# Convention Issue

# OFFICIAL PUBLICATION MINNESOTA SOCIETY OF ARCHITECTS

SEPTEMBER-OCTOBER, 1954

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ST. JOHN'S ABBEY **VOLUME XVIII** 

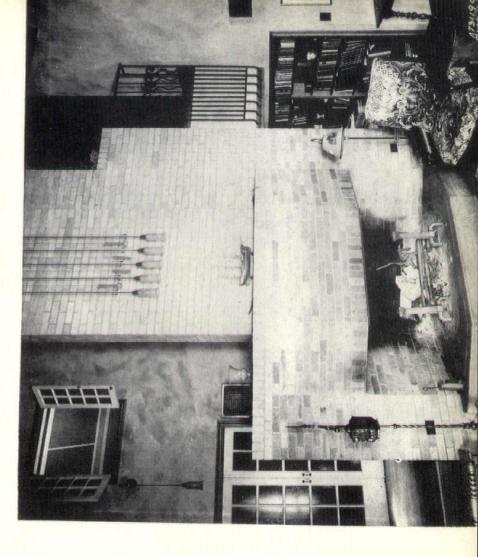
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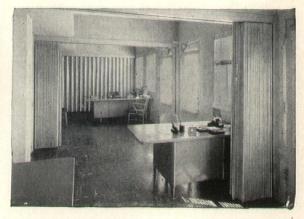
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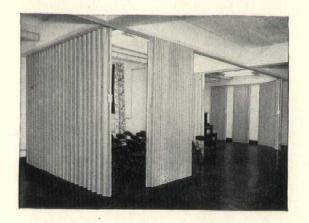


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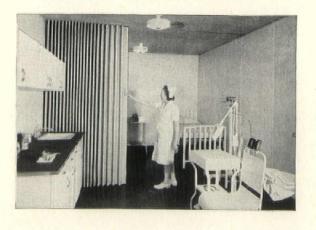
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## NORTHWEST ARCHITECT

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THERE IS an impalpable, invisible, softly stepping delight in the campfire which escapes analysis. There are paths of light which it cuts through the darkness; there are elfish forms winking and twisting their faces in the glowing ash-veiled embers; the pines whisper to the silence; the sentinel trees seem to advance and retire; you may hear the distant note of a solitary night bird or the more familiar call of the loon.

In the daytime the trees are trees. Very beautifully and loftily the spires of pine and hemlock rise out of the valley and the birch and maple over-shadow us. At night, when the torch is applied to the wealth of accumulated fuel, they are trees no longer. They leave their places and come out of the darkness to join our company. They say not a word and yet not even to man is given such a variety of character and so much of the mystery of the spiritual world.

From "CAMPFIRE MUSINGS" 1891 by William Cunningham Gray

 H. W. FRIDLUND, A.I.A., Editor
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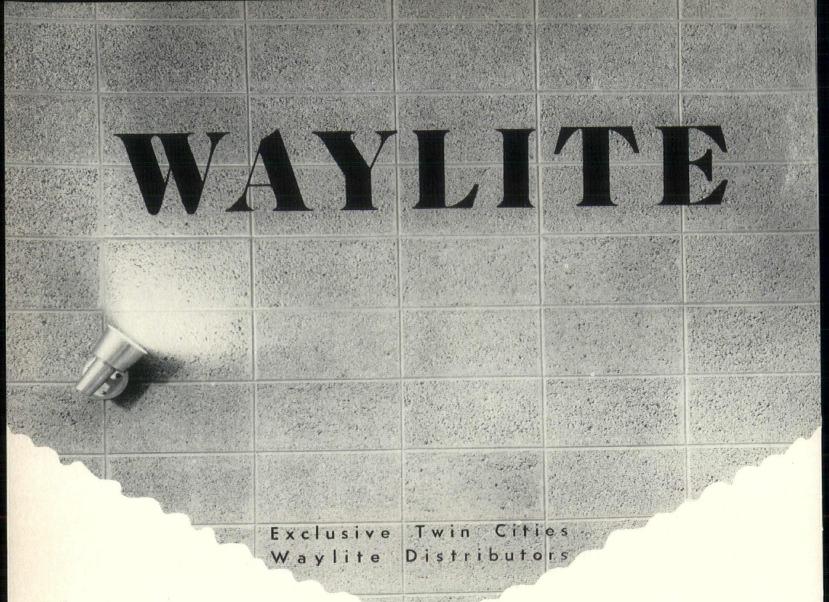
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6" Hollow	13/8"	62	25	31	2	21/2	31/2	51	45%	.35	. 24
8" Hollow	11/2"	62	34	41	4	5	6	53	50%	. 32	. 23
10" Hollow	13/4"	60	40	48	5	6	7	55	50%	.31	. 23
12" Hollow	134"	50	40	48	5	6	7	55	50%	.31	. 23
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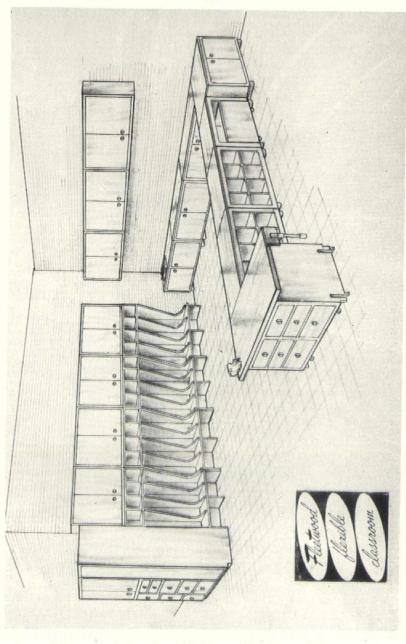
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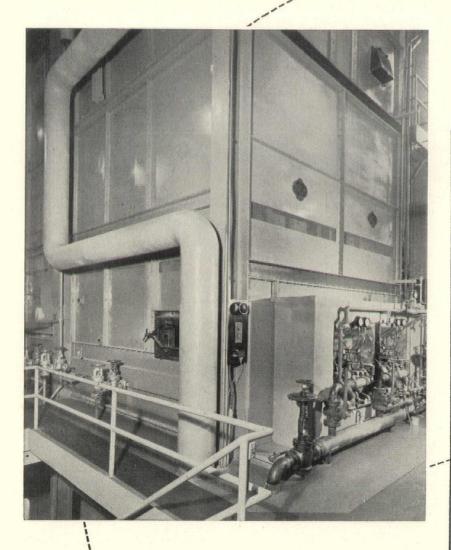
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#### An Open Letter from President S. 1. Stolte . . .



President Stolte

## "Be Seeing You In Rochester, October 28-30, 1954!"

It does not seem more than a short time ago when our last annual meeting of the Minnesota Society of Architects, A.I.A., was held in Duluth in August of 1953 but already our next annual meeting in Rochester, Minnesota, for the last week in October of this year is already upon us.

This meeting is further emphasized in importance by our decision to combine it with this year's regional con-

Through the kind invitation of Tom Ellerbe and the Mayo interests, we are certainly looking forward to an enjoyable, informative and educational meeting.

Actually, Thursday and Friday, October 28 and 29, have been set aside for the Regional A.I.A. Conference with the business of the Minnesota Society of Architects' annual meeting starting early Saturday morning and, if our members come well briefed on our many problems, maybe we can wind up the state society's affairs by Saturday noon and then those who want to can still get to the homecoming game with Michigan State.

Both the architects from the Region, which includes Illinois, Wisconsin, North Dakota, South Dakota and Minnesota, as well as the architects from this state, will have an opportunity to get better acquainted, participate in an excellent program of seminars, visit and have a detailed explanation of the facilities of a "world famous medical center" (which has had an imposing recently constructed group of new buildings) and all with the backdrop of cordial hospitality that has been extended to us.

From the Thursday luncheon with the inimitable Frank Lloyd Wright as our springboard speaker to the dinner-dance Friday evening at the Rochester Country Club (where no speeches are planned), we shall have a program just full of headliner items which we shall long remember and a program which will be handled

in such a way as to provide the greatest opportunity for friendly visits and exchange of ideas and experiences.

Then, beginning with a Saturday breakfast of the board of directors of the Minnesota Society through the balance of the forenoon, we are going to take up many far-reaching policy problems of our profession in this state, which, if properly resolved, should do much to raise the enjoyment and standards of the practice of architecture as well as continue the improvement in our services to the public.

Just a brief rundown of items on our business meeting agenda for Saturday morning, October 30, will give some insight into the scope and seriousness of our planned deliberations but, more importantly, it reflects the vast amount of effort carried out by all committees and individuals requested to serve on the respective committees of the society.

First, we shall have the usual, and some not so usual, "internal" items for handling, such as:

- 1. Amendments to the constitution and by-laws, adding chapter presidents to the society's board of directors and other amendments precipitated by decisions on subsequently listed items.
- 2. Weigh the recommendations for an executive director and the means for meeting accompanying budgetary needs.
- 3. Consider the proposal of the Bruce Publishing Company to the society as it relates to the NORTHWEST ARCHITECT.
- 4. Determine a new handling and possibly conclusions for material contained in "Circular of Information on Architectural Practice" which gets into the knotty problems in ethics, fees and the like.

Then we shall have policies for determination in our

relations with others in the construction industry and the public generally, such as:

- 1. A legislative program which includes assistance in the passage in the 1955 state legislative session of an enabling act for a State Building Code.
- 2. Report on government relations and services carried out with and for the State Department of Health on hospital standards and the State Department of Education on school construction standards.
- 3. Interprofessional relations with engineering offices serving architects, A.I.A.-M.A.C.E. report.
- 4. Report and recommendations of the A.I.A.-A.G.C. committee.

5. University relations and similar items to assist the architectural student in his training and orientation for the practice of architecture.

I hope the above brief description alone convinces all architects in our region that they must be in Rochester, Minnesota, on October 28 and 29 and that all architects in Minnesota consider it a must to be present for the Society's annual business meeting Saturday morning, October 30, 1954.

> S. L. Stolte. President Minnesota Society of Architects, A.I.A.

# Program for the

#### A.I.A. Regional Conference

and

#### Minnesota Society Annual Meeting

Rochester, Minnesota

October 28, 29, 30, 1954

(Events listed as of press time, may be changed)

(Program for Ladies not listed on this schedule—see Northwest Architect No. 4)

#### Thursday, October 28, 1954

10:00 a.m. to 8:00 p.m.—Registration—Windsor

Lounge or Mezzanine Hotel Kahler

12:00 m. to 1:45 p.m.—Lunch (Ladies invited)

Speaker: Frank Lloyd Wright, Architect

2:00 p.m. to 3:00 p.m.—Seminar: "The Architect as the Co-ordinator"

Moderator: Phillip Will, Jr., Architect, F.A.I.A., Perkins

and Will, Chicago Panel: Brooks, Cavin, Architect, A.I.A., Brooks Cavin.

St. Paul Herman Gutman, Architect, Project Co-ordinator, Victor

Gruen Assoc., Inc., Los Angeles

Charles Wylie, Architect, Skidmore Owings and Merrill, Chicago

3:15 p.m. to 4:15 p.m.—Seminar: "The Artists and Craftsmen"

> Moderator: Ralph Rapson, Architect, head of School of Architecture, University of Minnesota

Panel: Warrent T. Mosman, Art Consultant, Diagnostic

Unit, Mayo Clinic

William Saltzman, Artist, Head, Rochester Art Center Angelo Testa, Designer, Angelo Testa and Company,

Chicago

4:30 p.m. to 5:30 p.m.--Tour: Medical Science Building



5:30 p.m. to 6:30 p.m.—Tour: Mayo Clinic New Building 7:00 p.m. to 9:00 p.m.—Cocktails and Buffet Supper, Kahler—U Club No Speaker

#### Friday, October 29, 1954

8:30 a.m. to 12:30 p.m.—Registration 7:30 a.m. to 9:00 a.m.—Regional Council Breakfast for Chapter Presidents

9:00 a.m. to 10:00 a.m.—Seminar: "Professional Engineering Consultants"

Moderator: To be an nounced later

Panel: Samuel R. Lewis, Mechanical Engineer, Samuel R. Lewis & Associates, Chicago

Vernon Lundquist, Mechanical Enginteer, R. D. Thomas & Associates, Inc., Minneapolis

Frank J. Kornacker, Structural Engineer, Kornacker & Associates, Inc., Chicago

10:15 a.m. to 11:30 a.m.—Seminar: "Site Planning Consultants"

Moderator: John Lindstrom, Architect, A.I.A., Magney, Tusler and Setter, Minneapolis

Panel: A. C. Godward, Consulting Civil Engineer, Executive Director, Minneapolis Housing Authority

R. W. Law, Landscape Architect, Partner, Morrell & Nichols Inc., Minneapolis Talbot Jones, City Planner, Minneapolis Redevelopment Authority, Minneapolis

12:00 m. to 2:00 p.m.—Luncheon

Speaker: Slade Schuster, Administrator of the Mayo Clinic

Topic: "Mayo Clinic"

These men directed the society for 1953-54 and have important roles in the Rochester convention—(seated, l-r) Secretary P. C. Betenberg of St. Paul, President S. L. Stolte of St. Paul and Vice President E. D. Corwin of St. Paul; (standing, l-r) Treasurer C. H. Smith of Duluth and president of the Duluth Chapter A.I.A., and A. R. Melander, director and past president.

2:00 p.m. to 3:00 p.m.—Seminar: "Building Type Consultants"

Moderator: Edgar H. Berners, Architect, F.A.I.A., Foeller, Schober, Berners, Safford & Jahn, Green Bay Panel: To be announced later

3:15 p.m. to 4:15 p.m.—Seminar: "Product Consultants"

Moderator: To be announced later

Panel: To be announced later

4:30 p.m. to 5:30 p.m.—Tour: Medical Science Building

5:30 p.m. to 6:30 p.m.—Tour: Mayo Clinic New Building

7:00 p.m. to 8:00 p.m.—Cocktails

8:00 p.m. to 1:00 a.m.—Dinner Dance—Rochester G & C Club No Speakers

#### Saturday, October 30, 1954

7:45 a.m. —Breakfast for Minnesota Society Board of Directors

9:30 a.m. to 12:00 m. —Annual Meeting Minnesota Society

12:00 m. to 1:00 p.m.—Luncheon

2:00 p.m. to p.m.—Tours: Mayo Clinic State Hospital

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These are the auxiliaries' officers and others active in the work—(seated) Mrs. G. H. Carter, 1953-54 state president, Mrs. E. H. Lundie, 1953-54 state vice president, Mrs. A. H. Lange, Minneapolis treasurer, Mrs. C. M. Tammen, Minneapolis chairwoman, and Mrs. E. R. Cone, St. Paul chairman; (standing) Mrs. F. A. Gabbert, former Minneapolis secretary, and Mrs. H. Johnson, former Minneapolis treasurer.

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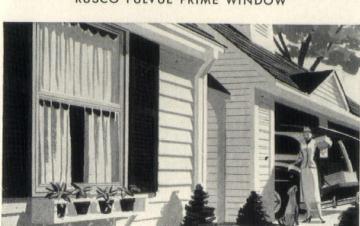
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# A.I.A. and A.G.C. Continue Co-operative Committee Work



In 1948 the Minnesota Society of Architects and the Associated General Contractors of Minnesota saw a real need to combine efforts and further cement relations between the architectural and actual construction phases of the industry and created a co-operative committee. Prior to the first meeting of this new committee in September of 1948, both factions had special committees assigned to work out joint problems and joint meetings were set only when a specific matter needing a simultaneous decision arose.

The actual move to combine these two groups came out of meetings held by the Minneapolis and St. Paul Builders division of AGC. In the spring of 1948 these divisions were involved with jurisdictional problems arising from architectural specifications for sheet metal and other work. The builders needed simultaneous decisions with the architects. In addition to this problem, the builders recognized the need for a clearing house for letting dates. They also needed to establish policy of charging for the second and third sets of plans. These and other problems were handed to the architects relations committee of AGC.

The architects relations committee met on April 26, 1948. Faced with the matters given to them by the builders as well as a few complex problems of their own, they realized that the time had come to combine the two groups around the same table. The architects quickly saw the wisdom and one of the most active and effective committees of its kind came into being.

The first official meeting of the AIA-AGC Joint Cooperative Committee was held in the Minneapolis Athletic Club in September, 1948. In attendance were Shown at a recent meeting of Minnesota's Joint AIA-AGC Co-operative Committee are (seated, left to right) Roy Thorshov, AIA, Dean Lundholm, AGC co-chairman, George Darrell, AIA co-chairman, John Ganley, AGC, W. H. Tusler, AIA, and K. A. W. Backstrom, AIA; and (standing): L. C. Halverson, AGC, Mark Hayes, AIA, W. A. Bastedo, AGC staff, Gordon Comb, AIA, J. P. Swenson, AGC, W. A. Backstrom, AIA, Harold Crawford, AIA, and C. H. Bingham, AGC. Committee members not pictured are H. D. Lovering, AGC, and T. J. Fowler, AGC.

five contractor members of AGC and five AIA members from the Minnesota Society of Architects. Immediately the group set about to complete the formal organization of the committee. It was agreed that this should be a statewide committee and its decisions reach out of the Twin Cities area and that two or more members be selected to bring their total to seven members from each association. It was also agreed that matters requiring considerable study be put before four-man sub-committees consisting of two men from each group. regular meetings were set for the second and fourth Wednesday of each month. A. I. Raugland of Lang & Raugland, Minneapolis, was appointed chairman for the architects and H. V. Burnett of C. F. Haglin & Sons, Co., Minneapolis, was the first chairman for the contractors. These men served alternately as chairman of the meetings. The AGC manager was named secretary.

