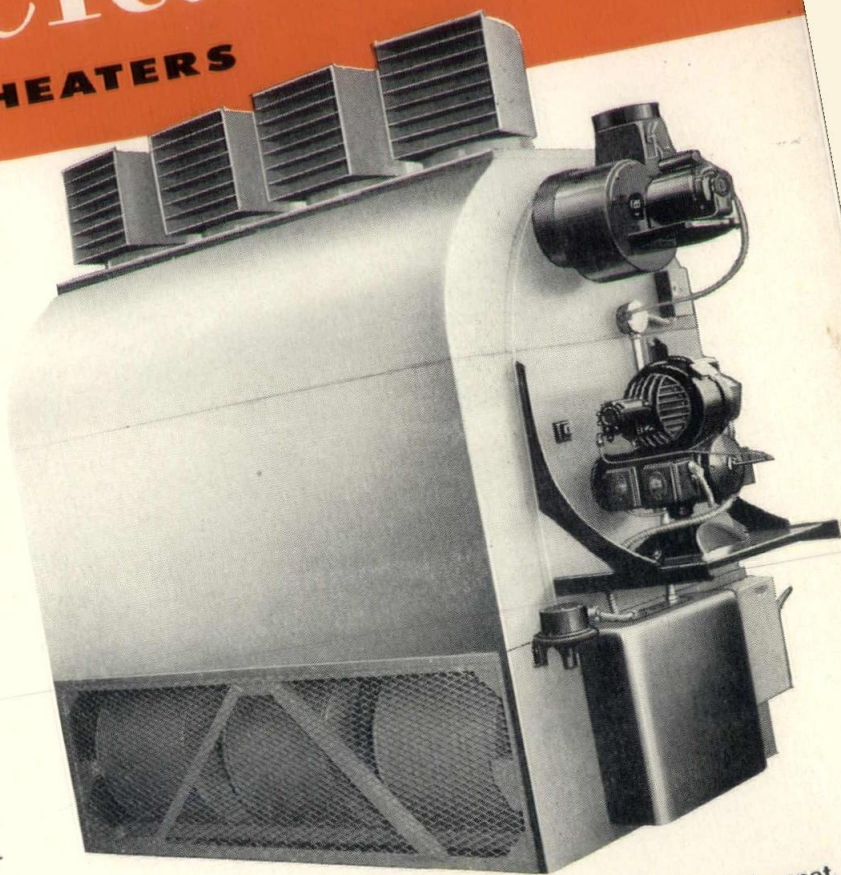
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AIA HONORS



**HOLLAND'S DUDOCK GETS
AIA GOLD MEDAL**

The Gold Medal, highest professional honor given by the AIA, is to be awarded this year to Willem M. Dudok, distinguished architect and city planner of Hilversum, Holland. Mr. Dudok has been invited to address the AIA annual convention in Minneapolis and the medal presentation will be made by President Ditchy at the annual banquet on Thursday, June 23.

Other honors to be given at the convention are the Fine Arts Medal, to the Croatian sculptor Ivan Mestrovic, who is now teaching and working at Syracuse University, and the Craftsmanship Medal to calligrapher John Howard Benson of Newport, Rhode Island. The Fine Arts Medal is the highest honor the Institute can bestow in fine arts other than architecture and the Craftsmanship Medal the highest honor for craftsmanship in the industrial arts.

Turpin C. Bannister, FAIA of Urbana, Ill., who did the final editing of "The Architect at Mid-Century" will receive the Edward C. Kemper Award, while a Citation of Honor will go to the Reinhold Publishing Company of New York for its work producing, at considerable risk, the two-volume "Report of the Commission for the Survey of Education and Registration."

An "award of recognition of an organization for distinguished achievement in architecture" will be presented to the Kohler Foundation, Inc., of Kohler, Wis. The AIA awarded the special citation in recognition of the Kohler Foundation's restoration of the historic Wade House in Greenbush, Wis.

Wade House, an historic inn built in Greenbush from 1847 to 1851, was in a state of disrepair when it was

bought by the Kohler Foundation in 1950. Under the direction of Mrs. Herbert V. Kohler the inn was restored as a memorial to Marie Christine Kohler, who had become interested in Wade House prior to her death in 1943. Three years of work and planning went into the recreation of the historic site. So far as was possible, original materials were saved and used in the restoration. Where replacement was necessary, the original materials were matched as closely as possible. Furnishings and interior items were carefully repaired and refinished. The entire restoration project included, in addition to the inn, a nearby house, a blacksmith shop and the surrounding property. The entire site makes up Wisconsin's newest state park. The complete restoration included even the landscaping of the area. Butternut trees, sugar maples, highbush cranberries and wild crabapples were replanted to restore the original surroundings.

The award to the Kohler Foundation will be given as an indication of the continuing interest of the AIA in the restoration of architectural monuments of the past as well as the creation of new architecture.

Background Notes—Willem Dudok

It is expected that Mr. Dudok, the internationally known pioneer of the modern movement in Holland, will come to the convention in Minneapolis to receive the award in person and to address the convention. Architectural critic, writer and historian Talbot Hamlin comments on Dudok as follows:

"For nearly 40 years, Willem Dudok has been working devotedly for the humanization and enrichment of the modern world. In his architecture and city planning he has been keenly alert to the modern materials and structural methods but to him these are merely means toward the production of towns and buildings that can become inspiring and delightful shelters and homes for the human spirit.

"Since this ideal has always controlled his work, it is natural that his insistence on rich colors, beautiful tactile qualities of surface and use of occasionally 'arbitrary' modulations of form to give interesting patterns in light and shade should seem perhaps to some of his more austere contemporaries superficial or too playful for serious consideration. Yet, in any architecture that claims to be democratic in aims, the extraordinary way in which Dudok has designed for people is of the highest significance, as is his companion concept that visual beauty is something the people themselves demand.

"Thus it is no accident that Dudok was the first modern architect who designed and built schools primarily for children and—because of the influence of these buildings on visiting educators—was the initiator of modern school design. The same quality interpreted in adult terms distinguishes all the best of his architectural work, like the Hilversum town hall. . . . For us today, his work stands as magnificent affirmation of an architecture designed always to set human beings at the very center of the focus."

Unlike the glassy and almost fragile-looking buildings designed by some of the French and German modernists, Dudok's designs are unmistakably Dutch—solid, simple and unpretentious. He builds mainly in brick and his mark is the expert handling of the building mass, almost like compositions in vari-shaped building blocks. His principal works are in Hilversum, where he has been city architect since 1928. Throughout the years he has maintained an extensive private practice as architect and city planner. In addition to Hilversum, he is responsible for the city plans of Wassenaar, Zwolle and the town and reconstruction plans for the Hague and Velsen-Ijmuiden. He designed buildings in Rotterdam, The Hague, Amsterdam and Velsen in Holland Curacao in the Dutch West Indies, Paris and other cities.

In his conception of architecture, Dudok proceeds from the plan of the town and its surrounding countryside to the individual building, or vice versa, but always thinking of one in terms of the other. He believes in the "restricted town," prevented from unlimited expansion by a surrounding greenbelt on which all building is forbidden. This is the plan he first developed for Hilversum. To handle a growing population he favors decentralized "satellite towns," built in country areas, like those executed for London by Sir Patrick Abercrombie.

Dudok suggests that variation in cities today must be achieved by the distribution of specialized buildings and building groups—schools, churches, office buildings, theaters, stadiums and stores. He points out that our housing—with the leveling of income and mixing of classes—is losing the natural variety of an earlier age when housing in a given area ranged from aristocrat's mansion to peasant cottage. He believes, however, that the modern city can produce its own special variety.

Challenging those modern architects who have dedicated themselves to a rigid "functionalism," Dudok writes:

"It is needless to say that efficient construction is the first requisite of good architecture, but do not let us be so foolish as to identify the two, and expect that correct construction will automatically lead to good architecture. . . . Why only visible construction should be considered as honest work has never become clear to me. . . . Along the heath, behind my house, runs an electric railway with excellent and honestly constructed portal frames of reinforced concrete, and how ugly it is, and how it disfigures the beautiful landscape! . . . I maintain that building only becomes art when it is sublimated by beautiful and harmonious space-propor-

tions, which ingeniously express the purpose and especially the cultural significance of the building."

Ralph Rapson, U of M School Head, Gets Top Honor



Mr. Rapson

Ralph Rapson, head of the School of Architecture at the University of Minnesota, will receive one of the top honors in design competition from the American Institute of Architects at the Minneapolis convention in June for his design of the United States Embassy Building in Stockholm, Sweden. The design was done in collaboration with John van der Meulen of Chicago. They will receive a First Honor Award, one of five made this year. The design which won the award is presented in its entirety elsewhere in this issue.

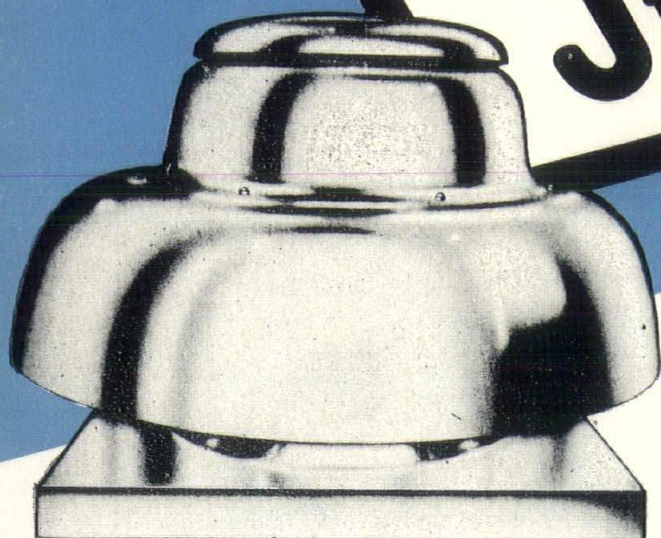
Five buildings were selected for First Honor Awards in AIA's 7th Annual Competition for Outstanding American Architecture. The Rapson-van der Meulen design was done under the program of the Department of State's Foreign Buildings Operations.

Two First Honor Awards go to the Detroit firm of Eero Saarinen and Associates for the General Motors Technical Center's central restaurant building in Warren, Mich., and for women's dormitories and dining hall at Drake University in Des Moines, Iowa. The two other top awards are the North Hillsborough (California) elementary school by Ernest J. Kump of Palo Alto and the General Telephone Company of the Southwest's building in San Angelo, Texas, for which Charles B. Genther of the Chicago firm of Pace Associates was architect in charge.

In addition, 22 buildings have been designated by the jury for Awards of Merit, none of these, however,

(Continued on Page 32)

JENN-AIR



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Low Contour—No longer necessary to use industrial type roof exhausters for the higher capacity requirements.

All Aluminum Construction

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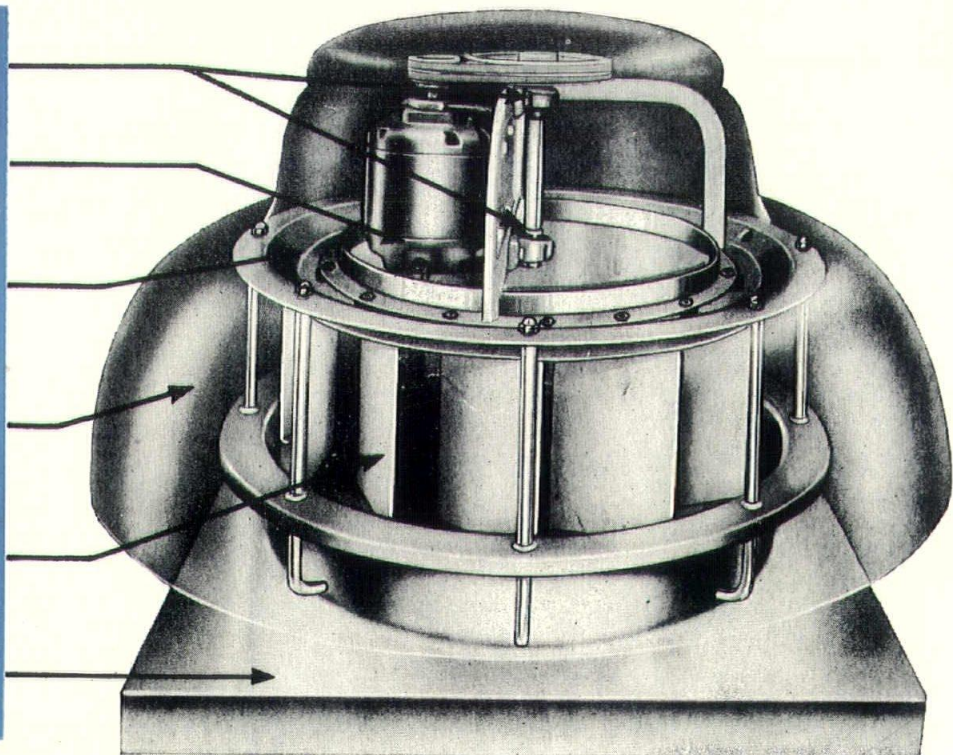
DISCONNECT SWITCH—All belt drive models are furnished with disconnect switch as integral part of the unit.

BRIDGE BUILT POWER UNIT floated in neoprene rubber—eliminates vibration—no metal to metal contact between power assembly and housing.

RUGGED CONSTRUCTION—Fabricated of heavy gauge, rust-proof aluminum, which if necessary, can be quickly and easily disassembled for re-assembly on the roof.

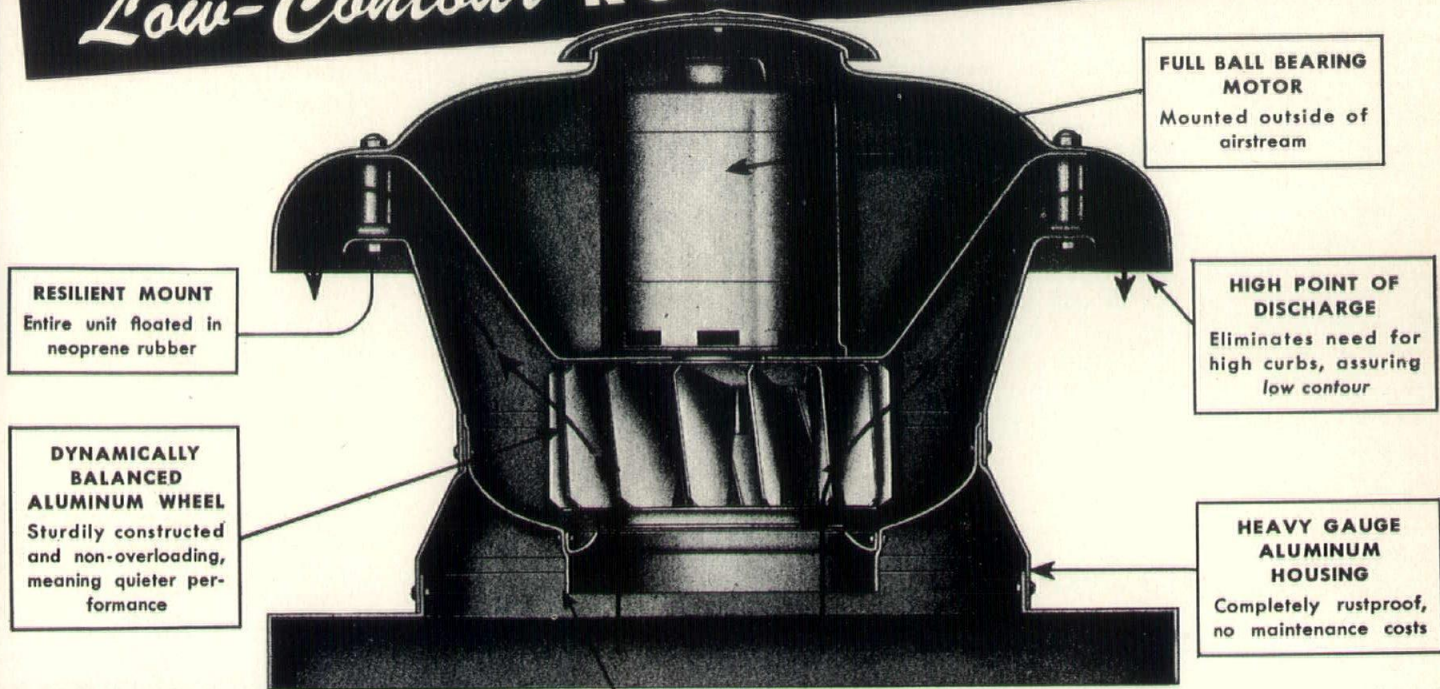
NON-OVERLOADING BLADE—Backwardly inclined, all aluminum, spark proof, dynamically and statically balanced, assures the ultimate in long life and quiet operation.

POSITIVE WEATHER-PROOF CONSTRUCTION—Unit cover design and one piece curb and base section remove possibility of leakage.



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Entire unit floated in neoprene rubber

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Mounted outside of airstream

HIGH POINT OF DISCHARGE
Eliminates need for high curbs, assuring low contour

DYNAMICALLY BALANCED ALUMINUM WHEEL
Sturdily constructed and non-overloading, meaning quieter performance

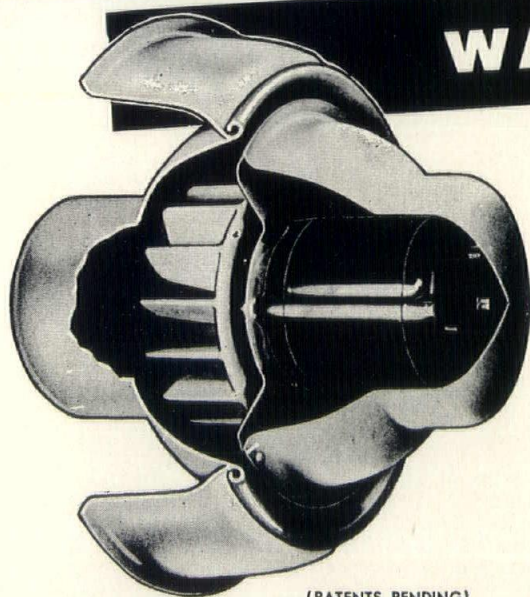
HEAVY GAUGE ALUMINUM HOUSING
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SIMPLE DUCT CONNECTION
Standard size round pipe easily slips over inlet

(PATENTS PENDING)

Special care in wheel construction and balance, coupled with the full-floating action of the power unit in neoprene rubber, assures longer life and quieter operation.

WALL EXHAUSTERS



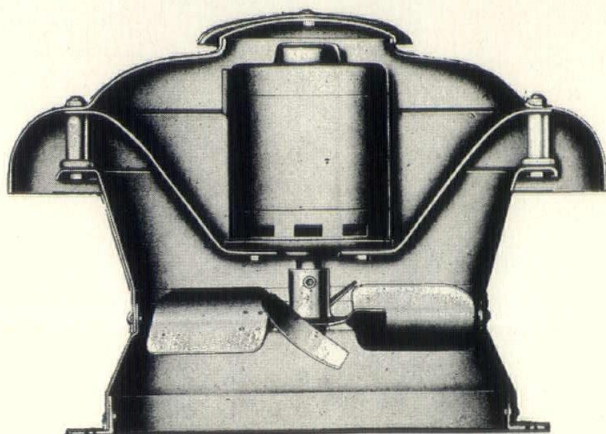
(PATENTS PENDING)

A favorite because it is simple to install and requires an opening no larger than its wheel diameter, the centrifugal wall exhauster flanges directly to the outside wall.

- ① EASIEST TO INSTALL
- ② CONSTRUCTED OF HEAVY GAUGE ALUMINUM
- ③ MOTOR MOUNTED OUTSIDE OF AIRSTREAM
- ④ COMPLETELY WEATHERPROOF
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being in our area. Included in this group are several college dormitories and other educational facilities, individual houses and large-scale residential work, churches, medical buildings, a shopping center, a bank, a library, a bandstand and park pavilion and a playground clubhouse.

First showing of the winning designs will be in Minneapolis during the AIA convention. Subsequently, photo-lithographic reproductions will be made of each panel and the complete printed sets will be available for showings by AIA chapters, libraries, architectural schools and for exhibition in foreign countries.

The winning architects will be given certificates of First Honor Award or Award of Merit at the awards luncheon, convention feature to be held Thursday, June 23. The AIA also furnishes a specially designed stainless steel plaque to be placed on each building receiving a First Honor Award.

AIA Honors Manufacturers and Associations for Literature

Thirty-seven manufacturers and eight trade associations will be honored during convention of the American Institute of Architects in Minneapolis, for their superior product literature and space advertising published during 1954.

The honors—conferred as certificates of exceptional merit, certificates of merit and honorable mentions—will be awarded for the outstanding entries in the 7th Annual Building Products Literature Competition. The competition is co-sponsored by the Institute and The Producers' Council, Inc., the organization of building materials producers and trade associations. Presentation of certificates will take place on June 20 in the convention city. Award winners will be displayed during the convention.

Receiving the highest awards this year will be the Acoustical Materials Association (Class I), E. F. Hauserman Co. (Class II), Architectural Woodwork Institute and Knoll Associates, Inc. (Class III), and LCN Closers, Inc. (Class IV). Winning entries were selected by a panel of leading architects, who judged the literature as to its value to architects in their design and specification work. Serving on the jury were M. Edwin Green, FAIA, chairman, Harrisburg, Pa.; Edward G. Conrad, AIA, Cleveland, Ohio; H. Griffith Edwards, AIA, Atlanta, Ga.; John R. Magney, AIA, Minneapolis, and D. Kenneth Sargent, AIA, Syracuse, N. Y.

Other award winners in the various classes included:

Class I:

Certificates of merit to—

Pittsburgh Plate Glass Company
Kimble Glass Company, subsidiary of Owens-Illinois
Structural Clay Products Institute

Honorable mentions to—

Structural Clay Products Institute

The Jury of Awards was comprised of five architects: Thomas H. Locraft of Washington, D. C., chairman, Ludwig Mies van der Rohe of Chicago, Eugene F. Kennedy, Jr., of Boston, J. Byers Hays of Cleveland and Ernest Born of San Francisco. The jury commented that the uniform quality of the work made its task of selection extremely difficult. There were close to 300 entries—the greatest number of submissions in any honor awards competition conducted by the Institute to date.

The National Honor Awards Program was established in 1949 by The American Institute of Architects "to encourage the appreciation of excellence in architecture and to afford recognition of exceptional merit in recently completed buildings." Any American architect may enter work completed in the United States or abroad during the previous five years.

Class II:

Certificates of merit to—

Detroit Steel Products Company
Pittsburgh Plate Glass Company
Overly Manufacturing Company
Ceco Steel Products Corporation
LCN Closers, Inc.
American Radiator & Standard Sanitary Corp.
J. A. Zurn Manufacturing Company
Anemostat Corporation of America

Honorable mentions to—

The Mosaic Tile Company
Detroit Steel Products Company
Armstrong Cork Company
Kimble Glass Company, subsidiary of Owens-Illinois
The F. W. Wakefield Brass Company
J. A. Zurn Manufacturing Company
Ceco Steel Products Corporation
The Sanymetal Products Company, Inc.

Class III:

Certificates of merit to—

Structural Clay Products Institute
The Mosaic Tile Company
Cupples Products Corporation

Honorable mentions to—

Armstrong Cork Company
The Celotex Corporation
The Mosaic Tile Company
Pittsburgh Corning Corporation
LCN Closers, Inc.
United States Plywood Corporation

Class IV:

Honorable mentions to—

Owens-Corning Fiberglass Corporation
Structural Clay Products Institute
Ceco Steel Products Corporation
The Flour City Ornamental Iron Company
Ceco Steel Products Corporation
Kentile, Inc.
Pittsburgh Corning Corporation
Pittsburgh Plate Glass Company
The Kawneer Company

PROGRAM FOR THE 1955 ANNUAL
CONVENTION
of the
ASSOCIATION OF COLLEGIATE SCHOOLS
OF ARCHITECTURE
Minneapolis, Minnesota
June 18 and 19

Meetings will be held on the University of Minnesota campus.

Two recommendations of the report "The Architect At Mid-Century" will form the theme of the convention:

R-20—Architectural courses for non-architectural students.

R-22—Expansion of schools to serve the building industry.

In addition to the Saturday and Sunday convention sessions, there will be a pre-convention seminar on Friday, June 17.

June 17—Friday

2:00 p.m.—pre-convention seminar.

Exhibition room—School of Architecture.

Subject: "Formulation of a project for training career teachers."

This seminar session will explore the possibility of establishing summer school training in the various architectural disciplines at successive architectural schools located in resort regions, viz: Boulder, Colorado, Eugene, Oregon, and University of Minnesota, Duluth Campus. The summer school would provide a forum for the exchange of ideas, techniques and demonstrations. The summer school would also provide training for inexperienced teachers pressed into service to meet the demand of increasing enrollment.

Friday—8:00 p.m., Second Session—Pre-convention seminar.

Exhibition room—School of Architecture.

June 18—Saturday

9:30 a.m.—opening session of the convention

President L. B. Anderson presiding

Convention tent or Natural History Museum Auditorium

Report of officers

Treasurer's report

Auditor's report

Committee reports

Applications for new memberships

Report of the nominating committee

Election of officers

11:00 a.m.—coffee in exhibition room of the School of Architecture.

View exhibits of work of twenty schools of architecture in the region. The exhibits will be on the first, second and third floors of the Main Engineering building.

12:30 p.m.—Luncheon, Sun Porch, Campus Club.
Report from the pre-convention seminar, "Formulation of a project for training career teachers."

2:00 p.m.—first program session—Convention tent or Natural History Auditorium.

"Introduction to relationships between schools, the accrediting and registration agencies and the profession at large in the light of the Survey Commission report." Review and criticism of the report, discussion.

4:30 p.m.—gala boat trip on *S.S. Donna Mae*.

Embark at parking lot directly south of the University Union building for boat trip down the Mississippi River from (almost) historic Saint Anthony Falls to historic Fort Snelling. Most of the Indians have been suppressed in this area. Bar and picnic dinner on board. Members and wives invited.

June 19—Sunday

10:00 a.m.—second business session.

Convention tent or Natural History Museum Auditorium

Vice-president Elliot L. Whitaker presiding

Report of resolutions committee

Report of the accrediting committee

11:00 a.m.—second program session

Convention tent or Natural History Museum Auditorium

Scope of architectural education in breadth; is architectural education a unified experience aimed exclusively at professional licensing and independent practice, or should its scope be broadened to include programs for collateral phases of the entire industry such as home building, contracting, building product design, etc.

A. Non-professional careers in the building industry.

B. Architecture as a liberal arts major.

C. Courses currently offered for non-architects.

1:00 p.m.—Luncheon, Sun Porch Campus Club

Informal discussion

Tau Sigma Delta, annual luncheon—Professor Leonard Wolf, presiding.

2:30 p.m.—third program session

Convention tent or Natural History Museum

Scope of architectural education in depth: Are we getting the best material? How shall we cope with enlarged enrollments? What should be done about the gifted student?

6:30 p.m.—annual dinner of the convention

A Special Presentation of the Work of Minnesota Architects

Attached as a special section presenting the work of AIA members in the Minnesota area, the next eight pages of this issue are shown with the idea of giving visiting members of the institute, as well as our members in this area, a cross section of the design trends and the construction features found among present-day work of our members.

Although this section does not include the work of every architect or all the "most famous" buildings of the Northwest it does show which contemporary building each architect represented felt he wanted his associates in this profession to see as typical of his latest work.

We offer it for the perusal and study of interested readers and make the suggestion that if there are certain structures which pique your particular interest you can contact the architect credited either at his home office or through the registration desk of the convention if he is in attendance.

There is no formal pattern of presentation in these pages. The buildings are presented with merely an identifying caption without comment. Their assemblage into page-spreads was governed more by space requirements than any attempt to play up any certain buildings or types.

Members and wives invited, dress optional
Walker Art Center

Cocktails

Special exhibits for the A.C.S.A. members

7:30 p.m.—Dinner

President L. B. Anderson presiding

Recognition of retiring members.

Program—presentation of program and designs for Saint John's Benedictine Abbey at Collegeville, Minnesota, by Marcel Breuer.

Adjournment

All business, program and luncheon meetings will be on the University of Minnesota campus. Those who

make reservations in the convention hotel or other Minneapolis hotels will be about one and one-half miles from the campus. Taxi fare is about \$1.00. The "To Saint Paul" bus passes through the campus, requires 10 to 20 minutes, depending on the time of day. In either case ask for Church and Washington Streets Southeast. The School of Architecture is on the third floor of the Main Engineering Building in the Northeast quadrant of the Church and Washington Streets intersection.

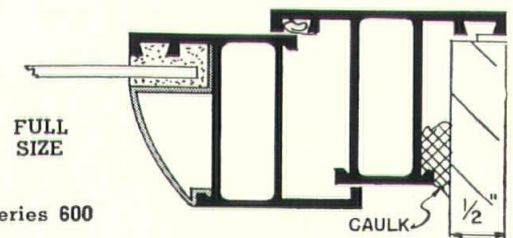
For those who prefer to stay on the campus, rooms will be available in the University dormitories several blocks from the School of Architecture.



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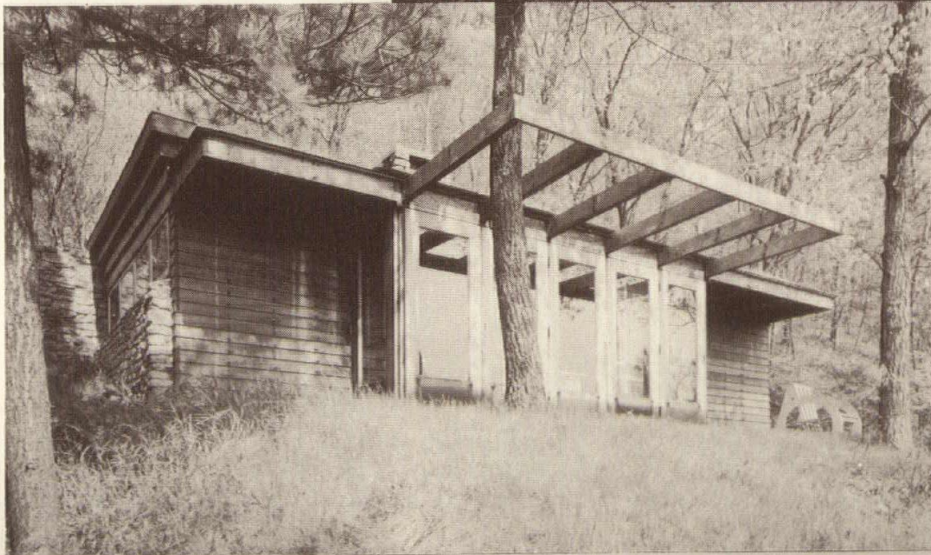
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 Boliou Hall at Carleton College



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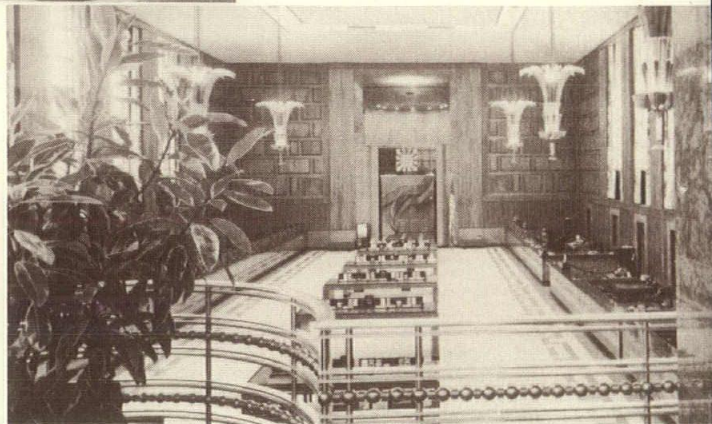


BISSELL & BELAIR Minneapolis, Minnesota **Minnetonka High School**



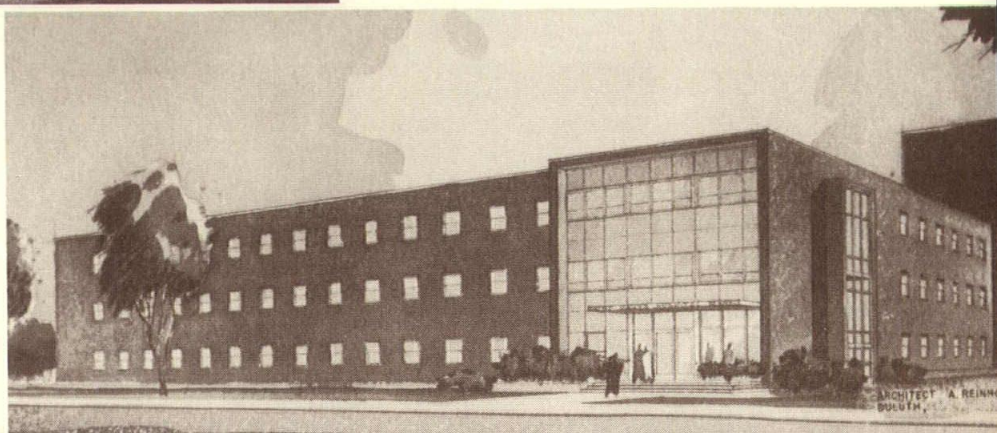
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Ministers Life and Casualty Union,
Minneapolis

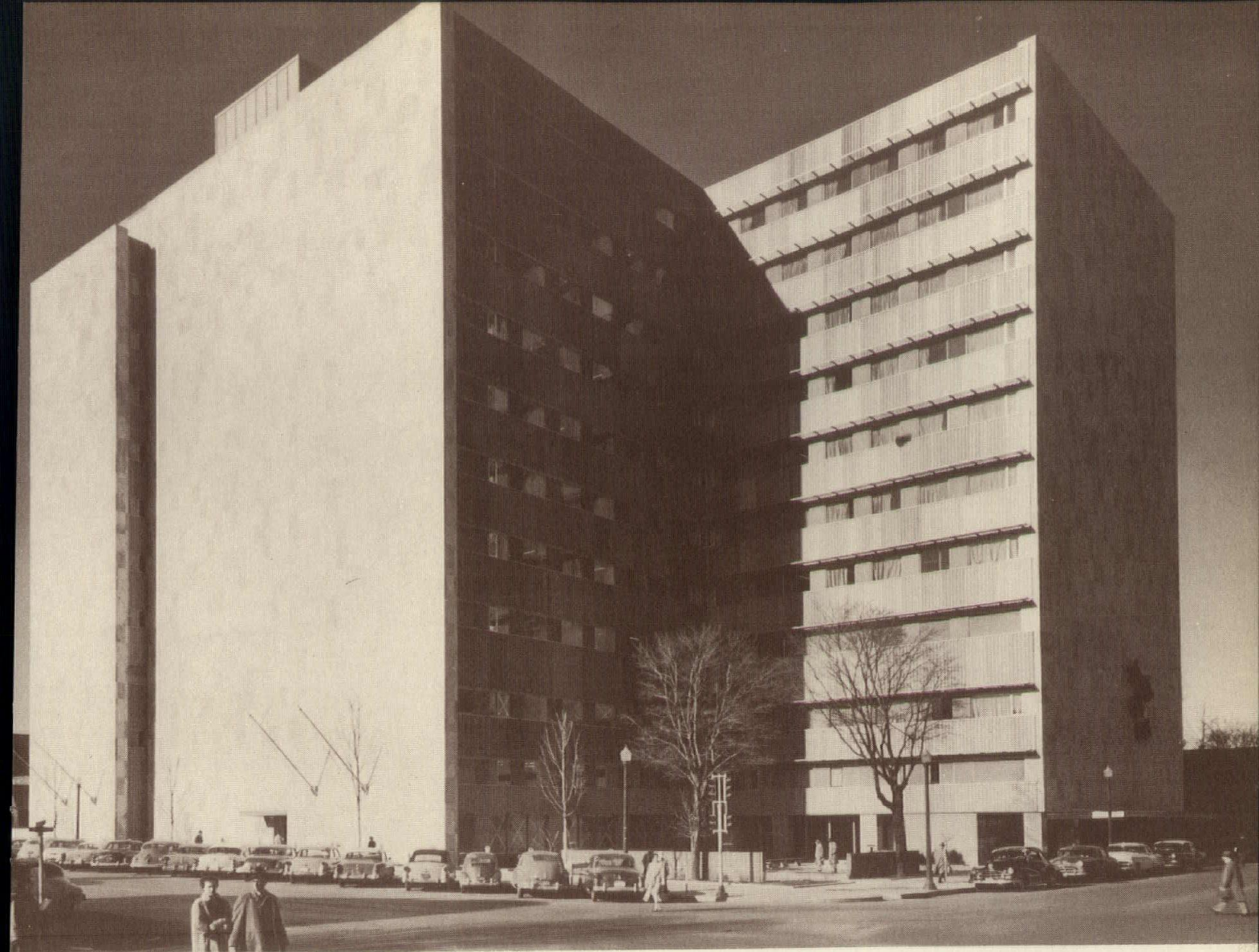
McENARY & KRAFFT
Minneapolis, Minnesota
Farmers & Mechanics Savings Bank, Minneapolis



BETTENBURG, TOWNSEND and STOLTE
St. Paul, Minnesota
Anoka State Hospital Nurses' Dormitory

A. REINHOLD MELANDER
Duluth, Minnesota
St. Mary's Hospital, Duluth

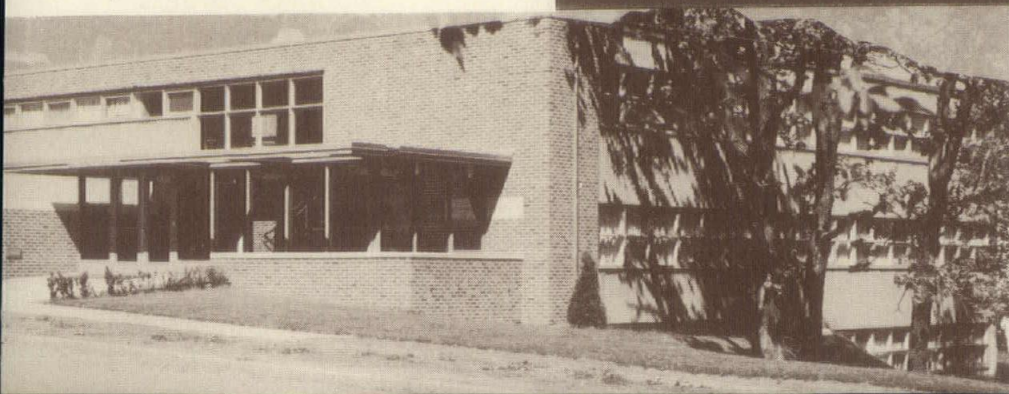
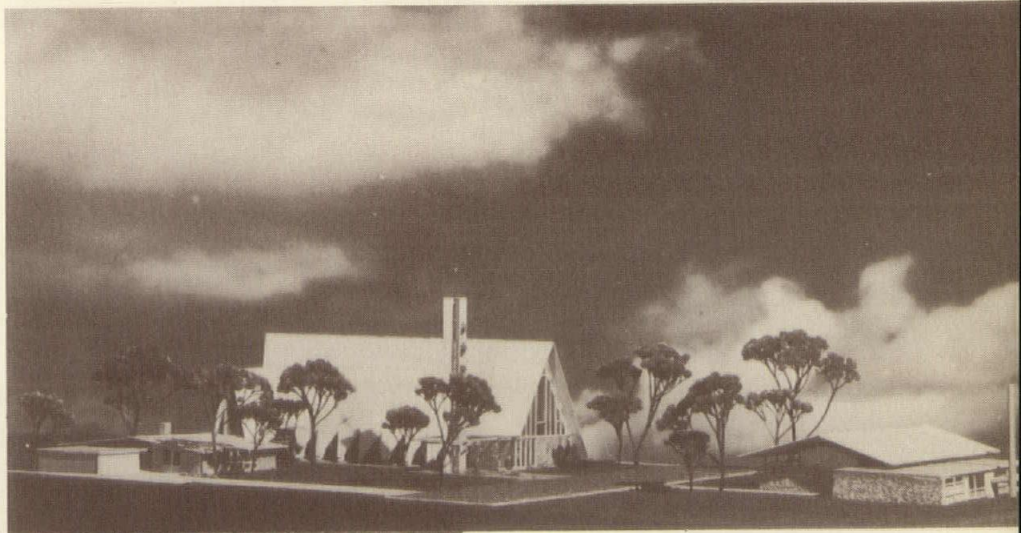




ELLERBE and COMPANY St. Paul, Minnesota

Mayo Clinic Diagnostic Building, Rochester

TRAYNOR & HERMANSON
St. Cloud, Minnesota
Proposed St. Francis de Sales
Parish Group in Belgrade

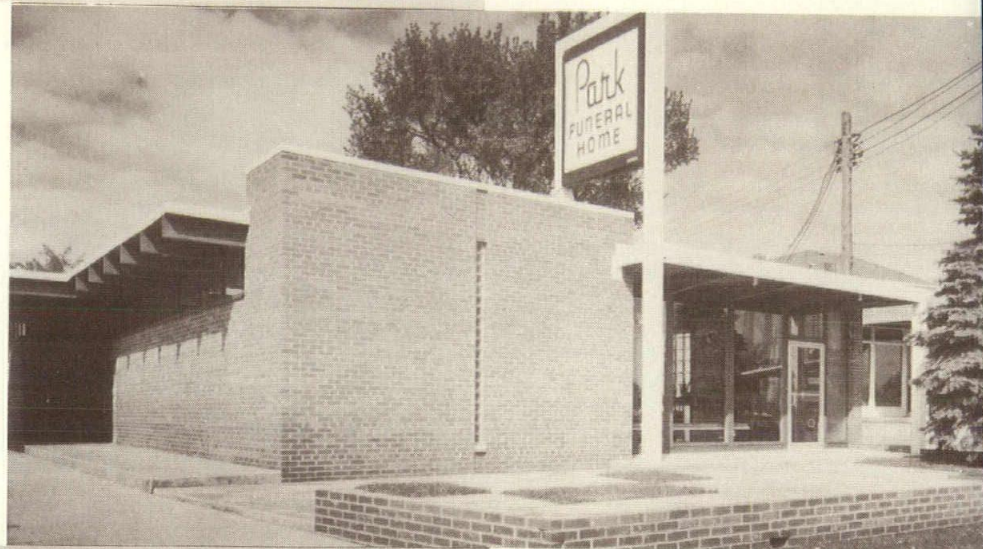


WARREN W. KANE
Austin, Minnesota
Trinity Lutheran Parish House
in Albert Lea

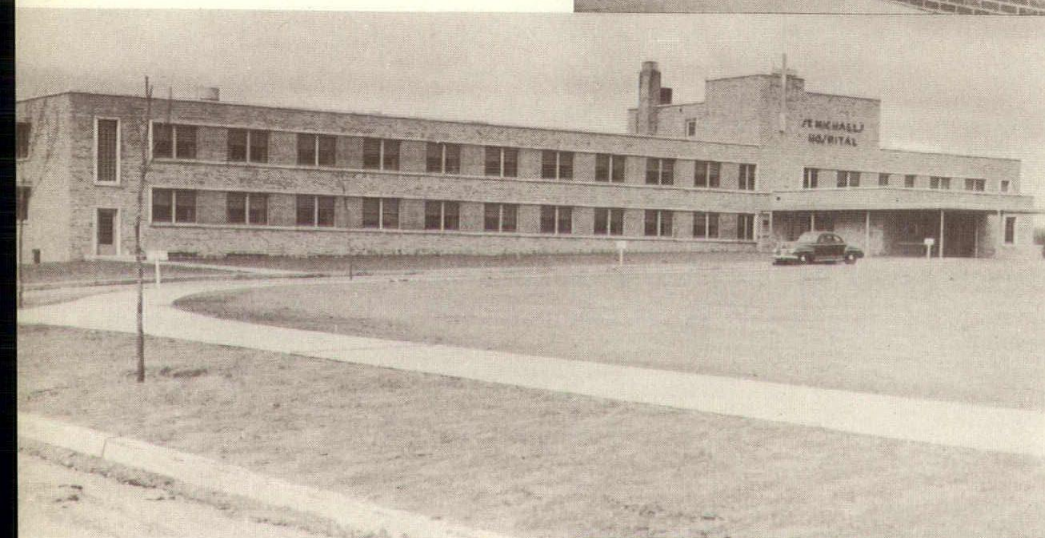


BERGSTEDT & HIRSCH
St. Paul, Minnesota
South St. Paul Municipal Building

SOUTH ST. PAUL MUNICIPAL BUILDING



BRANDHORST & LEADHOLM
Minneapolis, Minnesota
Park Funeral Home in St. Louis Park



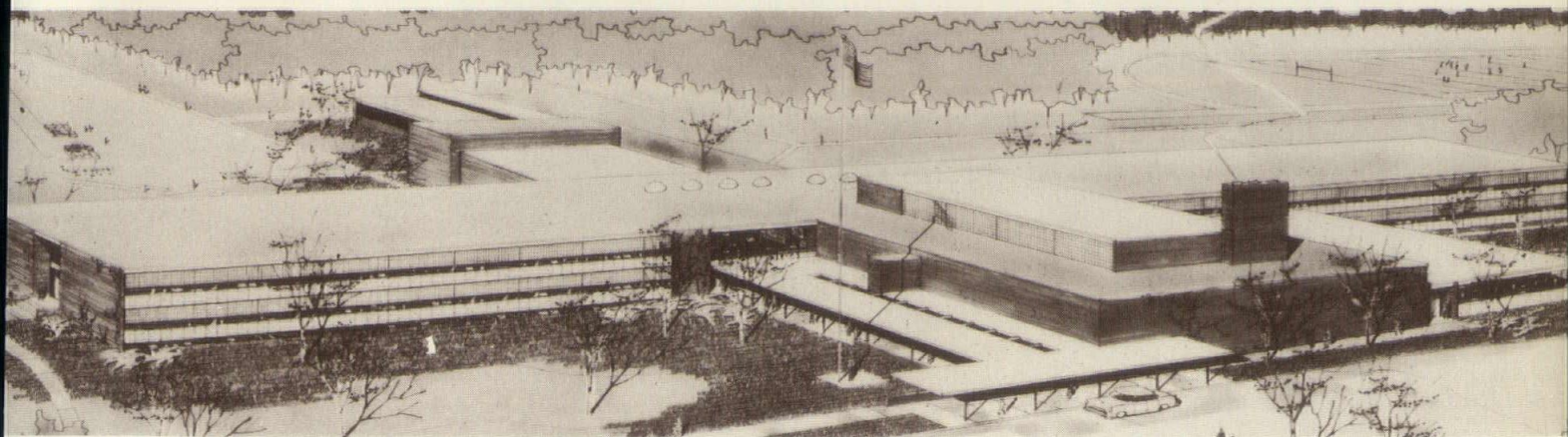
FRANK W. JACKSON & ASSOCIATES
St. Cloud, Minnesota
St. Michael's Hospital in Sauk Centre

C. W. FARNHAM
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Superior Separator Co. in Hopkins

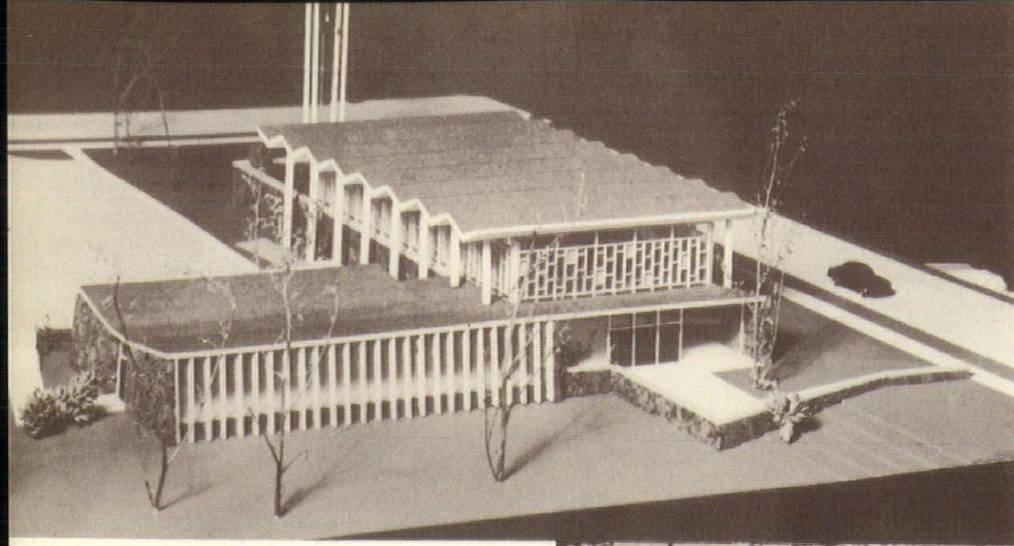




THORSHOV & CERNY, INC. Minneapolis, Minnesota First Christian Church in Minneapolis

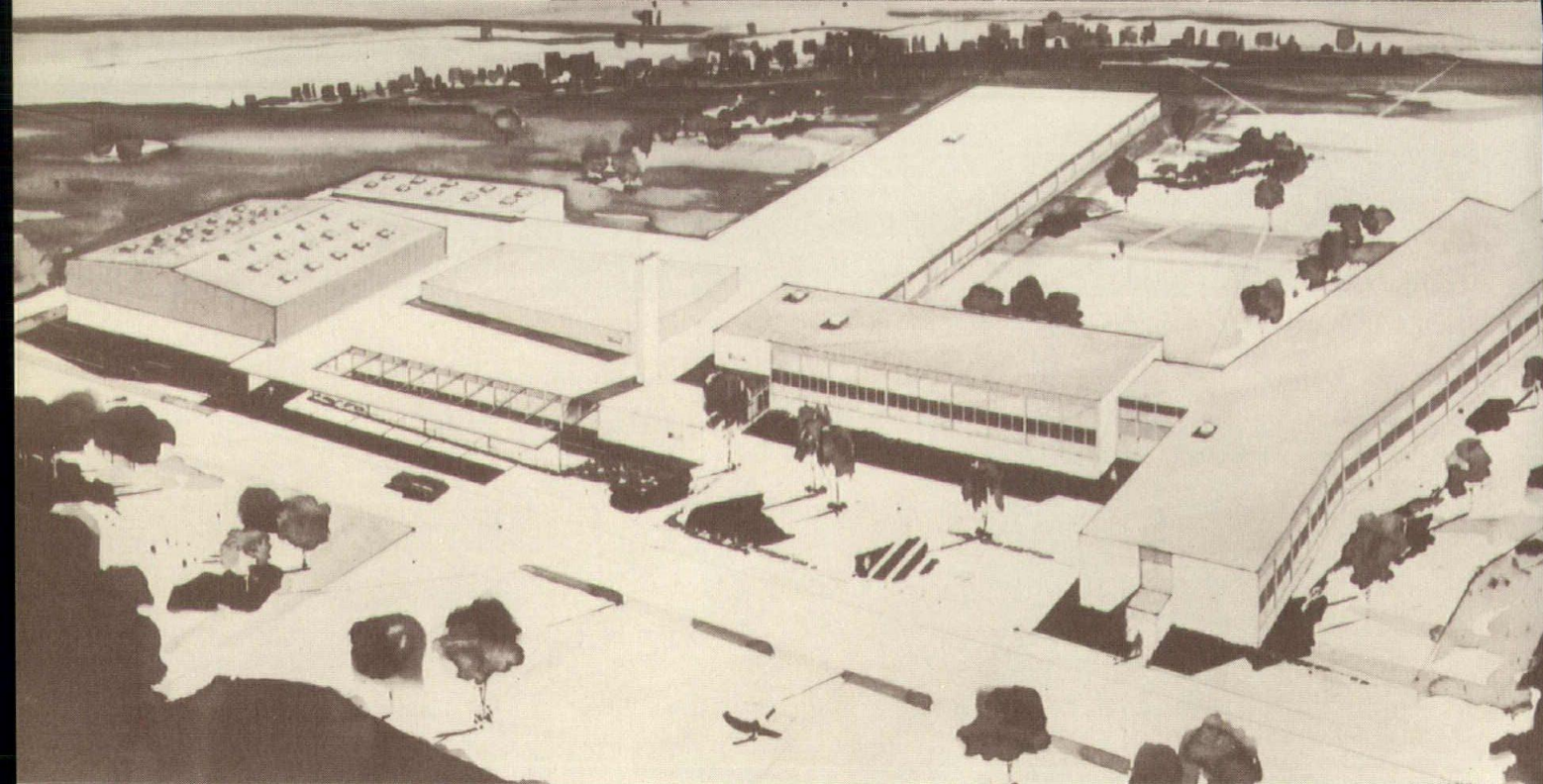


HUBERT H. SWANSON Minneapolis, Minnesota Luverne High School



JYRING and WHITEMAN
Hibbing, Minnesota
First Lutheran Church (Model)
in Virginia

LOUIS C. PINAULT
St. Cloud, Minnesota
Library Building,
St. Cloud Teachers College



HAARSTICK-LUNDGREN & ASSOCIATES St. Paul, Minnesota Como Park Junior High School in St. Paul



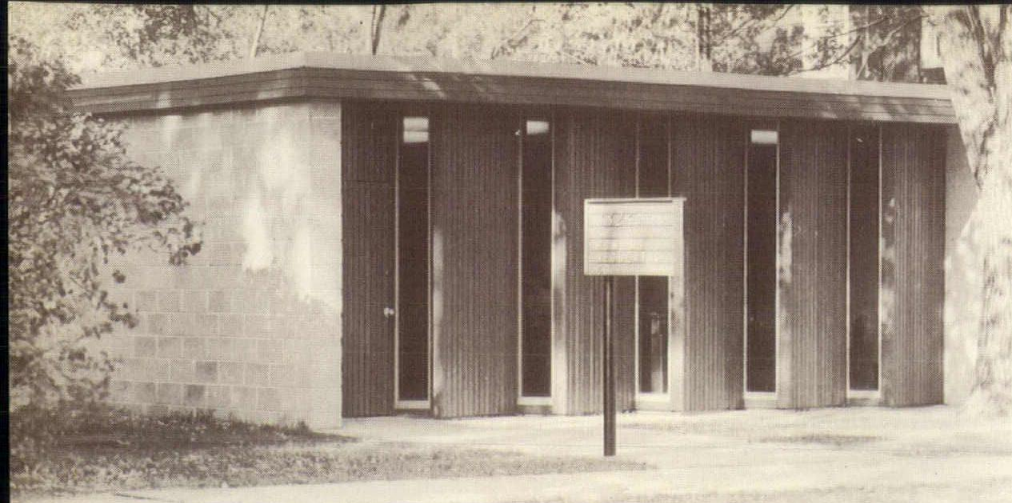
C. H. JOHNSTON St. Paul, Minnesota Mayo Memorial Medical Center at University of Minnesota



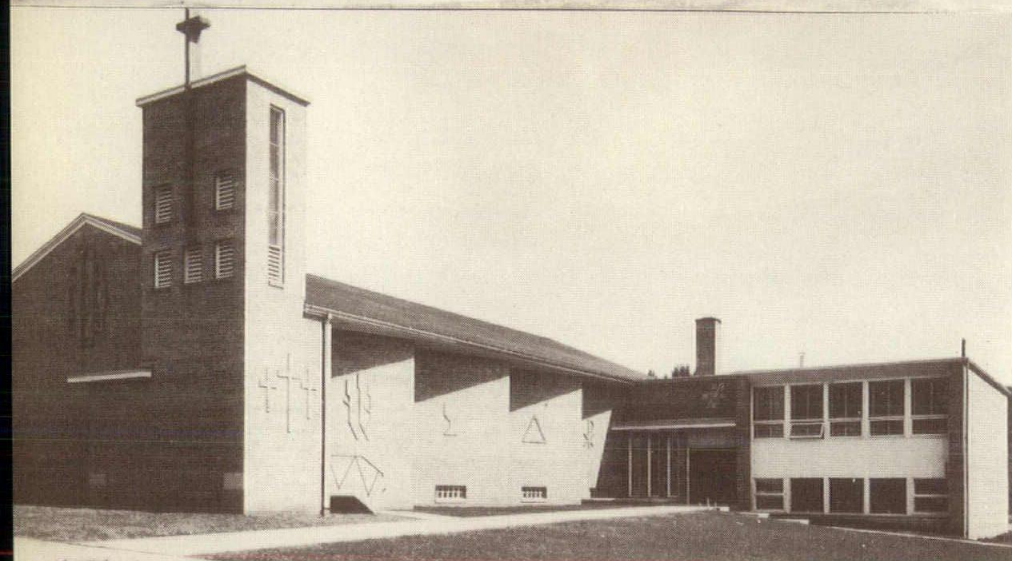
BERNARD J. HEIN
Albert Lea, Minnesota
Home Economics Building,
School of Agriculture in Morris

DAMBERG & DAMBERG
Virginia, Minnesota
Hotel Coates in Virginia





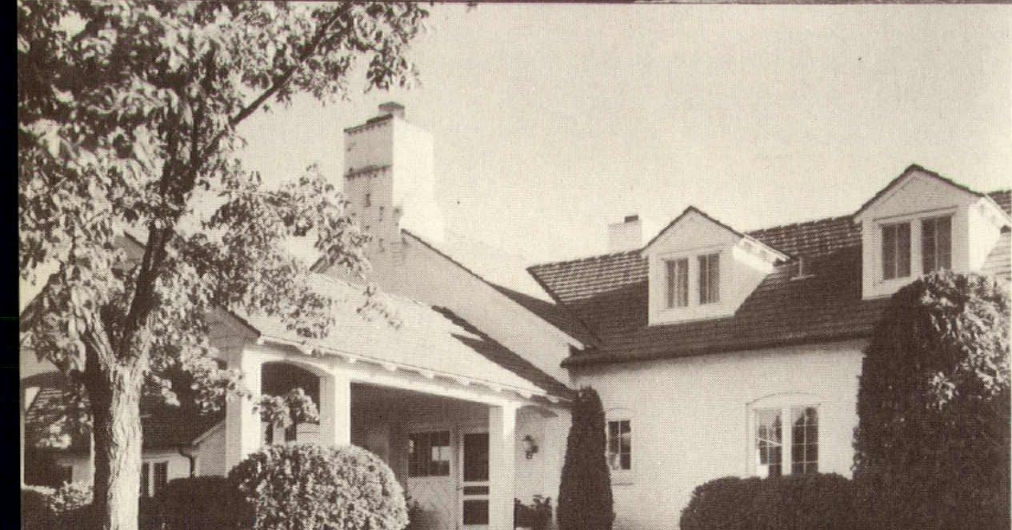
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St. Paul, Minnesota
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SHIFFLET, BACKSTROM and CARTER
Minneapolis, Minnesota
Community Methodist Church in
Columbia Heights

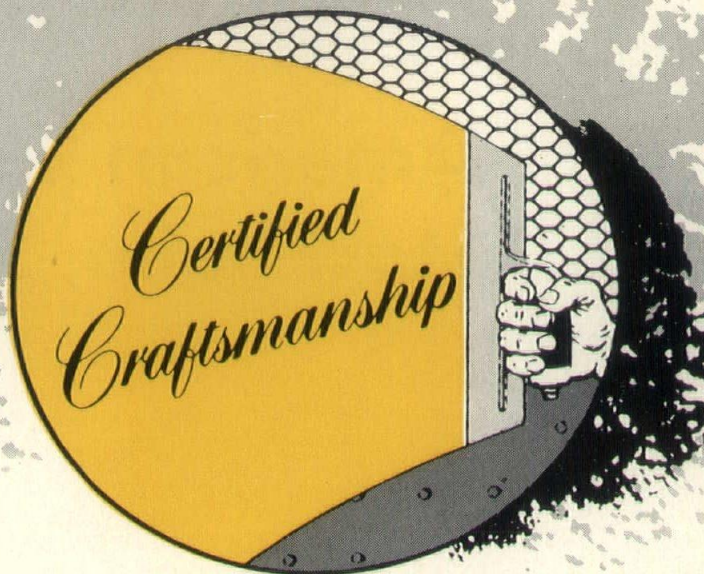


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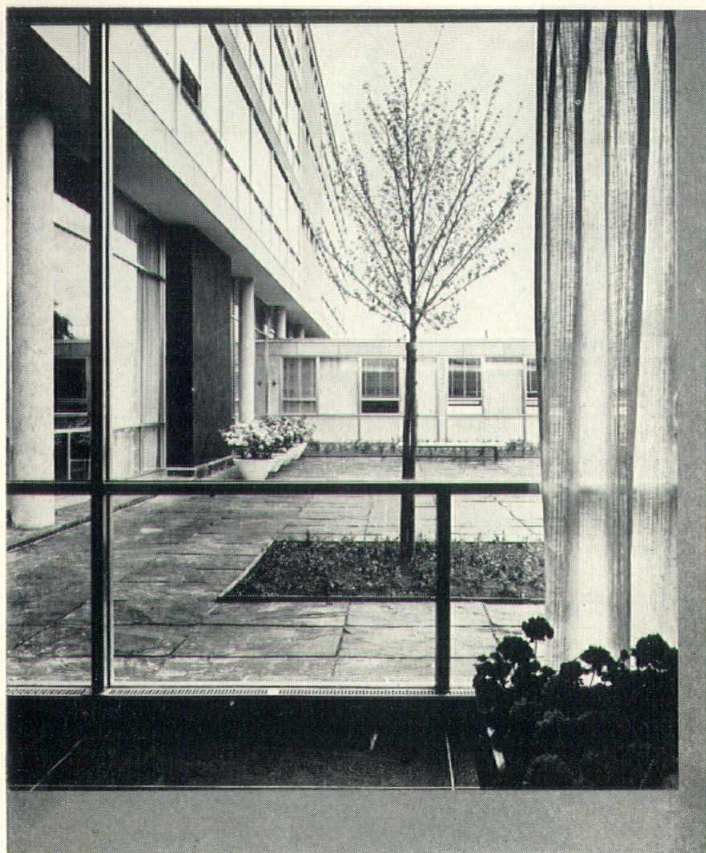
AIA

First Honor Award—1955

American Embassy Stockholm, Sweden



The embassy in relation to its site as seen from the Strandvagen.



Relaxing view from inner court.

Ralph Rapson, Architect
Minneapolis Chapter AIA
Minneapolis, Minnesota

John van der Meulen, Architect
Chicago, Illinois

Anders Tengbom, Associate Architect
Sven Tyren, Structural Engineer
Harry Bremfors, Mechanical Engineer
Gustaf Magnusson, Electrical Engineer

United States of America
Department of State—Owner
Foreign Building Operations
L. W. King, Director
I. van der Gracht, Regional Supervisor
Olle Engkvist & Nils Nessen, Contractors

The following is the official presentation as prepared for AIA judging—Editor.

THE new American Embassy building, located at Strandvagen 101, Stockholm, Sweden, was officially opened on 2 June, 1954 after nearly two years of work on the structure. The construction contract was signed on 30 June, 1952, and work on the site began immediately.