The joint committee set as its purpose, "The providing of a medium through which matters of mutual

(Continued on Page 78)

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Upper photo: View looking west on 3rd floor, with wall panel on platform ready for tilting. First floor panels were 15 ft. high, second and third floor panels 11 ft. high. All were 17 ft. 6 in. long and 6 in. thick. Lower photo: Architect's rendering of completed building at 9th and Vine Streets. Designed by Brooks-Borg, architects and engineers; built by The Weitz Company, Inc., contractors — both of Des Moines.

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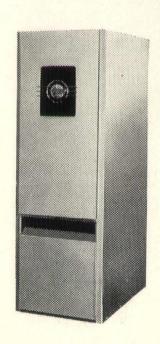
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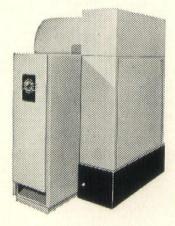


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The best in architecture matches the building design with the use of the structure and Brooks Cavin's carefully thought out office building for the Andersen Corporation, well known window maker of Bayport, Minn., is one of today's outstanding examples of this matching. What started as a simple addition to a factory-office building was developed into a complete showcase for the client's business.

The Andersen company's growing business made its original home too cramped. Mr. Cavin was called in as architect to add a one-story and basement supplement at each end of the building. As the architect talked with those in the firm and studied the needs of the business his ideas formed and grew until he conceived a one-story addition designed to do a selling job

for the corporation as well as provide the required additional space. His enthusiasm for the idea was contagious and those responsible for okehing the work agreed. Result was the structure shown in our illustrations.

Dramatic center of attention in the building is the domed, skylighted inner garden which serves as a "home core" for the proper display of Andersen window equipment. There customers can see exactly how the various units work and fit in with residential and other building designs. There is no vague imagining how this or that unit would look; it is right there and can be seen and studied. All other components in the building follow the carefully studied pattern of this idea development so each part is an efficient and at the same time

highly attractive part of a homogeneous whole.

The Cavin building procedure was unique in that suppliers and contractors were dealt with directly by the corporation's plant engineer who acted as coordinator. In this manner changes in the building's structure were actually handled during the process of erection, thus allowing for a fluid growth of the concept of the building. There was no frozen set of bid spex which were set up in advance and which would predetermine all answers to questions which arose during construction.

"This turned out to be one of those rare instances where the client has followed through with the complete design, instead of cutting out special features in an economy drive, thus cutting out the life and spark of the project," Mr. Cavin reported in a 6-page picture story in a recent issue of Architectural Forum, which gave national publicity to the building and its designer. "The role of the plant engineer, who has an architectural background and a viewpoint both sympathetic and challenging, was very important. He facilitated interchange of ideas between architect and corporation so each decision balanced architectural effect and effect on business operation."

The dome, it is interesting to note, was based on work

(Continued on Page 80)



Private office shows details of equipment, lighting, et cetera, worked into harmonious whole.





The general office is planned for efficient work but is not a "sterile place." Its ceiling has radiant heat panels, cooling panels, is designed for acoustical control.





The employes' garden at rear can be seen through the general office windows. Note how various windows made by the firm are worked in without conflict.

ARCHITECT

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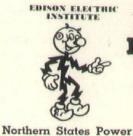


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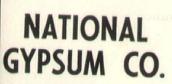
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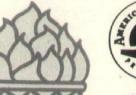
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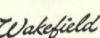
















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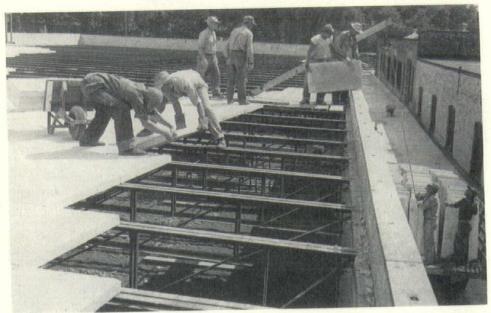






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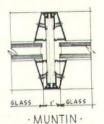
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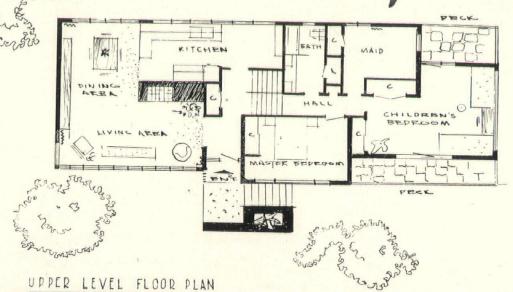


Mr. & Mrs. Don Michel Residence 4330 Cedarwood Road

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This house is built on four levels conforming to the contour of the terrain.

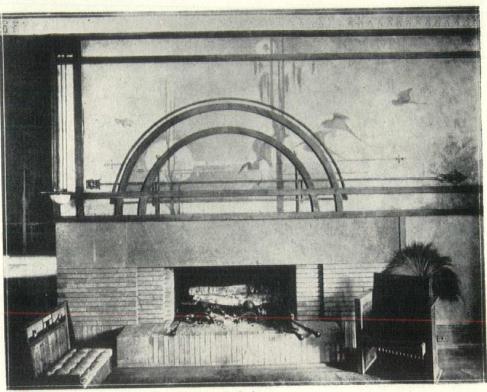
Pella casements





# OPEN HEARTH-FIRES AMERICA'S OLDEST PIONEER TRADITION

WE SHOW YOU a half dozen pictures to illustrate our beliefs about fireplaces. As you know, the "modern" architect makes a virtue of shock, pushes personalities, scorns Nature, especially human nature, and worships the mechanical contraption. In our photographs you will not find these fashionable gestures. Were these works not truly contemporary in spirit? They were and still are. Are these designs "modern"? They are not. But is this, then, functional architecture; it does not appear to be. It is indeed functional in the most complete sense, and the examples shown are indigenous to the land and the people, organic with production and use. This we propose to discuss.



By WILLIAM GRAY PURCELL, A.I.A.

HE AMERICAN family hearth fire blazing free and open is a unique institution. To the English adventurers arriving at Plymouth Rock or Jamestown, after their cheerless rugged voyages, the abundance of firewood was a most surprising and welcome luxury. In that day iron stoves and "grate" coal fires in England had already taught people how to conserve fuel and deal with smoke in flues with control of draft. But in North America, with plenty of cord-wood to heat their log cabins, all the newcoming Europeans built large open fireplaces. In the book "Grandmother Brown's Hundred Years, 1827-1927" she tells about how, back there in the Ohio pioneer cabin of her girlhood, each Saturday the horse dragged the great backlog right in through the door and across the log puncheon floor to the head-high fireplace. They rolled it into place where it burned for a week. In front of this backlog's glowing face and under the smoky throat of the stick and mud chimney, the family baking and roasting was done, a back-breaking job as one may think. The big cast iron stew kettle swung out so that the hand-patted balls of risen dough could be dumplinged into the venison broth. "journey-bread" of corn meal in round flat loaves was baked in a shallow, covered, cast iron, round oven

standing upon three tall legs. Or similar frying pans could also be placed directly over the coals on a separate iron stand called a trivet. Other iron covered baking skillets without legs were buried under the ashes. Smaller hoe cakes of corn meal were baked on the bright blade of the garden hoe. So it was that the three-hundred-year American tradition of an open fire as the center of family life became tied so deeply into our feelings and the open fireplace took on a semi-religious character as an American family shrine.

Fire on the hearth is too much of a luxury to be had very often nowadays and, where not a habit, soon becomes too much trouble. In the eastern cold states already over-heated houses discourage open fires. We lovers of the open fire ritual have had some good help from the ingenuity of the Honeywell inventors, who in many clever ways encourage one to light a hearth fire. Their little thermo triggers will turn down your househeating when the hearth fire blaze gets going.

ARCHITECTS and Clients, Dwellers, and Remodelers of dwellings, I ask you to join me in restoring the ancient friendship between living fire and human living.

I SHALL NOT TRY to tell you how to design in honorable and significant fashion for the fires to be built, nor what form, texture and color of brick or metal will best warm the heart and hands. Well designed hearths will continue in ever changing character and with no need to copy the past, nor seek a "new-classic" type among the best favored modern productions. Our problem is to get the fires going, to relight dark hearths, to convince architects that no laurels are going to be gained by playing dynamics with the fireplace, while abstracting the fire itself right out of family life. The living fire is another person in the room. With a fire you are never alone. It is a beacon of hope, and if of wood it speaks to the ear; if or coal to the eye; and its glowing heat warms the hands and the heart.

F YOU GO ALONG with my sincere feeling for this ancient, non-architectural household tradition, perhaps you will not mind a bit of warning lest it become sentimental. Please don't undertake a stone masonry fireplace face or a stone wall in a room which is to include a fireplace, unless you have stone available of a character and color to please you and actually know an artist stone mason capable of building what is planned. Such a creative artist should be encouraged



A BOVE LEFT, is shown a raised-hearth fireplace of 1920 with a shallow five-sided convex heat lens of fine grain slim face-brick as a fireback. To conform with the building laws a fire brick layer was inserted within the masonry immediately behind the face brick. We find that common brick and even cement plaster as a fireback will withstand wood-burning temperatures for many years :: :: :: The sculpture is by Richard Bock; the lights were one of the earliest experiments with opaque-shade, directed-light design. Here a small portion of back light was allowed to escape upwards to glint on the gold wires, dark blue shades and tubular socket holders. This back-light also lifted the



HERE IS A 1927 EXAMPLE of how the form and materials of a fireplace and its hearth-song to the household should grow naturally out of the idea of the whole dwelling. Here we see the inward turn of the plaster wall which forms the balcony dining room beyond, with stairs up from this living room. On the right a similar wall forms the rail of the stair landing as one comes down from the front entrance hall. Within the resulting broad niche, the satisfactory burning place appeared as a natural event in the development of the building. No self-conscious designing was needed here; just some brick baffles for the heat reflecting angle, and some steps-up from the floor of the room to provide the floor of the hearth, made of brick for ash cleanliness and to let hot coals roll safely. The fireplace opening in its turn, now becomes high enough so one can relax in enjoyment of the upward breaking surf of flames, the drifting spray of sparks and smoke, all easily seen well below the dark throat. As a result of all these procedures the two angled inner sides of the fire containment will be seen as just an extension in brick of the same angle as the walls of plaster, thus ordered so as to accept the extra heat and take care of the sooty edges wherever they come. Lets not struggle to "design" fireplaces, just let them grow. New fire talking to the old fire in man's heart—nothing else matters. Art pressed in here becomes an intruder, however clever.

to rebuild its design if the drawing board presses him to do what is inarticulate under his hand.

The building of stone walls is a great art, an ancient art. Thirty years ago stone walls were much favored as guards along the dangerous embankments of public highways in the mountain canyons of the west, then under the direction of the United States Department of Public Roads. At that time there was a colony of Italians living in Portland who brought with them an old-world tradition of beautiful wall building. Many

otherwise too dark shadows in the tall ceiling spaces. The fifteen lamps were turned on in series with a candelabra control switch—l pull, l light; 2nd pull plus 2 lights, equals 3; 3rd plus 4, equals 7; 4th plus 8, equals 15; 5th pull all off. The lights came on "hit and miss" in the group, not in banks. Useful light results for reading, conversation, party, were very successful. :: :: :: The sequence control for volume of light gave variety to illumination content throughout entire interior. The transitions and balance between firm definitions and the quality of light geography in different parts of the room, high and low, near and distant, served but did not demand attention. This was light with courtesy and good manners; democratic light without exhibitionism.

#### **An Important Point**



#### That Busy Architects



#### **Should Remember:**



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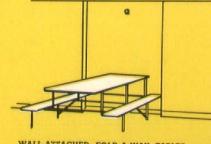
Portlanders will still recall "Bigod" Mike de Gidio who made good wine in his cellar during prohibition days, and left on Portland Heights, as his monument, hundreds of the most beautiful walls so perfectly engineered by his own judgment and instincts that they will still be there hundreds of years hence. These masons have all passed and neither as a trade nor a fine art does such work appeal to young men.

People who want a satisfying life experience with their new day family hearths will do well to realize that whatever is done with, to or upon any masonry wall that holds their fireplace, they will have to sit there and look at the results for a long time to come. They will also do well to anticipate the overalled and mortar-soiled artist whose mind and heart is going to put the stones together and will inevitably record himself in all that he does. Encourage your democratic feelings, for you will have this silent partner sitting with you in every gathering at your family altar.

If your humble artist does not have the spirit, or the power, or the good material, or if you do not provide the appreciation which alone can grow living architecture, better have simple brickwork, plain plaster, or the grain of honest boards, than live your days with a feeble and incompetent pattern of masonry. Eight out of ten fireplaces published in the architectural press fail in this respect. As for living with unfortunate fireplaces which come with a house already built, this is one feature in your remodeling program calling for a lot of experience, wise esthetics and an unhampered imagina-Often a good result can be obtained by color re-emphasis. Confine your redesigning to adjustments and additions, rather than tearing down and rebuilding, which can be very costly. The problem of the designer of fireplaces is not to invent some new trick. We have seen these now much praised architects assemble spars and platforms to make an original type of fire box; they hang insulated metal hutches, mesh front and all, on walls; others balance fire containers on teetering tripods with thin iron rods for legs, or set in order a wellframed fire box, cased with sliding spark screens, to make one more streamlined unit in a row of television, phonograph sets and book cabinets. These constructions all conceal functions calling for significant form which have been totally submerged in preoccupation with gadget and contrivance.

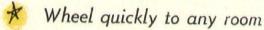
For a very common room planning example you see in every architectural magazine fireplaces pushed into a corner—not across the corner—but with an end along one wall. This is an increasingly popular pitch with all "modern" planners. It has now become a cliché which is applied to sanctuaries, theater stages, food counters and what not.

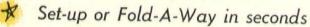
Many good open fireplaces of contrapuntal imbalance in esthetic design have been developed for the corners of rooms, but if the burning fire in them does not receive, from its containing walls, a focus both thermal and personal directed to those who are to make the social group in the room, the first function of every fireplace—to see the fire—will have been violated. For modern

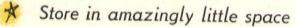


WALL-ATTACHED FOLD-A-WAY TABLES (With or without Benches) (P-4)

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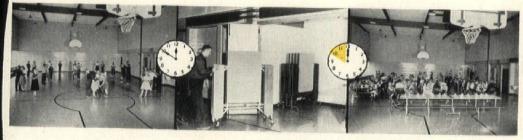












One man converts gym to lunchroom in just 10 minutes

This Multi-Purpose Room in the new Falcon Heights, Minnesota, elementary school serves as lunchroom, auditorium and gymnasium. Its busiest time is the noon lunch period. Changeover from Phy. Ed. class to lunchroom takes 10 minutes. Eight Erickson Portable Fold-A-Way tables with benches are set up to seat 192 pupils at one time. Over 300 pupils are fed during the period. Dan Forsyth, custodian, makes the changeover without help except for clearing and washing the Formica table tops.

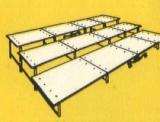
Case History courtesy of: Superintendent Emmett Williams; Principal B. M. Nelson; Architects Magney, Tusler & Setter.



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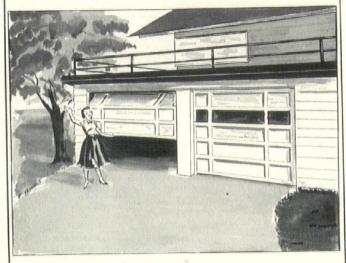
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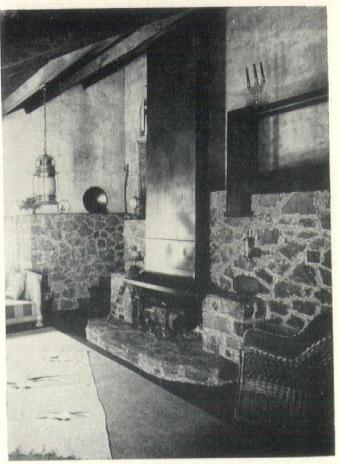
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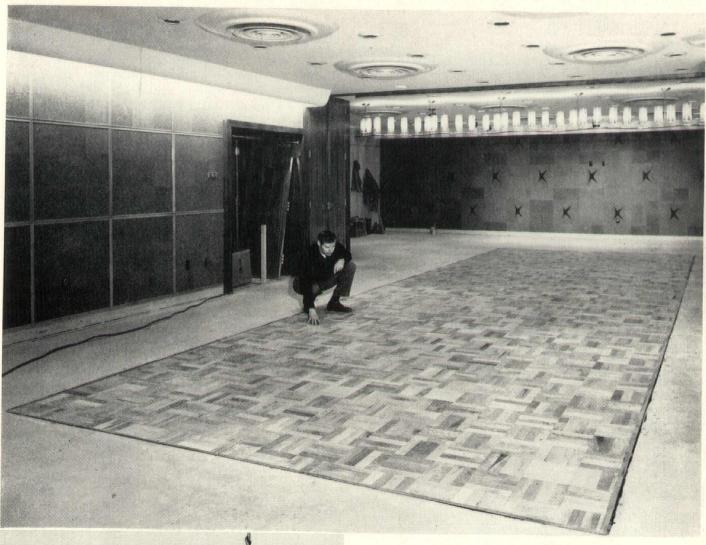


THIS WAS ONE of the earliest of the free standing metal fireplace flues. It was built in 1926. Back of it is a space of 42" where the stairs to second floor balcony, at right, go up between the metal stock and the plaster wall of bedrooms. Indoor bedroom window looking down on living room can just be seen above at left of stack. The fireplace is broad —54"—for cord-wood and only a foot deep. This "Chimney" was the equivalent of 250 square feet of hot water radiation and, plus the radiant heat of the blazing logs, provided most of the required heat for the entire house in the mild Portland climate.

fire worshippers, whether Boy Scouts, Sportsmen thinking of spring, or Scholars and Gossips relaxing, the firealive is the Gift.