Design Philosophy

Basic in the design philosophy of the architects for this and several other embassy buildings (and this point of view was not often supported by our State Department) was the belief that these buildings should contribute real social, cultural and technical values, that these structures must display to the world a strong picture of a young, progressive and modern-minded America. The architects felt that it is impossible for our country to exercise political leadership without exercising a degree of cultural leadership as well. Strict security regulations, the fact that these buildings are "American Islands" on foreign soil and the old desire for false monumentality have, in the past, tended to make our embassies self-contained, forbidding and stern. The architects felt that these buildings should be friendly and inviting—a physical statement of our progressive and friendly world position.

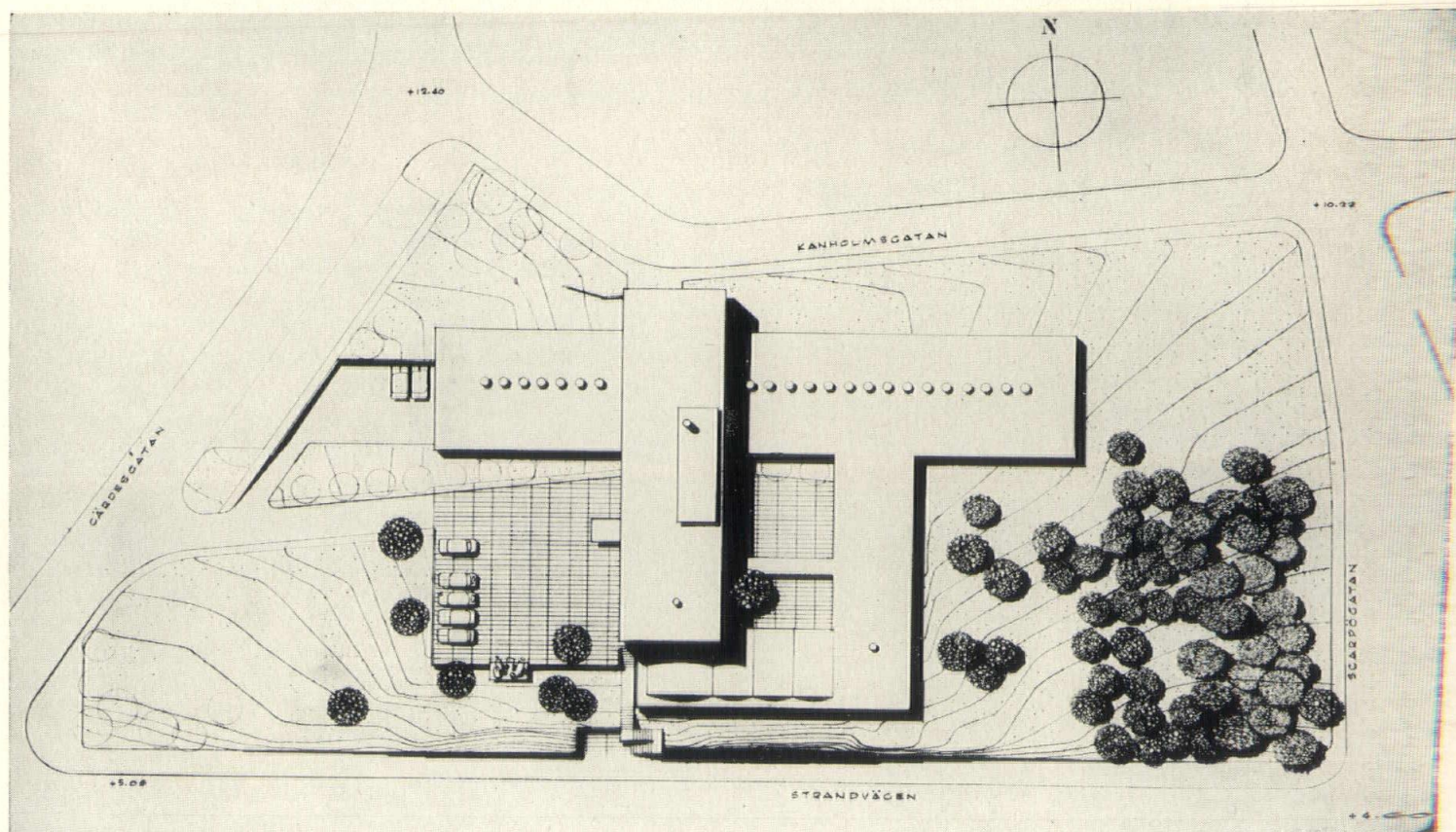
Site

The new Embassy building is located on an open, rocky site along broad Strandvagen in the east part of Stockholm in an area generally set aside for the various foreign embassies. The site, a very difficult, rocky area of about 9,300 square meters and some 20 feet higher



Simple, clean lines of the inner court.

than the road, faces attractive Djurgårdsbrunnsviken, an inlet of the Baltic. The city of Stockholm posed strict regulations on the site in order to keep the building from dominating the area. The plan was care-



The Plot Plan.

fully studied with the planning authorities to work within these limitations.

Building Program

In addition to housing a great deal of flexible, efficient office space (approximately 35,000 sq. ft.) with proper security for official government functions, the embassy must contain official reception areas and special departments open to the public and occasionally some staff and community facilities, such as the auditorium and cafeteria. The more public offices and functions are accessibly placed on the ground floor while the more secure functions are placed in the upper block. This block is "floated" above the ground as a physical expression of this division. Briefly, the various departments are:

Administrative—general, over-all direction of Mission.

Consular—visas and passports, registration and protection of American citizens, shipping and seamen.

Ambassador and political and economic—treaty negotiations, promotion of trade, protection of U. S. interests.

Communications, security, files.

Service attaches.

Information and cultural—press, motion pictures, information centers, exchange of persons.

Foreign operations assistance (previously the Marshall Plan, ECA, Point Four and Mutual Security).

Garaging—20 cars.

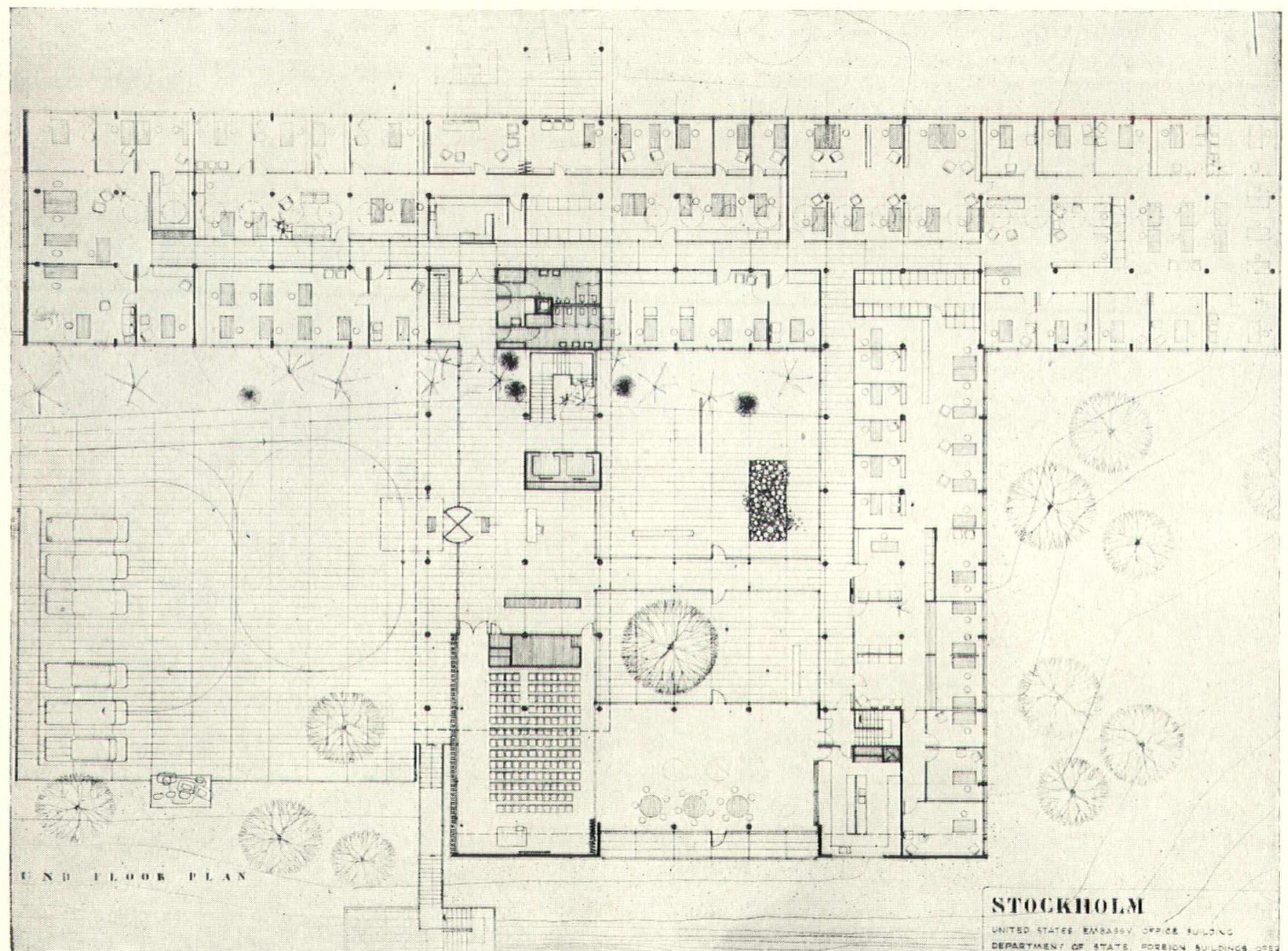
Archives and storage.

Post commissary.

Mechanical and utility areas.

Structural and Mechanical Systems

The building is a reinforced concrete framed structure faced either in a white granite or glass. A design requirement was that local materials and labor be used wherever possible. Since maximum daylighting is a "must" in Sweden, continuous fenestration is generally employed, utilizing hermetically sealed double glass to cut heating costs. The central area of the north wing is lighted by glass domes nearly 2 meters (6'6") in diameter. Washed and heated air is provided at each window through a system of ventilating ducts cast in the concrete floor construction. Flat radiators under each window permit additional temperature control of individual rooms. The suspended ceilings are of sound absorbent plaster tiles, backed up with fiber glass and aluminum foil. In all rooms fluorescent lighting tubes are set in louvered recessed fixtures interchangeable with the ceiling tiles. The office floors are covered with a black linotile.



Ground floor plan shows efficiency of layout.

Specific Data:

	Area	Height		Cube
Elevator and machine penthouse	850	x 11		9,350
Fourth Floor offices	6,500	x 12	78,000	
Third Floor offices	6,500	x 11	71,500	
Second Floor offices	6,500	x 11	71,500	
	20,350			221,000
Ground Floor offices	19,300	x 12	231,600	
Auditorium and cafeteria	2,500	x 12	30,000	
Covered areas	1,400	x 16	22,400	
Lobby	2,700	x 16	43,200	
	25,900			327,200
Basement Garage	5,100	x 11	56,100	
Archives, Commissary, etc.	11,200	x 11	123,200	
Unfinished	10,500	x 11	57,750	
	26,800			237,050
Total Area	73,050 sq. ft.			794,600 cu. ft.
Total Construction Cost	\$1,058,095			
Includes municipal utilities, permits, landscaping, professional fees, escalator clause.			Construction cost exclusive of items at left \$.97/cu. ft. (approximate)	

Mr. Rapson has discussed the embassy project in several talks and we feel his expansion of the required AIA data is pertinent so present his notes here—Editor.

When it was suggested that I talk about the buildings we were engaged in building in Europe for the past two-and-a-half years, I must confess I felt some reluctance. While the works are reasonably "modern" and while they were of considerable interest to us as architectural commissions, I wondered if the jobs were sufficiently interesting to other architects and designers to warrant a talk. However, and this is the importance of these buildings, they do represent part of a program in which, for the first time in our history, the United States government officially exported good architecture. In this one world no country can exercise political leadership without exercising a degree of cultural leadership as well. Whether consciously or not, our government has now made United States architecture a vehicle of some cultural leadership.

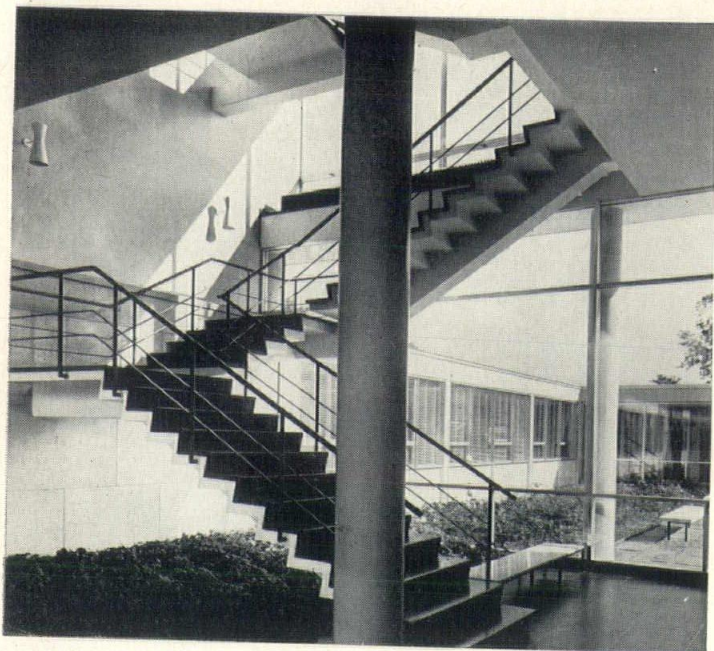
We have never doubted the quality of many of our exports—everything from machinery to Jello—and these products have established U. S. leadership in many fields. But in the past we have always felt unsure of ourselves in the realm of architecture. Even the notable contributions of the early Chicago school went virtually unnoticed in this country and later, in the early years of this century, it was the Europeans rather than ourselves who recognized the importance of Frank Lloyd Wright and our real contributions in the realm of engineering. We continued to copy blindly and look back and abroad for our architectural inspiration, par-

ticularly whenever a representative U. S. building had to be erected at home or abroad. It was not until after World War II that our government was to present for the first time a bold and progressive architectural front abroad. That is the fundamental importance of this story.

First, I should like to give you some background material on this program. Just what are the building needs of the U. S. government abroad? As you know, our government is represented abroad by the American Foreign Service. These posts, some 300 in all throughout the world, depend for office space and housing on Foreign Buildings Operations (F.B.O.), an agency of the Department of State.

After World War II, with our slow realization that we must continue, willingly or not, as a world leader, our Foreign Service personnel rapidly increased; within a few years after the war Foreign Service personnel had increased to four times its prewar numbers. In 1952 we had some 9,000 Americans and 19,000 locals working for our State Department abroad. The magnitude and rapidity of this growth, combined with the existing shortages of housing and office space in nearly every country in the world, required immediate action. Wherever possible, space was leased as a temporary measure, although this generally meant sub-standard working and living conditions.

Shortly after the war a long-range building program was approved by Congress. This was not the first foreign buildings program to be approved by Congress. In 1926 the first Foreign Services Building Act authorized acquisition of buildings and property in foreign



Smart interior shows view of lobby and stairs.

These offices depend in size and personnel on the work and the area. Washington, in theory, plans and directs the over-all program and, at the same time, maintains close relations with the Bureau of the Budget, Congressional committees and is advised in its work by the Foreign Service Buildings Commission (composed of top cabinet officers and members from the Senate Committee on Foreign Relations and the House Committee on Foreign Affairs).

The original director of F.B.O. was an old-time contractor, named Larkin, who had little or no use for architects. It was pretty much a one-man show. Larkin traveled widely and had a fine time. His policy was primarily one of leasing old structures and remodeling and renovating for office or residential use. Generally, all this was done "on the spot," with a minimum of planning. In the spring of 1951, when we began our jobs, Larkin was succeeded by L. W. King, Jr., an architect by training, who had served as Larkin's assistant for a number of years. With the expanding Foreign Service program it became apparent that greater organization and directional planning was needed. It is hardly worth showing you any of the architectural "gems" of the early program, since these have little architectural merit or significance.

Evaluation of the needs of each post and the determination of priorities requires technical knowledge and an understanding of local conditions. Just how to achieve the design and execution of these buildings was the problem with which F.B.O. was confronted.

Whenever architects from the country were employed, the results generally were highly unsatisfactory. Not only from a functional point of view, but esthetically, much was left to be desired, plus the fact that these buildings were a reflection of the local architects' personalities and countries. Not only must good design for a building to house a U. S. mission abroad solve the practical problems of space but there was a growing feeling that these structures must also contribute real social, cultural and technical values, that these structures must display to the world a strong picture of a young, progressive and modern-minded America. . . . Although it was considered desirable that American architects design these structures, in all cases a local associate architect was put under contract for the purpose of consultation, guidance on local building problems, assistance on producing working documents, recommending bidders, help in awarding contracts, supervision, etc.

Incidentally, competitive bidding was a "must" with a minimum of three bidders. One difficulty always was the fact that no escalator clauses for material or labor were ever included. With the fluctuating world conditions it was nearly impossible to obtain low, honest bids. Our government insisted on a fixed-price contract and, since there was only a given amount set up for the project, there could be little question of going over.

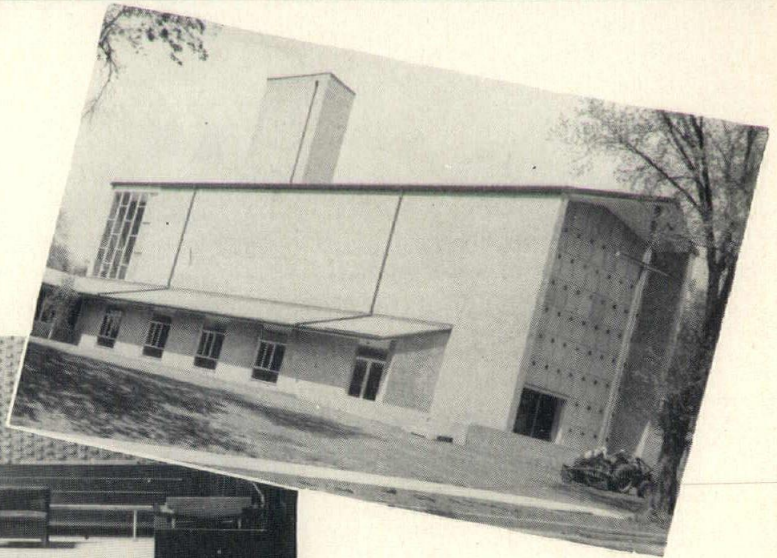
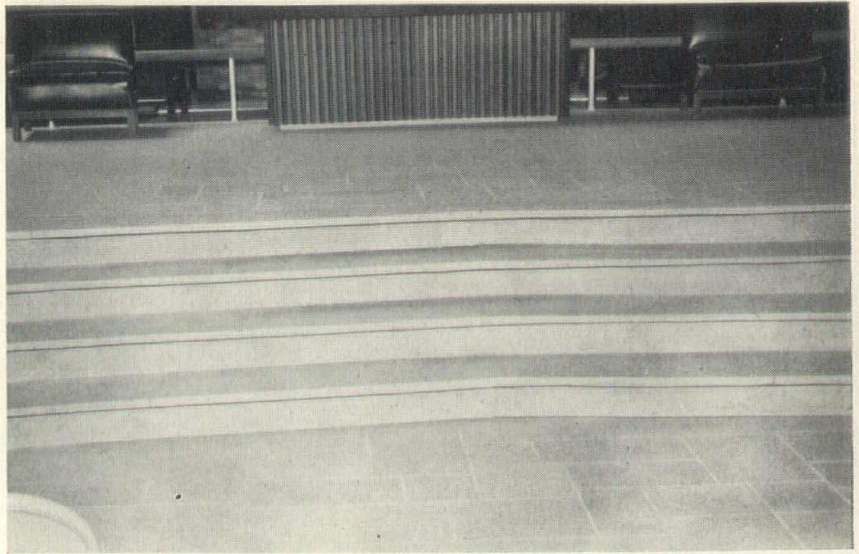
countries for the use of the government of the United States. At that time Congress appropriated \$10,000,000 for the purpose. Then, in 1935, Congress appropriated another \$1,500,000 and in 1938 another \$5,000,000. This meant a total of \$16,500,000. In 1946 Congress approved another appropriation of \$15,000,000 in U. S. dollars and 100,000,000 in foreign credits. It will be seen that this new dollar appropriation after the war nearly equaled all the previous appropriations and in addition more than 100,000,000 in soft currencies. In 1952 another proposed amendment authorized the utilization of an additional 90,000,000 in foreign credits. These credits were the result of Lend Lease, Surplus Property, Marshall Plan, Mutual Security Aid, etc. Foreign governments were delighted to pay for buildings and sites to reduce these old debts. This enabled our allies to discharge some of their obligations without touching their limited hard-currency reserves, it enabled the State Department to acquire valuable property abroad and it enabled the State Department to reduce its office rentals and quarters allowances to Foreign Service personnel, which are payable in hard dollars. Of the more than \$100,000,000 spent up to 1952, 97 per cent of this was paid by foreign countries in soft currencies and only 3 per cent had to be met with new dollar appropriations.

A few brief words regarding the organization of F.B.O. F.B.O. is an agency of the Department of State, directly responsible to the office of the Under-Secretary of State for Administration. In addition to the director, there is a deputy for administration, a deputy for technical matters, a programming and liaison staff, a technical staff for property, management, leasing, furniture and furnishings and architecture and engineering. Regional offices are maintained in strategic parts of the world. In western Europe, these are (roughly): western Germany, England, Austria and satellites, Paris and Stockholm. There are regional offices in the Far East (except Japan), Near East and South America. Central America is handled from Washington.

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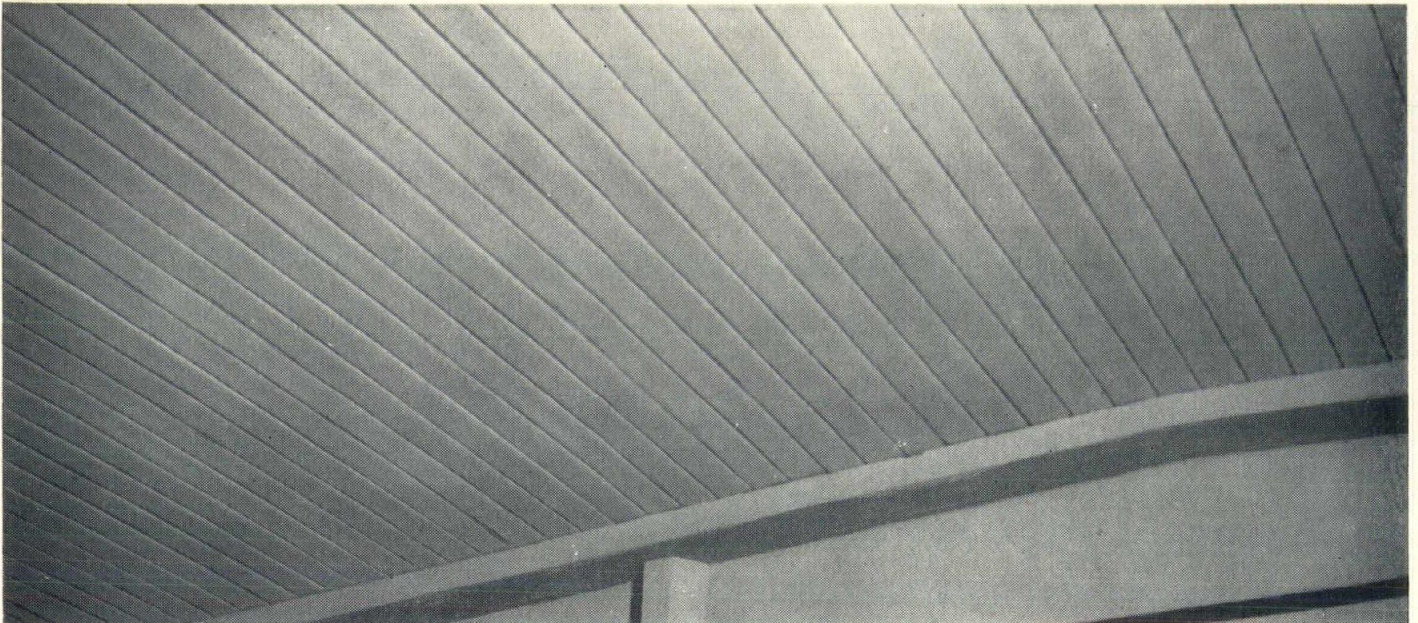


Photo above shows Corflor roof installation in factory building.

Corflor is cast by a centrifugal process which de-waters the concrete mix to a perfect water-cement ratio. It is cast in one length—60'—and the units, smoothly sawed to building dimensions, are available in increments of 1/2" in length.

Corflor weighs 55 pounds per square foot including grout which keys the slabs into a complete rigid panel.

Zenith Corflor is readily adaptable to modern building designs and construction. The Corflor section is a hollow beam—type unit 8" x 8" with a 6" diameter hole, permitting easy placing of electrical boxes and plumbing. Tension bars (sizes 3/8" - 1/2" and 5/8" diameter) are pre-stressed by actual elongation measurements. Compression steel is always 3/8" diameter.

span-load table

CLEAR SPAN—FEET LIVE LOAD—POUNDS

Tension Bar Diam.	Sq. In. Steel psf.	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	28-6	29	29-6	30
5/8"	.9204	400	354	326	304	252	221	190	166	142	125	110	97	84	75	65	56	49	45	42	39	36
1/2"	.5889	295	232	199	171	142	123	103	89	75	63	53	43	36	32							
3/8"	.3315	132	108	84	69	53	41	31														

Under a given span and opposite the tension bar diameter of the units read the number of net allowable live load pounds per square foot. These loadings are in addition to the weight of the material which is 55 pounds per square foot including grout. Loadings based upon deflection limits from actual loading tests performed by Columbus Testing Laboratories, Columbus, Ohio, R. W. Hunt Co. of Chicago and James H. Herron Co., Cleveland, Ohio.

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Shall We Put an End to the Human Race?

BY BERTRAND RUSSELL

"The British philosopher, Lord Bertrand Russell, stirred by the monstrous vision of a hydrogen war, made this urgent plea for peace in a London broadcast. Lord Russell's moving appeal to reason, largely ignored in America, deserves the widest possible audience," said "Frontier" magazine in its April, 1955, issue. We reprint this with permission.—Editors.

I AM speaking on this occasion not as a Briton, not as a European, not as a member of a western democracy, but as a human being, a member of the species Man, whose continued existence is in doubt. The world is full of conflicts: Jews and Arabs; Indians and Pakistanis; white men and Negroes in Africa; and, overshadowing all minor conflicts, the titanic struggle between Communism and anti-Communism.

Almost everybody who is politically conscious has strong feelings about one or more of these issues; but I want you, if you can, to set aside such feelings for the moment and consider yourself only as a member of a biological species which has had a remarkable history and whose disappearance none of us can desire. I shall try to say no single word which should appeal to one group rather than to another. All, equally, are in peril, and, if the peril is understood, there is hope that they may collectively avert it. We have to learn to think in a new way. We have to learn to ask ourselves not what steps can be taken to give military victory to whatever group we prefer, for there no longer are such steps. The question we have to ask ourselves is: What steps can be taken to prevent a military contest of which the issue must be disastrous to all sides?

The general public, and even many men in positions of authority, have not realized what would be involved in a war with hydrogen bombs. The general public still thinks in terms of the obliteration of cities. It is understood that the new bombs are more powerful than the old and that, while one atomic bomb could obliterate Hiroshima, one hydrogen bomb could obliterate the largest cities such as London, New York, and Moscow. No doubt in a hydrogen-bomb war great cities would be obliterated. But this is one of the minor disasters that would have to be faced. If everybody in London, New York, and Moscow were exterminated, the world might, in the course of a few centuries, recover from the blow. But we now know, especially since the Bikini test, that hydrogen bombs can gradually spread destruction over a much wider area than had been supposed. It is stated on very good authority that a bomb can now be manufactured which will be 25,000 times as powerful as that which destroyed Hiroshima. Such a bomb, if exploded near the ground or under water, sends radio-active particles into the upper air. They sink gradually and reach the surface of the earth in the form of a deadly dust or rain. It was this dust which infected the Japanese fishermen and their catch of fish although they were outside what experts believed to be the danger zone. No one knows how widely such lethal radio-active particles might be diffused, but the best authorities are unanimous in saying that a war with hydrogen bombs is quite likely to put an end to the human race. It is feared that if many hydrogen bombs are used there will be universal death—sudden only for a fortunate minority, but for the majority a slow torture of disease and disintegration.

I will give a few instances out of many. Sir John Slessor, who can speak with unrivalled authority from his experiences of air warfare, has said: "A world war in this day and age would be general suicide"; and has gone on to state: "It never has and never will make

any sense trying to abolish any particular *weapon* of war. What we have got to abolish is *war*." Professor Adrian, who is the leading English authority on nerve physiology, recently emphasized the same point in his address as President of the British Association. He said: "We must face the possibility that repeated atomic explosions will lead to a degree of general radio-activity which no one can tolerate or escape"; and he added: "Unless we are ready to give up some of our old loyalties, we may be forced into a fight which might end the human race." Air Chief Marshal Sir Philip Joubert says: "With the advent of the hydrogen bomb, it would appear that the human race has arrived at a point where it must abandon war as a continuation of policy or accept the possibility of total destruction." I could prolong such quotations indefinitely.

Many warnings have been uttered by eminent men of science and by authorities in military strategy. None of them will say that the worst results are certain. What they do say is that these results are possible and no one can be sure that they will not be realized. I have found the men who know the most are the most gloomy.

Here, then, is the problem which I present to you, stark and dreadful and inescapable: Shall we put an end to the human race; or shall mankind renounce war? People will not face this alternative because it is so difficult to abolish war. The abolition of war will demand distasteful limitations of national sovereignty. But what perhaps impedes understanding of the situation more than anything else is that the term 'mankind' feels vague and abstract. People scarcely realize in imagination that the danger is to themselves and their children and their grandchildren, and not only to a dimly apprehended humanity. And so they hope that perhaps war may be allowed to continue provided modern weapons are prohibited. I am afraid this hope is illusory. Whatever agreements not to use hydrogen bombs had been reached in time of peace, they would no longer be considered binding in time of war, and both sides would set to work to manufacture hydrogen bombs as soon as war broke out, for if one side manufactured the bombs and the other did not, the side that manufactured them would inevitably be victorious.

On both sides of the Iron Curtain there are political obstacles to emphasis on the destructive character of future war. If either side were to announce that it would on no account resort to war, it would be diplomatically at the mercy of the other side. Each side, for the sake of self-preservation, must continue to say that there are provocations that it will not endure. Each side may long for an accommodation, but neither side dare express this longing convincingly. The position is analogous to that of duellists in former times. No doubt it frequently happened that each of the duellists feared death and desired an accommodation, but neither could say so, since, if he did, he would be thought a coward. The only hope in such cases was intervention by friends of both parties suggesting an accommodation to which both could agree at the same moment. This is an exact analogy to the present position of the protagonists on either side of the Iron Curtain. If an agreement making

war improbable is to be reached, it will have to be by the friendly offices of neutrals, who can speak of the disastrousness of war without being accused of advocating a policy of 'appeasement.' The neutrals have every right, even from the narrowest consideration of self-interest, to do whatever lies in their power to prevent the outbreak of a world war, for, if such a war does break out, it is highly probable that all the inhabitants of neutral countries, along with the rest of mankind, will perish. If I were in control of a neutral government, I should certainly consider it my paramount duty to see to it that my country would continue to have inhabitants, and the only way by which I could make this probable would be to promote some kind of accommodation between the powers on opposite sides of the Iron Curtain.