O PRODUCE an American open fireplace as architecture you must solve all the factors potential in the two basic controls: A. The spiritual values of the ancient relation between humanity and fire: B. The mechanics of combustion and the actual "building" of fires with all the many kinds of fuel, an art understood by few.

OU MAY AGREE with me that perhaps the most unfunctional of all the gadget contraptions displacing the family hearth is the tubular sheet-iron incinerator type of fireplace, set down in the center of the family room, complete with cylindrical trash-catcher of galvanized mesh. Neither mechanically nor emotionally does such denatured equipment invite either fire building or people to foregather. Four persons out of any eight in such a circle couldn't even see each other for the stack. The only way in which free standing hearths can be satisfying and practical is where the resulting circle of





## When elegance really matters BIRDS EYE HARD MAPLE FLOORING SETS THE PACE!

In keeping with advanced concepts of design, Ellerbe and Company, St. Paul architects, specified Birds Eye Maple Block Flooring for the dancing area in the Kahler Hotel, Rochester, Minnesota "World Famous Medical Center."

O. A. Stocke and Company, Inc., Rochester, Minnesota, was the general contractor.

An ever-growing number of architects has come to benefit from the prestige that a wood floor builds for them. Discriminating clients, too, appreciate its unusual beauty which forms a distinctive background for a gracious interior scheme.

This unique Birds Eye Maple Block 25/32-9x9 flooring laid directly over a concrete slab—first primed with Gerrard's No. 15 primer and sealer and one coat of No. 1034 cushion mastic, No. 600 cold trowled mastic in which blocks are set. Sanding and finishing followed, using two coats of Gerrard's No. 30 Penetrating Floor Sealer—buffed while wet into the floor with a steel wool machine. Gerrard's No. 5 Paste Wax used for waxing and polishing.

Flooring was selected at the Yawkey-Bissell Flooring Co. mill at White Lake, Wis.

#### For Specifications and Information

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people is large enough to have dignity and the cylindrical smoke stack is *suspended* at a sufficient height above the floor so that a seated person can see, beneath its edge, his opposite in the friendly gathering.

Many of you will have seen such an indoor campfire in the public lobby of the Lodge at Glacier Park entrance. This round metal smoke stack coming far down from a high ceiling serves a very large fire and a circle of perhaps three dozen chairs. In variations of this idea the entire lower flaring hood-section of the suspended metal stack should be built as a sliding sleeve with counter-balance weights, so that it can be lowered close down over the freshly lighted fuel until all is hot and in good draft. This lower section can then be raised to where the flame and smoke patterns can be enjoyed by all without any fumes escaping into the room.

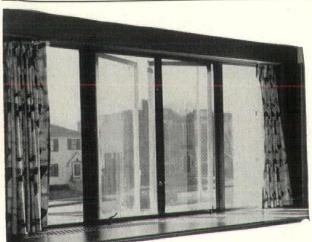
Today there are many fireplace designs expressing a proper desire to get the fire out of the closet. Some are planned as one-end-open, or open-both-ends. There are open-through-between-room types and lately many experiments have been tried with the open-on-three-sides system, where only one end rests against a narrow flue. All this is good laboratory work (at the expense of the

client) but unless the designer has had an *experience* continuity with fire as a part of his growing life and is able to express it in architecture, any idea new or old will fail.

HE EDITORIAL PAGE is part of a song whose themes are the deepest feelings of humankind. Here is valid tradition full of good sentiment which has been given us to cherish. If you have lived with, understand, and can record these feelings in forms that will declare their worth and invite participation, you are a creative artist.

THE QUOTATION from Dr. Gray's "Campfire Musings" on our Editorial Page concerns the necessity for recognizing the spiritual values of daily living in a world which is too much taken up with machinery. He tries to show us how to recover democracy. He is not interested in the democracy of politics. In his "Musings" he feels Whitman's democracy; that we are a very part of every living thing around us; that we must daily be reborn, physically out of the earth, emotionally out of right experience with people, and mentally out of our

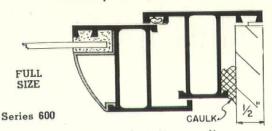
(Continued on Page 85)



#### Sunlight Aluminum Windows

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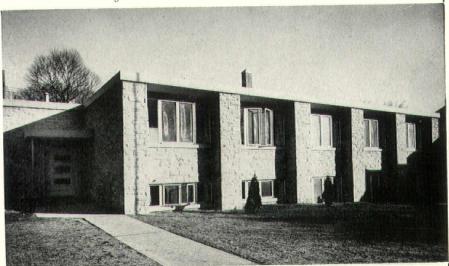


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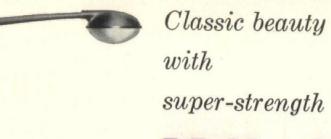




#### Northwest Distributors

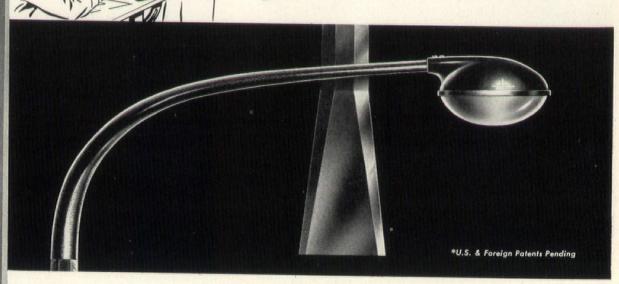
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s. Write for it today!

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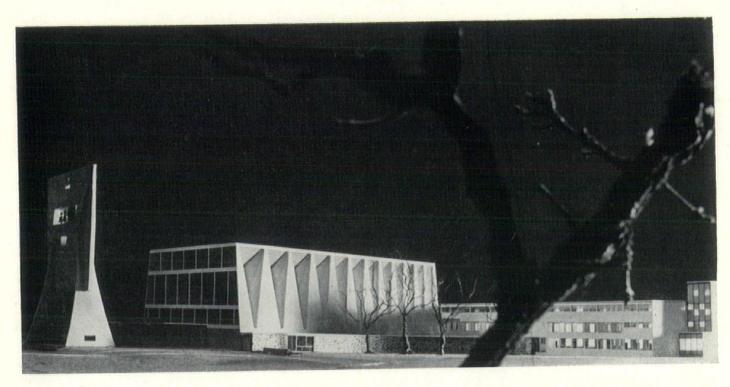
Elite Octa-Tubes have fewer parts . . . only 9 (compared with about two dozen in a conventional standard). And of course, all Millerbernd standards are fabricated of *extra-strength* steel!

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## Ancient Religious Ideas



# and Modern Materials Found Compatible In NEW

Deeply entrenched traditions of the Benedictines have been compatibly combined with modern materials and forward looking ideas in designs of buildings which aim to give the Abbey of St. John, Collegeville, Minn., a complete new home during the next 100 years. First stage of the long-time plans is present construction of the monastic wing, a much needed improvement in St. John's facilities, according to Abbott Baldwin Dworschak. Ground was broken for it in May, 1954, and it is scheduled for completion in the fall of 1955.

The unique plan has aroused wide interest. After the Benedictines decided such a program was imperative to bring their St. John's facilities to where they should be, Abbott Dworschak contacted 12 leaders in architecture with a letter containing much to enthrall the imaginations of those addressed.

"The Benedictine tradition at its best," he wrote, "challenges us to think boldly and to cast our ideals in forms which will be valid for centuries to come, shaping them with all the genius of present-day materials and

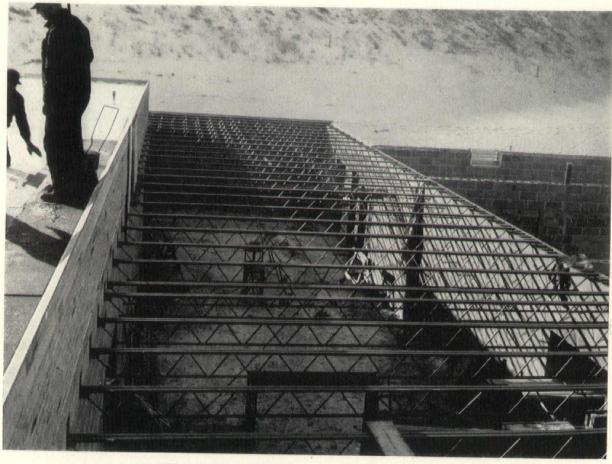
The picture at top shows a view of the model from the north, clearly indicating its powerful conception.

# ABBEY for ST. JOHNS

techniques. We feel that the modern architect with his orientation toward functionalism and honest use of materials is uniquely qualified to produce a Catholic work . . ." He then went into the details of the monks' ideas for their bold undertaking.

This letter went out to Marcel Breuer of New York, Richard Neutra of Los Angeles, Walter Gropius of Cambridge, Eero Saarinen of Bloomfield Hills, Mich., Pietro Belluschi of Cambridge, Barry Byrne of Chicago, Joseph D. Murphy of St. Louis, Thomas Sharp of England, Rudolph Schwartz and A. Bosslet of Germany, Herman Baur of Switzerland and Robert Kramreiter of Austria. Ten of the architects answered, expressing interest in the project. Five of these were invited to visit the abbey for conferences with the

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Benedictines' building committee, which works under the chairmanship of Father John Eidenschink. From among them the monks cast votes for the one who seemed to them to fill the needs of the group best and the choice fell to Marcel Breuer, whose design is now being acted upon.

The Breuer over-all plan calls for 19 buildings, which he presented to the building committee and others at a meeting which culminated eight months of work. At the meeting in January, 1954, scale models, drawings and books for the comprehensive plan were laid before the monks by the architect and an assistant. While the pattern was there, it is obvious from the first work that the plans will be reshaped as necessary as new ideas and new materials change aspects of the problems involved.

Original plans for the monastic wing now under construction called for use of concrete blocks in a bearing-wall. However, split faced granite has become available in quantities sufficient for the schedules through a new process used by the Cold Spring Granite Company and so the walls have been changed to reinforced concrete skeleton construction with the facing of granite.

Orientation of buildings in the plan is toward the north, changing the primary face of the community as it now exists from that of the east. As can be seen in the illustration of the model of the monastery and the church, the design is in the new concept of religious structures. The striking bell-wall at the front of the church is sort of a keynote in Breuer thinking.

"Breuer's bell banner is no mere architectural whim," a story in Architectural Forum reported for the architect, "but is the product of a serious approach on several levels to the problem. 'Why build a tower?' he asked. The medieval reason supplied by church historians was as a lookout and bastion of defense. Today's reasons—a structure to carry electrically operated bells so they can be heard by the monks at work, a symbol, a distinctive silhouette to be carried in the mind.

"Then the architect asked himself a philosophical question—what can be used today as a real architectural symbol, a form which structurally is as characteristic of A planning meeting—at head table (left-right) are Prior Clarus Graves, Abbot Baldwin Dworschak, Marcel Breuer, Hamilton Smith, Breuer's assistant, and Subprior John Eidenschink.

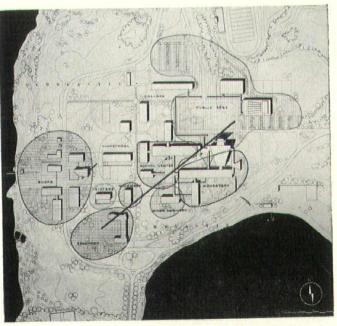
our times as the dome was in the sixteenth century? His answer—the cantilevered concrete slab. He turned the slab on its end so it was cantilevered vertically, broke slots in it (for the bells and in the shape of a cross) to make it more emphatic and he had his symbol.

"Behind the philosophy are also plenty of good, workaday reasons for the concrete banner of St. John's —it provides a continuous, calm surface in relation to the corrugated rhythm of the church itself (its serrated sidewalls). It is a notable entry for the church, suddenly revealing the glass end wall (as people walk right under this massive slab to reach the church entrance). And it permits this glass wall to be oriented north, virtually a requirement of the site, yet retain reflected south light . . ."

Inside the church all attention will be focused on the altar. A fan-shaped group of pews for the laity, fronted by the brothers' stalls before the altar, which will be backed by the monks' choir, gathers worshippers around the focus of their worship.

Two interesting principles showed up in the Breuer 100-year plan. First is a system of "shadow building," in which a new structure would be erected in the shadow of the one it would replace while daily activities went right on in the old structure. Then, when the new building was activated, the old one could be razed when it no longer filled a need. However, so crowded are present facilities that no razing is contemplated at this time.

Second principle is division of the site into functional areas, whose buildings would have similar or



The area plan . . . the diagonal line indicates the axial division between the major areas of monastic and seminary, and school and service portions.



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 beween windows on both sides. Smaller picture shows "baffle" treatment from another angle. Architects: Traynor & Hermanson, St. Cloud, Minnesota.

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### IDEAS FOR DESIGN

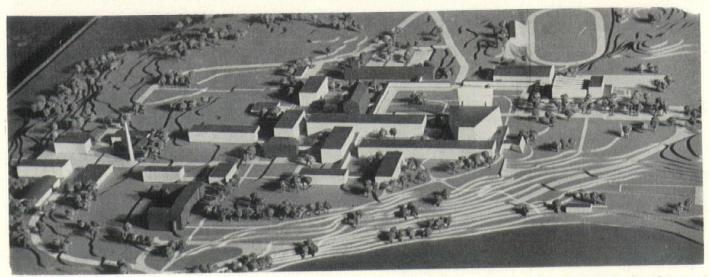
This complete architectural file on Davidson Architectural Porcelain contains illustrations, details of basic and special panel shapes and their installation. Write for your copy.

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related uses. Two major divisions would be an axially divided monastic and ecclesiastical area to one side and school, maintenance and public area to the other. Yet

The Breuer model of the St. John's development shows positions, relationships and contours.

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the idea of the Benedictine community would be kept as all areas are tied together.

Although Breuer is the architectural genius behind the plan, on-site supervision is exercised by Traynor and Hermanson, architects of St. Cloud, Minn. Structural engineers for the monastery work are Farkas & Barron of New York and Pier Luigi Nervi, Italian designer who is collaborating with Breuer on the UNESCO Building in Paris and is an expert on reinforced concrete structure.

# package package

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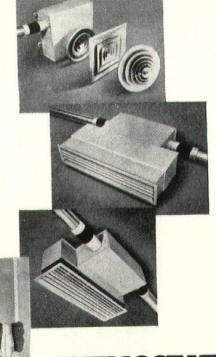
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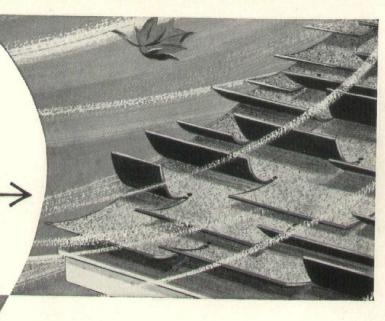
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### Minn.-Dakota Chapter of Producers' Council Installs New Officers

The closely co-operating suppliers' group which makes up this area's Producers' Council, the Minnesota-Dakota Chapter, recently put into top posts new officers to handle the group's affairs during the ensuing year.

1954-55 president is R. E. Olsen of the Edison Electric Institute. (Northern States Power Co.). W. C. Hamilton of Chamberlin Co. of America was chosen vice-president, Jack Bissell of Overly Manufacturing Co., secretary, and John Davies of Truscon Steel Division of Republic Steel Corporation, treasurer.

Mr. Olsen, native of Sanborn, N. D., earned his early education in the schools of Fargo. He took his degree in architecture at North Dakota State College in 1931, married a Grand Forks girl, known to those who attend P.C. affairs as Dot, and has two children.

Starting work in 1933 with N.S.P.Co., he was then a member of a line crew in La Crosse, Wis. His path with the company, in ever more responsible jobs, then



Committeemen of the Producers' Council for this year are shown above (left to right)—top: Carl Fogelberg of Reynolds Metals, program; Al Fischer of Overly Manufacturing, welfare; Jim Coulter of Granco Steel, publicity; Joe Jester of Minneapolis Honeywell, joint A.I.A.-P.C.—middle: S. H. Page of Frank Adams Electric, membership; Vern Larson of Kimble Glass, advisory; Larry Reak of Natco Corporation, construction industry advisory—bottom: B. J. Mulcahy, Jr., of Halsey Taylor Co., attendance; S. R. Benson of U. S. Plywood, attendance; Paul Buck of Brasco Manufacturing, joint A.I.A.-P.C.; Howard Page of Frank Adams Electric, membership.



President Olsen

led to Grand Forks in 1934, to Stillwater, Minn., in 1943, Mankato, Minn., in 1946 and to Minneapolis, where he now resides, in late 1950.



Vice President Hamilton



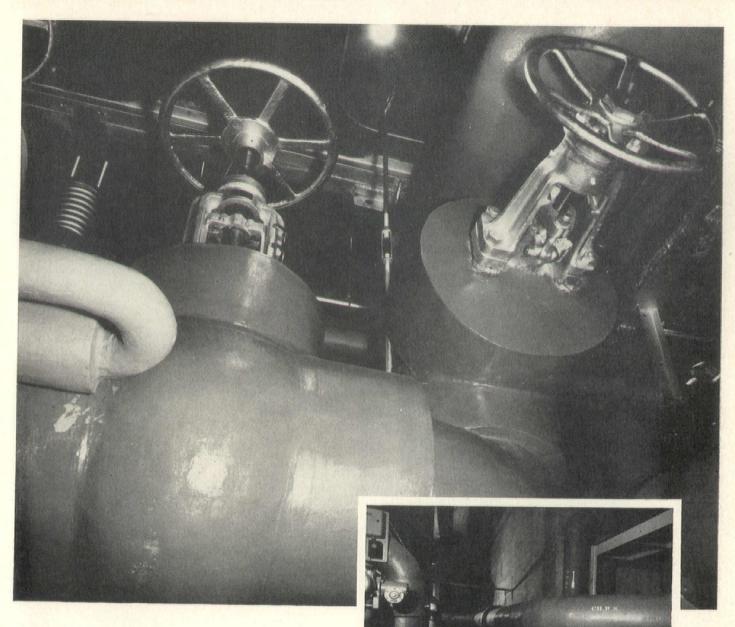
Treasurer Davies



Secretary Bissell

### NEW WONDERLY SIGN BULLETIN

The Wonderly Company, Inc., manufacturers of aluminum and bronze sign letters and plaques, Minneapolis is preparing an Information Bulletin supplemental to its No. 54-5. This supplement will emphasize the use of baking enamels as decorative material for aluminum letters. In addition to the decorative quality, the



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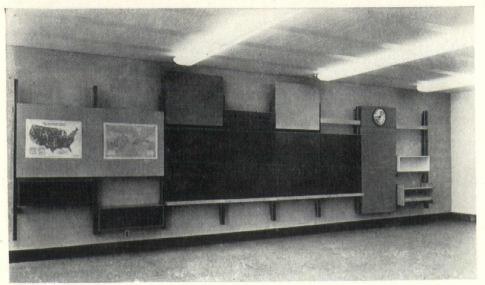
was done by pipe covering mechanics who have been in their employ over 30 years. Mac Arthur believes the high quality of workmanship on this job is a tribute to these men.

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The Moduwall Company of New York has developed a "live wall" treatment of the old school blackboard that is winning the praises of teachers and school heads alike. The kids think it's great, too!

This new device makes it possible to adjust the height of the chalkboard to the height of the child without costly alterations. Any schoolroom can now be used for any age group of pupils in a matter of minutes.

Armorply Chalkboard was specified because it more than met all the exacting requirements for an installation of this type. Armorply Chalkboard has a tough porcelain-on-steel face that is bonded to Weldwood plywood. It defies abrasion; can't buckle, warp, chip or shatter. Its cool green surface takes chalk beautifully and is easier on young eyes. It's a lot easier to clean and needs no maintenance.

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The supplement will also include suggestions on the desirable specifications to be used in alumilite finish. Various shades of this finish should be considered, having in mind the color and texture of the background so the light alumilited letters are not lost in their background colors.

The company stated this supplemental bulletin will be ready for mailing to architects about December of 1954.

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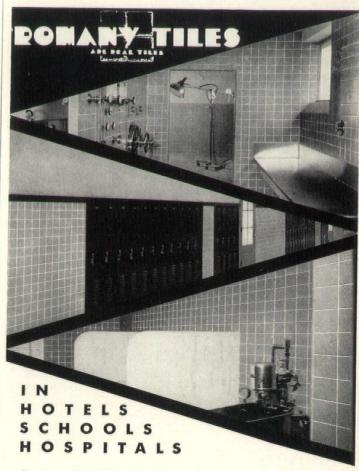
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tween panes and low installation costs, with no inside stops, stool or apron to fit and install.

To develop this window, Rydell's conducted a survey among the architectural and building fields to learn what features were most wanted; the window was then designed to meet these requirements. It is furnished complete with sash, screen, storm panels, weatherstrip and hardware installed. One of the important factors



### It's ROMANY for Walls of Real Clay Tile!

Through the years, ROMANY has earned the preference of Architects, Engineers and Officials for its absolute dependability.

ROMANY is available in shapes, sizes and colors to meet all needs. Buff body glazed tiles for interior use. Red body glazed tiles for heavy duty interior and exterior.

ROMANY is scratch proof, acid proof, fume proof, fade proof, fire proof. And, sanitary beyond compare because its hard glazed surface is easiest to clean.

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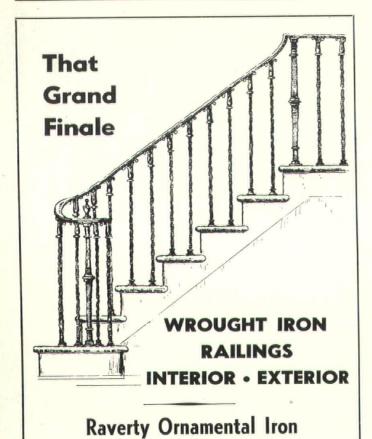
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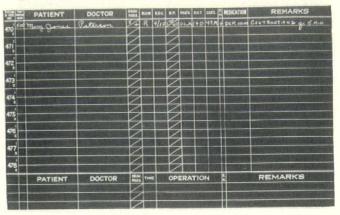
CA. 4-8555

accounting for the early success of this product is its low price. Without sacrificing quality in millwork, the window meets the price of most regular double-hung windows, while offering features not obtainable in other windows.

### ARMORPLY USED FOR HOSPITAL RECORD BOARDS

A unique new application in the hospital field for Armorply Chalkboard was announced today by United States Plywood Corporation, manufacturers of the chalk and magnetic board.

The porcelain enameled steel-faced board furnishes at a glance the entire hospital history of the patients.



Green in color for maximum readability the chart is now used in the Women's Hospital, Memorial Maternity Center, Detroit. It lists the patient, doctor, tests, medication and remarks.

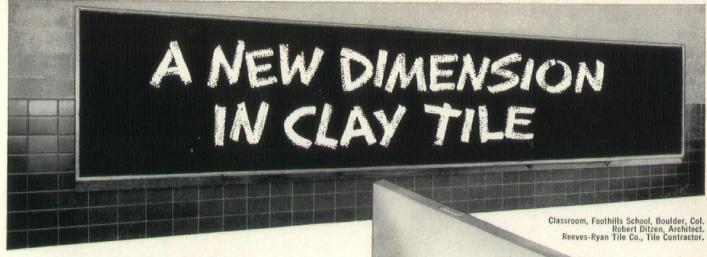
Armorply chalkboard is a laminate consisting of ½" plywood faced with porcelain enameled steel. The porcelain is a three-coat special composition of enamel fused to 18-gauge enameling steel at high heat. The composition, designed to take chalk and erasure, was researched and is produced by the Bettinger Corporation.

Because of the steel facing Armorply also serves as a magnetic bulletin board and is finding increased application in the field of visual education. It is distributed through a chain of forty-five franchised dealers.

### MUCKLE OFFERS 31 SIZES OF ROOF VENTILATORS

The "Lo-Sil" Ventilator of the Muckle Manufacturing Company, Owatonna, Minn., offers the building designer 31 sizes to fit every one of his particular needs. The line is patterned to give maximum efficiency with neat, functional appearance, following the trend toward self-effacing silhouettes for such equipment.

The sizes offered range from ventilators of 225 c.f.m. to those of 17,600 c.f.m. capacity. Data on the line reports the motor is mounted on vibrator separators, the hood is hinged and fastened by draw buckles which make inspection from the roof easy. Electrically welded, the units are of heavy gauge metal, finished with a special paint (maker reports special finishes can be supplied on order). Motors are completely enclosed, either single or 3-phase. Explosion-proof models can be obtained on special order.

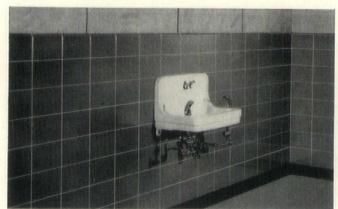


### NEW, LARGE MOSAIC 9"x6"x 1/2" GLAZED WALL TILE

Finest quality tile at a cost competitive with ordinary materials!

Mosaic 9"x6"x1/2" Glazed Wall Tile is the finest, best looking wall material for institutions. Gives large scale character and economical smooth surfaces to large wall areas in lobbies, classrooms, laboratories, natatoriums, cafeterias, kitchens and corridors.

Modern 9"x6"x1/2" Glazed Wall Tile, like all Mosaic Clay Tile, gives permanent beauty, sanitation, easy maintenance, long time satisfaction. In all Mosaic Harmonitone and Bright Glaze colors, with integral spacers for uniform close joints.



Corridor, Foothills School.

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#### Compare-

this fine, smooth Mosaic Clay Tile with common glazed structural blocks. You'll find it competitive in first cost, really economical through the years. Requires only lowest-cost substructure. No expensive special trim shapes needed for any installation. And, Mosaic 9"x6"x1/2" Glazed Wall Tile gives you a sturdy, smooth-surfaced, better-finished wall.

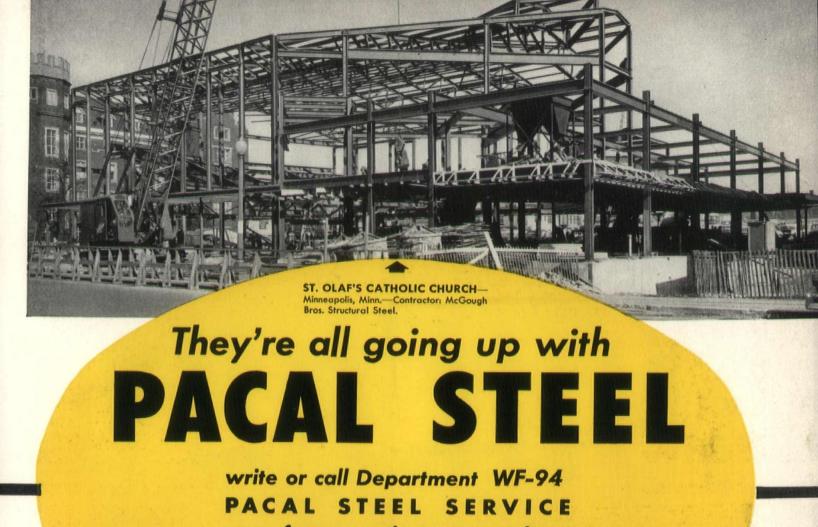
When you plan to build or modernize, learn why Mosaic Clay Tile is your best buy for service and beauty. Consult your architect, builder or tile contractor. Write The Mosaic Tile Company, Dept. 53-1, Zanesville, Ohio, for helpful tile literature.

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### **Ellerbe and Company**



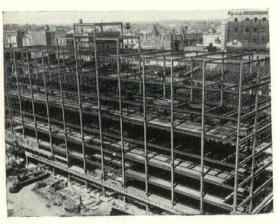
## Designs Notable Insurance Building in Contemporary Manner

A notable design by Ellerbe & Co., St. Paul architects and engineers, has marked another milestone in the current strong trend among insurance companies to build in the inland, Twin Cities area. The building, shown above, is the home of the Minnesota Mutual Insurance Company in St. Paul. Its erection follows completion of a number of other separate buildings in the area to house either home of-

fices or important branch offices for some of the leading national and regional companies. The entire group of these buildings, and particularly this one, is a fine addition to the modern structures erected in the Northwest.

Design of the building is a definite departure from the European influence, its designers reported, and it is noteworthy for its clean, contemporary lines. It achieves a neat functionalism without resulting in a sterile pattern.

Construction of the Minnesota Mutual building is based on an all-steel frame using high tensile bolts and long-span steel joints. This reduces the weight of the structure and allows for more spacious working areas in it. The steel framework,



The steelwork of the early structure went up in record time, thanks to modern methods. erected by Sanberg Erection Co., St. Paul, was set in a record time of 45

The use of the concrete form Corruform permitted easier placing of the Walker Electrical Underfloor ducts as well as monolithic placing of the concrete floor slabs, which materially speeded construction.

The exterior of the building was faced with Kasota Stone supplied by The Babcock Co., Kasota, Minn., granite supplied by Cold Springs Granite Co. Interior lighting is fluorescent with lens control. Windows are fixed and have outside track facilities for safety in window cleaning.

William Baumeister Construction Co., St. Paul, was general contractor.

### A.I.A. WARNS AGAINST IM-PORTING BUILDING MA-TERIALS FABRICATED ABROAD

The American Institute of Architects has recently issued a warning to its members regarding the purchase and use of building materials which is of interest not only to architects but to everyone concerned with building. This is particularly so because the A.I.A. very infrequently allows itself to become involved in such specifics as choice of materials, especially when there might be some hint of influencing architects for or against any particular materal.

"Something new has been added to the problems of the architect and owner in the efforts of the foreign producers of building materials to corral a share of the American market," the A.I.A. warning said. "This applies particularly to products fabricated and finished abroad which must conform to the actual dimensional conditions existing at the building.

"In building operations generally it is essential that the materials of construction be received at the site to meet schedules of rapid progress and completion. Where materials are delivered which require replacement because of failure to meet approved or specified requirements or by reason of damage in transit it is essential that such replacements be

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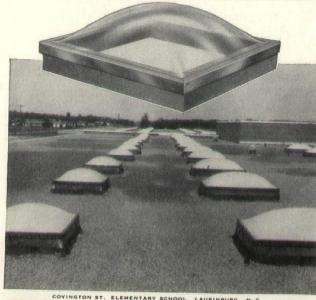
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available quickly to avoid delay in the progress and completion of the work.

"Where materials of foreign origin are to be completely fabricated and finished to meet the dimensional requirements of the building the following contingencies should not be lost sight of:

"The time allowed, if progress schedules are to be maintained, between the taking of measurements at the building and the need for the finished materials at the site is usually too short to permit its

fabrication and delivery from outside the United States.

"If foreign fabricated material is processed on the basis of the metric system differences in measurements are likely to occur.

"The architect will have no opportunity of selecting or inspecting the materials nor will the general contractor be able, by personal contact, to check the progress of fabrication or its conformance to contract requirements.

"The distance between the site of the building and that of the fabrication of the material will make it difficult, if not impossible, to quickly translate conditions at the site of the requirements for fabrication

"One of the most important considerations is the fact the delay involved in securing the replacement of unsatisfactory or damaged material will prove a strong argument for the acceptance of such material to avoid delay to the progress and completion of the work."

### SPITZNAGEL ELECTED SOUTH DAKOTA A.I.A. PRESIDENT

Harold Spitznagel, known to many of our readers for his "grass roots" philosophy about the role of the architect in the smaller Northwest community, was elected president of the South Dakota Chapter of the American Institute of Architects during that group's September convention in Huron, S. D.

Other architects named to posts on the executive group of the chapter were Clarence Herges of Aberdeen as vice-president, Roland Robel of Sioux Falls as secretary and William Blatherwick of Sioux Falls as a member of the board of directors.

Harlan McClure of the faculty of the University of Minnesota School of Architecture was featured speaker at the evening sessions of the convention and spoke of contemporary European architecture. "Professional Practice" was the subject of an important afternoon meeting speech to the architects by L. B. Smith, head of the department of architecture at the University of Nebraska.

### UNIVERSITY AND CONTRAC-TORS PLAN \$30,000,000 HOUSING DEVELOPMENT

Building is expected to start in the spring of 1955 on the first part of a \$30,000,000 housing development of approximately 1,500 homes in Brooklyn Center, Minneapolis suburb.

Contracts for the model development project were signed recently by officials of the University of Minnesota, Winston Brothers Company, Minneapolis constructors and engineers, and the Hal B. Hayes Contractors, Inc., of Los Angeles.

The homes, ranging from \$12,000 to \$25,000, will be built on the 750 acres of farmland which was con-

### DEDICATED TO SERVE! . . .

- The Owner
- The Contractor
- The Architect

### JOINT AIA-AGC COOPERATIVE COMMITTEE

AGC Co-Chairman DEAN LUNDHOLM Standard Construction Co., Inc.



AIA Co-Chairman GEORGE DARRELL Ellerbe & Co.

Use AIA-AGC Joint Cooperative Committee Recommendations Prepared in the interest of greater co-operation and mutual understanding by Associated General Contractors of Minnesota, Inc., 910 Builders Exchange Building, Minneapolis 2, Minn.

veyed to the university in 1949 by Earle Brown, former Hennepin county sheriff.

The university has two main objectives in the project, according to William T. Middlebrook, vice president of business administration. They are to create a housing development which will be a credit to the university and a monument to the donor.

The development plans, known as the Garden City development, were prepared for the university after considerable study by Winston A. Close, University advisory architect, and his associates.

Winston Brothers and Hal B. Hayes have stressed that local architectural services will be used as well as local engineering and labor and that Minnesota products and firms will be preferred in all cases. The Hal B. Hayes organization has specialized in the building of complete communities, one of which was created at Edwards Air Base at Muroc, Calif., and another at Inyokern Naval Base.

Winston Bros. Company is one of the oldest and largest firms in the country in the heavy construction field.

### ANDY ALBERT GOES TO KC

E. P. "Andy" Albert, formerly of Crown Iron Works, Minneapolis, has joined the Benson Manufacturing Company of Kansas City as general manager of its architectural division. Benson is reportedly one of the largest users and fabricators of sheet and plate aluminum.

Mr. Albert was manager of the building products division of Crown for the past two and a half years, previously having been with Kawneer Company and Westinghouse. A native of Winona, Minn., he was raised in Montana, attended Carleton College, the University of Minnesota, University of Wisconsin and Winona State Teachers' College.

In the early days in Maryland, brick were not ordered to be delivered to the construction site. Instead, because of the almost universal availability of good clay in the State, master brickmakers hired out to make the necessary number of brick at the construction site.

Problem &

### A CHURCH. How to get MORE use from PRESENT space . . .



Architect:

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SOLUTION . . . FolDoor . . . the "movable" wall that gives you space according to your needs! FolDoors installed in St. Paul Evangelical & Reformed Church, St. Paul, provide flexible facilities for any activity. The doors glide easily, silently, closed to divide the room into two or several smaller class or conference rooms.