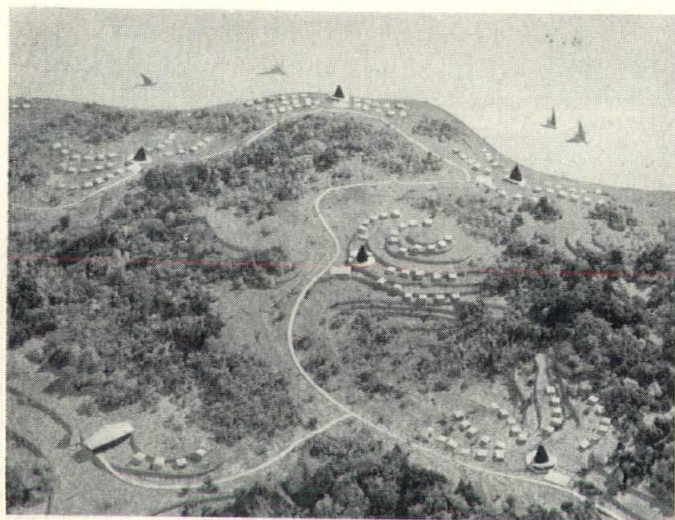
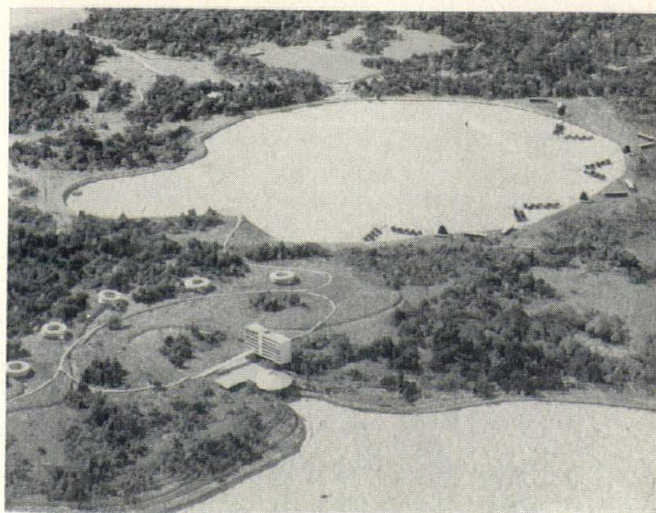
I, personally, am of course not neutral in my feeling and I should not wish to see the danger of war averted by an abject submission of the west. But, as a human being, I have to remember that, if the issues between east and west are to be decided in any manner that can give any possible satisfaction to anybody, whether Communist or anti-Communist, whether Asian or European or American, whether white or black, then these issues must not be decided by war. I should wish this to be understood on both sides of the Iron Curtain. It is emphatically not enough to have it understood on one side only. I think the neutrals, since they are not caught in our tragic dilemma, can, if they will, bring about this realization on both sides. I should like to see one or more neutral powers appoint a commission of experts, who should all be neutrals, to draw up a report on the destructive effects to be expected in a war with hydrogen bombs, not only among the belligerents but also among neutrals. I should wish this report presented to the governments of all the Great Powers with an invitation to express their agreement or disagreement with its findings. I think it possible that in this way all the Great Powers could be led to agree that a world war can no longer serve the purposes of any of them since it is likely to exterminate friend and foe equally and neutrals likewise.

As geological time is reckoned, Man has so far existed only for a very short period—1 million years at the most. What he has achieved, especially during the last 6,000 years, is something utterly new in the history of the Cosmos, is far at least as we are acquainted with it. For countless ages the sun rose and set, the moon waxed and waned, the stars shone in the night, but it was only with the coming of Man that these things were understood. In the great world of astronomy and in the little world of the atom, Man has unveiled secrets which might have been thought undiscoverable. In art and literature and religion, some men have shown a sublimity of feeling which makes the species worth preserving. Is all this to end in trivial horror because so few are able to think of Man rather than of this or that group of men? Is our race so destitute of wisdom, so incapable of impartial love, so blind even to the simplest dictates of self-preservation, that the last proof of its silly cleverness is to be the extermination of all

(Continued on Page 78)

A Resort

for Trade Union Members



Our illustrations above show two views of the resort model . . . at top, the main hotel in foreground and cabins, etc., behind . . . above, roads to smaller housing units.

Fall and Winter quarters 1954-55 were devoted by the third year design class to the development of the project as proposed by the competition. In the fall quarter five teams of students developed their preliminary designs. At the end of this period a preliminary contest was held at the University and one team was instructed by the jury to spend additional time preparing its submission for the international contest. This entailed further, more detailed development of the problem and included final presentation studies with model, drawings, and photographs.

The team members were Dennis W. Grebner, Donald Sheldon, Ted Butler and George E. McGuire.

The Program, as specified by Sao Paulo

A 1,200-acre site fronting on a lake, river or sea. Show relationship between areas to be served and the vacation site.

Site to be located near transportation center, easily accessible by air, rail, bus and auto.

The University of Minnesota entry in the Third Biennial International Contest for Schools of Architecture sponsored by the Sao Paulo Museum of Modern Art, Sao Paulo, Brazil.

That it be a self-sustaining community.

Facilities for 3,000 persons (service personnel included), approximately $\frac{1}{3}$ of the persons year-round.

Approximately 1,000 persons to be housed in a central hotel.

Each vacationer to spend one month.

Extensive development of recreation aspect.

Program Development

Our philosophy—Man has two basic needs: (a) material, that is food, shelter, clothing, certain luxuries and physical relaxation; (b) spiritual, that is, peace of mind (mental relaxation), cultural development, valued work experience and security.

Premise

The American working man in this age of industrialization has achieved most of his material needs. Never before has he enjoyed such a high standard of living. However, it has become more apparent that these needs

have been gained at the expense of his spiritual well-being.

The American working man realizes his industrial existence leaves much to be desired. Witness his mass exodus to nature and the out-of-doors. Immediate physical and mental rejuvenation is his primary drive to escape a work-a-day existence. To achieve this need, the American working man has engaged in the wanton spending of his leisure time.

A second important purpose of relaxation and recreation should be to spiritually improve and elevate the individual. Increased leisure would provide time for his cultural development. This need has not been very apparent to the average working man.

Aims:

1—That the individual be severed from the high speed society in which he makes his living. We would provide his leisure time with a variety of outlets for individual creative expression. Whether relaxing or recreating, spiritual rejuvenation can best be accomplished in a natural environment. An appreciation of nature, relaxed social intercourse, appreciation of literature and art, knowledge of politics, management of personal affairs—all these could be greatly improved.

2—That the architecture be subordinate to nature to

gain this proper atmosphere of a natural environment. In all instances, the architecture was not to be overpowering in mass but to be rather simple. We wanted not to build an architectural monument to the trade unions, per se, but rather a living monument to the individual. In that sense we feel we have really designed a true guide for organized working men.

Development

A. Site choice . . .

On Gull Lake northwest of Brainerd, in the heart of the Minnesota vacation resorts area. Brainerd is the hub of transportation for north-central Minnesota and is centrally located in relation to metropolitan areas of Minnesota, Iowa, Wisconsin, North Dakota and South Dakota.

B. Site description . . .

On northwest shore of Gull Lake.

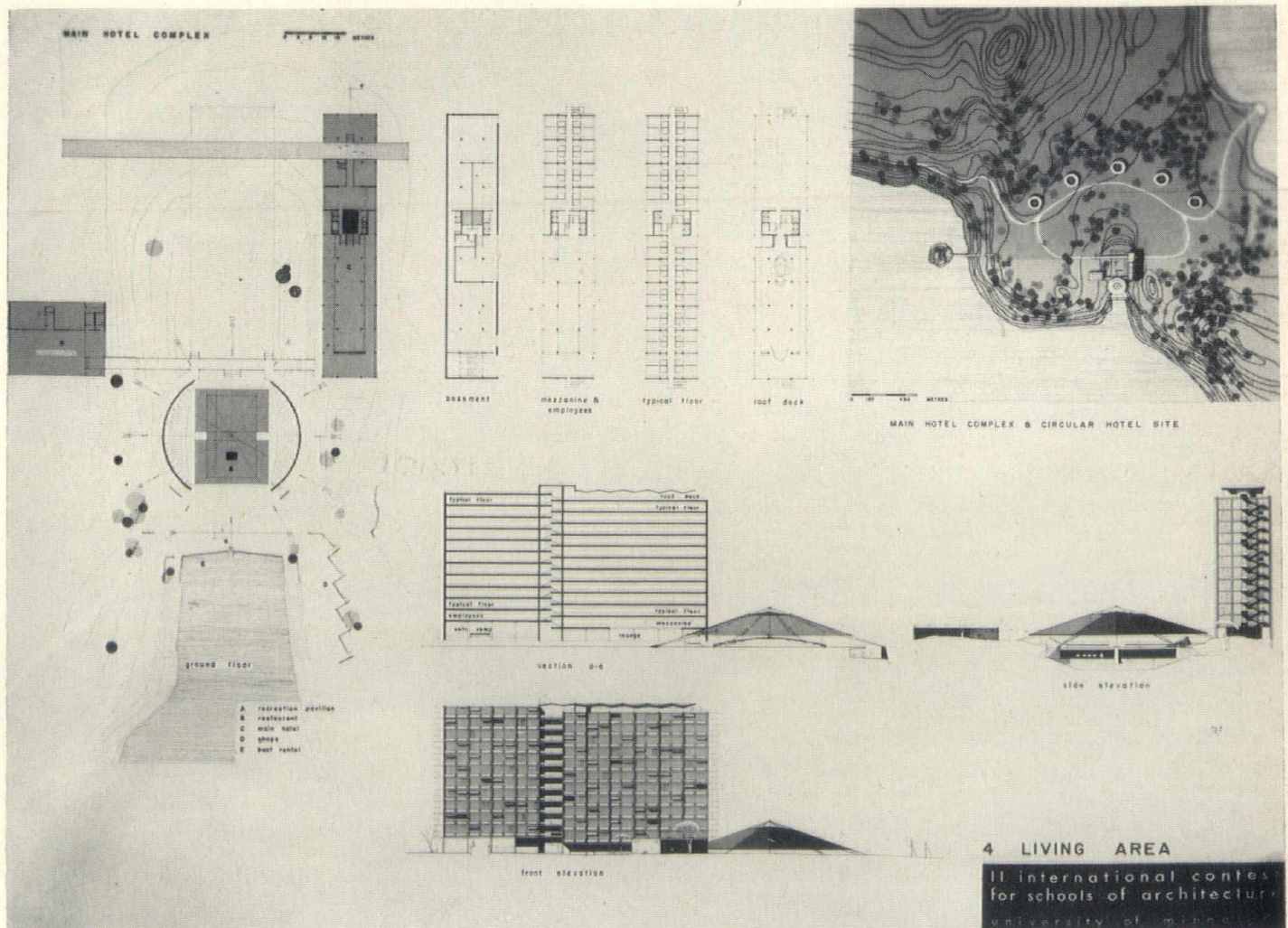
Approximately 1,200 acres in area.

17,600 lineal feet of shore-line on Gull Lake. Agate Lake included within the boundaries of the site.

Some 8,000 lineal feet of shore-line around Agate Lake.

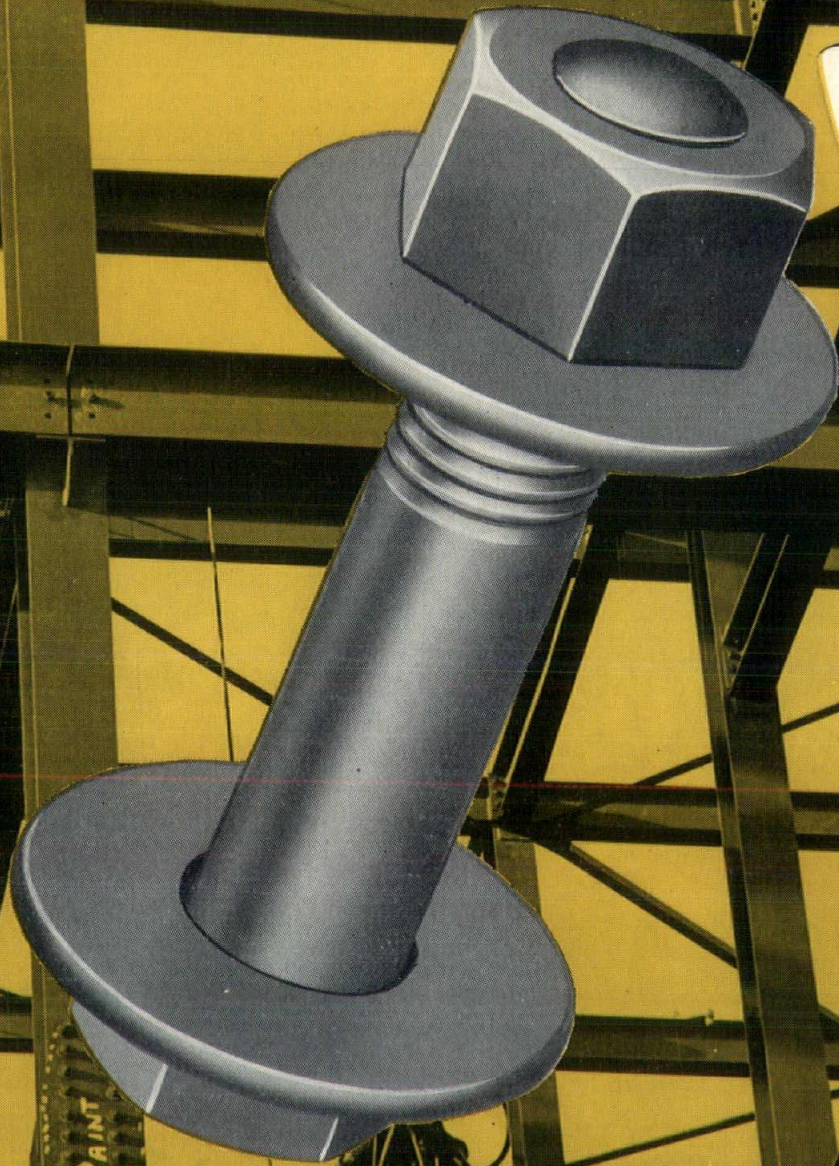
Agate Lake approximately 1/2-mile in diameter.

(Continued on Page 52)



Typical of the team's detailing is the main hotel shown above.

new



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PACAL BOLT

guarantees high tensile strength

Structural joints made with Pacal "core hardened" Bolts, Nuts and Washers absolutely stay tight. This new Pacal Bolt is superior to all others being used today in building and bridge construction. Because of precision manufacture from a high quality steel and uniform heat treating under a new quality control method, Pacal guarantees that all ASTM A325-53T specification and all state specifications for physical properties are met or exceeded.

The strength and resulting economy of Pacal's "core hardness" can be immediately proven on the job and in field and laboratory

tests. Maximum torque or vibration will not cause this bolt to stretch or loosen.

American Standard Heavy cold punched nuts, carefully inspected and tested, are supplied with each bolt. They insure maximum tensile strength required for Pacal Core Hardened Bolts.

Because a structural joint is no better than the combined bolt, nut and washer, a carefully carburized, high quality washer is supplied. Sample testing maintains a consistency that will not be cut by the bolt or nut and at the same time, will not crack under maximum pressure.

All sizes are in stock:

All lengths, diameters 1/2", 5/8", 3/4", 7/8" and 1"

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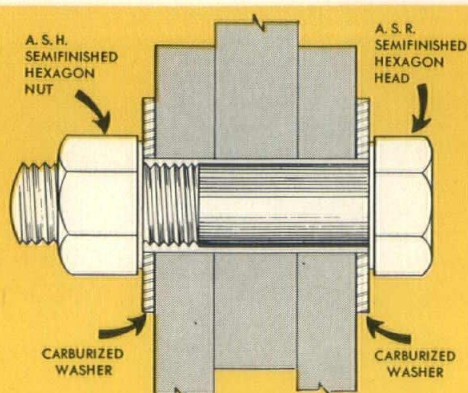
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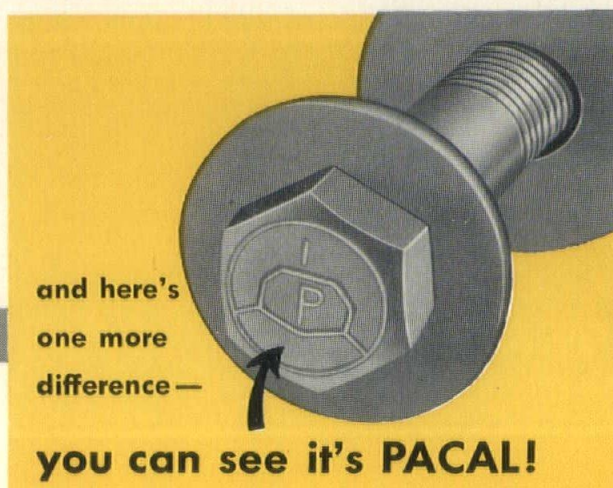
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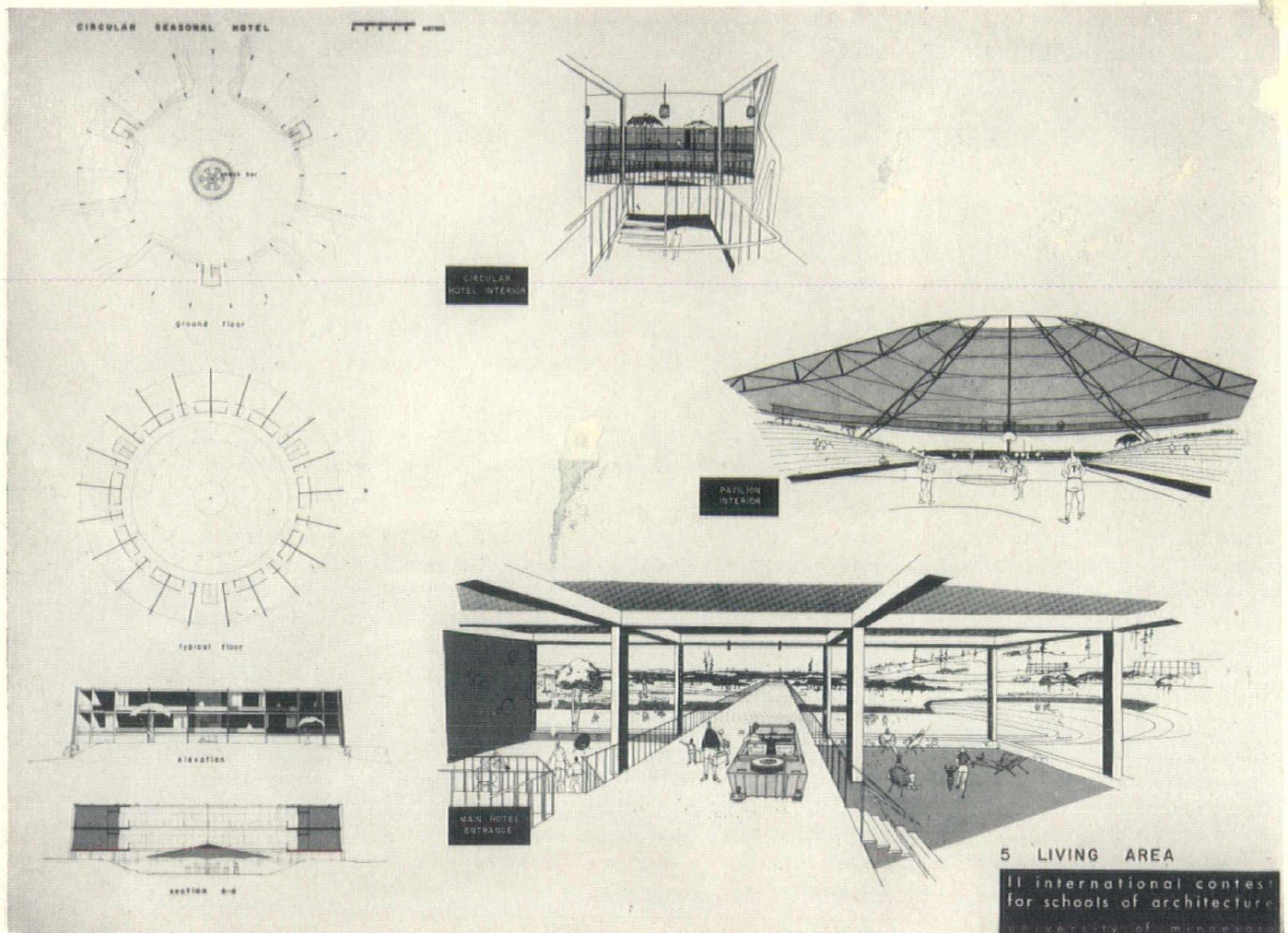
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The only combination unit that assures high clamping force will be maintained.



Hotel details to match the preceding illustration are shown below:



C. Site Conditions . . .

No present development (part of national forest preserve).

Rough terrain on southern $\frac{2}{3}$ of site (elevation differential of 250').

Northern $\frac{1}{3}$ of site relatively flat terrain (Agate Lake contained in this area).

Forestation mostly coniferous, some deciduous.

Good fishing and swimming, both lakes.

D. Transportation . . .

Motor vehicle transportation to and from site on trunk routes from two existing highways.

Trunks enter at right angles to each other in the northwest corner of site.

Auto storage lot on northwest corner of site, on opposite side of Agate Lake from resort.

Amphibian bus service operated, connecting living areas and recreation areas.

The vacationer drives to the check-in point adjacent to the auto storage lot, checks his car, registers and is taken aboard an amphibian (duck) to go to his living area. This complete traffic isolation achieves both privacy for the worker and severs the va-

cationer from his auto in an attempt to slow him down, thereby enjoying nature more fully.

E. Housing—architecture subservient to nature . . .

1. Major Hotel Complex:

- 11-story central hotel for year-round occupancy, with 750 vacationers.
- Five circular hotels each housing about 40 vacationers, dependent upon major hotel for eating facilities.
- a small harbor in conjunction with the major hotel.
- a central recreation pavilion fronting on harbor as focal point for whole resort.
- shops along the harbor.
- restaurant for 1,500 persons with a view of both the harbor and pavilion.

2. Cabin Communities:

Eleven cabin groups located in rugged $\frac{2}{3}$ of site containing 30 cabins per group for a total of approximately 1,100 persons.

Two cabins types (structure-wood post beam).

(Continued on Page 77)

PRUDENTIAL Minneapolis, Minnesota



2600 CUBIC YARDS ZONOLITE SAND CONCRETE FLOOR FILL IN NEW PRUDENTIAL BUILDING!

The impressive new structure designed and engineered by Magney, Tusler & Setter, Minneapolis, is another outstanding example of Zonolite-sand concrete used as floor fill over pan type structural floors.

Since Zonolite-sand concrete weighs only half as much as ordinary concrete, dead load is reduced and appreciable savings in structural steel are made possible in multi-story buildings.

The compressive and indentation strengths of this concrete are adequate for use as base for tile, linoleum, terrazzo or carpeting. Its resilience approaches that of wood floors, meaning greater comfort and foot ease for occupants.

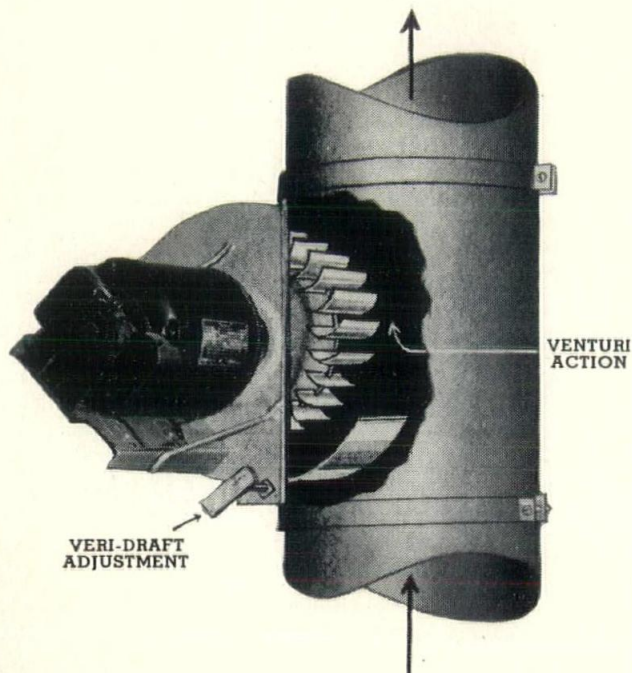
A new 12-page specification booklet on Zonolite-sand concrete as a floor fill, a floor slab over closely spaced supports and as a slab on the ground is available to you at no charge. Write for your booklet today.



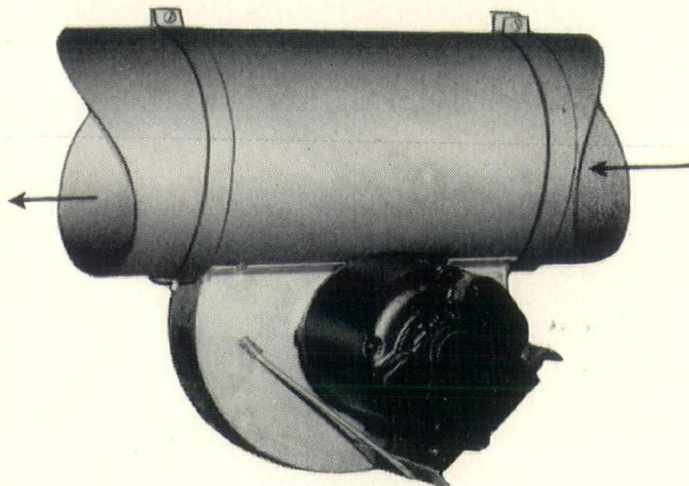
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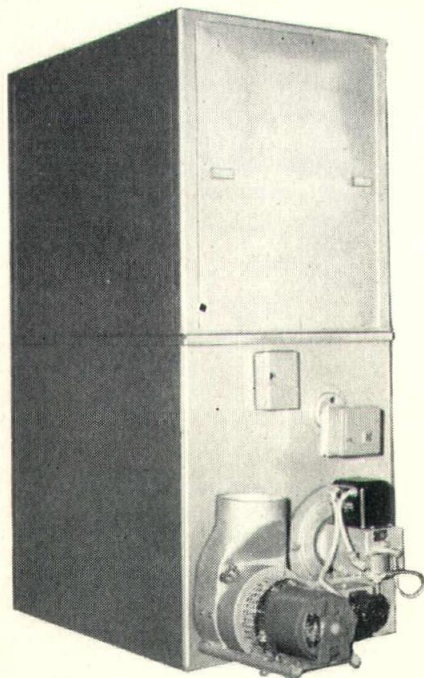
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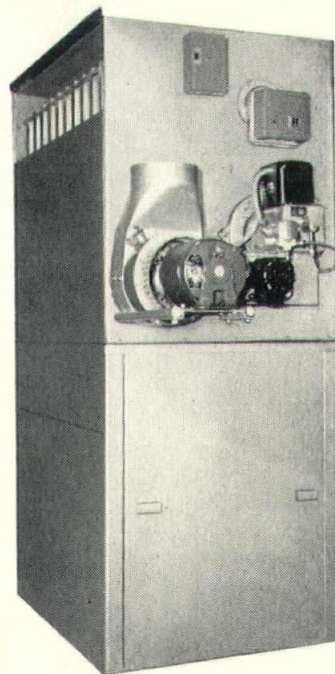
LO-BOY
HI-BOY



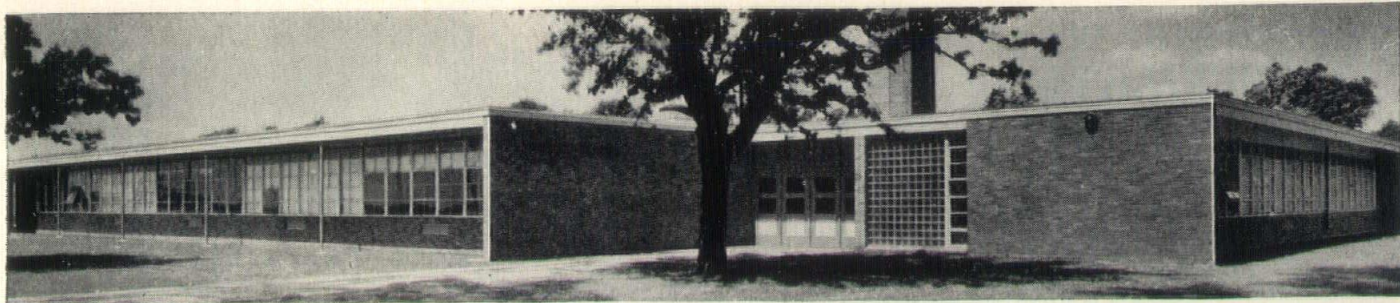
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with integral draft
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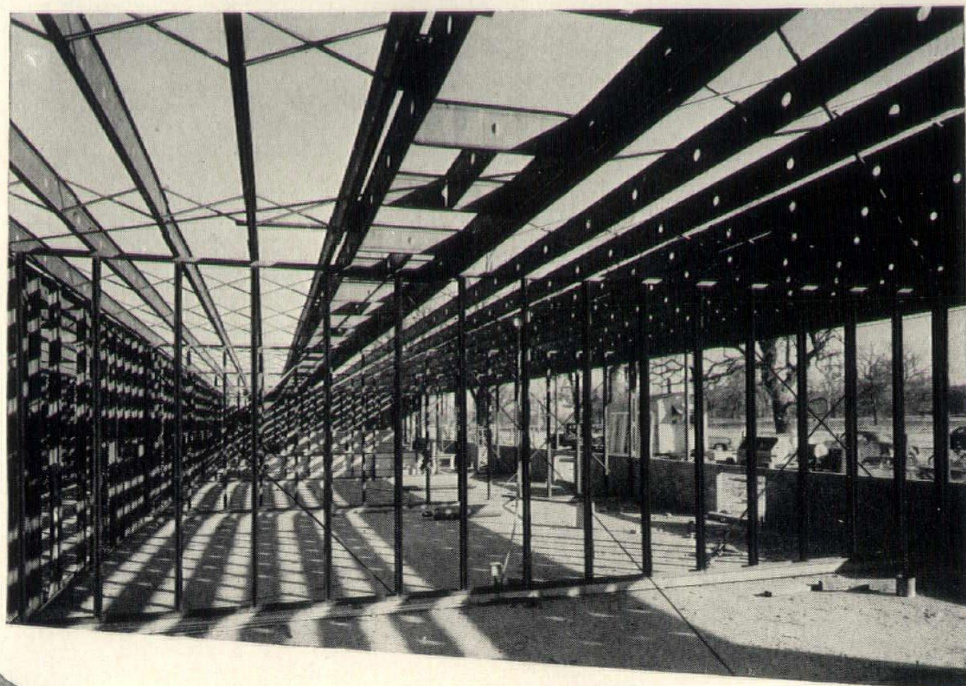
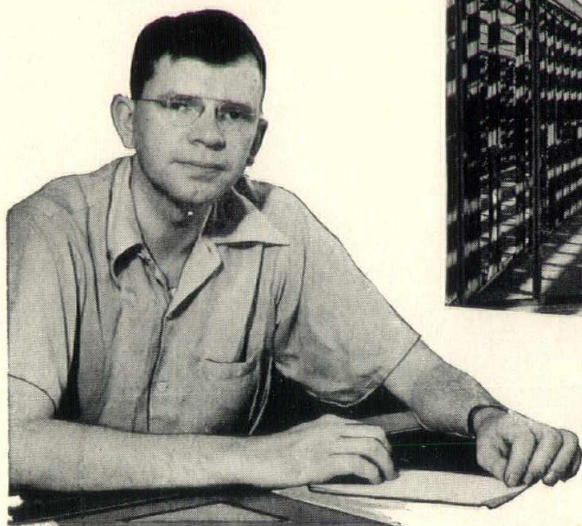
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with integral draft
inducing oil burner



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 Architect—H. B. Crommett
 Gen'l Contractor—
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H. B. CROMMETT, *Architect*
 St. Paul, Minn.