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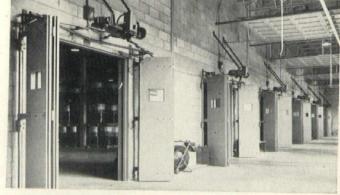
Problem

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SOLUTION ... Electric Doorman Fast-Acting Loading 4-Fold Platform Doors. 30 of these 8'x8' steel frame, flush, loading dock doors were installed for Minnesota Mining and Manufacturing Co., St. Paul, providing fast, safe, sure open and close action.

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### ALKYD SANI-FLAT IS A MODERNE PAINT, MOORE SAYS

In this era of the moderne design Benjamin Moore & Co. has developed a paint which fits into the moderne scheme of things—the Alkyd Sani-Flat.

Alkyd as a vehicle was used as early as 1940 by this company and is used in all its enamels. This type of material possesses many of the features that make it a strictly modern product, easy to apply, quick to dry, with resultant excellent finishes. Some of its characteristics are that it will dry to a dull, dead flat fast without flashing or sheen variation. Its apperance to the eye and feel to the touch is smooth and even, without grittiness. It is a dull, non-glare finish. It can be applied by brush, roller or spray gun and smoothly levels out to an even finish. Its over-all drying time is low, sometimes drying in two hours and

curing in about two days. It is low in odor. The white is non-yellowing and the tints are color fast.

It is self-sealing or self-priming, is high in suction spot resistance and non-penetration, yielding a uniform final color. It can be tinted with oil colors but this range is strictly defined to prevent adulteration of the product. It can be intermixed with other interior products but it must be remembered that this can harm its self-sealing qualities. It can be thinned with odorless thinners, which is necessary to maintain its low odor features.

Alkyd Sani-Flat possesses outstanding scrub resistance and can withstand repeated washings. It can be used in kitchens and bathrooms where a flat finish is required. Trim and doors can be painted to match adjoining wall surfaces. It has excellent touch-up performance and melding qualities. It does not show

color or sheen variation on these touch-up spots. It will not sag or curtain. Alkyd Sani-Flat contains 100% alkyds in the vehicle base. This material is available in 24 standard colors and 101 intermixes.

## Whore olse? ... BUT IN A St. Charles kitchen CUSTOM-BUILT OF STEEL

### WHERE ELSE CAN YOU FIND THESE FEATURES:

- QUALITY CONSTRUCTION
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### PELLA PRODUCTS

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### CAVIN ELECTED PRESIDENT OF AMERICAN INTERPROFES-SIONAL INSTITUTE

Brooks Cavin, well known St. Paul A.I.A. member whose design of the new office building for the Andersen Corporation is the subject of a feature elsewhere in this issue, has been elected president of the American Interprofessional Institute.

Mr. Cavin's election came in the final sessions of the group at its recent general council meetings in Sioux City. The 1955 convention of the institute will be held in St. Paul.

### U. S. GYPSUM PRODUCES DE-MOUNTABLE AND REUSE-ABLE PARTITIONS

With a growing tendency toward fluidity of inner space in office and similar buildings marking a trend, U. S. Gypsum Company has announced a new demountable and reusable gypsum partition system.

The U.S.G. Movable Partition is available in heights to 12 feet and the units come complete with panels and all necessary accessories, including metal door and window framing. Each 24-inch panel is one inch thick and the complete partition is 35% inches thick. Space for wiring and other services is a 15%-inch hollow space.

Panels are locked in place by metal studs which attach to adjustable floor shoes and into metal partition caps attached to the ceiling.

### COMPACT STORAGE

Precision Equipment Co. has announced the new Lock-R-Racks, a new type of compact storage unit for employes' apparel and valuables.

"Where space is at a premium, these units are the answer to the problem of 'coat and hat' storage,"



the firm said. The units consist of strong steel box lockers for hats, purses, etc., and a sturdy iron pipe rod for coats that can be had in capacities ranging from 15 to 38 locker openings. The box lockers are 10"W x 10"H x 18"D and include number plates and padlock attachments. Built-in flat key locks are available at a slight additional charge.

"The Lock-R-Rack is a particularly economical type of clothing storage unit. A Lock-R-Rack to accommodate 17 persons (17 box lockers and a 30" coat rod) costs just \$72.05. It uses a minimum amount of floor space, being only 76"H x 50"W x 18"D. Precision Equipment Co., 3714 Milwaukee Ave., Chicago 41, Ill., can furnish additional information.

### RUBBER PANELS PROVIDE RADIANT HEAT FOR MOTEL

Uskon heating panels, made of rubber, aluminum and plastic, are heating rooms of the Belvedere Motel in San Antonio, Texas. panels are fixed to the ceilings.

Uskon is a United States Rubber Company product. In the motel some 300 of them are in use. Cemented to the ceiling with a special adhesive, the panels operate on a standard 230-volt system. They are controlled by thermostats in each room and their entire surfaces heat up when in use, throwing "sunshine heat" down into the air space.

The Belvedere area has tempera-

tures which drop as low as five above zero. Operators of the motel pointed out that the units are free of soot, eliminate the cost and maintenance of a central heating plant, need no ducts, etc., are safe where children are concerned, being on the ceiling out of reach and make the rooms seem larger.

### INSTANT SETTING CEMENT DEVELOPED FOR SPECIAL PURPOSES

An instant setting cement which dries without shrinking to a very

dense, high strength mass has been placed on the market by Garon Products Co., to be used for anchorage of bolts, posts, etc., to grout machinery and repair holes in concrete floors.

Marketed under the name of Garonite, the cement is oil resistant, is supplied ready to use with the admixture of water. Light machinery can be used within 30 minutes after applying Garonite, its makers reported, and "even the heaviest of vibrating units can be put in use within one hour."

#### BASIC FIREBRICK INFORMATION

A VARIETY OF REFRACTORIES are needed to fill the many requirements of modern industry. The chemical properties and the physical properties of fireclary brick vary over a wide range but for general classification the nomenclature established is as follows:

1. Super Duty 2. High Duty

3. Intermediate Duty 4. Low Duty

SUPER DUTY FIRECLAY BRICK—Brick in this classification have been developed for use under the severest furnace conditions. These brick are highly refractory and have great resistance to spalling. They are recommended for electric furnace roofs, boiler furnace side walls and arches, forge furnaces, ceramic kilns, regenerative kilns and wherever extreme heat conditions and thermal shock are encountered. HIGH DUTY FIRECLAY BRICK—High Duty Brick possess excellent spalling resistance and the ability to withstand slag penetration and chemical fluxes. This class of product is most often indicated for severe service conditions which, however, do not require a super duty firebrick.

INTERMEDIATE DUTY FIRECLAY BRICK—This plantification is for a severe service.

INTERMEDIATE DUTY FIRECLAY BRICK—This classification is for use under moderate service conditions where temperatures, slagging or spalling conditions do not demand a high duty firebrick. This class of brick is suitable for furnaces, boilers, incinerators, kilns and a wide variety of other uses.

LOW DUTY FIRECLAY BRICK—A low-price common duty firebrick recommended for back-up duty, fireplace linings, some areas of waste wood burners and domestic incinerators.

VARIETY OF FIREBRICK AVAILABLE—There is a vast array of standard sizes and shapes available in fireclay brick. Their use is recommended wherever possible to avoid cutting. For detailed information on these different shapes, consult your firebrick supplier.

### ESTIMATING DATA

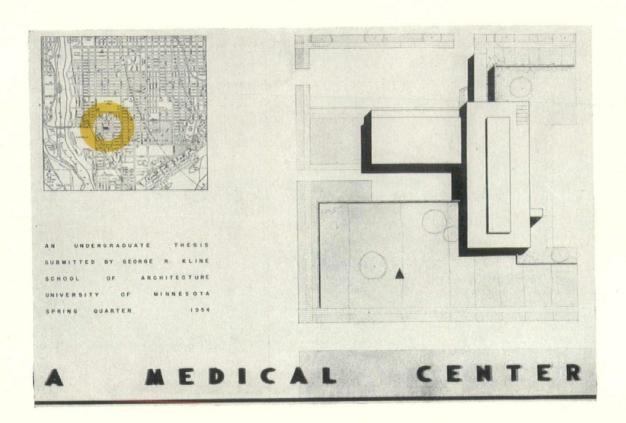
Brick—4½" x 2½"; One standard 9" fir One cubic foot of fir One cubic foot of was 1,000 9" firebrick red					
One square foot of wo quires the following n 21/2" thick 41/2" thick (headers ev course) 5" thick 71/2" thick	all or floor re- umber of brick: 	9" thick 9" thick 131/2" thick 131/2" thick 18" thick 221/2" thick	(5th cour	se head se head	12.8 ers) 14.1 19.2 ers) 20.5 25.6
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4½" Firebrick wall. leaders every 5th course.	9" Firebrick wa Headers every 5th	fl. course.	Two g	Firebrick wa valities of fireb	rick.
19.2 Firebrick b	1.5 Fire- rick per years foot well area	14.1 Fire- brick per square fool of wall area	9.6 Fire- brick per square foot of wall area	18"	ló.0 Fire- brick per square fool ef wall area
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	-500 lbs. fireclay		2 000 C	per square fo	or or wash

### Structural Clay Products Institute

Region 6

Ames, Iowa

## We Present



### The Problem

In order to provide better medical care for their patients and to stimulate professional development by closer contact among themselves, a group of seven doctors in the Highland Park area of St. Paul, Minnesota, have, for the purposes of this problem, decided to enter into group practice. These doctors practice different specialties, or subdivisions of medicine and surgery, which will be represented in the group as follows:

- 1 surgeon
- 1 internal medicine specialist
- 1 eye, ear, nose and throat specialist
- 1 obstetrician-gynecologist
- 1 general practitioner
- 1 urology specialist

In order to house facilities of this newly-formed medical group, the members intend to build what might be termed a clinic. The design and development of this clinic, in terms of the specialized needs and services to be offered by the group, constitutes the problem. I have chosen to call the problem "A Medical Center for Highland Village."

### Group Practice

Before a realistic approach to the problem can be formulated, some insight as to the basis of "group practice" must be had. Consequently, it will be discussed at some length.

## for St. Paul's Highland Village

Group practice is defined as a formal association of three or more physicians providing services in more than one medical field or specialty, with income from medical practice pooled and redistributed to the members according to some prearranged plan.

### Forms of Group Organization

There are two general types of group organization: (1) Service Groups, which provide complete medical care to a continuing clientele, and (2) Reference Groups, which furnish specialized care to patients referred by outside physicians, usually for a single episode of illness. These groups usually do not provide complete medical care to a continuing clientele. It is with the first group that this problem will be concerned.

More than three-fourths of medical groups surveyed in 1946 were partnerships, most of which em-

## The Beautiful New Richfield High School



## "Machine Applied" ZONOLITE Acoustical Plastic Used For Uniform, Quiet Texture Ceilings!

The new and outstanding Richfield High School in the rapidly growing south Minneapolis suburb features ZONOLITE Acoustical Plastic on the ceilings of both classrooms and the halls!

One-half inch of ZONOLITE Acoustical was applied over a base coat of plaster and the finish coat of White Acoustical was "machine applied" for absolute uniformity of texture throughout.

In addition to the "easy on the eyes" texture, the ceiling has a high fire rating and outstanding acoustical properties.

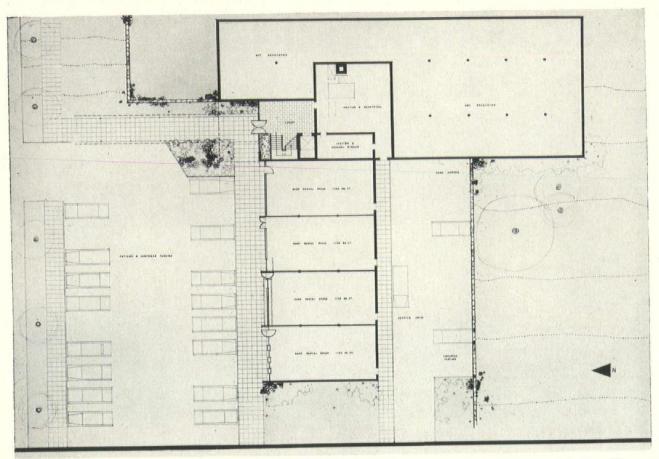
The Architect is Thorsov and Cerny, Inc., Min-

neapolis, and the Plastering Contractor is Peterson & Hede Company of Hopkins, Minnesota.

A total of approximately 54,000 square feet of ZONOLITE Acoustical was used and, in addition, ZONOLITE Plaster was used for all steel fireproofing.

"Machine Application" of ZONOLITE Acoustical is becoming increasingly popular in school classrooms and similar construction. Investigate the many advantages that ZONOLITE Acoustical can give you in fire safety and uniform beauty plus a very high acoustical value! Write for full information today.





Plan - Main Floor

ployed additional physicians. The breakdown is as follows:1

79%—partnerships

10%—single ownership group

8%—all physicians employed by a sponsoring organization (industry, consumer co-operative, etc.).

3%-incorporated

#### TABLE I

### NUMBER OF MEDICAL GROUPS AND GROUP PHYSICIANS BY STATE<sup>1</sup>

No.	Groups 1946	Added Groups 1946-1950	Physicans Full Time	in Groups Part Time
Iowa	10	1	63	7
Kansas	. 13	3	72	1
Minnesota	. 37	3	468	18
Missouri	5	2	23	1
Nebraska	. 9	1	44	1
North Dakota	. 8		83	4
South Dakota	. 5		21	
Total	. 87	10	774	32

### Historical Development of Group Practice

The Mayo Clinic was one of the earliest, if not the first, private medical groups organized in the country. It was formed by W. W. Mayo and his two sons as a result of their experience in providing disaster relief

### Fidit = Main 1100

### TABLE II

### NUMBER OF MEDICAL GROUPS IN COUNTIES OF VARIOUS TYPES BY CENSUS DIVISION 1946\*1

	111		Count Adj. to	y Type	solated
Census Division G	roups	Metrop.	Metrop.	Rural	Rural
New England	8	2		6	
Middle Atlantic	17	12	2	3	
East North Central	75	28	19	26	2
West North Central	87	16	13	53	5
South Atlantic	21	7	4	10	
East South Central	19	7	3	8	1
West South Central	57	16	9	30	2
Mountain	40	11	3	24	2
Pacific	44	23	9	12	
Total 3	68	122	62	172	12

\*Of the 368 groups located by the United States Public Health Service in 1946, 58 percent were in communities of less than 25,000 population, and 82 percent were in cities of less than 100,000 population.

after a tornado that leveled much of the town of Rochester, Minnesota. At the time Rochester had no hospitals or other medical facilities. The growth in size and prestige of the Mayo Clinic undoubtedly gave impetus to the formation of medical groups elsewhere in the country. It was not until the years immediately following world War I, however, that a relatively substantial increase occurred in the number of medical

<sup>1.&</sup>quot; Medical Group Practice in the U. S." by G. Halsey Hunt; 1951.

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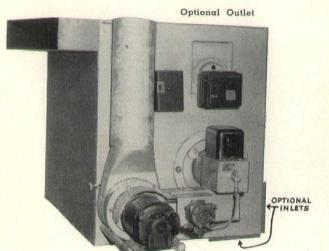
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groups in the country. The experiences of physicians in the military services during the war, which "accustomed them to co-operative, disciplined organization," as well as the fact that many physicians found their practices gone after demobilization, probably contributed directly to their ventures into group practice. Group Administration and Assets

Authority—authority in a group depends largely on the form of the organization of the group. In partnership groups the final authority for policy usually rests with all the partners collectively; sometimes with the senior partner in groups having a junior and senior partner arrangement. In some groups an executive committee of several of the partners, or a medical director, has ultimate authority. However, in most groups, all partners are consulted in matters of common concern.

The Business Manager—Approximately 80 percent of 368 medical groups in 1946 stated that they had a business manager.2 The concept of a business manager in such a group runs the gamut from bookkeeper to a person professionally trained in medical economics and administration. The office is generally held by a layman employed by the group; occasionally the business manager is a physician or dentist on the staff. The authority and functions of the business manager vary considerably from group to group. Rarely does he have any authority in professional matters. More commonly, he employs and supervises the office personnel and is responsible for collection of fees and for a general accounting of receipts and expenditures. He may adjust fees in individual cases when this action is deemed necessary. He is a member of committees, although usually with no vote therein and, in general, participates in the coordination of business affairs. According to these 368 groups, a minimum of six doctors in a group would justify the services of a business manager.

See Table III as to the value of physical assets of clinics. An average of about seven physicians (minimum five) owned the physical assets of the various medical groups reporting.

TABLE III VALUE OF PHYSICAL ASSETS OF CLINICS OF 23 MEDICAL GROUPS—1946

		P	hysical Assets		C: 6	Size of Clinic
Group Number and Size (2)	Owner of Assets (3)	Total	Land and Buildings	Equipment	Size of Community (4)	Square Feet
Small				Φ 0.000		4,100
1	2 Partners		-	\$ 8,000	1	4,400
2	2 Partners	\$ 40,000			1	4,400
3	2 Partners	40,000			1	4.600
4	3 Partners	40,000			4	4,680
Medium						4.500
5	3 Partners	150,000		-	3	4,500
6	5 Partners	100,000	-		5	10,000
7	7 Partners	225,000			1	10,000
8	5 Partners			20,000	4	7,800
9	5 Partners	60,000	\$ 50,000	10,000	2	6,500
10	5 Partners	204,000	154,000	50,000	1	
Large						
11	5 Partners			60,000	2	0.000
12	8 Partners	105,000	80,000	25,000	4	9,000
13	9 Partners			34,650	5	7,800
14	5 Partners			22,500	5	11,200
15	4 Partners	125,000			3	16,760
(1	ource: J. Nat. Med. Asso 950)		2	— 10,000 to 2		census)
(2) Sr M	mall = 3-5 full time phys fedium = 6-10 full time	physicians		— 25,000 to 50 — 50,000 to 10		

### Advantages Cited by Physicians in Medical Groups

(3) Partners in Medical Group

Large = 11 or more full time physicians

72.9%—Groups give their patients better medical care by providing facilities for easy consultation, formal and informal, and for laboratory work.

49.7%—Freedom to do one's best work and to obtain

2. United States Public Health Service, 1946.

laboratory work and consultations without restriction. 41.3%—Satisfaction of working in an atmosphere of

4— 50,000 to 100,000

5-100,000 and over

professional co-operation. 38.7%—Professional development stimulated by close

professional contact with other members.

21.3%—Physician in a group is freed from the details of business administration.

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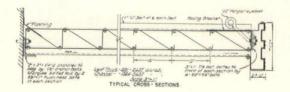
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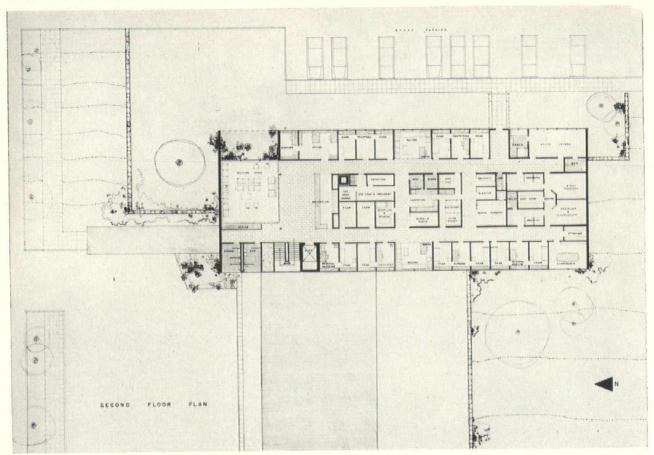
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20.0%—Time for vacations, medical meetings and postgraduate study can be taken without danger of losing patients.

19.4%—Patients benefit financially, either by reduced fees or by getting more medical care for the same expenditure.

11.6%—Groups provide specialist service for communities which ordinarily would not support them.

9.7%—Physician has regular daily and weekly working hours, with his practice covered during his time off duty.

2.6%—The young physician is kept busy from the start, so that he does not lose the skill acquired during his training.

The percentage given in each case shows the number of physicians citing this particular advantage.

### **Essential Specialties**

The examination of a patient may require the services of several specialists—an eye-ear-nose-and-throat specialist, a urologist, neurologist, gynecologist, etc. The physician is not always in a position to say what line of investigation should be carried out and if those are not available, medical diagnosis often fails. What applies to diagnosis applies also to medical and surgical treatment.

The United States Public Health Service asked 194 doctors in 19 medical groups to indicate the specialties and the number of physicians in each case which they considered the minimum necessary to do an effective

job. The fields of medicine listed in order of preference were:

G	roup	
Λ	1ean	Per Cent
Surgery	1.93	99.5
Internal medicine		98.5
Eye-ear-nose-and-throat		97.9
Gynecology and/or obstetrics	1.45	93.7
General practice	1.16	47.9
X-ray	.84	80.9
Pediatrics	.75	64.4
Urology	.31	30.4
Orthopedics	.16	15.5
Dermatology or syphilology	.14	12.4

There was almost unanimous agreement among the physicians that specialists in surgery, internal medicine, eye-ear-nose-and-throat and gynecology and/or obstetrics should be represented on the staff of a medical group. About half of the physicians would also have a general practitioner in the group. See Table IV for the number and per cent of medical groups providing various specialty services (on page 62).

### Other Personnel

Table V shows a breakdown of technical and administrative personnel in various medical groups according to the size of the group in terms of full time physicians on the staff. Of 344 groups surveyed by the

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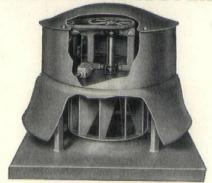
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### TABLE IV

### NUMBER AND PER CENT OF MEDICAL GROUPS PROVIDING VARIOUS SPECIALTY SERVICES<sup>2</sup>

1946

	Total	Groups	Service	Groups	Reference	Group
Specialty	No	%	No.	%	No.	%
Surgery	360	99.7	342	100.0	18	94.7
Medicine	356	98.6	340	99.4	16	84.2
Obstetrics	321	88.9	312	91.2	9	47.4
X-ray	321	88.9	306	89.5	15	78.9
Gynecology	312	86.4	300	87.7	12	63.2
Pediatrics	272	75.3	265	77.5	7	36.8
Otolaryn- gology	224	62.0	212	62.0	12	63.2
Ophthal- mology	205	56.8	194	57.6	11	57.9
Dentistry	88	3 24.3	82	23.9	6	31.6
Total	361	100.0	342	100.0	19	100.0

United States Public Health Department, 301 (88%) had one or more graduate nurses working in the clinic. A median of 2.8 nurses (average 4.9) was employed in the 301 groups. Per full time physician these groups had in their clinics an average of 0.7 nurses, 0.7 technical help and 1.1 other personnel.

Of 361 groups indicating services furnished in 1946, 88 (24%) noted dental care. Most of the 88 groups (60.2%) had only one dentist on the staff.

### THE SITE

#### Location

The site for the clinic is located in the Highland Park Shopping Center, more commonly known as "Highland Village," and is one block east of the intersection of Ford Parkway and Cleveland Avenue. "Highland Village" is one of the oldest and best-established of the shopping centers within our metropolitan area, and probably has more desirable a character and proven stability than any of the speculative ventures of postwar years.

### Accessibility

The accessibility of the site by car, bus and even by foot is ideal. Within a few minutes drive are some of the best residential areas, new and old, in either St. Paul or Minneapolis. Two bus lines, the Randolph-Hazel Park Line and the Highland Park-Cleveland Avenue Line, cross in the very heart of the shopping center, and a third, the Fort Snelling-Maria Line begins at the very front entrance to the proposed clinic. These lines run on 15-minute, 40-minute and 36-minute schedules respectively and consequently provide about 10-minute, or less, service to the area. Several first-class, privately owned apartment developments are in the immediate vicinity, providing a five-minute walk, more or less, to the clinic. The shopping center and the site are also conveniently located to both the Fort Snelling and Minnehaha Park areas of south Minneapolis. The roads to and from these areas are well developed and provide pleasant, safe driving. Reasonable bus connections are also available to these areas.

#### Public Utilities

Adequate sewerage, water, electrical, gas, etc., are conveniently available to the site and connecting to them should provide no undue expense whatsoever. Fire-fighting facilities are available in the immediate vicinity, police protection is adequate, sidewalks are laid, the area is well lighted and all roads within the area are hard surfaced.

TABLE V CLINIC PERSONNEL OTHER THAN MEDICAL STAFF IN 19 MEDICAL GROUPS—1947

									Other	Personnel-	
Group No.	Full Time Physicians	Nurses Grad.	Nurses Aides	Laboratory	X-ray	Physio- Therapy	Other	Business	Reception Admit	Records	Maint.
1	26	9	14	6	2	1	4	12	11	11	7
9	23	7.5	13	4	2	0	1				
3	20	3	0	6	2	1	9	10	2		_
1	17	10	1	3	1	2	1	7	5	1	2
5	13	14.5	3	4.5	2	4	5		5	0	6
6	13	14.5	10	6	2	0	0	5	3	5	6
7		1	0	5	3	0	5	6	5	12	3
/	13	10	0	2	4	1	0	8	4	3	1
8	11	10	0	9	1	0	5	4	6	0	1
9	11	0	0	4	9	1	1	2	2	2	4
10	9	6	1	4	1	1	0	3	1	2	1
11	8	4	0	2	1	1	0	2.5	3	2	3
12	7	6	0	2	1	1	2	4.5	2	1	2.5
13	7	2	2	2	1	1	0	9	1	2	2
14	6	7	1	3	1	1	2	2	1	4	4.
: 15	6	0	4	2	1	0	3				0.5
16	5	2	1	1	1	1	1	2	2	1	0.5
17	5	0	2	0.5	0.5	0	1	2	2	1	0.5
18	4	3	0	2.5	0	0	0	1	1	1	0
19	3	3	0	2	1	0	1	1	1	0	1

<sup>\*</sup>Fractions refer to part time personnel.



BACK-UP TILE





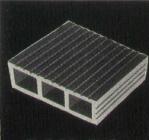
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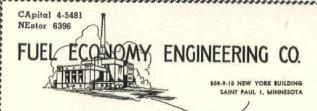
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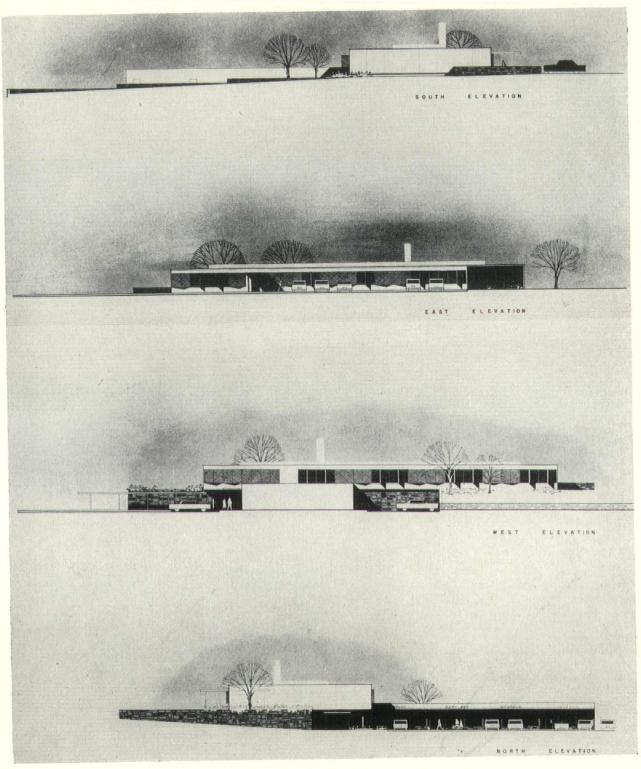
### Nuisances

As far as could be determined, the site is free from any nuisances that would be disturbing. The shopping center is of a quiet, residential character to some extent and traffic should not be unduly noisy. The Ford Plant is approximately three-quarters of a mile away but, being an assembly plant only, it does not create objectionable noise or smoke. Its grounds are attractive and well kept and there is quite a large piece of land to act

as a buffer between the shopping center and the plant. Buses have replaced the noisier streetcars within the last few months, which is of some help.

### Orientation and Exposure

The dimensions of the site are such that orientation would be possible in almost any desired direction, although the slope of the lot might limit this condition somewhat. I do not feel that orientation and exposure are extremely important factors in this type of building, although they certainly are to be considered.



The Elevations

### PROGRAM REQUIREMENTS

~			
Administration			
Business office	200	) sc	. ft
Business manager's office	100		
Reception	75	)	
Lobby and waiting area	500		
Staff lounge and lockers	150		
Nurses lounge and lockers	150		
Public toilets	120		
Personnel toilets	150	)	
General Medicine			
Office	120	sq	. ft.
Examining rooms—2	180		
Internal Medicine			
Office	120	sq	ft.
Examining rooms—2	180		
Urology			
Office	120	sq.	ft.
Examining rooms—2	180		
Obstetrics and Gynecology	1202		
Office	120	sq.	ft.
Examining rooms—2	180		
Eye-ear-nose-and-throat			
Eye examination and treatment		sq.	ft.
Ear-nose-and-throat room	65		
Dark room (eye examination) Surgeon	60		
Office	100	(2) AV	Č.
Examination rooms—2	100	sq.	It.
Surgery	100		
Minor surgery room	175		C.
Sterilizing	60	sq.	It.
Clean-up	900,000		
	100		
Laboratory	100		
Laboratory and storage	175	200	ft
X-Ray	175	sq.	It.
Radiography and fluoroscopy	180	50	f+
Therapy	100	sq.	ft.
Dark room	75	·4.	10.
Basal Metabolism Room	65	20	ft
Electrocardiograph Room			
Utility-Storage Room	65	THE A	
	80	sq.	It.
Physical Therapy	CO		C.
Infra-red treatmentUltra-violet treatment	60	sq.	it.
Short wave diathermy treatment	60		
Hydrotherapy	75		
77	100		
General Storage Room			
			C.
Mechanical Equipment and Heating 2		-	
Staff Parking	15	cars	3
Patient Parking	30	cars	5

### FOUR NEW VEEPS AT B&G

E. J. Gossett, president of Bell & Gossett Company, has announced that four new vice presidents were elected by the board of directors recently.

W. A. Boone, who becomes vice president and assistant

treasurer, has served as assistant sales manager in charge of the Industrial Product Division. Mr. Boone is also a member of the board of directors.

H. A. Lockhart becomes vice president and continues as chief engineer for the company, a position he has held since 1934. He is an active member of the ASH&V and ASME. R. A. Marquardt has served as comptroller since 1940 and recently as assistant secretary. He will continue in these positions as newly elected vice president.

C. R. Smith becomes vice president in charge of industrial relations for the Morton Grove, Illinois, the Ridgewood, New Jersey, and the Longview, Texas plants.

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## THEY SAID IT!

### **Edited by William Gray Purcell**

• Night Fires
First Parliament of Man

THE QUOTATION on our editorial page which invites you to the fire-side circle is only a token of all that Dr. Gray wrote about the folk-fires of the American pioneers under the stars and their hearth fires in the chimney corners. So we thought you'd enjoy another prose poem or two from his hand.

As he walks along the forest path from his library cabin to the family campfire whose first bright blaze he can see through the dark trunks of the tall pines, he thinks over what he has just written for his weekly paper:

T. HE COOL and delightful breeze which blows across this inland rises and falls, lulls and increases, but it is never idle, neither night or day. The lake is never listless. When it is not rippling in the sun or in the moonlight, or making music on its beaches it is reflecting the shores and the clouds. Sabbath morning has come again very bright and lovely. Down a steep incline from my library cabin the lake is shimmering in the sun, cool and clear. In the evening a full moon looks through the dark tall veil of the pines, and flings a golden bridge across the water. Strange and unique is the beauty of the fabric woven by threads of yellow light in the branches of the pines and in the shimmering ripples.

Only a few weeks before he had included the following selection

in his first volume of Campfire Musings, published in 1894—

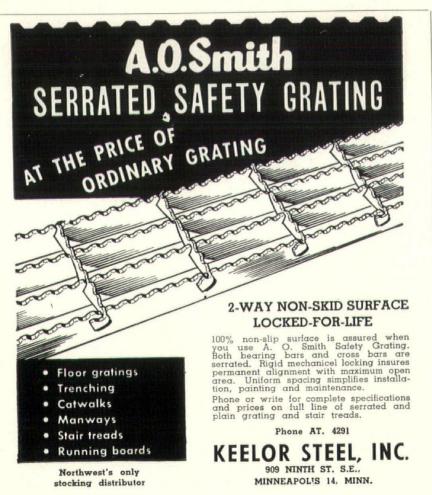


UR BIRTH is a sleep and a forgetting, and yet a remembering. It is the memory of the wide, wide world that has come down to us in our blood, and of the camp-fire of our tribal ancestors, and of their and our original ancestor who built his camp-fire under the trees of the garden, eastward in Eden. Sitting in its glow we are home again, though we know it not, nor can tell whence cometh the delight. It is rest and freedom from care. The sheltering trees look down upon us with calm pleasure, and soothe us to sleep with their whispered lullaby a song which the mother yet sings to the baby cradled upon her breast, without knowing who composed it or whence it came.

And as his writing days were coming to a close he wrote this, his best known and often quoted prose poem which appeared in the final volume, published after his death:



It HAS BEEN a day of rain—the pines are sighing in the wind and tossing their plumy branches as if flurried and disturbed. The pine is a sensible tree. When the wind is so strong as to endanger its hold in the earth, it casts off limb after limb, until its strength of root and bole are adequate to hold the remainder of its foliage against the gale. It strips itself to the conflict,



and yet sacrifices not a twig that it can safely retain.

The evening campfire burns low. One by one the brands have dissolved into coals, and one by one the little circle has retired into the cabins and gone to sleep. I take from a pile of the skeleton of a dead pine one of its huge resinous bones and cast it on the coals. The surrounding trees have all retired into the silent darkness to repose from the toils of the stormy day - now with its wrestling winds also gone into the darkness of the past. Immediately the yellow flames shoot up high, and the trees step out of the darkness on silent feet, with a surprised expression, as if to say, as they look down upon me, "Why, we did not expect you to call for us again." And there they stand waiting, with the stars glittering in their tangled hair.

### • Hallowe'en

A bad habit made good

AS IF PERHAPS The Society of Friends (Quakers) come nearer to what we all strive for. Their young people in summer vacation and others the year around are really working in all parts of the world where the going is toughest. It is a pleasure to contribute to the American Friends Service Committee, their offices widespread. A most heartwarming solution to an old and difficult problem is reported in their current bulletin of projects.

"TRICK OR TREAT. The American Friends Service Committee Hallowe'en 'Trick or Treat' program conducted last year in several communities was a great success. Children had their fun as usual but instead of asking for something for themselves, they asked for thread, needles, buttons, soap, used clothing and shoes to send to Korea. 'Ghosts and goblins' collected 8,145 pounds of material aids, 84,000 cakes of soap and great

quantities of sewing materials last year. They reported, 'We had a better time than the old way' . . . 'People were so friendly' . . . 'I got invited in and we talked all about it.' Other communities, wishing to have this 'different kind of Hallowe'en' should contact your nearest AFSC immediately or you may address AFSC, 825 East Union Street, Pasadena 4, California. Adequate planning and publicity to secure community co-operation

and participation are important to success."