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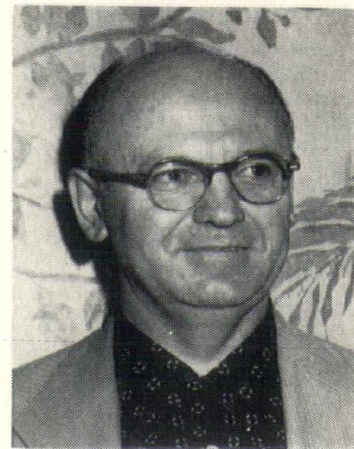


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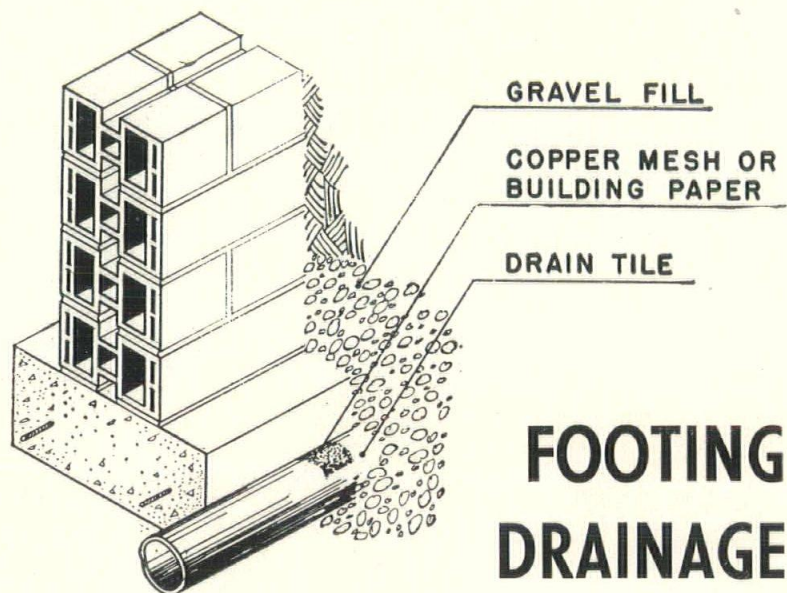
Stolte Outlines Relationship of Architects and Building Tradesmen

Speaking before a group of more than 500 building industry leaders and construction trades apprentices at the Eighth Annual Apprenticeship Completion Ceremony at the University of Minnesota, S. L.

Stolte, prominent architect of St. Paul, pinpointed the relationship of planning and building when he said "... one point has always stood out indelibly clear ... no construction project is any better than its design



Mr. Stolte



Too much emphasis cannot be placed on the need for drainage around the structure where unsightliness or damage will result from the penetration of water. In many cases, proper drainage would be all that is needed to preserve the structure or to protect the interior. Except in well drained soil, usually sandy or gravelly, it is advisable to place drain tile near the bottom of exterior basement walls, foundations and footings. Drain tile or 4-in. to 6-in. in most cases will be sufficient. The tile should be laid with a slope of not less than $\frac{1}{8}$ in. per foot, preferably keeping the high point below the elevation of the basement floor, with the low ends of the drain at approximately the same grade as the bottom of the footing.

This drain tile should be carefully laid on firm even bearing with no traps. The ends should be butted together and in no case more than $\frac{1}{4}$ in. apart. The top half of the joints should then be covered with a strip of copper mesh or building paper approximately 4 in. wide before the backfill is placed.

Drains around the foundations of a building are usually in two parts or systems, meeting at a common low point and then carried into or connected with a drainage outlet. An ideal fill over the foundation drain tile is one composed of coarse gravel or stone at the bottom, grading through medium to sand near the top. Backfill for the first couple of feet above the tile should be carefully placed, not dumped, to avoid breakage.

STRUCTURAL CLAY PRODUCTS INSTITUTE
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but even with good plans and specifications the job is no better than the workman carrying it out—namely, the building craftsman."

The ceremony followed a dinner sponsored by the Minneapolis-St. Paul Area Joint Apprenticeship Conference. The conference includes representatives of the construction industry, labor and management.

R. J. Hendershott, manager of the Associated General Contractors of Minnesota, introduced Mr. Stolte. Charles W. Borresen, vice-president of D'Arcy Leck Construction Co., was master of ceremonies and V. E. Mollan, electrical apprentice, spoke for the 300 apprentices finishing their initial periods. Others present for the ceremony included state political leaders of both parties, the mayors of the Twin Cities, educational leaders, representatives of federal, state and local agencies concerned with the apprenticeship program, union and management leaders and civic personalities.

In his speech, Mr. Stolte said ...

"When I was persuaded by the secretary of the Minneapolis-St. Paul Area Apprenticeship Conference and the president of the Minnesota Society of Architects of the American Institute of Architects to address you here this evening, the inference was that as an architect and a professional engineer I should be in good position to express the viewpoint of both the employers and the employees.

"Well, I am not quite clear how that deduction comes about but I am sure that I have had certain definite experiences and have certain

NORTHWEST

convictions regarding the craftsman, contractors, the owner or more generally the public, the architect and engineer and their relationships to each other. . . .

"In my thirty-odd years of experience in the construction industry, one point has always stood out indelibly clear. No construction project is any better than its design but, even with good plans and specifications, the job is no better than the workman carrying it out—namely the building craftsman. I always like to be sure of definitions and, therefore, ask:

"What is a good craftsman?"

"First of all, he is a man who does a first class job or piece of work in his trade; he is known by his workmanship; nothing he does is shoddy, ugly or of poor quality.

"He is loyal. Loyal to his union for he believes that no union man has any right to injure either his union or anyone in it and he believes that any man who belongs to a club or a society or a union is bound to help that organization along in any way he can.

"He is loyal to men of other trades. He never intentionally or wilfully injures the work of another workman. If he is a carpenter, he doesn't draw pictures on white plaster walls and if he is a plasterer, he doesn't drop mortar on a newly laid floor.

"He is loyal, also, to his employer and the owner for he knows that he has sold to them eight hours a day of his skill and he would no more expect to loaf on the job or do poor quality work than he would expect his grocer to take his money for a barrel of apples and then give him the barrel half full or the apples half rotten.

"He realizes that buildings are produced by co-operation—co-operation all the way down the line from the owner to the laborer—and he rightly feels that his part in the construction of the building is just as necessary and just as important as the architect's or the contractor's part. He is proud to point out the buildings he has had a hand in building.

"He, moreover, never forgets to give a word of advice or encourage-

ARCHITECT

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ment to the apprentice or show him how to do a job. He is quick to help his brother mechanic when he needs a hand and he is the first man to aid a fellow who meets with an accident. He is never a grouch and, when he is around, things seem to go better on the job.

"He is a man with a happy look on his face. Why shouldn't he have a happy look? His day's work is no mere grinding out of so many hours for so many dollars; he has given to his work the most precious things he has—his interest, his skill and his

best effort. Every day when he quits, he looks over his work with pride and satisfaction for he knows he has done a good job and he brings home to his wife and kiddies contentment and happiness.

"Because he is a good craftsman, he is a good fellow, a good husband, a good father, a worthwhile man in his community—and a *good citizen*.

"And, when he finally lays up his tools and some day stands before the Great Craftsman Who made all things and is asked, 'What have you done?' I think he will answer, 'I did

the best work I knew how.'

"Now, I have idealized perhaps to a degree because I can mention some experiences on construction jobs where the above was not true. I have had to have work torn down and rebuilt because workmanship was not good. Such conditions always result in bad feelings among the architect, the contractor and the workman. Some times I have even insisted that certain workmen were not capable of carrying out the job in hand and others should be assigned. For a long period, just passed, I wondered if workmen still took as much pride in doing a good job as in the past.

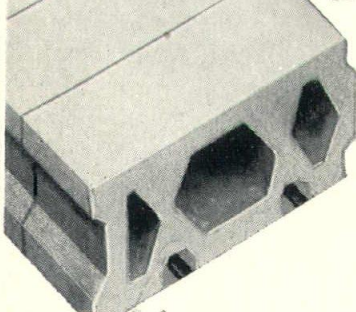
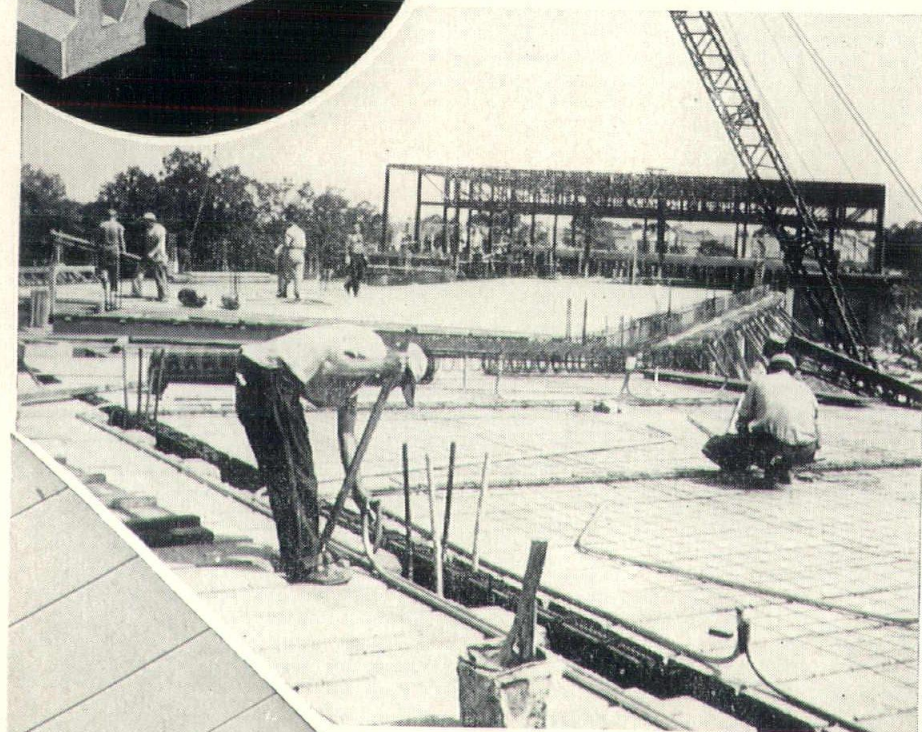
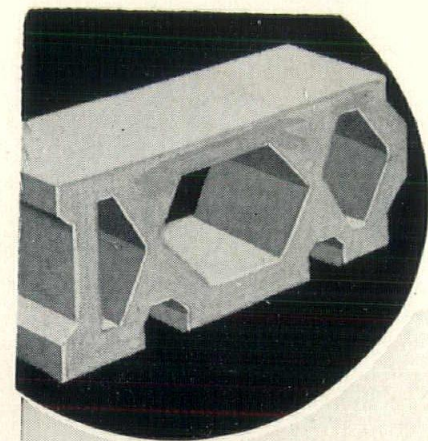
"Many of you know that apprenticeship periods of training to attain the skill and ability of a craftsman date back to the great building eras of the Romans, Greeks, Egyptians and Babylonians but it was in the Middle Ages, around the fourteenth Century, when the immediate forerunner of our present pattern evolved in the form of guilds. A member of a guild was a master craftsman. Guild membership was a mark of ability because it testified to seven years of apprenticeship under craftsmen and then one year (a wander year) during which time the craftsman was a journeyman, going from place to place to get a rounded-out experience. If the journeyman saved enough money while on his travels, he might return and set up his own business and, in turn, hire craftsmen and train apprentices.

"I worked during my early training period in the granite quarries around St. Cloud. Those granite cutters were really great craftsmen and usually came from all parts of the world, with a large proportion from Scotland, Sweden, France, Italy and Poland. One particular cutter stands out in my recollection. He was known as the 'Big Swede.' Time and again, when he was cutting a complicated stone, he would question me on the shop tickets and patterns that I had made for him with which to produce the stone. One certain piece was so complicated that even the sketches and patterns did not get the story across to him so I carved it (in miniature) out of a potato and, when I saw the smile of understanding on his face, I knew I had finally got my message across to him. But if he had not

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pestered me to the point of complete understanding, he could have ruined a stone that by that time had many hundreds of dollars of work on it.

"Therefore, my recommendation is never to be afraid to ask a question when you do not understand. It helps you, it saves time and money in the long run and it prevents tense moments and harsh words that are often regretted when once spoken. . . .

"Now, gentlemen, why are we especially pleased to congratulate you this evening for finishing your apprenticeship training in your respective crafts?

"Not only because you now can practice your respective skills with a growing confidence and a definite pride of accomplishment, not only because it will assure a good standard of living for you and yours but, more importantly, because we, the community, the state, the nation and, yes, the world, need you and your help.

"At a recent meeting of our Minneapolis Chapter of Architects, the Secretary of the Builders Exchange—and, by the way, one of the largest of its kind in the world—reported that in the first two months of this year the dollar volume of projects bid and awarded was twice that of the same period a year ago. I just noticed in the weekly bulletin of the Builder's Exchange that for the 9th Federal Reserve District building permits for March, 1955, totaled \$43,991,930 as compared to \$27,655,720 for March of 1954, or a 60% increase. This can mean but one thing. Many owners (whether they be public or private) have a lot of buildings they want built. We, of course, first feel the volume in the architects' and engineers' offices. I have never seen the offices so busy in this area. Actually, we too are feeling the pinch of competent workmen to turn out the great number of plans required of us today. We also have had a gap in the flow of properly trained and experienced architects, engineers and draftsmen. First it was the depression of the thirties when there were no jobs on which to train the men and then the war interrupted proper training schedules so that, now, we have a large per cent of our staffs that have gained their experience since the late forties.

ARCHITECT

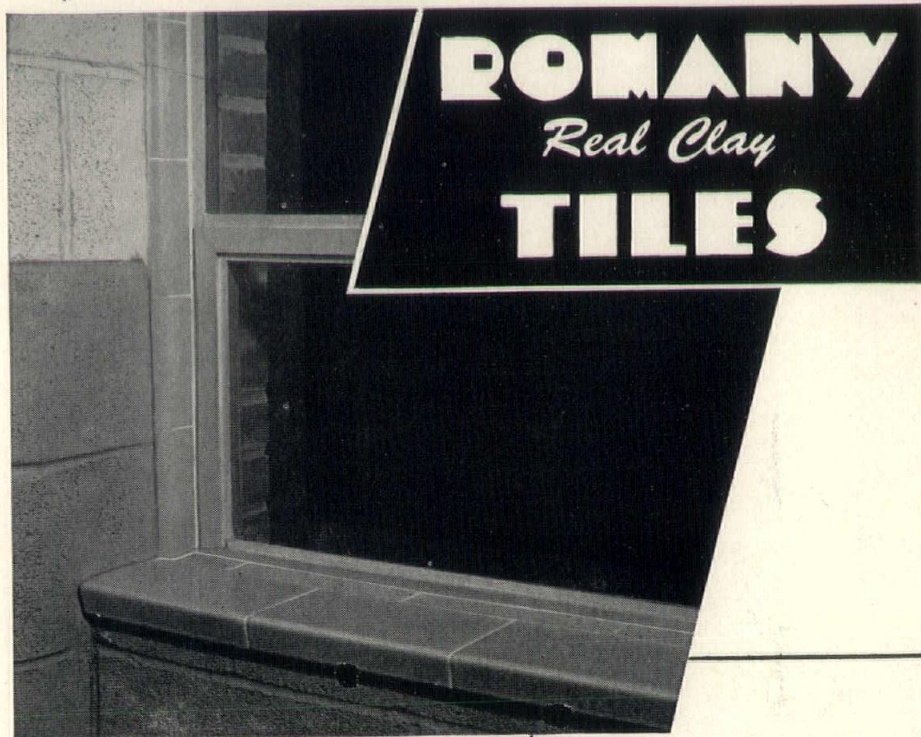
"You, too, in the skilled crafts, went through the same cycle and during the war and since have been trying to catch up on the years when the proper number of skilled workers was not coming along to meet the pent-up construction volume that has descended upon us during and since the World War II years.

"To your credit, I understand this program which is graduating some 300 skilled workers here tonight has

swelled the skilled labor pool by several thousands since its inception in this area.

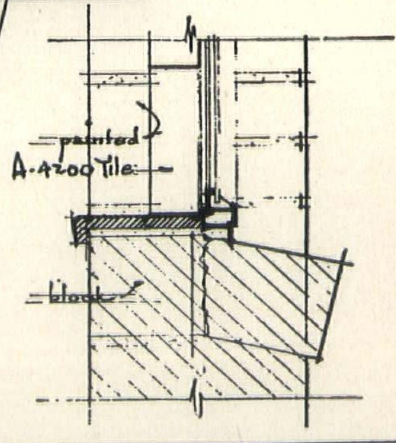
"We in the architectural profession know there is and will be for a number of years to come, a great, unmet need for schools, hospitals, yes, even housing of the standard we should have in this country, commercial, industrial and other types of construction. Last summer there

(Continued on Page 62)



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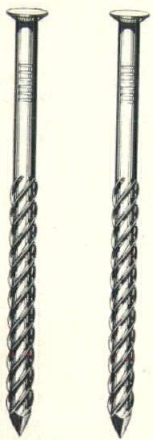
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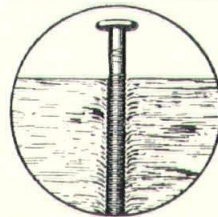
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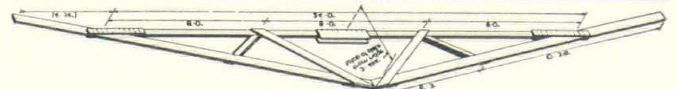


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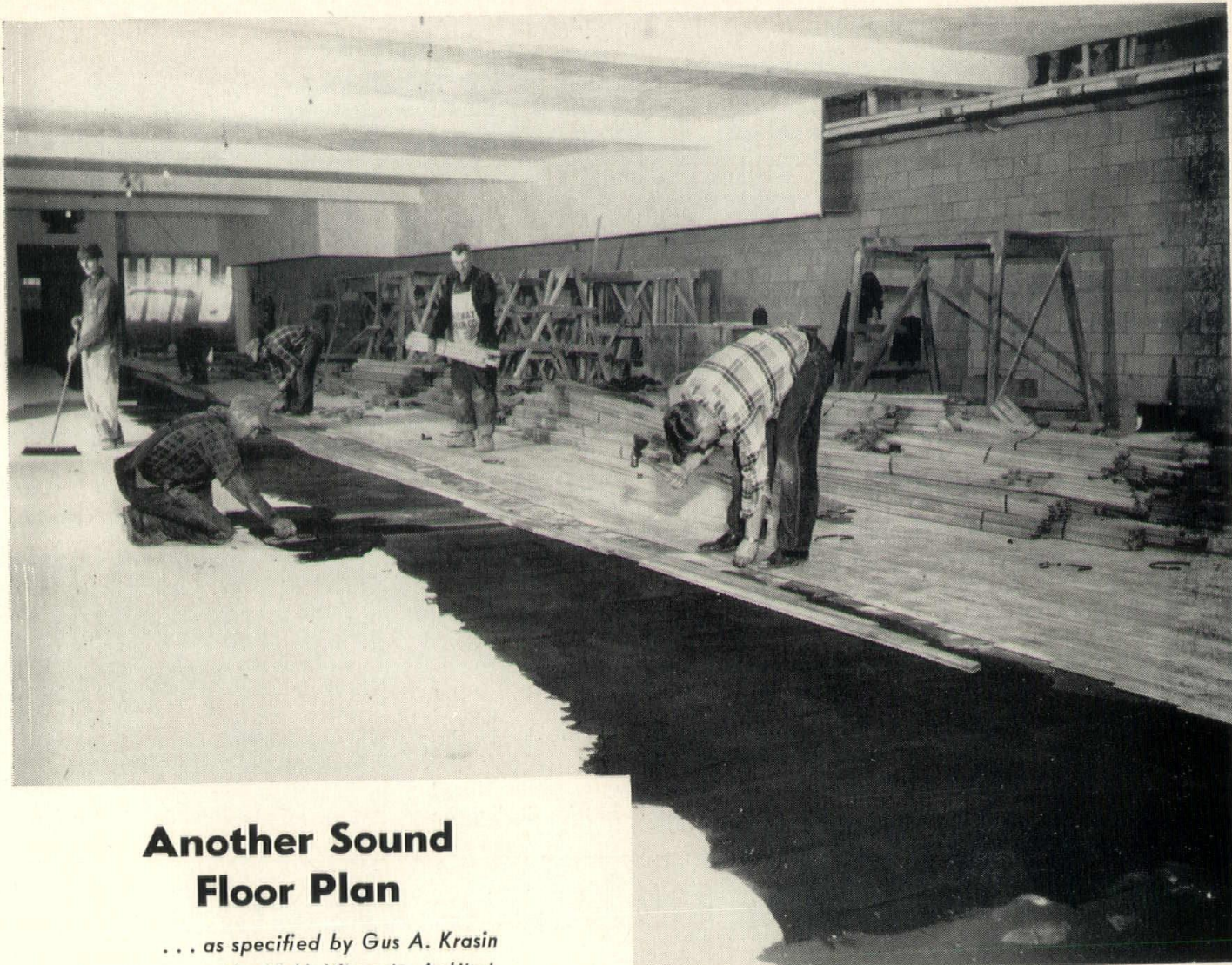
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This type of floor affords ample sound-proofing as well as water-proofing, with sufficient resiliency, long wear and will not develop any squeaks as there is no sub floor. Bearing is not only on the screeds, but also on the mastic between the screeds. Moreover, this type of floor may be used in schoolrooms and gymnasiums. It is especially efficient and long wearing for factories where excessive traffic such as trucking is the rule. Broken joints rarely if ever occur because they are well supported with mastic placed between the screeds.

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were not enough bricklayers and masons to go around. Many a job's progress was dependent upon the number of bricklayers that could be rounded up to do the work.

"My confidence in continued progress and activity is based on the simple fact of our increasing population and that benefits to mankind in the atomic developments are still in their infancy.

"As a country, we now approximate 160,000,000 persons. It is now predicted that by 1960 this figure will be 180,000,000. These additional 20,000,000 persons have to be housed, fed, clothed, educated and, yes, handled on our highways. So there certainly is no limit in sight to our country's expanding forces.

"Now to get back to you men who are to receive your certificates for completed apprenticeship here tonight.

"As an architect, I know that no longer can the architect do all phases of the work that go into the construction of a building. In ancient times it was not uncommon for the architect—the master builder—to be the architect, the engineer, the builder, the artist, the sculptor,

the carpenter and the mason. Of course, in those days they did not have electricity, steam, piped water and sewage disposal, air conditioning and the many other ramifications of a modern building. Today, the final building is the result of a great co-operative effort on the part of a large team and the most apparent and closest to the end product is the skilled worker, the man who pours the concrete, sets the steel, lays the brick, installs the piping for heating and plumbing, installs the electrical conduits and services, plasters the walls, sets the doors and windows, installs the millwork, lays the flooring, paints the surfaces, installs the glass, puts on the hardware and finally turns the key over to the owner who controls the use of the building.

"You, gentlemen, are those important people and my sincere congratulations go to you!

"Now, I trust you will pardon me if I wind up on a note which to me depicts the place of the architect and engineer in the construction industry. It was quite appropriately described by a writer who visited the great war industries during the

last war and he called this description:

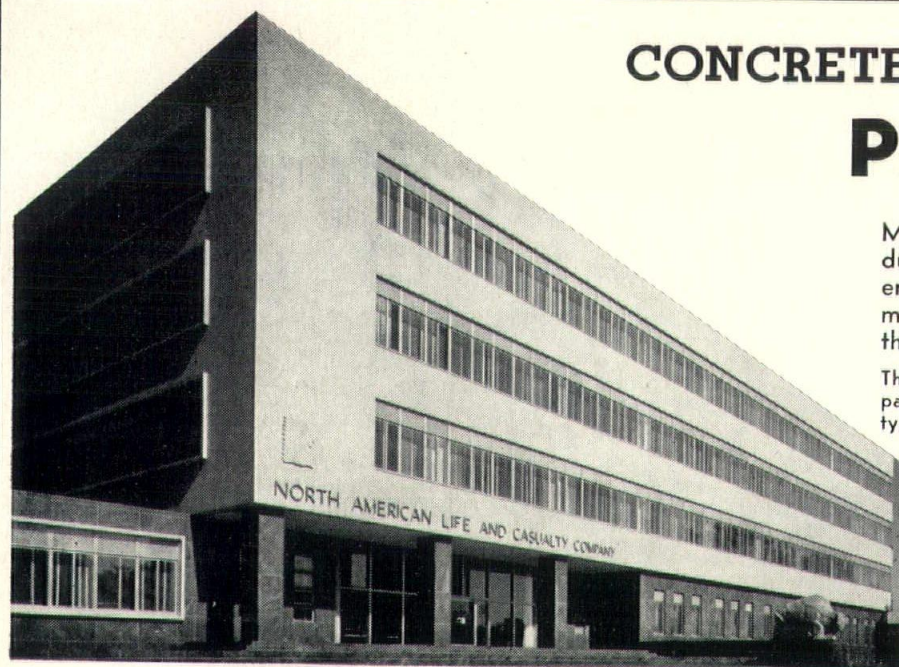
"THE THINKER"

"Back of the beating hammer by which the steel is wrought,
Back of the workshop clamor, the seeker may find the thought,
The thought that is ever master of iron and steam and steel
That rises above disaster and tramples it under heel.

"The drudge may fret and tinker or labor with lusty blows
But back of him stands the Thinker, the clear eyed man who knows
For into each plow and saber each piece and part and whole
Must go both brains and labor to give the thing a soul.

"Back of the motors humming, back of the belts that sing,
Back of hammers drumming, back of the cranes that swing,
There is the eye that scans them, Watching each stress and strain,
There is the mind that plans them; back of the brawn, the brain.

"Might of the steaming boiler force



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The North American Life and Casualty Company building, Minneapolis, illustrated, is a typical example where concrete designed with Pozzolith was used.

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- increases durability and bond to steel

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of the engine's thrust,
Strength of the sweating toiler, greatly
in these we trust,
But back of them stands the Thinker,
The planner who sees things
through
Back of the job the Dreamer, "Who's
making the dreams come true."

ARCHITECTS' WORK FREQUENTLY BECOMES TRAVELING ART EXHIBIT

The detail drawings, the models, the mockups and other materials prepared by architects as a building design is evolved in many instances, make up an art display in themselves and it is to the interest of members of the profession to see that outstanding groups of these materials are presented to the public in extending appreciation of architects' work by the general public, our consumers.

In this connection a recent exhibition of plans, models and sketches which were used for the famous Mayo Clinic Diagnostic Building in Rochester, Minn., makes a point. The exhibit, which was on display in the 1st National Bank Building in St. Paul in April, elicited an interesting comment from Newton Holland, who is well known for his art writings in Rochester and who was the subject of a biography several years ago in **NORTHWEST ARCHITECT**.

"If you are of the opinion that the new Mayo Clinic Diagnostic Building in Rochester got built by someone clapping his hands together," he wrote, "you are apt to revise the conclusion by taking a look at the exhibit prepared by Ellerbe and Company, the architects for the structure, currently on show on the banking floor of the First National Bank. Here are three-dimensional scale models of the finished building, renderings of the evolution of the consulting rooms, drawings of doors, of drinking fountains, of the corner park areas, sketches of the art, both graphic and sculptural, blue prints of the air conditioning system (so complicated that they made our head swim) combined in a galaxy so varied and brilliant that it must be seen to realize what prodigious labors have been poured into this building.

"Many of the colored drawings of the façades, the hallways and the

ramps are works of art in themselves. The exhibit says, 'Perfection, perfection, perfection in everything is the goal.' The effort which has been lavished on the simplest hand-rails and door pulls to make them easy to grasp would rate a PhD.

"The structure is, of course, unique in the whole world; the systems originally devised for the 1929 building have been the pattern for the new ones—basically they just couldn't be improved upon!

... If you want to thrill to the poetry of modern functional architecture, you will enjoy this exhibition."

Northwest Architect hopes to present at least one feature story on the importance of exhibit materials to the architect and details on what kinds of materials are worthy of use in building public relations, how to get them, store them, handle them and exhibit them.

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TEMPORARY HEAT SPEX REVISED BY AIA-AGC COMMITTEE

The following specifications have been approved for temporary heat (new heating plant). Formally adopted on April 15, 1955, the spex were revised from the original edition of January 9, 1953).

FOREWORD

This is the first revision of the Temporary Heat Specification originally adopted by the committee under date of January 9, 1953, and released to architects shortly thereafter. This specification has been

particularly designed for jobs on which the electrical and mechanical contracts are bid directly to the owner. While responsibility for temporary heat must always be spelled out, regardless of the method used of awarding contracts, it is recognized that in the single contract the general contractor is free to deal directly with electrical and mechanical contractors working directly under him. Architects are reminded of the necessity of including this specification on temporary heat in not only the specification for the general contract but also for other separate

specifications where involved, such as mechanical and electrical.

This specification is designed primarily for new work. It will particularly need adaptation for jobs hooking into existing systems, as well as for cases where an existing system is to be expanded by adding a new boiler, etc. The specification will probably need adaptation also for most types of remodeling and alteration jobs, for the reason just described as well as for other reasons.

Where heating of stored materials is required, special provision should be made in the specification.

It is also recognized that where the architect can convince the owner that he should pay the fuel bill, this is probably the most satisfactory solution of avoiding this type of dispute. On the other hand, the owner might choose to take over the heating plant and sell the heat on a metered basis to the various contractors involved.

AGC SALUTES THESE ARCHITECTS

who, by their service through the *Minnesota AIA-AGC Joint Cooperative Committee* have contributed to the greater understanding and mutual cooperation between contractors and architects for the benefit of the owner and the construction industry.

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K. A. W. Backstrom
W. A. Backstrom
Max O. Buetow
Gordon M. Comb
Harold H. Crawford
George C. Darrell

V. C. Gilbertson
Mark Hayes
Otto M. Olsen
A. I. Raugland
G. W. Shifflet
Roy N. Thorshov
W. H. Tusler

Have You Reviewed . . .

TEMPORARY HEAT SPECIFICATION

(Revised from original edition of Jan. 9, 1953)

Released April, 1955

DEPEND ON AND USE AIA-AGC JOINT COOPERATIVE
COMMITTEE RECOMMENDATIONS

AIA Co-chairman
ROY N. THORSHOV
Thorshov & Cerny



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

Prepared by

ASSOCIATED GENERAL CONTRACTORS of MINN., INC.

**910 Builders Exchange
Minneapolis 2, Minnesota**

TEMPORARY HEAT SPECIFICATION

During the construction of the building, prior to enclosure, each separate contractor shall provide all heat, fuel, and services necessary to protect all of his work and materials against injury from dampness and cold until the building has been enclosed. He shall provide approved temporary heating devices, electrical power, adequate and proper fuel, fires, enclosures, hay, etc., for the work of his trades and shall have watchmen constantly in attendance when fires are burning.

The general contractor shall enclose the building as promptly as possible. He shall be responsible for furnishing the architect and heating and electrical contractors with a construction schedule which will, with reasonable accuracy, establish the time the building will be enclosed and when heat from the permanent heating plant will be required, and such schedule must be prepared and presented promptly after construction has commenced.