### Architecture Is Not Things

On this read Ouspenskey's "Tertium Organum," translated by Bragdon. Tough reading—worth it!

A RCHITECTURE is a momentary three-dimensional cross section of an ever flowing process. Aesthetics are a function of history. Aesthetics are unconcerned with



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creative initiation. Their operation cannot precede production.

### • The Engineer

From The Engineering News, seventy-five years ago.

February, 1875

E NGINEERING is the only one of the professions which directly adds to the wealth of man. Except it be the lawyers, no body of men can ever grow rich by going to law; and none by taking physic can become better than

nature made them, and certainly not richer than they were before. The main end of engineering, however, is increased production and lessened labor; and this is but another mode of saying the practice of engineering is the creation of wealth."

This quote was copied and mailed to me in February, 1925, by our Technical Editor John Jager with the notation "Don't miss this one." We had been discussing the economic esthetic and professional encroachments of engineers into the architectural profess on directly after

World War I. The issue was resolved in a way quite unexpected, as current architectural design clearly illustrates. I did not fail John Jager even if it did add another quarter century to get it in type - the thought being even more significant, perhaps, at this late day. (See also Eng. News Rec., February 5, 1925, Page 3247.)

### To Graduate Students in Archi-

University of Minnesota A Recommendation for Thesis Study.

Memorandum, 1941

### ILLIAM S. KEN-

YON is a now almost forgotten Minneapolis architect who made a very effective contribution toward national domestic architecture. In his day any designer who failed to dress up his buildings with traditional "style-form" scenery was looked upon as a socialist or worse.

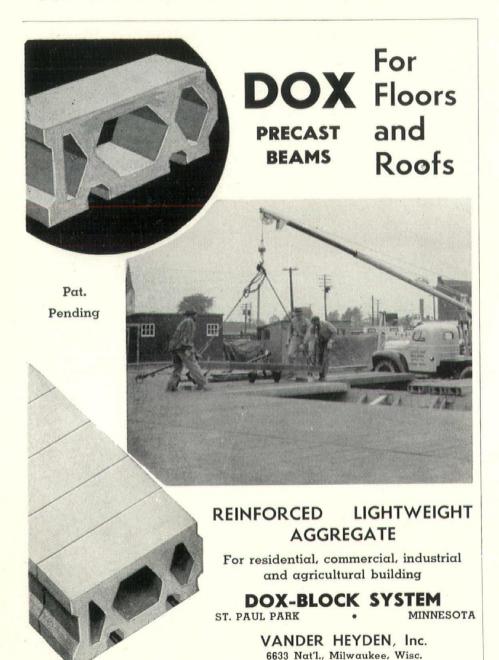
Mr. Kenyon was a good businessman, a designer of thoughtful discrimination. Out of a seed idea suited to his temperament he developed an individual type of dwelling easily recognized as a personal style. There must be several score such houses in Minneapolis which are now forty or fifty years old.

They were built of brown paving brick with sloping gabled roofs, square doublehung windows. The second story walls were regularly faced with shingles, stained to match the brick. The whole design based on materials and plan

candidly expressed.

In that 1900 world of confused designing these dwellings were models of clean, logical thinking. Their owners today have homes of satisfying character and sound investment values, which offer much more than the tight, inward-looking "Colonial" and "Tudor" mansions of that period.

I wrote to Mr. Kenyon's long time associate on April 11, 1941, enclosing this memorandum and saying that I would like to write about Mr. Kenyon in Northwest Archltect,



requesting photographs, plans and biographical data. No reply was received. Shortly thereafter Mr. Kenyon died in La Jolla, Calif., at an advanced age and in a year or so his office in Minneapolis was closed. It would be useful to know what became of his records.

### • The Investment of Influence

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### WRIGHT EXHIBIT GOES HOME TO WISCONSIN

The retrospective exhibit of Frank Lloyd Wright's work which has been touring the country and Europe has ended its wanderings with a showing in Los Angeles and will be taken to Spring Green, Wis., where Wright has a summer studio, to be housed in a permanent home.

The exhibit was billed on its trips as "Sixty Years of Living Architecture." It was shown in New York for its premiere, in a specially designed pavilion which was reported on in an earlier issue of this magazine. Since then it has been seen by visitors in Philadelphia, Mexico City, Los Angeles, etc.

It may still be a year or so before the final exhibit building will be completed and the displays housed for all to see, the famed architect said. The final home is being designed by Wright's staff of young builders.

The center of this group, at 85 years of age, is still a vigorous minded man, planning and drawing on a fistful of projects. His eyes are still more on the future than on the grand effects of the past, which he uses for springboards into new things. Twin City architects and others will have an opportunity to hear him again when he comes to Minneapolis in October for a speech.

A philosopher as well as structural planner, Mr. Wright has definite ideas about more than just his profession—which is undoubtedly the earmark of the best architects of today.

"Being young is a condition," he has said, "but youth is a quality and once you have it you can always have it. It can be cultivated and developed. To black it out at any age is a great tactical error because wherever there is youth there is an asset for humanity."

Being youthful by his own definition, Mr. Wright scoffs at ideas he should be thinking of retiring. Instead, he keeps at the

work on big and small projects, like a refectory for Yosemite Park and an ultra-modern, block-quare market in Salt Lake City. His religious thoughts are finding new expression in a Philadelphia synagogue which he says will give Judaism its first reverential building. He also is deep in the problems of the waterlevel crossing of south San Francisco bay with a concrete bridge of unique qualities. Retire?—"not as long as a man is valid," the architect pointed out-and validity lies in being youthful.

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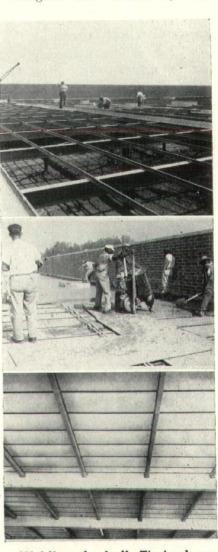
## New Type Roof Construction Gives Deck Weighing 7.7 Pounds Per Square Foot

The 170,000-square foot plant of the Strietmann Biscuit Co., nearing completion in Macon, Ga., marks the first major use of a new roof system that is economical, has good insulation value and is not damaged by exposure to weather before builtup roofing can be applied. The system consists of a slab of vermiculite insulating concrete, 2 inches thick, poured in place on a permanent form of 1-inch rigid insulation board, the underside of which makes the exposed ceiling of the factory. The board lies on the lower flanges of bulb tees that are

welded to steel joists. The concrete is reinforced with galvanized welded wire mesh laid with the long dimension at right angles to the tees.

This deck weighs only 7.7 pounds per square foot and has a "U" value of 0.15. With its continuous reinforcing and welded sub-purlins, the roof is an integral part of the main steel construction and adds rigidity to the entire building. Experience with the Strietmann and other buildings where such roof decks have been installed indicates a cost ranging from 45 to 60 cents per square foot, depending on the area involved and other conditions. Gypsum or cement asbestos board may be used as alternates for the permanent form, and the deck can be designed for any required loading.

Designed and erected by The



Welding the bulb T's is shown at top; center is the pour, with concrete being carried from roof hopper; lower is view under poured section.

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Bartley Sales Company 134 So. 10th St., Minneapolis Rust Engineering Co., Pittsburgh, Pa., and Birmingham, Ala., the Strietmann factory has a roof area of 145,000 square feet. It is rectangular in shape with a north-south axis and is primarily one-story with 51 typical bays and a partial basement. There is a two-story section at each end. The main steel trusses are uniformly spaced north and south 20 feet on center and are supported by steel columns. Spacing of the steel joists from east to west varies considerably because of requirements within the building.

The bulb tees supporting the form board are spaced 32% inches on center. The span varies from 7 to 8 feet because of the joist spacing. The tees weigh about 3 pounds per lineal foot and have 5%-inch flanges. Each tee was welded to the joist on alternate sides of the tee. Installing the tees was part of the roof contract, awarded to Vermiculite Placing Co., of Atlanta, Ga.

The form board, 32 inches wide, was pre-cut by the manufacturer in lengths to fit the joist spacings so where two ends of board meet they do so over a joist and not between spans. For sanitary reasons the surface that makes the ceiling of the factory was finished with a calendered mineral pigment coating, ivory in color and very smooth. The board has a 1½-inch wide bevel on

the long edges of the coated surface to make it fit flush on the tee flanges and leave no open space in which dust or vermin can collect. Neither the coating nor the beveling would be necessary on a normal job.

As soon as an area of board had been laid, it was covered with 4-inch by 8-inch galvanized welded wire reinforcing mesh. The longitudinal wires are 12 gauge and the cross wires 13 gauge. The mesh rests on the board except where it carries over the tees. The ends of the wire were stapled at the edges to the deck and around roof vents. Adjacent strips were stapled together along their common edge.

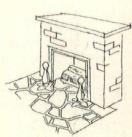
The vermiculite concrete is 1:4 mix (1 part Portland cement to 4 parts vermiculite aggregate). On this job a mobile mixing unit was used, consisting of a batching box, a rotating drum and a bucket traveling vertically in a tower and discharging into a hopper on the roof. Water was piped automatically into the drum, the amount controlled by a meter on the machine.

The deck was placed in strips 12 feet wide on the average. The concrete was buggied from the roof hopper, dumped, roughly leveled and screeded with a wooden straight edge, then finished with a float. Screeds made of 1-inch iron pipe about 24 feet long were laid across



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TABLES

Many design tables in the book give Many design tables in the book give you needed information in easy-to-use form. They help shorten computations, especial-ly for preliminary designs.

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the top of the tees to assure a uniform 2-inch thickness. The pipes were kept from rolling with shovelfuls of concrete about 6 feet on center.

On the average, 15,000 square feet of concrete was placed daily with a crew of 17 men, including the Setting time varied between two and six hours, depending

on conditions. It was usually possible the following morning for workmen to walk carefully on the previous day's pour. Cant strips of the concrete were placed around the outside walls and numerous vent openings.

After the concrete had cured for a week under favorable weather conditions, it was covered with a 5-ply, 20-year bonded built-up roof.

### P.C. Head Hails New Housing Bill, But Warns It Is Not Substitute for Selling Construction

"The American dream of good homes for everyone is much closer to becoming a reality," was the comment of the president of the nation's largest association of building materials manufacturers after President Eisenhower signed the new housing

Producers' Council President Elliott C. Spratt added, "The biggest job facing all of us in the construction industry is selling the American people on using facilities provided in the bill, not only for the purchase of new homes but for home modernization, slum clearance and the prevention of urban blight."

In pointing to the opportunities the bill afforded, Mr. Spratt said, "Through hard work and hard selling the construction industry has become not only the largest segment of our economy but the most active. The impetus the bill will give to the home building activities will help guarantee construction prosperity for many years to come, providing the leaders of the industry continue



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From the point of view of the producers, Mr. Spratt felt the most important features of the bill were the liberalization of the mortgage terms for the purchase of new and existing homes, the open-end mortgages for home modernization, the urban renewal provisions and the rechartering of the Federal National Mortgage Association.

Commenting on each of the four provisions, he said, "Although the bill makes the purchase of homes easier for people in the middle and low income brackets, we must be prepared to do a big selling job to make these people want new and better homes. No longer can we count on the terrific post-war demand to keep the home building market strong.

"Modernization is a market virtually untouched. Active selling in this field is one of the best ways of preventing tomorrow's slums. More than 20,000,000 of the nation's 45,000,000 homes are a quarter of a century old. They suffer from a creeping depreciation rather than the planned obsolescence common to the products of other industries. The producers are vitally interested in the modernization program provided for in the bill.

"Although not all segments of the construction industry are completely pleased with the slum clearance and urban renewal sections of the bill, it is nevertheless the law with which we have to work. Housing and Home Finance Agency Administrator Albert M. Cole has expressed confidence that the provisions are workable and therefore we of the construction industry should pitch in and see that the program is carried to the best possible conclusion.

"The rechartering of the FNMA with the provision for the eventual operation with private rather than government funds should prove invaluable in providing a stronger secondary mortgage market, with the result that the home buyers will find loans for homes easier to obtain.

"The bill also gives us renewed faith to continue our ever-increasing, ever-continuing research program. Since 1946, the construction industry has spent more time and money on research than had been spent in our entire history prior to that year."

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Pictured here is the home office and plant of Geo. A. Clark & Son. 75-year-old Minneapolis wholesale hardware firm serving all states in the 9th Federal Reserve District. General contractor for the Clark building was the H. N. Leighton Co., Minneapolis.

The George A. Clark & Son company uses Morse's "One-Coat" cement floor hardener and sealer to insure hard, easy-to-clean non-slippery floors. "One-Coat" stops cement floor dusting . . cleans and restores old and blackened floors to original newness . . . permanently solidifies and hardens concrete surfaces with just one coat . . . protects against severe wear, harsh cleaning solutions and corroding chemicals . . . serves as a neutralizer and primer for paints, tile and waxing. Complete information on request.

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# New Clay Product Recommended for Sound Control

Sound control and transmission of sound have been age-old problems in most schools, churches and gymnasiums and interest of architects and builders has been focused on the development of a product the result of years of research and experimentation produced by the clay products industry which is solving these problems according to J. E. Neville, director of Structural Clay Products Institute. A clay product known as "Acoustile" has been tested during the past several years

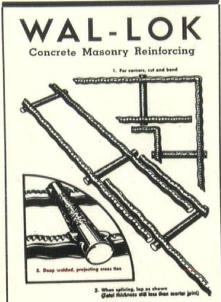
in school and other commercial construction in Iowa and Minnesota.

Architects and engineers have been aware for many years that clay products are extremely resistant to sound transmission. In preliminary surveys of attitudes of school superintendents and teachers it was found that low sound transmission was as important as high sound absorption, especially in partition walls.

This clay "Acoustile" has the standard cross sectional shape of an ordinary load bearing tile and, based on laboratory tests, exceeds A.S.T.M. requirements. From an economy standpoint the industry, as well as builders, is interested in the fact that this sound absorbing, load-bearing unit is economical, inasmuch as it enables the builders of schools and other public buildings to provide an exposed clay masonry wall surface.

While "Acoustile" provides original wall colors that are attractive and easy to clean, tests have shown that the product takes any color readily without reducing its sound control qualities.

In the process of perfecting "Acoustile" many laboratory tests have been made. Recent flexure and expansion tests have demonstrated that the tensile strength of the product is unusually high in its crack-resistant qualities. In one flexure test made, according to methods prescribed by the A.S.T.M. Designation No. C67-44 for testing brick, the average modulus of rupture for five



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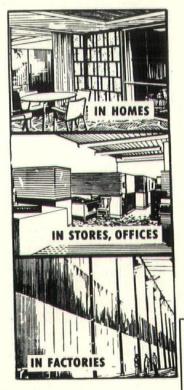
Specify Wal-Lok to insure use of heavy-weight knurled and deformed longitudinal bars for maximum strength and bond in mortar bed.

Wal-Lok reinforcing now complies with the recommendations of the National Bureau of Standard Bulletin 3079, Requirements for Concrete Masonry Construction (Rev. of NBS Report 2462).

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different size units was 716 pounds per square inch of gross section. The expansion test on clay tile was 0.396 inches per 100 linear feet of wall with 100 degrees Fahrenheit temperature change.

"Acoustile" is now available in three face sizes,  $5\frac{1}{3}$ " x 12", 4" x 12" and 8" x 16". The new unit is being used by many architects and engineers, especially in school construction. "Acoustile" has been used successfully in more than 100 jobs in Iowa in the past two years.

While "Acoustile" was developed in Iowa, at the present time the Structural Clay Products Research Foundation, Chicago, Ill., is working on a program to standardize sizes for the national market and is making further studies on textures and perforations.

#### KLAMPE COMPANY'S SHADELITE MARQUEE SPREADS OVER AREA

In the four years of its life, the E. J. Klampe Company of Rochester, Minn., has spread the Shadelite Marquee it makes over many important building entrances in this area, including that of the Kahler Hotel, Roches-



ter, which is shown here and which the company says architects can inspect during the coming state and regional conventions.

The Klampe Company, started in 1950, has placed its products on buildings in Minneapolis, St. Paul, Duluth, Rochester, Worthington, Fairmont, Albert Lea, Austin and Winona in Minnesota, Mason City and Independence, Iowa, and Eau Claire and LaCrosse, Wis.

"We have a good product and always strive to do the best job possible for our customers," Mr. Klampe said. "Today's building or store front is designed by architects who have a high regard for both function and looks. The modern marquee gives a much better line to the store front and is much more functional than the flapping, unreliable canvas awning of the recent past.

"Today's store or building manager is very conscious of the drawing power of a neat front. Where we have erected one marquee in a block, we frequently find that orders come in during the following several weeks from owners of neighboring stores and buildings."

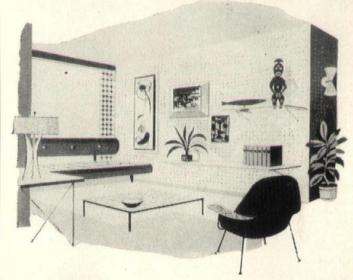
### BRIDGMAN ON CLAY PRODUCTS PACKAGING COMMITTEE

The Structural Clay Products Institute, Region 6, Ames, Iowa, has announced that C. T. Bridgman of Goodwin Affiliated Companies, Des Moines, has been appointed to serve as member on the newly formed "Packaging Committee" which has been set up by its

Washington, D. C., office. This committee will devote much of its time in working with a similar committee set up by the Mason Contractors Association of America in developing a standard clay products packaging system which will be applicable to all segments of the building industry.