Within — days after the building has been enclosed by the general contractor as hereinafter defined, the heating contractor shall provide the installation of the permanent heating plant together with sufficient and suitable new or used temporary unit heaters, radia-

tors, etc., the electrical contractor shall provide the installation of the electric service, wiring and equipment required to utilize the heating plant. The building or units thereof will be deemed to be satisfactorily enclosed when, in the opinion of the architect, the exterior walls are completely erected and when all interior framing has been erected and when roof deck is complete and roofing is watertight and when all openings in exterior walls are covered with such protection as will provide reasonable heat retention.

Care, operation (automatic or manual) and services necessary for operating the heating system until substantial completion and/or final acceptance of the building shall be the responsibility of the heating contractors and shall be furnished and paid for by them. All fuel and electricity required for the operation of this heating system shall be paid for by the general contractor until substantial completion and/or partial occupancy by the owner.

Note: This assumes a clear specification by the architect as to starting date and prosecution of the work.

After enclosure, a minimum temperature of 50° F. shall be maintained except as hereinafter provided.

At all times during the placing, setting and curing of plastering, ceramic tile, etc., a minimum temperature of not less than 60° should be provided.

For a period of at least 10 days prior to the placing of interior wood work and throughout the placing of this and other interior finish, varnishing, painting, etc., and until substantial completion or partial occupancy, provide sufficient heat to insure a temperature in the spaces involved of not less than 70° F.

When the architect can certify that the building is substantially completed and ready for occupancy or, in the event that the building is occupied by the owner prior to acceptance by the architect, the owner shall assume all expenses of heating, including protection and operating of heating system, from the date of substantial completion or occupancy.

JAYCEES ERECT "WHITE HOUSE" FOR PRESIDENT OF GROUP

The Junior Chamber of Commerce became "the only organiza-

tion in the United States to provide a 'White House' for its president" when it okehed plans for a structure now being erected in Tulsa, Oklahoma, national chamber headquarters.

The structure is a modern ranch style building containing some 2,500 square feet and was designed by Leonard Lungren, AIA, of Austin, Texas. Selection of the plans was made in a nationwide contest.

ERRATA

In the January-February, 1955, issue of NORTHWEST ARCHITECT the advertisement on page 26 of the In-

sulation Sales Company showed an old picture of the building described. The picture of this outstanding office structure in Minneapolis, the Investors' Building designed by architects Larson & McLaren, which should have been used would have shown a finely thought-out, 12-story building with its complete design in a different mood from that shown in our issue, bringing it up-to-the-minute. This use of an old photograph for this ad was in error and we wish to extend our sincere apologies for the mistake to the architects. . . . The Editor.

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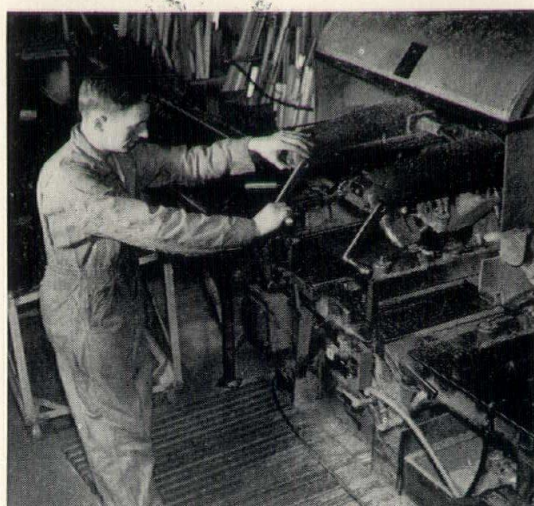
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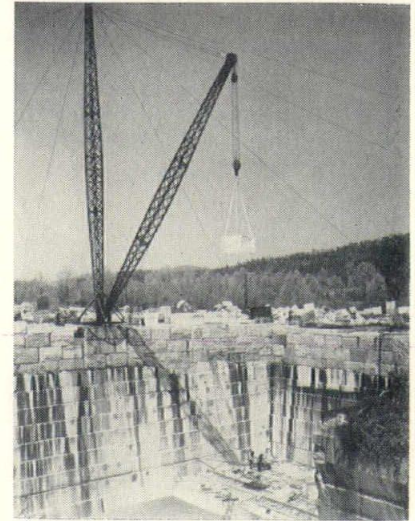
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stone Company, Russellville, Ala.; Tennessee Marble Company, Knoxville, Tenn.; Calcium Products Division, Tate, Ga.; and the newest division, Willingham-Little Stone Company, White Stone, Ga.

This combination of quarries and plants, producing everything from structural marble and limestone to water-ground and dry-ground cal-



Georgia marble quarry

cium products, represents the largest operation of its kind in the world, according to company officials.

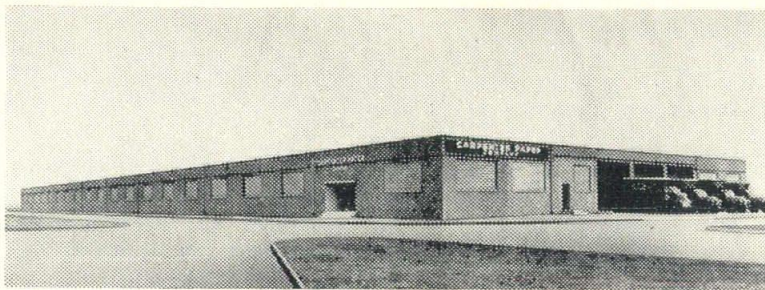
"The resources of these divisions present a service to architects that is unique in the stone industry. From one source there is available more than 30 distinct varieties of marble and limestone, practically every color and texture for exterior and interior use. As a result, representatives of the Georgia Marble Company can furnish impartial information on both materials, complete and precise, at the architect's request."

**U. S. & BRITISH ME's HOLD
COMBUSTION CONFERENCE**

Great Britain's Institution of Mechanical Engineers joined with The American Society of Mechanical Engineers in sponsoring a joint conference on combustion, June 15-17, on the campus of the Massachusetts Institute of Technology and will sponsor another in England, October 25-27, in the Great Hall of the Institution of Civil Engineers in London.

The object of the conference was to link theory and practice in the sphere of combustion by presenting the results of theoretical work to practical engineers in America, Great Britain and other countries and to provide an opportunity for the practical engineers in these countries to get together to discuss practical applications of theory in the fields of boilers, furnaces, internal combustion engines, and gas turbines. The conference in Cambridge, tied in with ASME's Diamond Jubilee Semi-Annual Meeting held in Boston the following week.

Carpenter Paper Company Uses Morse's "ONE-COAT"



Pictured here is the Twin City plant of the Carpenter Paper Company. Founded in 1886, the firm serves 30 western states, and was voted one of the 209 best managed concerns in the U. S. in 1947. The plant was recently remodeled by the Ernest M. Ganley Co., Inc., general contractors, Mpls.

Morse's "One-Coat" cement floor sealer and hardener is used by the Carpenter Paper Company to stop chipping and floor wear and concrete dusting. "One-Coat" is a liquid armor plate that becomes part of the floor in one easy, brush-on application, cleans and restores old, blackened floors to original newness, permanently solidifies and hardens concrete surfaces, protects against harsh cleaning solutions and corroding chemicals and is essential as a neutralizer and primer for paints, tile and waxing. Send for complete information. (A.I.A. File Number 3-B-1)

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PROUTY ELECTED VERMICULITE INSTITUTE HEAD

Dayton L. Prouty of Dearborn, Mich., vice-president of the Zonolite Co., was elected president of Vermiculite Institute at the group's recent 14th annual meeting in Fort Lauderdale, Fla. He succeeds Lorne G. McDiarmid of Vancouver, B. C., vice-president of Insulation Industries, Ltd. This was the largest and fastest-paced meeting in the institute's history.

Guest speakers included Clair W. Ditchy, president of the American Institute of Architects, E. F. Venzie, president of the National Bureau for Lathing and Plastering, Stanley Smith, president of Concrete Construction Co. in Columbia, S. C., and Theodore Riedeberg of New York City, agri-chemical expert and consultant to the vermiculite industry on the agricultural uses of the mineral.

Discussing the future of building construction, Mr. Ditchy predicted that houses will be better and cost less and that marked improvement will come about through mass production.

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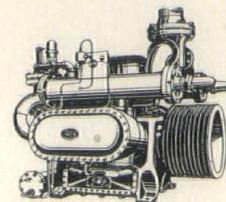
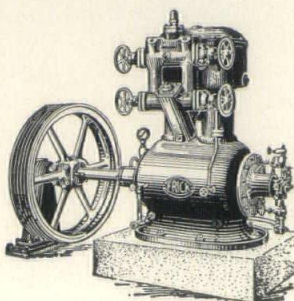
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Proper Installation Important in Hardwood Floor Use

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

In the last article I brought out several points on having sound installation when installing hardwood floors directly on sleepers or over a sub-floor. Now I am going to cover two types of floors that are set in mastic, but are also nailed:

No. 1 in which the screeds are set and leveled on the regular slab in the general procedure and the grout is poured flush with the top.

No. 2 is the type where you have a slab and wish to convert from the resilient tile specifications to the wood specifications without having to fasten the sleepers in the concrete.

Concrete Slab

As I mentioned in my previous article, the most important part of a sound floor installation is the slab construction. I featured the use of "Seal Tight Premoulded Membrane." This membrane, when used according to maker's specifications, will definitely give you 100 per cent satisfaction, the impermeance of .0066 is 600 times, or 60,000 per cent greater, than a duplex laminated paper. Where this membrane has been used according to the specifications, and where the concrete slab has cured, you can take a moisture reading test and you will find the moisture is nil on the concrete, thus giving you a dry slab so that you can lay any type of floor over it without having to worry about any moisture. I have written to the W. R. Meadows Company for a complete booklet called "Tech Tips," of which they were kind enough to send me several hundred copies that are free for the asking to any architect or contractor in this area who is interested in this type of construction. This will cover ev-

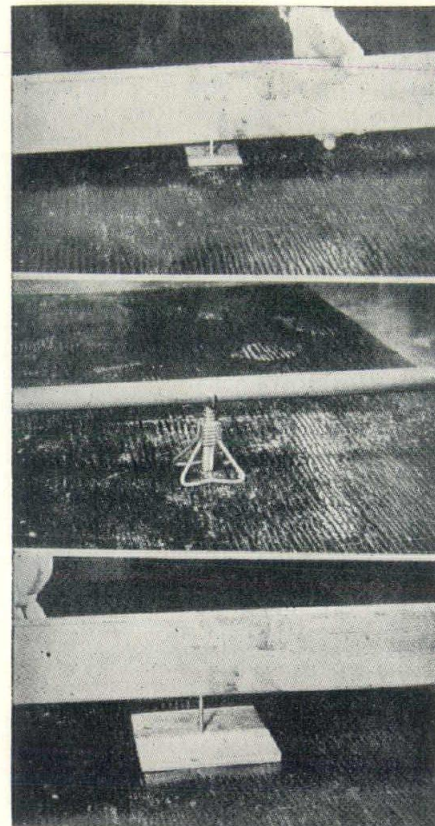
ery phase of a properly installed slab using the premoulded membrane, including cork expansion joints. I have had several architects request this information and have mailed many copies out already. This literature will explain thoroughly how to install the membrane so that you can walk on it, use your wheel barrows and install your reinforcing without puncturing it. One knows that when a membrane is violated during the course of construction it can not perform its function. The placement of screeds in order to trowel concrete properly proved to be quite a problem in large installations. However, this has been quite simplified through the following three suggestions (see illustration):

1. Utilize a perforated plate fastener. A hole, of larger diameter than that of a stud, is bored through a 2 x 4. A nut on the threaded stud sets the screed height. After screeding, the fastener is left in the concrete.

2. Employ an adjustable pipe screed chair and a $\frac{3}{4}$ " galvanized pipe. After screeding is accomplished, the pipe and the threaded wye are removed, the chair remains.

3. A 6" square of $\frac{1}{2}$ " plywood scrap through which a 20D coated nail has been driven, functions as the screed support. The mechanics are the same as number 1.

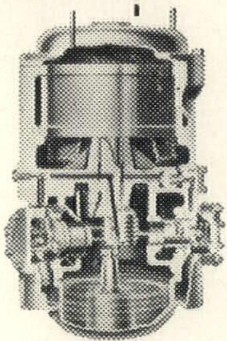
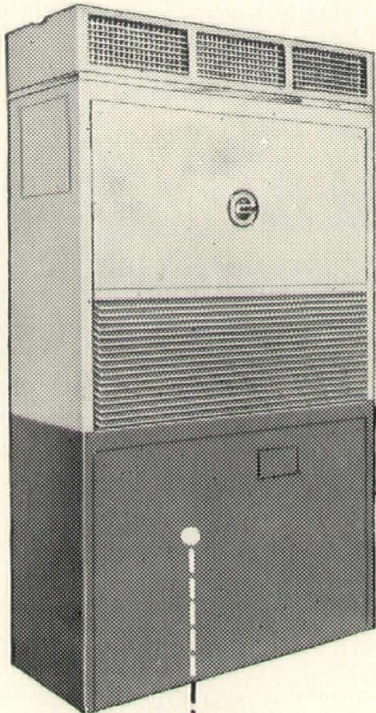
By using the above way of setting your screed, you will find that you will never at any time violate the membrane. Also, you will find that you will be pouring a much drier mix concrete than before. You will not have any loss of moisture going into the ground below. You will have a slower curing slab but a harder one when complete.



**Installing Flooring Over
Imbedded Screeds**

This type of installation has proved very satisfactory. The screeds are set to level and the concrete is poured to the very top of the screeds. The screeds are not used for bearing strips but for nailing strips only and can be set 16" on center, or even 18". When the concrete is poured it is well to remember that a pea-size gravel should be used for a topping so that when it is troweled there is no aggregate protruding on top of your screed. The screeds should be all set and leveled before this grout is poured to the top. After your grout is dry, trowel over the area with a wood floor mastic using a notch-toothed trowel and troweling approximately 40 feet per gallon. Then you lay the floor in the normal manner, nailing the flooring in place at each screed. Now you have a floor laid solid with no give

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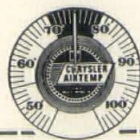
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between the sleepers. This type of floor works out very satisfactorily where a wood floor is required for resiliency. One can travel over this with any vehicle without any breakage in the end joints and it still keeps its resiliency. When nailing a floor of this type I would suggest that one trowel ahead three or four feet only, so that when you bring the flooring in you can pass it over the mastic on to the floor that has already been nailed. That way the layers can look ahead and see exactly where the screeds are to nail on without any difficulty.

Installing Hardwood Floors Over A Concrete Slab

Lately there have been a few schools that have specified using resilient tile in their gymnasiums and play areas in lieu of a good nailed hardwood floor because they are trying to cut costs. However, after they proceed with their school and have a little money left over they would like to change to a wood floor. Quite often in this case the contractor has already poured the floor to receive asphalt tile. Now the problem is how to nail a floor on top of this without going to a lot of work? There are several methods. We can lay a 1/2" corkboard over the entire floor, lay a floor in mastic, or we can lay a floor directly to the concrete slab itself. Or if you prefer to have a nailed down floor, that can also be done very easily.

The method employed is as follows. First, prime your entire slab with an asphalt primer. When this primer is dry, preferably the next day, mark off 12" on center, or 16", where you want your screeds to go. The screeds that you are going to use are going to be 2 x 4 flatwise,

not exceeding 3' in length, anywhere from 18" to 3' is sufficient. These 2 x 4's can be purchased from a lumber company for a very small cost as they are scraps to them. Then run a ribbon of mastic down the mark that you have made for your 12" on center, or 16" on center, and alternately stagger your 2 x 4's down this line, setting them solidly in the full bed of cold troweled mastic. This ribbon of mastic is troweled on with a saw-toothed trowel, approximately 30 feet per gallon. When setting your sleepers this way do not butt the 2 x 4's. Stagger them so they can move freely for expansion or contraction. Keep them about 1 1/2" from the wall. Nail your floor in the usual manner across your screeds. You will have a solid but resilient floor. This type of installation will give you a semi-floating floor. Any movement in your floor will rebond itself in the mastic as this type of mastic will never lose its tack. We have also found that you can install this type of wood floor over a floor that has already been in use, such as a resilient tile floor. In some cases you can use 1 x 2's but 2 x 4's flatwise have worked out much better. When one is using 25/32nds flooring by 2 1/4" width in any commercial areas, it is wise to keep your breaks from 4" to 6" apart and at least one board between successive breaks. Nail on each bearing point using a 7-Penny or an 8-penny Screw-Tite Flooring Nail. When using 25/32nds x 1 1/2" the same breaks can be maintained. When going into a 33/32nd floor, it is wise to use 8-penny Screw-Tite Nails only. If you require a more resilient floor I would suggest you use a 1/2" Asphalt Cork Impregnated Board over the entire area, set in

cold troweled mastic. Over your corkboard trowel another coat of mastic and set your screeds in place. You will find then you will have a very resilient floor. This is recommended for dance floors and gymnasiums.

PRODUCERS' COUNCIL CARAVAN TO MAKE SECOND NATIONAL TOUR

Success of the first Producers' Council Caravan which toured the country in 1954 was such that the sponsors are planning a second group of exhibits which will start on their nationwide tour in September, according to an announcement by William Gillett, PC president.

This year's version, a completely different show, will be exhibited in 36 major marketing areas where the organization operates chapters. These local groups will be the host at each showing. In the Northwest there will be a showing in Minneapolis on April 12, 1956, and Milwaukee, April 17 and 18.

The 1955-56 caravan will have approximately 50 exhibits covering all types of building materials. After a premier showing in Chicago on September 7 and 8, it will be on tour for 36 weeks, exhibiting before invited audiences of architects, engineers, contractors, builders, dealers, students, building owners and managers and government officials. In addition it will be one of the attractions at the council's annual meeting and chapter presidents' conference next October in Detroit.

The caravan technique of exhibit-

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ing was adopted by the council to provide its chapters regularly with a top quality materials exhibition. This method of exhibiting also has the advantage of taking the show to the audience, instead of waiting for potential viewers to come to conventions or meetings at which materials are displayed.

Construction of the show will take five months. It will be transported in a specially fitted van and will be exhibited in hotels, auditoriums or exhibition halls.

Participating in the Caravan will be Aluminum Company of America, American Air Filter Company, American Radiator & Standard Sanitary Corporation, Kewanee Ross Corporation, Armstrong Cork Company, The Art Metal Company, Ceco Steel Products Corporation, The Celotex Corporation, Congoleum-Nairn, Inc., Crane Co., Detroit Steel Products Company, Michael Flynn Manufacturing Company, The B. F. Goodrich Company, Granco Steel Products Company, and E. F. Hauserman Company.

Also exhibiting are Hough Shade Corporation, Hunter Douglas Corporation, Johns-Manville Sales Cor-

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poration, Josam Manufacturing Company, Kentile, Inc., Koppers Company, Inc., Levolor Lorentzen, Inc., Libbey-Owens-Ford Glass Company, The Mills Company, Minneapolis-Honeywell Regulator Company, The Mosaic Tile Company, Natco Corporation, Nelson Stud Welding Division—Gregory Industries, Inc., New Castle Products, and Otis Elevator Company.

The Pittsburgh Plate Glass Company, S. H. Pomeroy Company, Truscon Steel Division—Republic Steel Corporation, Reynolds Metals Company, Rohm & Haas Company, Sargent & Company, Schlage Lock Company, The Stanley Works, U. S. Plywood Corporation, Westinghouse Electric Corporation, Zonolite Company, and J. A. Zurn Manufacturing Company also will be represented with exhibits.

Also participating are two trade associations, *Structural Clay Products Institute* and *Architectural Terra Cotta Institute*.

HOT-WATER SYSTEMS BEING PLANNED TO RECOUP MARKETS

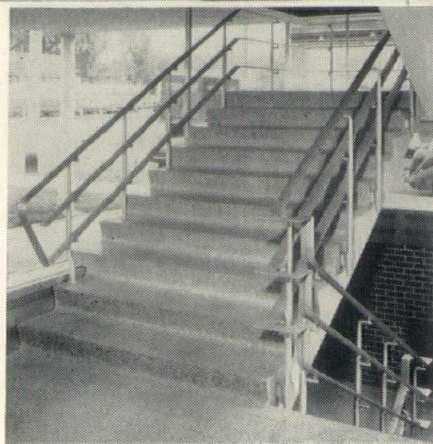
New designs in hot-water heating systems are aimed at recouping the lost markets of this part of the heating plant industry after the warm-air furnaces took from 65 to 75 per cent of the volume in the years since World War II.

Research has been started by the hot-water industry with an eye to cutting costs of the installations so they will compare favorably with warm-air. Development so far tends toward smaller boilers, smaller radiators and smaller pipes which do the job efficiently but cost less.

One important change has been introduction of systems which use hotter water, leading to higher efficiency, faster pickup and convectors and radiators which can be reduced 40 per cent in size.

Summer cooling by water systems also is being improved so the units can offer year-round house conditioning.

A NEW APPROACH!



The new Veterans' Service Building located in the State Capitol approach is modern, functional and truly an architectural asset to the City of St. Paul. Mr. Brooks Cavin is the architect!

Interior bronze and aluminum stair railings, exterior mesh railings were fabricated by the Minnesota Fence and Iron Works, Inc., specialists in *new approaches* to ornamental metal work for many years! Minnesota Fence also executed the aluminum screed on the colonnade and the stainless steel and bronze panels in the phone booths.

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Society Opens Permanent Office in Twin Cities

The Minnesota Society of Architects office is now in operation at 3416 University Avenue, S.E., Minneapolis 14, Minn., according to an announcement by state officers. At press time a phone number had not been obtained but the number will be in the next Minneapolis telephone directory identifying the office as the official home of the AIA for Minnesota. Ralph T. Keyes, new executive director of the Society, extended "to one and all an invitation to drop in to look the office over and, of course, at any time to call to get information on society projects and activities." It is hoped that the services of the office will be made use of by groups associated with architects—other professional groups, contractors associations—as well as AIA members.

With the central office now functioning it would be well to give a brief résumé of the history behind the establishing of the office. The idea of a central office to promote knowledge and understanding of the AIA and its objectives was first advanced some four or five years ago. It took a while for the idea to catch on but it did and steadily gained momentum, attesting to the energy and effort of the few who first advanced the idea. It became evident that an activity known by the public as the official voice of architects and the AIA had its place in the program of the Minnesota Society.

At the 1954 convention of the MAA in Rochester,

the proposition was submitted to the membership and received the membership's endorsement. Much work was still to be done, however. Dues were to be raised, necessitating changing the chapters' by-laws. A special committee was appointed to prepare a budget and solicit first year funds and later to select the executive director. The acceptance of the program by the members was demonstrated beyond further question by the way in which the members responded to the dues increase and the request for contributions.

As was announced in the last issue of the *NORTHWEST ARCHITECT*, Ralph T. Keyes, an attorney from Faribault, was the board of directors' selection as executive director. With Mr. Keyes' background in public activities, government and his own professional association we should have the leadership on the high ethical and professional plane we want. With the selection of the executive director and the opening of the office, the seed of an idea has reached fruition and marks a milestone in the progress of the AIA in Minnesota.

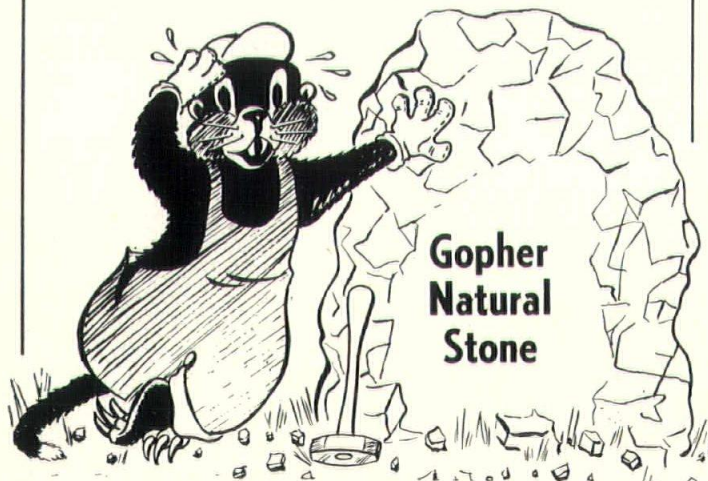
"The society office will be able to do much to assist the chapters but will not supplant them," the announcement said. "The chapter is the foundation of both the state society and the AIA. The society's function is to be of service to the chapters and to co-ordinate the activities of all the chapters. Most important policies of the society will originate in the chapter and be re-

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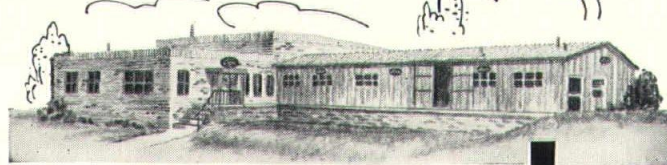
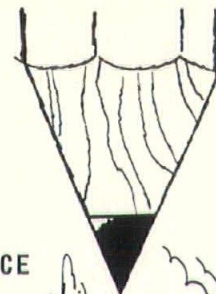


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ferred by it to the society's board of directors for action by the society.

"A definite program of public relations is being formulated. From time to time it will be necessary to give our attention to specific abuses and special circumstances but in the main it will be a program of general objectives to be accomplished over a period of time devoid of noise and bally hoo. To put the program across it is hoped the members will make it their program and continue to contribute unselfishly of their time and energy.

"The society office will assist in handling detail and routine, serving as a source of information and material and in giving direction to the program. For the job done to date, all members—honorary, junior associate, associate as well as corporate—deserve a rousing well done!"

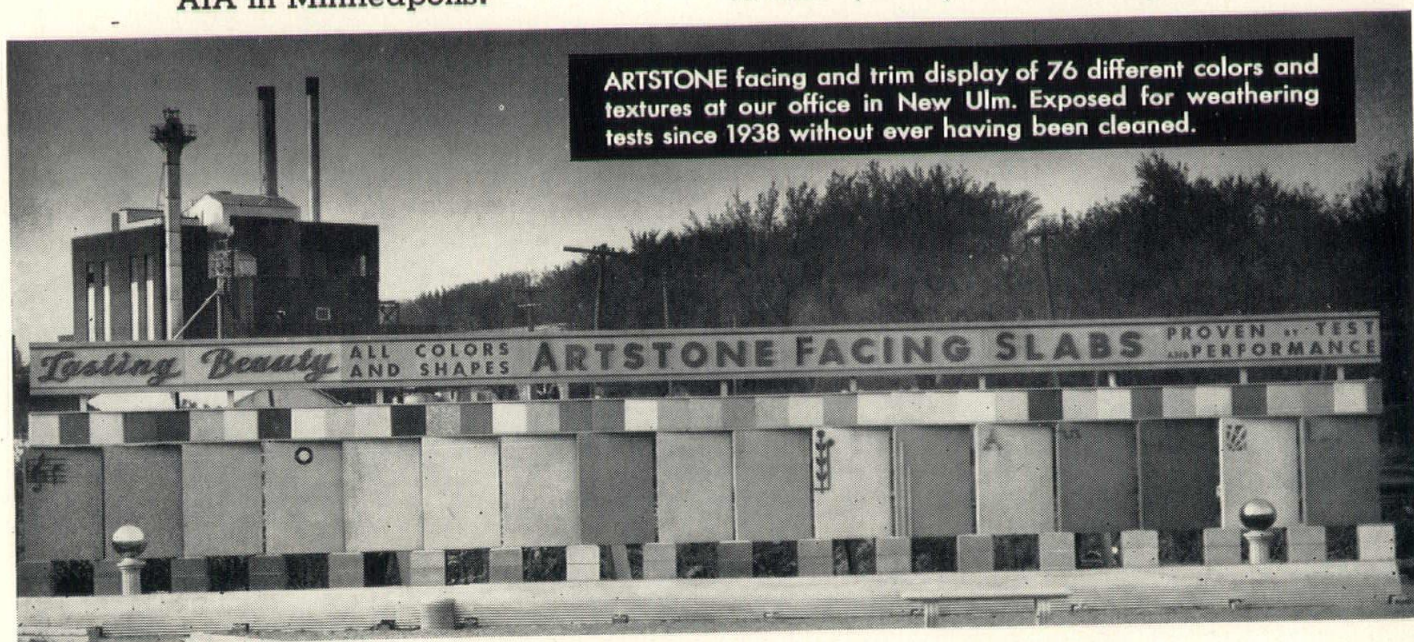
**... and don't forget that big event—
AIA in Minneapolis!**

HAARSTICK-LUNDGREN CONSOLIDATES INTO NEW SUITE

Assembling their scattered offices and workrooms from three floors of the same building, Haarstick-Lundgren & Associates have consolidated their headquarters in St. Paul at N-212 1st National Bank Building. The new, larger and better laid out suite is in step with expansion of the firm which started six years ago with four on its staff and has grown to include a staff of about 50 today.

Essentially a contemporary design group composed of younger architects and engineers, the firm presently has on its drawing boards or under construction buildings in Indiana, Illinois, Iowa, Minnesota, Wisconsin and North Dakota. It is a Northwest firm.

Donald S. Haarstick and Louis R. Lundgren are both AIA's. Their associates are John T. Baker, Robert A. Bennighof, William B. Berget, I. O. Friswold, Robert E. Howe, Robert T. Jackels, George A. Johnson, John A. Larson, Sidney C. Little, Gregory P. Molitor and



ARTSTONE facing and trim display of 76 different colors and textures at our office in New Ulm. Exposed for weathering tests since 1938 without ever having been cleaned.

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- ARTSTONE:** is made in all colors and textures with exposed aggregate selected for size, color and durability—in acid etched, honed or polished surface finish. (TYPE I or II)
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- PRECAST CONCRETE:** is made of regular Portland Cement concrete—either left as imparted by the mould, rubbed or tooled surface finishes. (TYPE I) There are also products known under the trade name of MO-SAL and GRANUX.

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Look over our big display in order to give proper consideration for specifying and using some of our proven and time tested products for practicability permanence, low upkeep and lasting beauty for some of our work. It also gives study of relation between facing and backing composition as applying to exposure.

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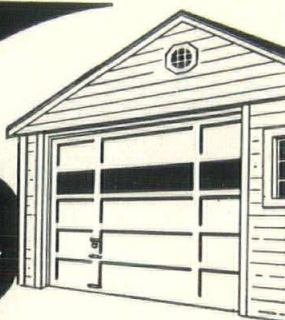
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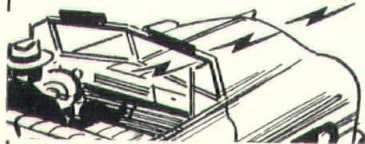
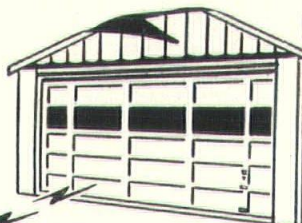
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John M. Quealy. Other members of the staff include seven mechanical engineers, three electrical engineers and four structural engineers.

The new offices are as up-to-date as possible, are air-conditioned and have a new reproduction machine as typical of late-model equipment.

SWANSON-MATSON-WEGLEITNER PARTNER- SHIP TO PRACTICE IN MINNEAPOLIS

Formation of a partnership among Hubert H. Swanson, Horace V. Matson and Alphonse L. Wegleitner has been announced. The firm will practice in Minneapolis at 500 Sexton Building and the announcement said it continues the practice of the predecessor firm of Hubert H. Swanson. Firm name is to be Swanson, Matson & Wegleitner, Architects.

MINNESOTA AWARDS ANNOUNCED

The University of Minnesota School of Architecture awards to graduating seniors have been announced. Winners are:

Rotch Traveling Scholarship—Robert Traynham Coles.
C. H. Johnston Scholarship—David Paulson.
Magney, Tusler & Setter Scholarship—Naphtali Knox.
A. C. Ochs Brick & Tile Co. Scholarship—Thomas H. Hodne.

Flour City Ornamental Iron Co. Scholarship—Rich-

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ard Borgstrom, Norman Day, George McGuire, Douglas Baird, Ronald Pearson, and Robert Pontinen (to be accepted next year).

Ellerbe & Co. Scholarship—Donald F. Andrews, Stanley Michaels, Frank Carter, and Jack Geretz.

AIA Medal—L. Montague Hanson.

Alpha Rho Chi Medal—Norman Day.

Resort Project

(Continued from Page 52)

Each group a self contained community. Centered about a lodge containing commissary, laundry, day nursery, bar-lunchstand and both indoor and outdoor recreation facilities.

Lodges to be used as religious centers in inclement weather.

3. Barge Cabin—Dormitory Communities:

Four groups on Agate Lake, each containing 16 barge cabins, and two dormitories, accommodations for approximately 600 persons.

Each of these groups is also centered about a lodge.

4. Central service; storage warehouse with its carpenter shop, laundry, food storage and camp equipment.

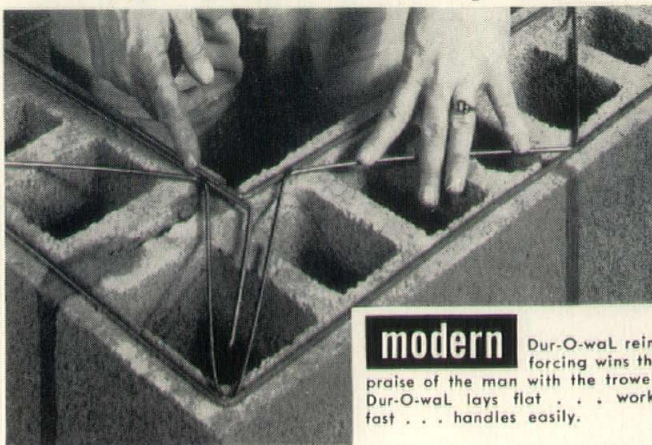
F. Recreation—year-round Minnesota climate:

1. Major Recreation Area:

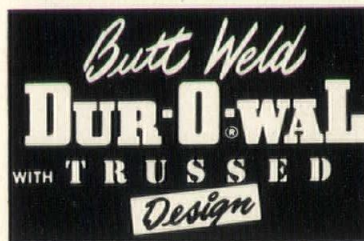
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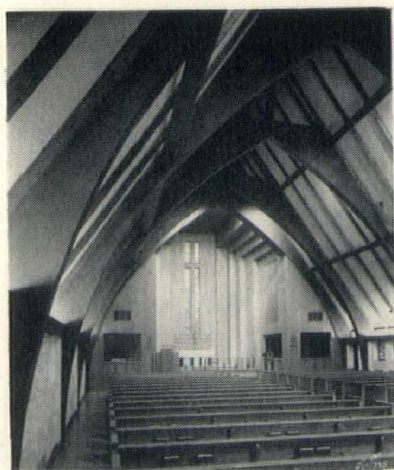


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baseball, soccer, etc.

Located northeast corner of site on relatively level terrain.

Large picnic area with shelters included, overlooking Gull Lake.

Transportation to recreation area is by amphibian land busses and water busses on Gull Lake.

2. Formal Recreation Area:

Near major hotel complex.

Relatively level terrain.

Facilities for tennis, badminton, handball, etc.

3. Island Amphitheater:

Adjacent to both formal recreation and major hotel. Used as a fair weather meeting place for rallies, shows, concerts, etc.

4. Major Beach:

Adjacent to athletic area.

Contains a pavilion for soft drinks and picnic lunches, as well as a multitude of brightly colored beach cabanas.

5. Golf Course:

Located along north boundary of site. Rolling terrain.

Easily accessible from other resort developments on Gull Lake (providing income for its maintenance).

6. Ski Chalet, with tows and runs:

Contains lounge, bar and dining facilities.

Year-round operation.

Skiing and tobogganing on surrounding hills.

Provides central church service structure in inclement weather.

Winter facilities for ice fishing, hockey and ice boating. Are on both Agate and Gull Lake.

7. Central Pavilion:

Provides all weather multi-purpose space to house indoor sports, both large and small assemblies, motion pictures, etc.

8. Children's Camp:

Located across Agate Lake for privacy and has its own facilities and counselors.

Age groups—4-8, 8-12, 12-16.

3-7 day periods at parents' discretion.

9. Family Campsites:

Located along northwest boundary of site.

10. Trails for horseback riding, bicycle riding and hiking are located in rugged southern $\frac{2}{3}$ of site.

Race Suicide

(Continued from Page 47)

life on our planet?

I cannot believe that this is to be the end. I would have men forget their quarrels for a moment and reflect

NORTHWEST

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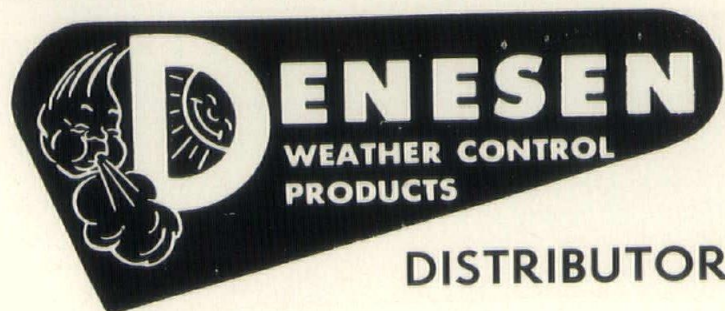
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that, if they will allow themselves to survive, there is every reason to expect the triumphs of the future to exceed immeasurably the triumphs of the past. There lies before us, if we choose, continual progress in happiness, knowledge, and wisdom. Shall we, instead, choose death, because we cannot forget our quarrels? I appeal, as a human being to human beings; remember your humanity, and forget the rest. If you can do so, the way lies open to a new Paradise; if you cannot, nothing lies before you but universal death.

MARVIN ADDS "REMOV-A-GLIDE" TO WINDOW LINE

Marvin Millwork recently added the Remov-A-Glide window unit to the line of stock millwork manufactured in its plant in Warroad, Minn. The gliding type unit is ideally suited for bedroom use where priv-



acy and a maximum of clear wall space is desired. It is also found to be most suitable for installations over kitchen sinks.

The Remov-A-Glide unit is manufactured from clear, kiln-dried, treated, western pine and is completely weatherstripped. The removable sash are wood bead glazed and the units are completely set up for simple on-the-job installation. The jambs are adaptable to either standard or dry-wall construction.

The Remov-A-Glide units are sold through retail lumber dealers and there are seventeen stock sizes which are available for immediate shipment. Marvin Millwork also manufactures the companion "400" Removable Double-Hung Unit and the "Stack & Strip" multiple window wall units.

The CHEVRON STAIR TREAD

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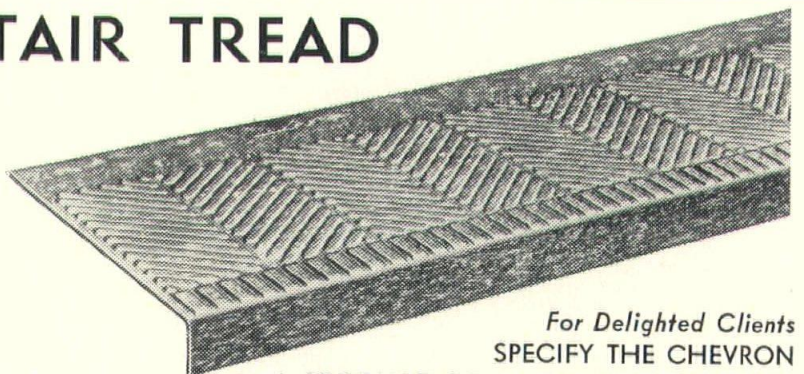
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WANAMAKER'S NEW STORE USES MINNESOTA STONE

Designed by Wallace and Warner, architects and engineers, the new John Wanamaker Wynnewood (Philadelphia suburb) store understandably enough was the site of a Main Line Landmark. It occupies the site of the old Shortridge barn which for 155 years was the parking site for everything from stage coaches to the racing sulkies of Philadelphia's gentry. As a matter of fact, stone from the barn was used to build the retaining walls surrounding the parking lot.

Exterior of the 150,000 square foot building is of Kasota limestone and Avondale fieldstone. Pinkish hue of the Kasota effuses a great deal of warmth. This is particularly true at night when the floodlights bring out the complete color of the structure.

The building, a three-level affair, is described by Brig. Gen. Brenton G. Wallace, USAR (ret.), head of the architectural firm that bears his name, as being of conservative-modern design.

"Before we put one line of paper we asked ourselves 'What kind of patron will this store attract' and also 'How should the building itself tie in with the merchandise offered and the policies in force of the Wanamaker organization?'" Apparently the answers coincided as General Wallace and his staff were in complete agreement that the design be modern, yet not garish:

Approaching the site, one's attention is captured by the two-story glass and stainless steel main entrance. A small replica of the main store's "Eagle," famed mid-town meeting place for Wanamaker's patrons, is inside the main entrance where it is expected to perform the same function as its older counterpart.

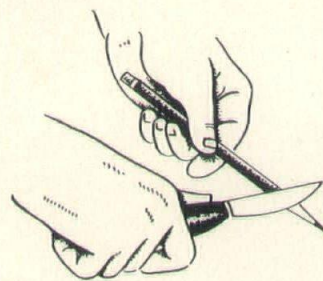
Comfort of the patron was the underlying consideration in all plans. Snow-melting coils are contained in all pavements around the store for use in inclement weather and arrangements have been made to keep the 1,200 car parking lot plowed whenever the conditions demand.

As part of the good neighbor policy of Wanamaker's, a special "Wynnewood Room" was included in the plans so civic and other community groups could have an attractive meeting place available to them in the new store.

An interesting sidelight is the complete reversal of the attitude of the smaller neighboring merchants on the matter of having Wanamaker as a competitor. At

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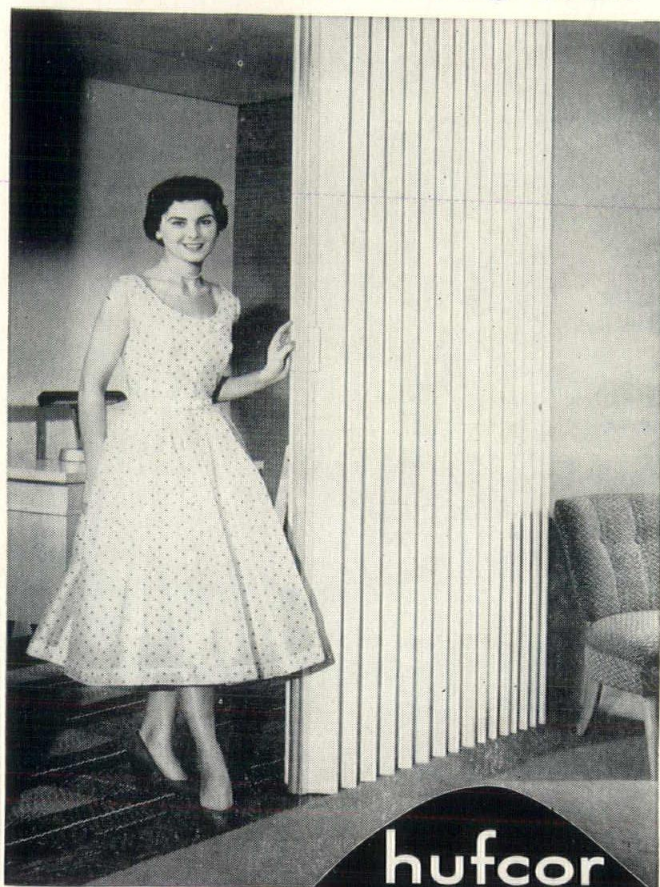
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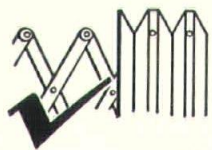
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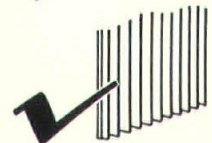
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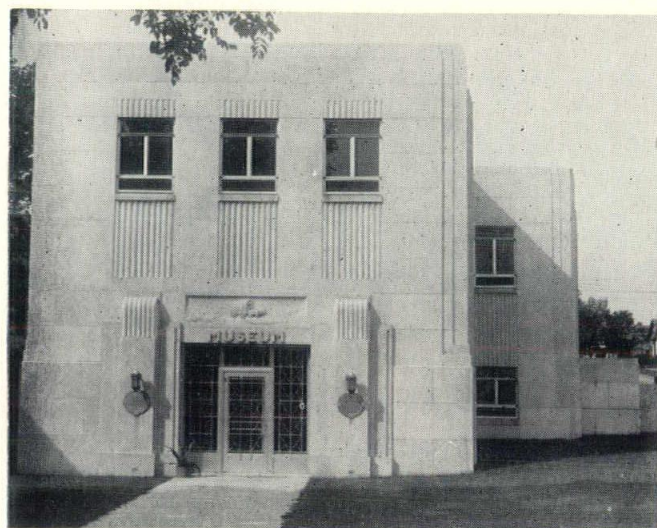
Minneapolis, Minnesota

first, awed by the beauty and expanse of the new Wynnewood store, they resented the big city operator's coming into what they considered their private preserve. But later, with cash registers jingling merrily with the Wanamaker-attracted patronage that could also stop to shop with them, they changed their attitude. They now consider Wanamaker's as a big brother whose advertising and beautiful store draw people to their area who ordinarily would never hear of their little shops.

AMERICAN ARTSTONE IS UNIQUE CONCRETE MATERIAL

A unique, colored concrete used for interior and exterior construction and trim is American Artstone made in New Ulm by the firm headed by George J. Saffert. This artstone is manufactured in two types—a facing slab and a concrete block with one side finished as artstone. Both types come in many colors.

The Saffert firm's start in 1916 faced difficulties



An Artstone faced building

through the inexperience of contractors' handling concrete and concrete materials, Mr. Saffert said. But as users' experience grew, encouraged by the artstone people and other early leaders in the field, the demand for artstone grew so that today it is a well-established building material.

American Artstone has stood the test of many years exposure to the atmosphere of the industrial and railroad area of New Ulm, where a large display has stood since 1938. The sample slabs and blocks in the display have not been cleaned or otherwise handled since the exhibit was set up, the company said, although new styles and colors have been added. The display, well known to travelers in that part of the area, is lighted at night.

The stone is made from the finest Portland cement and various formulas of aggregates. Slabs are customized for each job being constructed and they and the blocks have been widely used for schools, hospitals, churches, museums, courthouses and all kinds of business buildings. Together with brother Henry, shop superintendent, they developed and improved the facing finishes and quality to the present stage and continuously are working to carry on such research, Mr. Saffert said.

NORTHWEST

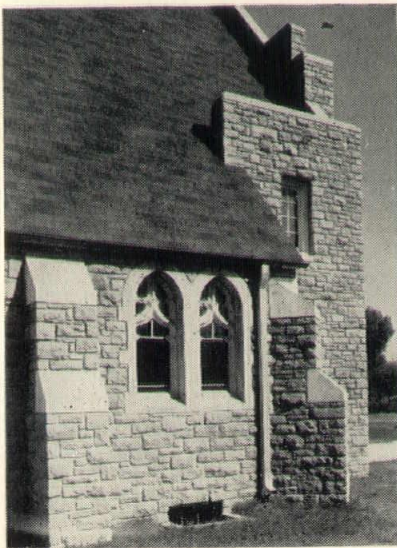
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LANDSCAPE

INTERIOR



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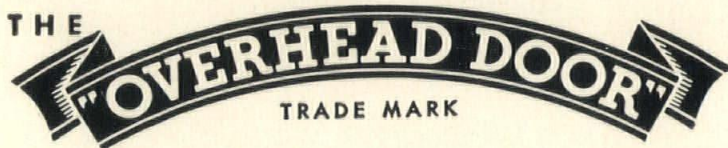
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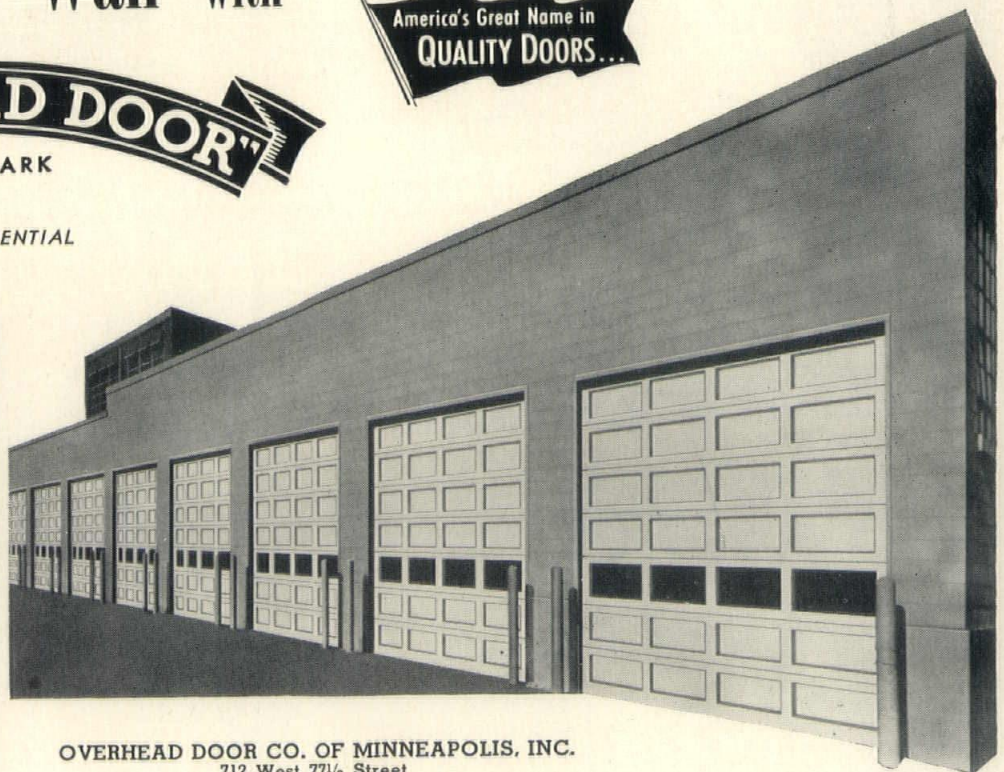
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OVERHEAD DOOR CO. OF ST. PAUL, INC., 1935 University Avenue

Distributors for OVERHEAD DOOR CORPORATION, Hartford City, Indiana

RYDELL INTRODUCES NEW, ALL-WOOD CASEMENT TO PREVIOUS LINES

A new, all-wood casement is the latest item to be released under their program of constant product development by A. T. Rydell, Inc., designers and manufacturers of the well-known Versa-Lite and sliding windows. It has been under development and study for several years before being released. Like the previous products, this advanced casement line is a good example of how this company, working together with the architectural profession, can produce outstanding products for the industry.

"Growing out of this co-operation is an impressive list of exclusive features," the company said "Long-life redwood construction, full jamb width design that adapts to fit any standard wall and eliminates the need for special liners or rebatted inside casings and factory-installed inside stops that do away with on-the-job labor are exclusive features. Natural dull bronze hardware (not a painted finish), bronze weatherstripping and extra thick, 2 $\frac{3}{8}$ " sash are further exclusive advantages of this product. All hardware is permanently mounted on the frame; no screws are removed and replaced during installation. Being wood, the units are very easily installed by regular carpenters. Inside trim can be applied to all four sides, if desired, eliminating stool and apron."

In addition to redwood, an identical line is offered in selected pine. Both lines come equipped with all hardware installed, extension hinges for easy cleaning, and



Thermopane glazing. Metal screens are available if desired. It is available in groups or in combination with large fixed Thermopanes and the sash line up perfectly in every combination. It is competitive in price.

MOSAIC TILE ISSUES SERVICE PLAN

A new publication, Form No. 186, of The Mosaic Tile Company, Zanesville, Ohio, illustrates and describes the wide selection of Mosaic ceramic floor tile, wall tile, all-

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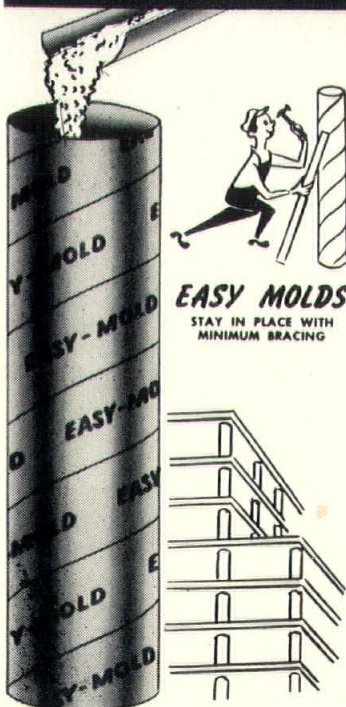
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tile accessories and Mosaic trim shapes readily available from all 26 warehouses of The Mosaic Tile Company now operating from coast to coast.

This 4-page, full-color folder, known as the "Mosaic Tile Selection Guide," illustrates the Mosaic tile proved most popular by trade and consumer demand in recent years. Specification of tile colors from this selection guide will assure the utmost in service and early delivery. In addition to the selections included in the Mosaic Service Plan, the company offers architects the only complete ceramic tile line.

This Mosaic Tile Selection Guide, the complete Mosaic Products Catalog, the Mosaic Tile Workbook for Architects and other helpful tile literature may be secured through Mosaic warehouses and local representatives or by writing The Company.



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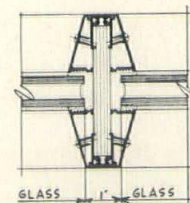
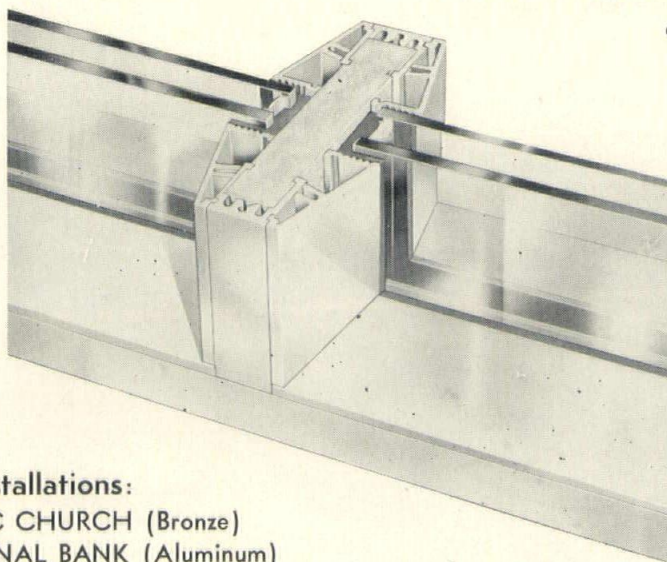
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Visit our display—Room 205, Dyckman Hotel,
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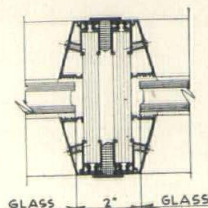
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GIBSON 2839

is now available in the standard grade "Unit Deck" and furnished in three species—red cedar, inland white fir and western high hemlock with nominal 4" x 5" dimensions, according to Unit Structures, Inc. Its versatility makes it especially applicable for roofs, decks, floors, ceilings, etc., and a single member application eliminates purlins, joists, sheathing and bridging while at the same time providing insulation, fire resistivity and interior finish—all in one operation. Difference is in the panel grading of the face side. It is manufactured by Unit Structures, Inc., Peshtigo, Wisconsin.

UNUSUAL FEATURES IN HUF COR FOLDING DOORS



The new Hufcor Folding Door, introduced only a few months ago, offers all the functional advantages characteristic of folding doors plus a number of unusual features, its makers reported. Construction consists of metal pantograph frame members on which are mounted vertical 5-ply laminated covers.

"Because the panels are made of a solid laminated material, these doors provide greater sound reduction than any other type of standard folding door, according to extensive tests made at a leading sound research laboratory," the announcement said. "Because the covers are an articulated design with vertical sections of a rigid material, they themselves function as a pantograph mechanism. This effect, in combination with the metal pantographs, provides a design that greatly im-

EXTREMELY LOW SILHOUETTE DESIGN ... the NEW LO-BOY MODEL CENTRIFUGAL ROOF EXHAUSTERS

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

- Quality
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Sizes 10" to 72"

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Pats.
Pend.

proves door operation. As a result the door is amazingly easy to open and close. There is no tilting of the leading edge of the door to cause binding in the overhead track. Even when held as near as a few inches from the floor, such as a small child might do, the door moves easily and uniformly.

Another feature, important from a decorating standpoint, is the interchangeability of covers. Covers are supplied in a choice of beautiful colors and at any time covers can be "snapped" off and new ones in different colors installed in their place. Doors are supplied in single colors or with different colors front and back.

Hufcor Folding Doors are a product of Hough Shade Corporation and the services of the Walter Dorwin Teague organization were employed in design. The handle, latch and lock hardware was specially created for the Hufcor door and any combination may be specified.

Hufcor Doors will be shown at the AIA convention in Minneapolis. For full information by mail, write for Hufcor Bulletin 801A to The Hough Shade Corporation, Janesville, Wis.

CERAMIC TILE COLOR SELECTOR OFFERED CONVENTION GOERS, OTHERS

A new color suggestion folder is being issued by the United States Ceramic Company, whose exhibit will be among those open to persons attending the AIA convention in Minneapolis.

The company produces a well known "real clay tile"



used in all types of buildings. The tile has a hard, glazed surface on the toughest clay body available and is acid-proof, fade-proof, fire-proof and "practically indestructible," according to the company.

The folder can be obtained at the convention or from the company at 217-U Fourth St., N.E., Canton 2, Ohio.

Joints in Structures & Slabs

We have some of the answers:

PARA-PLASTIC—Hot poured—Premolded—Cold Applied—Paralateral Strip

WATER STOPS—Rubber (dumbell and bulb types)—Harza Labyrinth—Flexitrip

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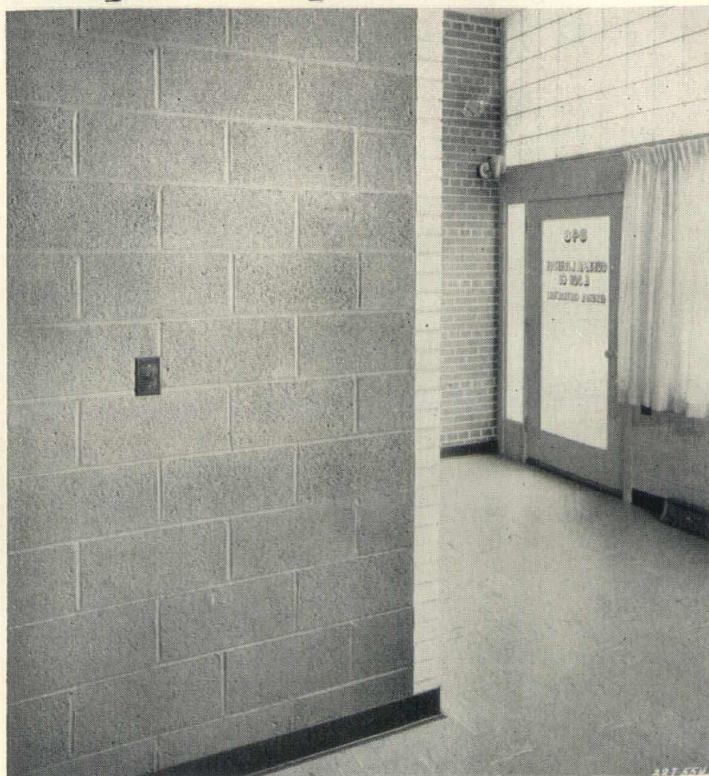
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forty years as contractors and finishers.

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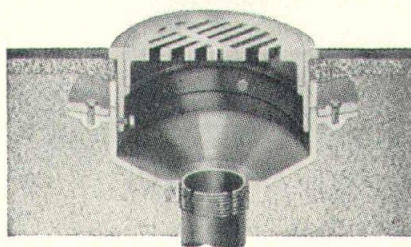
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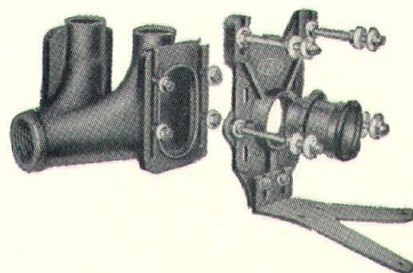
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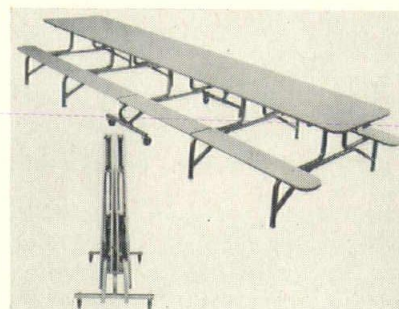
100 East 14th Street

Minneapolis 3, Minn.

GE. 2041

PLASTIC LAMINATE TOPS NEW ERICKSON TABLE AND BENCHES

Newest addition to the line of Erickson "Fold-A-Way" equipment designed for multiple use of floor space is an "extremely portable" folding table with benches now built of the colorful long wearing high



pressure plastic laminate used on the table tops, the manufacturer, Haldeman-Homme Mfg. Co., St. Paul, has announced.

The use of high pressure plastic on the benches as well as the tops gives greater resistance to scuffing and staining in school lunchrooms, arts and crafts classes, study halls, etc. Eating and seating surfaces are easy to keep clean.

Each table seats 24 students. Each table sets up in only 15 seconds, by one man, in one simple operation. This "extreme portability" permits converting a gymnasium, corridor or multipurpose room into a lunchroom in a few minutes, saving labor costs and keeping valuable floor space busy right through the day, the manufacturer said.

The folded tables wheel to any part of a building on their own rubber-tired ball bearing casters. They store in surprisingly little space; for example, capacity for 240 students (10 tables with benches) will store in 4½ by 8 ft.

Units are ruggedly constructed to withstand hard use. Tops and benches are ¾" plywood covered with plastic laminate available in five colors. Understructure is 1-⅛"-square formed steel tubing with three coats of Hammerloid baked enamel.

More information may be obtained from Haldeman-Homme Mfg. Co., 2580 University Avenue, St. Paul 14, Minn.

3M NAMES GROVER TO BUILDING PRODUCTS PROMOTION

Donald C. Grover has been named manager of the newly created building products promotion department of Minnesota Mining & Manufacturing Co.

The new department was set up to study the expanded use of 3M products in the building industry and to familiarize the construction industry with existing 3M materials. Grover will also provide consultation services for all 3M divisions and subsidiaries in their problems with the construction industry.

Grover received his BS degree in architectural engineering from the University of Minnesota in 1935. For the past 20 years he has been actively engaged in

NORTHWEST

the architectural and engineering fields and in the promotion of building products.

Minnesota Mining & Manufacturing Co. manufactures "Scotch" brand cellophane, masking, electrical, industrial, filament and sound recording tapes; adhesives and coatings; coated abrasives; roofing granules; reflective sheeting; plastics; ribbons and laces; printing accessories; office duplicating equipment and chemicals.

JENN-AIR ANNOUNCES NEW EXHAUSTER LINE



Jenn-Air Products Co., Inc., Indianapolis, has announced a complete new line of all-aluminum, belt-drive roof exhausters. Prior to this time direct drive equipment has been manufactured up to 3,800 CFM and, with the addition of the new belt drive, equipment capacities now range up to 13,400 CFM.

The new line will retain all of the features which made the original direct drive equipment popular, such

as low contour, pleasing architectural design, all-aluminum-corrosion-resistant construction and simplicity of maintenance and installation.

Elimination of industrial type fans, through the use of Jenn-Air equipment, is one of the major advantages, since Jenn-Air's low contour does not detract from the overall appearance of the contemporary type structures now featured in the building field.

Heltne Ventilating Company, Minneapolis, is the distributor for Jenn-Air Products in this area.

Positions open for
qualified architectural
personnel.

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You have our best wishes
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NOW COMES THE STAINLESS STEEL ERA

Expanding use of stainless steel in construction of major buildings has led some of the makers of this interesting material to report we are headed into a stainless steel era. Use of the material "will give architects the opportunity to exercise their creative ingenuity in ways not possible with more conventional building materials," according to a report from the Republic Steel Corporation.

Start of the new era, according to Republic, could be signalled by the new Socony-Vacuum skyscraper now under construction in midtown Manhattan, which will be almost completely sheathed in stainless steel.

More than 750,000 pounds of stainless steel will be used to sheathe the exterior of the 42-story skyscraper. When completed, the Socony-Vacuum building will be the largest metal-clad building in the world, as well as the largest to be fully air-conditioned.

In support of his company's view that stainless steel faces an unlim-

ited architectural future, C. B. McGehee, general manager of sales for Republic's Truscon Division, listed these qualities of the metal:

"Long life, with any additional initial costs of stainless over other building materials more than regained over the years. Stainless will last as long as the building it adorns.

"Good workability, insuring quick and easy production on standard fabricating lines, with no need for special equipment.

"Ease of maintenance, with accumulated dirt and grime easily removed with a mild cleaning solution. And stainless needs no painting, another considerable cost saving.

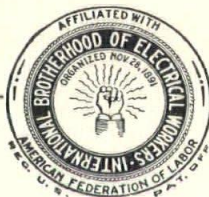
"Resistance to corrosion, with stainless corrosion-resistant all the way through. Cutting the metal will not leave an edge exposed to corrosion."

Since the eve of World War I, when steel companies first began large-scale manufacture of standardized grades of stainless steel, this group of more than 30 alloys has met with enthusiastic response. The same properties of stainless which made it so attractive to homemakers

—its resistance to heat, corrosion and contamination; its ease of maintenance and its long life—were also long known to architects. Until ways to fabricate it in quantity production were devised, however, and while defense needs held down supplies, its architectural uses were limited for the most part to decorative work and comparatively small construction projects such as building entrances, display signs and trim.

With quantity production now assured, stainless is enjoying something of an architectural boom. In Pittsburgh, that city's Golden Triangle rehabilitation featured the sheathing of several large buildings with stainless. Other structures either wholly or largely sheathed in stainless are going up or planned in New York, Chicago and other cities.

There are more than 30 standard types of stainless steel and many special alloys, each containing at least 12 per cent chromium, 7 per cent nickel, practically no carbon and varying small amounts of molybdenum, columbium, titanium and other alloys.



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chapters . . . hosts to
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ELECTRICAL WORKERS**

Local Union
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MINNEAPOLIS



**Remember
the
Minnesota
Society's
Conven-
tion
is in
October!**



HOME GETS EYE AS NOISY PLACE BY NATIONAL STUDY GROUP

Increasing use of mechanical equipment in the home and design of "open" house plans has led to a noisier place of living which is being studied by a special committee of the Acoustical Materials Association.

Aim of the study is to set up standards and make recommendations leading to quieter places to live, where people can rest and relax from the noisy rigors of their workaday lives. This is a phase of the entire noise control work being done today.

The committee, whose members are from the larger acoustical manufacturing companies, will study sound absorption requirements of homes, room by room as related to desirable noise levels and reverberation times, the sound isolation values desirable between various rooms, the allowable noise levels of principal mechanical equipment in the home and the noise "climate" of the building site.

The AMA plans to publish its results and recommendations later.

NORTHWEST

YOUR



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FOR
THE *FINEST* IN
CLAY MASONRY
INTERIORS**



ACOUSTILE, with "built-in sound control"; this load bearing unit absorbs sounds, eliminating need for costly acoustical treatment—withstands high compression; crack resistant.



INTERIOR SALT GLAZED TILE . . . Maximum quality at minimum cost. Provides extra beauty, extra durability, and extra insulation, at no extra cost. Colorful, easy-to-clean walls of buffs, tans and browns.



SMOOTH RED FACE TILE . . . Very popular 8 x 5 $\frac{1}{3}$ x 12 size for interior walls. Colorful, smooth face. The brick for economy and beauty-minded people.



FINE FACE BRICK . . . For color, texture, strength and uniformity you can't match this full line of fine face brick. Wide range of colors and textures add charm to every interior.



Whatever your need in the finest clay products we can serve you. Our engineers are always ready to serve you.

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*A Hearty Welcome
and
Best Wishes
for a
Successful Convention*

**CERAMIC TILE SETTERS
LOCAL No. 18**

LAYNE-MINNESOTA OPENS NEW MINNEAPOLIS HQ

Civic leaders and outstanding men in the field of engineering from the Northwest and other parts of the country attended the grand opening of the new Layne-Minnesota Co.'s office-headquarters and plant at 3147 California St. N.E. in Minneapolis recently.

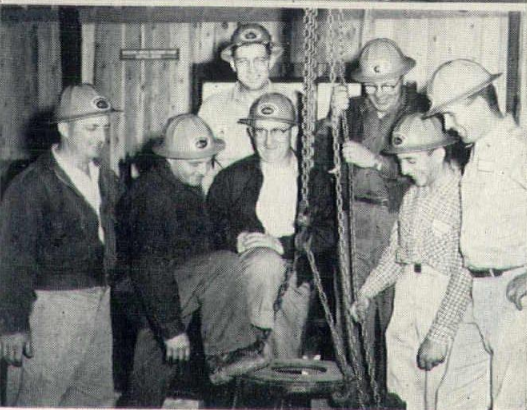
Layne-Minnesota Co. is a pioneer well-drilling, turbine pumps and water treating concern and is headed

by Lee Rogers as president. It is one of 16 associate companies of Layne & Bowler whose headquarters are in Memphis. Among the guests were J. I. Seay, President of Layne & Bowler, who came up from Memphis for the occasion as did Ed Rogers, President of Layne-Northwest from Milwaukee.

The new site covers two acres and provides ample space for the storage and handling of pipe, turbine pumps and well-drilling equipment and trucks.

Two of the largest jobs recently completed by the Layne-Minnesota Company were drilling and installing 72 wells in the Garrison Dam project in North Dakota and the drilling of the deepest well in this section of the country at Rapid City (S.D.) Air Base to a depth of 2,450 feet.

Our pictures show (l-r) W. E. Weaver, personnel director, Lee Rogers, Minnesota president, J. I. Seay, Layne & Bowler, president, and Fred Voedisch, Minnesota vice president; Fred Voedisch handles the controls in "pulling the pump"; a crew relaxing during the big event.



FOOTNOTES ON BUCKY FULLER'S WORK

Military structures are currently being evolved from the basic designs worked out by university students under the guidance and inspiration of R. Buckminster Fuller, whose project at the University of Minnesota's school of architecture was reported in this magazine's pages about a year ago.

Mr. Fuller's ideas brought a new viewpoint to many listeners when he spoke at the recent convention of the Minnesota Society of Architects and the A.I.A. Region in Rochester and some verbally wondered what he has been "doing lately." The answer is not far to seek for his method of work is to keep developing the theoretical side of the principles of construction he espouses while encouraging students in his university teams to make practical applications of what he is teaching them.

In this the Marine Corps became interested earlier this year and so Mr. Fuller is now helping develop lightweight dymaxion-based structures which can have important military applications. With possible uses including hangars, personnel quarters and administration shelters, these structures have been evolved into scale and full sized models for testing. One vital phase of the studies is the possible transportation to fighting areas of the pre-assembled (on board carrier

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Mankato Stone for Interior & Exterior Use

or at rear base) buildings through use of helicopters.

At present the triangular units which make up the half-sphere skeletons for the buildings are made of cardboard coated with a special plastic covering to add strength, protect against weather, etc. The cardboard is merely a "form" for the plastic. Over the skeletons are stretched plastic "bathing caps" to form the exterior surface. Several models and full-scale structures have been exhibited at the Quantico Marine base and sent on to headquarters in Washington.

The value of such structures has been pointed out by Marine officers as eliminating the present three-phase construction methods necessary in combat areas. The first phase, immediately after the fighting has secured an area, is that of the erection of tents; then the tents are improved with wooden floors, etc., and finally Quonset and similar structures are erected. With the Fuller structures this three-phase method would be eliminated and time and money saved. It was estimated that the new method used for one aircraft wing would drop the costs of housing, etc., from \$5,000,000 to \$657,000. Reduction in weight of the structures would be from a present 33,000,000 pounds to 872,000 pounds and hours of labor would be cut from 961,000 to about 26,000. In addition to being transported by helicopter, the structures could be lifted by a group of men and positioned or repositioned easily.

And that is where Mr. Fuller's pursuit of his dynamion idea has located him at present, Tomorrow? ... your guess is as good as anyone's but one thing is sure, the results will be interesting to follow.

MINNEAPOLIS CHAPTER ELECTS McCANN 1955 PRESIDENT

R. V. McCann was elected president of the Minneapolis Chapter, AIA, at its meeting on May 19 in the Normandy Hotel. Also named to serve the chapter for this year were Winston A. Close as vice-president, Austin H. Lange as secretary and Loren B. Abbett as treasurer. Bernard J. Hein was named chapter director and Edwin W. Krafft state society director.

Mr. McCann succeeds Victor E. Gilbertson as president of the chapter.

University of Minnesota graduating architectural honor students were guests at the chapter meeting and certain awards were made to them during the session. The American Institute of Architects' Medal was awarded to L. Montagu Hanson of Green Bay, Wis., in recognition of scholastic achievement, character and promise of professional ability. Naphtali Knox of St. Paul was the runner-up for this award. The Alpha Rho Chi Medal for leadership, service and merit was awarded to Norman Day of Minneapolis.

It's not too late —

GO . . .

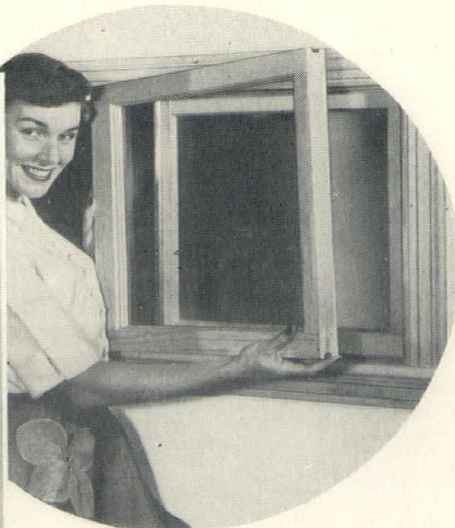
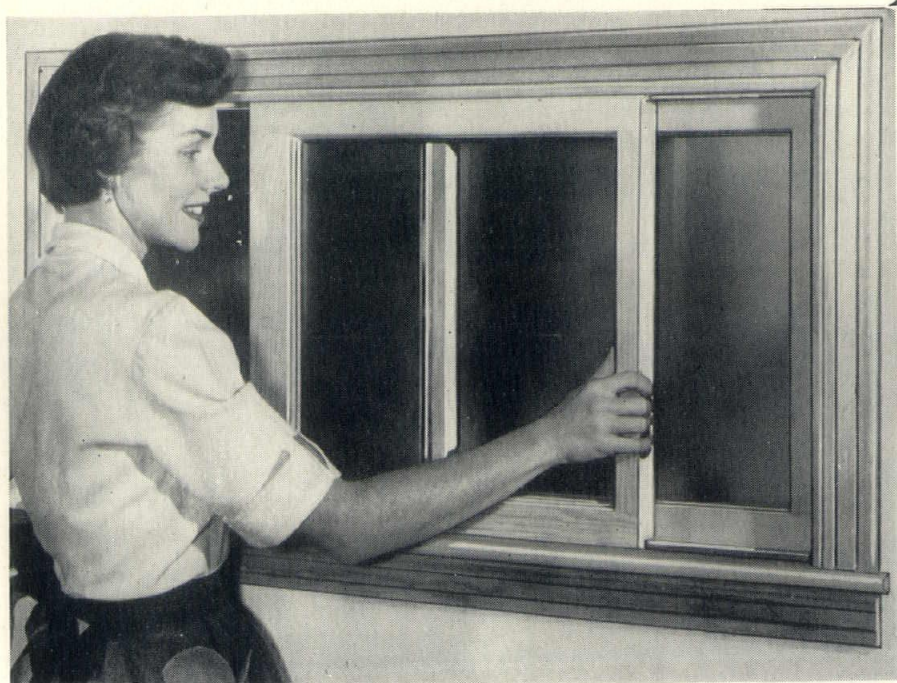
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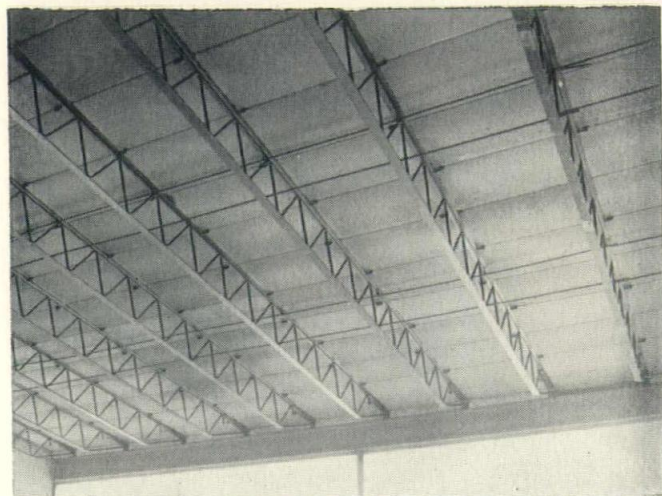
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Vermiculite Developments

Two new developments in lightweight insulating concrete roof decks are designed to assure speedy installation. The first is a precast vermiculite concrete roof tile for use with steel bar joists or beams and light steel sub-purlins. The second is a pump for pumping poured-in-place vermiculite concrete at the rate of 9 to 11 cubic yards per hour, sufficient to cover between 1,500 and 1,800 sq. ft. of area two inches thick.

The precast roof tile is 18" wide, 36" long and 3" thick and is reinforced with welded wire mesh formed



Underside of precast tile job supported by bar joists. into a basket shape to provide greater structural strength. The units have a "U" value of 0.22, weigh about 10½ pounds per square foot and can support a total load of 50 pounds per square foot with a safety factor of 4.

The under side of the tile has a noise reduction coefficient of 0.50. Water paint can be applied without impairing this acoustical efficiency so that an additional ceiling is often unnecessary either for appearance or sound control.

When the main steel beams or bar joists are more than 36" on center, light steel sub-purlins are welded on this spacing to support the slabs. Butted tightly together, the tile rests on the sub-purlin flanges. If the tile rests on beams or bar joists, clips are used to anchor the slabs.

Erection is unusually rapid and requires little equipment. The slabs are trucked to the site and unloaded

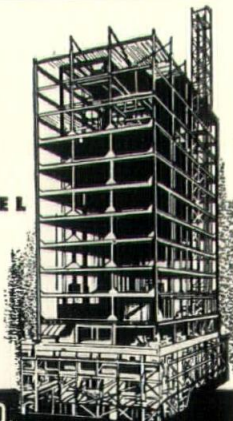
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directly onto a portable conveyor, which takes them to the roof. There they are distributed with rubber-tired carts. A tile weighs only about 50 pounds and can be easily handled by one man.

When all the tile has been placed and anchored, the joints are filled with a grout mixture of cement and vermiculite aggregate. The deck is then ready to receive built-up roofing.

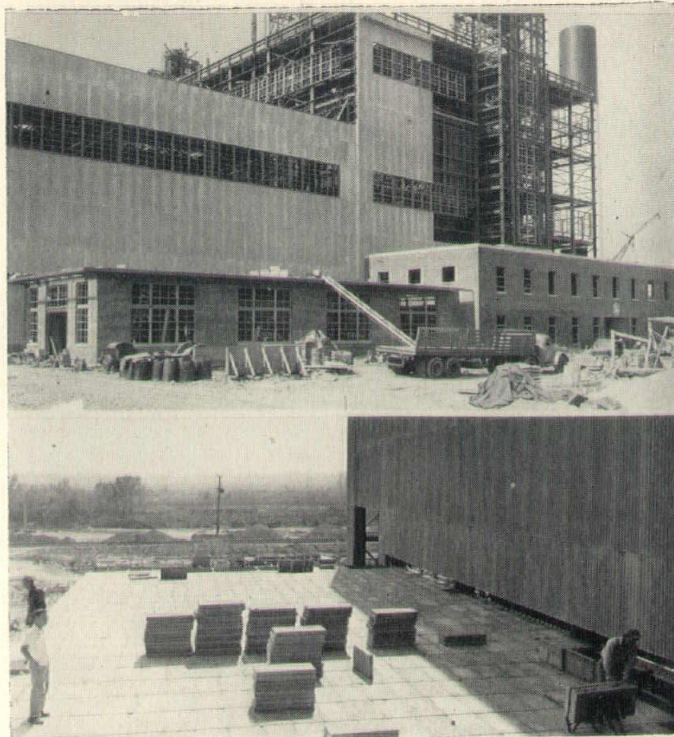
This tile is incombustible and offers surprising resistance to the passage of heat. Since roof fires constitute a major industrial hazard, such protection to the building and its contents is of great value. One of the big advantages of precast slabs is that weather for curing is controlled at the fabricating plant, assuring maximum strength and insulation value.

Another advantage is that the tile is not damaged by moisture and can be installed under adverse weather conditions so that the building can be roofed-in sooner.

For piecing and fitting odd shapes and for plumbing vents and the like, the tile can be readily cut with a power saw. The slabs are nailable and built-up roofing is nailed on, using wood deck specifications.

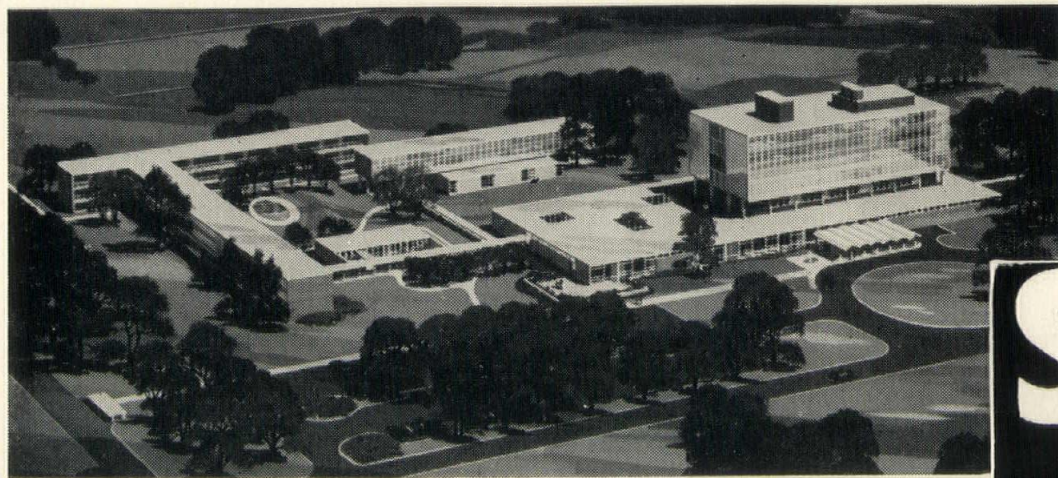
The new pump utilizes the progressing cavity, or auger, principle and is designed to handle vermiculite concrete poured-in-place over insulation form board supported on bulb tees welded to steel joists. Such a deck weighs 7.7 pounds per square foot and has a U value of 0.15 (see also *NORTHWEST ARCHITECT*, Sept.-Oct., 1954).

The pump and a conventional mortar mixer are mounted on a trailer bed. The concrete is discharged from the mixer into a hopper, from which it is pumped



Top—unloading precast tile with a conveyor—
bottom—tiles stacked, ready to use.

through a hose 2½" in diameter and 150 ft. long. On multi-story jobs the equipment can pump concrete straight up for a distance of 35 ft. The pump is powered by a gasoline engine or an electric motor.



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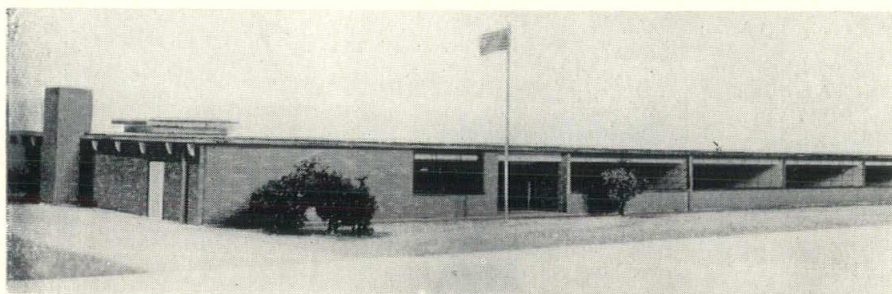
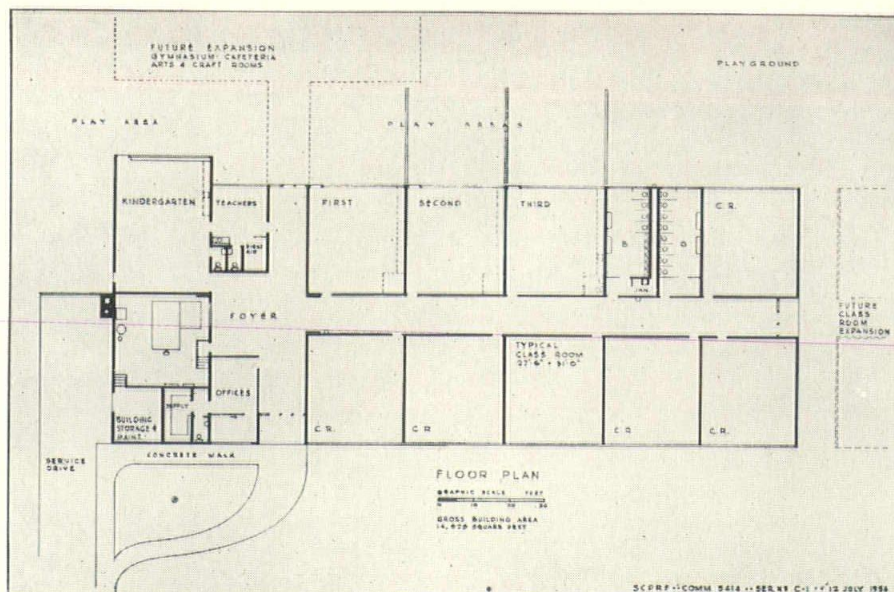
HARLAN CENTRAL HOSPITAL HOLDS UNIT COSTS TO A MINIMUM WITH...

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

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Foundation Develops New School Idea



The use of the L-shaped unit is shown in the plan reproduced above. At left is a model of the school, showing its major outlines and proportions.

A new concept of low cost school design has been developed by the Structural Clay Products Research Foundation. Based on current construction costs in Chicago, the foundation estimates schools of this type can be built for \$8.25 to \$8.75 per square foot, including both structural and mechanical costs.

The new building type has as its basic structural element an "L"-shaped clay masonry interior wall, which is repeated as necessary to build up the floor plan. Except for end walls, the exterior walls are non-structural curtain walls and can be built of masonry or glass in any proportion. The structural design is therefore cellular or "egg-crate" masonry construction, making full use of the load-bearing qualities of clay products.

"This type of construction seems well-adapted to

schools, since they tend to be basically cellular in character and are usually permanent in internal arrangement," foundation officials pointed out. "Structural clay masonry walls used as classroom partitions are effective in sound isolation, are highly fire resistant and are not subject to excessive dimensional change under conditions of varying temperature and moisture."

The school prototype design is conventional and modern in external appearance and is consistent with current school design practice. Its structural design and its economy are not obvious. It therefore affords low-cost construction while retaining an excellent appearance from the standpoint of ease of maintenance and civic pride.

The plan calls for building the masonry interior walls

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of "SCR brick," the six-inch-thick clay unit originated by the foundation in 1952 and since produced in quantity by more than 80 brick and tile manufacturers across the country. The plan also lends itself to economical construction with standard 8-inch brick and tile load-bearing interior walls, using details with which designers are already familiar.

"The principles illustrated in this prototype plan can be applied in many ways. The study was launched to show that permanent, attractive masonry school buildings can be built today, using readily available materials and construction techniques, at costs comparable with cheap, temporary substitutes, yet at no sacrifice to the beauty and flexibility of design that characterizes clay masonry construction," it was reported.

Six-inch-thick, load-bearing partitions are currently permitted by national building codes up to a height of ten feet. A recent school plant study, published last fall by the American Institute of Architects, indicated a marked trend toward classroom heights as low as eight feet and cited many favorable reactions from educators because low ceilings reduce heating loads, offer homelike scale to classrooms and cost less to build.

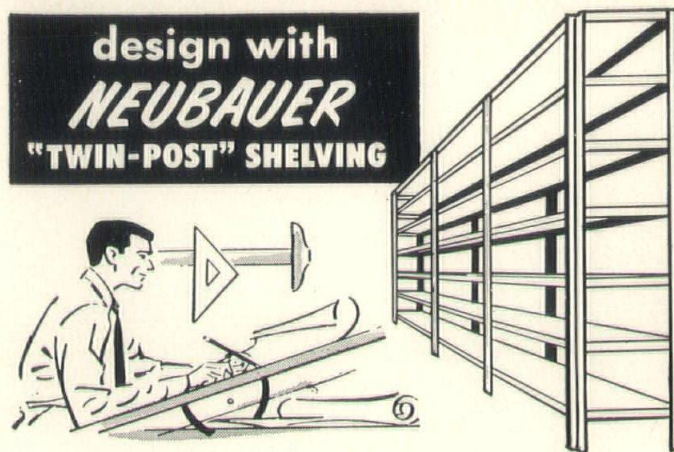
Roof beams span from room to room parallel to the length of the building and support a 2-inch structural wood deck. The corridor is roofed with 3-inch decking, supported by the corridor walls without structural framing. Auxiliary supporting members, such as columns, are unnecessary, as are their connections and fittings.

"For purposes of arriving at a sound per square foot cost estimate, selected mechanical, heating and lighting systems have been included, although their selection does not constitute foundation endorsement of any one system," the report said. "These have been patterned after successful economical systems in current use. The heating and ventilating system suggested is of the forced hot air type, in which both hot and tempered air are distributed under pressure through a duct system in the space over the central corridor and directed within the rooms through directional louvers near the ceiling at the corridor wall. Air is exhausted through classroom door grilles into the corridor and back to the furnace room.

"The lighting arrangement has been designed to furnish adequate lighting for classroom tasks without dependence on natural light. This approach has permitted deeper classrooms and allowed a significant reduction in the length of the exposed perimeter of the building, which, in addition to lowered original cost, may be expected to afford economies in heating and building maintenance, while providing a more comfortable physical environment.

"For interior finish, many of the structural walls of this building can be left exposed without further treatment, since the units can provide the required reflectivity in the classrooms and possess the necessary resistance to wear and vandalism. Additional finishing of wall sections with paint or plaster is also practical at negligible increase in total cost, since many wall areas are to be largely covered by blackboards, corkboards and lockers and need not be so treated."

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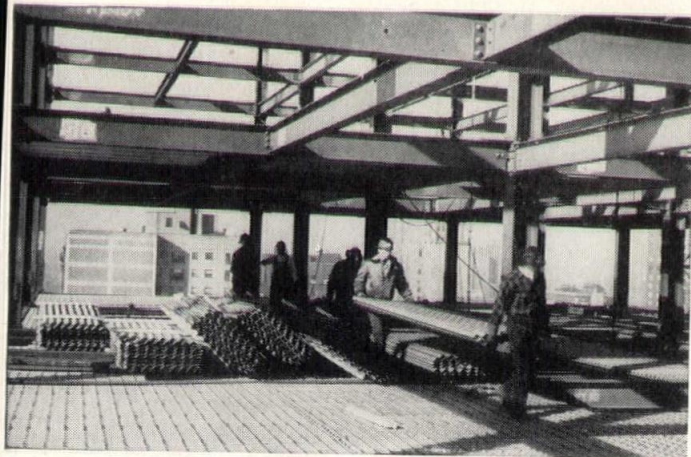
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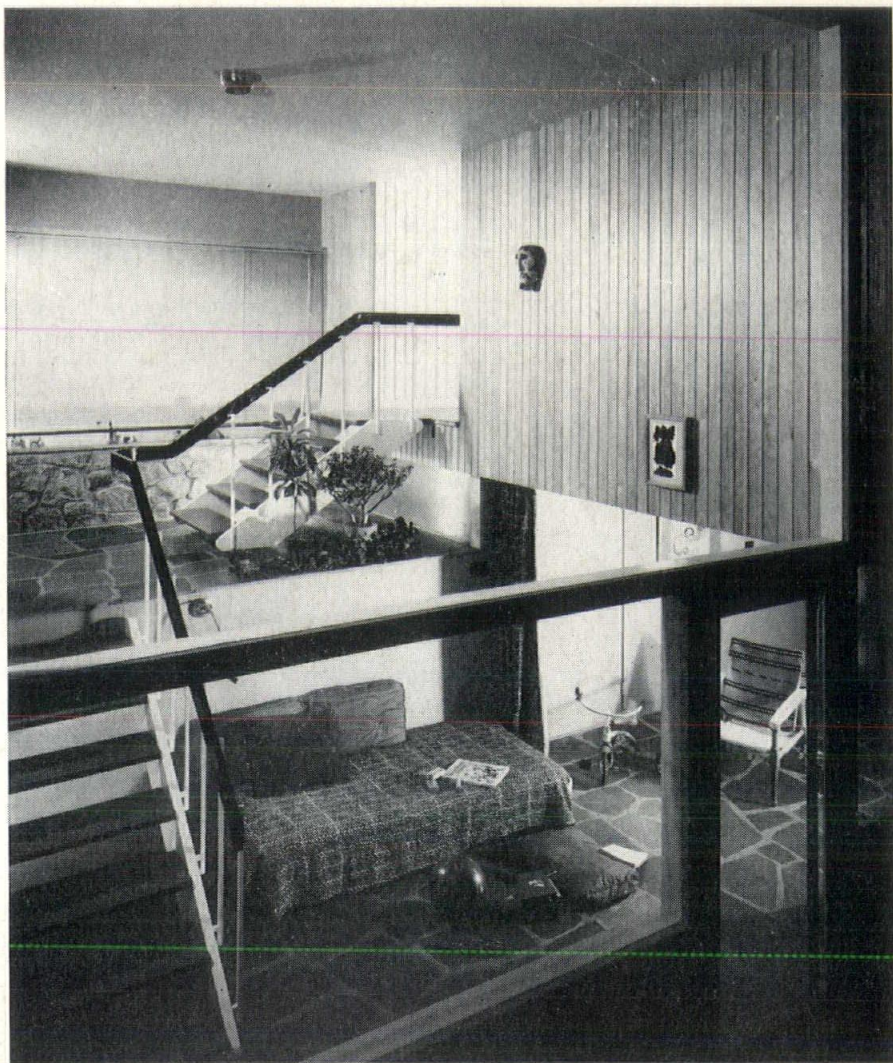
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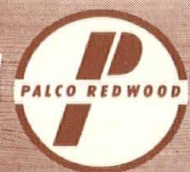


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