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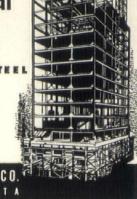
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# Producers' Council Holds Annual Country Club Event

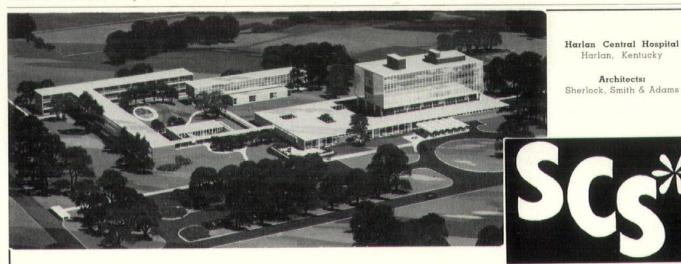
The annual Producers' Council outing at which husband members entertain their wives at a golf and dinner event was held recently at the Minnesota Valley Country Club and our photographer was on hand to picture the fun. Our pictures show (left to right in the numbered pictures):

- 1.—Clem Sparrow and Carl Fogelberg comparing scores.
- 2.—Mrs. and C. W. Olson after a brisk round (golf, naturally).
- 3.—Bob Olsen (center), P. C. president, presenting gifts to Mrs. Jack Harris (left) and Mrs. Jack Barr (right) whose husbands (shown at their sides) have had council memberships the longest (Jack Harris) and shortest (Jack Barr).
  - 4.—That's the club, say Mrs. and C. L. Bell.
- 5.—Mag Olsen (in center) is a lucky guy—surrounded by lovelies Ginnie Halseth, Mrs. Jack Harris, Mrs. John Paul, Mrs. Paul Buck and Mrs. Bob Deegan.
- 6.—Sam Dittenhoefer with Mrs. Dittenhoefer and Mrs. L. B. Reak.
- 7.—Jack and Mrs. Bissell with Carl and Mrs. Fogelberg.
- 8.—Victor Brick of Truscon Steel Division, John S. Paul of Casewin Co., C. L. Bell of Detroit Steel Prod-

- ucts, J. C. Barr of American Standard and Jerry Halseth of Kellor Steel.
- 9.—Bob Kuehn with Mesdames V. L. Larson, Kuehn and Ivan C. Spurlock.
  - 10.-Mrs. and Bernie Mulcahy, Jr.
- 11.—Mrs. Stan Beckstrom and Mrs. Jack Hustad with friend husbands.
  - 12.-Mrs. and Jack Barr.
- 13.—Mrs. Robert Reid, Mrs. R. E. Olsen, Mrs. Clair Loretz and Merilyn Nyberg.
- 14.—Howard and Mrs. Page with Sid and Mrs. S. H. Page.
- 15.—Jack Harris of Alcoa, Chris James of Mosaic Tile, Ivan Spurlock of Owens-Corning Fiberglas and Larry Reak of Natco Corporation.
- 16.—Mrs. and Bob Olsen, Mrs. and Vern Larson and Jim and Mrs. Coulter.
- 17.—Mr. and Mrs. Al Fischer, Mr. and Mrs. S. R. Benson and Mr. and Mrs. B. J. Mulcahy, Sr.

#### ANCHOR AND GLACIER BLOCK CONDUCT THERMAL "U" TESTS

Glacier Sand & Gravel Co., Minneapolis, and the Anchor Block Co., St. Paul, are running exhaustive tests with different designs in Waylite Concrete Masonry. It is already evident that 20% in insulation and construction costs can be saved with the proper plan and application of Waylite masonry. Complete information will be available at the conclusion off these tests.



## Another Hospital Chooses SCS\* for Economy and Utility

The Harlan Central Hospital is one of a group of 9 hospitals constructed in the West Virginia-Kentucky coal mining belt. The Harlan Hospital has 111,400 square feet and houses 192 beds in one of the most modern structures of its kind in the country.

Designing and building of these hospitals was a plan not of convention, but rather one of new ideas for maximum efficiency, economy of operation, utility, and ease of maintenance.

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ARCHITECT

#### MACARTHUR PROMOTION DESCRIBES AMERICA'S NEWEST CHIMNEYS CONCEPT

A unique direct-mail folder is the first of a planned series of special promotional pieces being produced by The MacArthur Company, 936 Raymond Avenue, St.

America's newest concept in chimneys, the Van Packer package masonry chimney, is featured in this particular folder, now off the press. The red and black cover, die cut to the shape of a house conspicuously lacking a





chimney, carries the caption-"NEW . . . Van Packer Chimneys GO UP." Inside are the words—LIKE THIS -and a clever pop-up chimney emphasizes the rapidity with which a Van Packer chimney can be erected.

These attractive, two-color, pop-up folders are available to interested persons upon request and to all MacArthur's Van Packer dealers and jobbers with the MacArthur logo deleted for their imprint.

#### NEAL SLATE ACQUIRES USE OF SPECIAL SLATE RESURFACER

The W. E. Neal Slate Company, Minneapolis, has been appointed a franchise operator of the Statler slate resurfacing machine, according to an announcement

from the company.

"This process enables a crew to resurface slate on the walls in the classrooms, giving the boards a velvetsmooth surface," the announcement said. "We feel that architects will be interested in this process as they now can make use of the owners' old slates. This is one way to cut costs on new and remodeled construction and at the same time give the owner the finest chalkboard writing surface.'

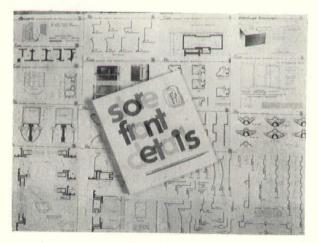
#### A.I.A.-A.G.C.

#### (Continued from Page 16)

concern and interest can be presented, discussed and appropriate action taken in the form of recommendations." The first two projects on the docket were to develop an architect's checklist of specifications' titles which would aid in eliminating bid estimating errors on the part of the contractor and a statewide clearing house for letting dates. Architects were notified that the AGC office would be a clearing house for all letting dates and they were encouraged to call in and clear a prospective date on the calendar. They all received regular bulletins with these dates listed until gradually more than 80% of all major job letting dates cleared through the AGC office. The checklist project took countless hours of study, writing, rewriting, recommending and discussion before The Standard Check List for Specification Titles was published in 1951.

The Joint Committee had a continual flow of projects. Each new matter was attacked with increased enthusiasm. Numerous forms and standards were and still are being developed. Among the major ones are the Change Order Request Form, a Termination Clause, a Form of Requisition for Partial Payments in Lump Sum Contracts and recommendations for proper insurance coverage. This insurance study occupied a sub-committee for an entire year and used the services of two insurance firms who were affiliate members of AGC. It was apparent that some method of tying all these matters together was needed and the committee went to work on a codification. This was published in installments and issued at intervals to the industry. In the codification all recommendations of the Joint AIA-AGC Cooperative Committee were listed and numbered for easy reference. The Standard Check List for Specification Titles was used as a guide with the same numbering system.

At the time of this writing, preparation for study of the single contract system as opposed to the separate contract method is under way. Current chairman, George Darrell for the architects and Dean Lundholm for the contractors, are highly optimistic about the committee's ability to develop a well-accepted recommendation. Both AIA members and AGC members are justly proud of their committee and the close working relationship between Minnesota contractors and architects.



#### PITTSBURGH GLASS OFFERS STORE FRONT MANUAL

A new, 102-page,  $8\frac{1}{2} \times 11$  loose leaf store front manual containing details of all the products normally included in store front design now available free to architects upon request from the Pittsburgh Plate Glass Co., 616 So. 3rd St., Minneapolis 15, Minn. Designed to help in detailing store front construction jobs, the manual presents details in a clear, concise manner.

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#### Cavin's Andersen Building

(Continued from Page 21)

of Buckminster Fuller, whose ideas were reported in NORTHWEST ARCHITECT'S last November-December issue. The finished dome in our illustrations can be studied in conjunction with the pentakositessarakontahedron shown on that issue's page 8.

The complete design job was entrusted to the architect, including furnishings and landscaping. This allowed him to carry out fully his concept of how the additional structure could be used to advance the client's products to the public's view. Our illustrations show details of the offices.



Storage wall betwween display room and general office. Doors of coat closets slide . . . note cleanability of arrangement.

## WIND-RESISTANT ASPHALT SHINGLES INTRODUCED BY JOHNS-MANVILLE

A new line of asphalt shingles which automatically seal themselves together and thus offer high resistance to windstorms has been announced by Johns-Manville under the name of Seal-O-Matic. The development has been patented by J-M. Of 12- by 36-inch strip type



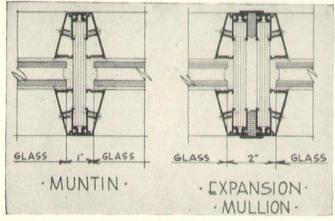
with three square butts, as shown here, the shingles are available in a range of colors and blends.

The Seal-O-Matic feature is a ribbon of asphaltic adhesive applied on the backside of the shingle at the factory about ½-inch in from the butt edge. After application to a roof, this strip softens in the sun's heat and seals the shingle to the one below. This "welds" the shingles into continuous sheets, prevents the wind from getting under and lifting them.

When delivered to the job, the shingles are back-to-back so the adhesive strips of two lie against each other. A snap by the applicator separates the two, with equal amounts of adhesive adhering to both shingles. They are nailed in the usual manner. Production for this area is going forward at the J-M Waukegan, Ill., plant.

#### SPECIAL ALUMINUM FRAME FOR DOUBLE-PANE GLASS

Recently introduced in this area was the first fully insulated aluminum window frame built to match double-paned insulating glass. Thermo-Sash is the name given to this sash made by Kesko Products, Inc., Bristol,

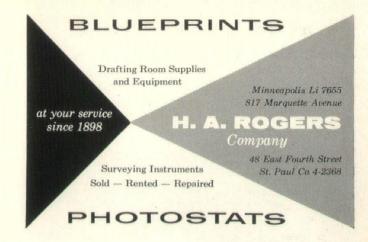


Ind. The new aluminum alloy construction eliminates condensation and frost on the interior metal surfaces at normal room temperatures and humidity even when outside temperatures drop below 20 degrees below zero.

Thermo-Sash matches in insulating qualities the performance of the glass and the conventional brick or frame wall, so as to add to the savings in heat in winter and lower the costs of air conditioning in summer. A maximum of visibility is built into this metal sash without lessening its decorative appeal.

Thermo-Sash is available for the new type of panel windows with or without vents. It can be had as a packaged, pre-assembled unit ready for installation in remodeling projects; all necessary fittings and hardware are included. The structural strength of the frame enables the new insulating sash to meet all of the setting specifications for Thermopane.

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### St. Paul Members A.I.A. and P.C. Golf and Gobble

Golf and gobble were the orders of the day for a throng of members of the St. Paul A.I.A. Chapter and the Producers' Council at their recent annual golf party and dinner. D.ck Rafferty won the Northwest Architect Trophy for his lowest score and others also carded some ego-boosting scores.



Shown above is Holger Mortenson, right, chairman of the party committee, awarding the Architect Trophy to Mr. Rafferty. Other pictures (left to right in the

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pictures as numbered) show:

- 1. St. Paul A.I.A. chapter officers—Louis Lundgren and George Townsend of the executive committee, President Larry Hovik and Secretary Bob Howe.
- 2. Burt Flick of Bettenburg, Townsend & Stolte, and Sherm Kleckner and Don Hook, both of Electric Power Door Co.
- 3. Chairman Mortenson drawing a winning number for one of the prizes at the dinner.
- 4. Bernie Mulcahy, Jr., Dick Rafferty and S. M. Olson of Detroit Steel Products Co., comparing scores.
- 5. George Rafferty, Jack Homme and Holger Mortenson
  - 6 Jack Homme and Clair.
- 7. Robert Howe and John T. Baker of Haarstick, Lundgren & Associates and Tilford Moore of Ellerbe & Co
- 8. Myron Kehne of Kehne Electric Co., and Milton E. Dahlen of H. B. Crommett Co.
- 9. Gordon Comb of Bettenburg, Townsend & Stolte and R. G. Hauenstein.
- 10. Jene Sigvertsen of the St. Paul school system, Robert Jackels of Haarstick, Lundgren & Associates, Art Hengel of Minnesota Mining & Manufacturing Co., and John C. Rupert of Natco Corporation.
- 11. J. D. Voigt, St. Paul board of education's consulting architect, Frank Beutel of The Glidden Co., L. O. Nelson of Shell Oil Co., and Carl Fogelberg and Bob Deegan of the Producers' Council.
- 12. Chuck Bjarnason of Pittsburgh Plate Glass Co., and A. L. Manion, W. T. Mosman and Al Mainecke, all of Ellerbe & Co.
- 13. Ray Thibodeau of the St. Paul Builders' Exchange, Gerald Stanwell of C. H. Johnson Co., Robert A. Bennighof of Haarstick, Lundgren & Associates and H. B. Crommett, A.I.A.
- 14. Bernie Mulcahy, Jr., of Halsey W. Taylor Co., and John C. Barr and Everett Wall, both of American-Standard.

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A history of continued expansion in facilities and personnel to serve architects and builders of this area is that of Minnesota Fence and Iron Works, Minneapolis. Founded in 1869, the firm fabricates original steel, stainless steel and wrought iron building units and also has a generous inventory of pre-fabricated standard units such as steel pan stairs, circular steel stairs and Continental "Chain-Link" industrial fencing.

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Newest addition to the Octa-Tube line of Millerbernd Manufacturing Co. is the "Elite" lighting standard shown here. In addition to the fresh approach in



styling, this model has the advantages of fewer parts, simplified wiring and added resistance to impact, resulting in lowered installation and maintenance costs. Shaft is cold-roll-formed of extra-strength steel and it is available in standard mounting heights and mastarm lengths. Bulletin OTA gives complete information on the entire line and can be had from the company, Winsted, Minnesota.

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sideration to the surgeon and attendant staff. It is impervious to moisture and will not absorb stain or insulating contamination. Constant maintenance to the highest standards of hospital sanitation will not affect the pre-tested conductive properties of this tile.

This tile can be installed by either the modified conventional method, in which it is set with flush joints of gray non-conductive waterproofed Portland cement in a pulverized conductive cement mortar bed, or by the thin-setting bed method, in which conductive adhesive is used. This second method is especially valuable for alteration work as no structural alterations are required.

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Another Mosaic product, Mosaic glazed wall tile, in a new 9" x 6" x ½" size, is now widely accepted as a wall material in these same hospital areas and others. It provides a thoroughly sanitary wall surface which totally eliminates the need for refinishing and anything but the simplest maintenance. This tile is available in a selection of colors which also reduce eye fatigue. Installation cost of this wall material compares favorably with the cost of less permanent materials.

Full information on both Mosaic electrically-conductive floor tile and Mosaic glazed wall tile can be obtained from The Mosaic Tile Company, Zanesville, Ohio.

#### Fireplaces

(Continued from Page 32)

work and play. This problem is poetic and is not a matter of verbal engineering or graphic logic. All contrivances by architects who maneuver building material become very feeble art as compared with enjoyment of the home fire and having it easily available. Here in the battle for attention between the design of the fireplace and the character of its service we must demand clean forms and alert procedures. Fireplace architecture also must serve age-old needs of the heart and all responses must be conceived in true humility.

Turning now to practical issues, I believe it is the little fire that should have our attention today. We must provide the home keeper with all the help possible to keep it burning and all the art possible for its full enjoyment. Let us not so plan that people will be faced with the choice of a big fire or none. We must invite our clients to enjoy the little fire for itself and not as a

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substitute for the fires they used to have or read about in escape literature. People are likely to have it oftener if less fuel is needed and because it is so much easier to build a little fire. The little fire has been made a national family hearth by many races; by the Eskimo where it is little more than a candle wick burning in a bowl of oil, but it heats the igloo; by the Chippeways who built their fire in a one-foot square hole in the ground in the center of the tepee. I have been surprised at how little fire is needed to keep such a simple shelter comfortably warm. The London cockney with his coal grate and the Irish with their peat are also people of the little fire.

I started my first studies of little-fire hearths in 1920 with a bedroom hearth. In lieu of andirons we made a grid of a row of square iron rods side by side, turned up in front, and filling the space between two brick hobs about ten inches apart. The result was a sort of footsquare metal and brick basket. The day's mail litter in the waste basket and a handful of fist-size mill ends provided fire in one minute to cheer a rainy morning, or started the tea kettle at four.

F YOU HAVE a smoky fireplace, as Houseowners, Draftsmen, Masons or Handymen, you will find in the following notes some very useful recommendations. They will almost surely end your troubles.

THE SIMPLEST and least expensive method for correcting a smoking fireplace, if you are not wedded to andirons, is a castiron basket grate closely fitting against the brick lining. Now add, directly on the bed of the hearth (in front of ash space) a solid metal band 4" high and entirely across the front of the fireplace. This will reduce the ratio of opening to flue about 15% and often be all that is needed. Another or added adjustment would be to line your fireplace with four inches of face brick laid flat. Make the fireback as three faces of a flat hexagon, like the 60° angle faces at each side as shown in the cover picture. With special iron work as costly as it is today you could build the new brick lining to exactly fit the back widths of the stock sizes of iron basket grates (see Ward's catalog).

There is no worse a repair for smoking fireplaces than the metal bonnets attached across the front of the fireplace opening at the top. This almost habitual procedure is based on the fallacy that warm air rises and therefore can be caught in an inverted scoop and channeled into the throat of the flue. To cure a smoky fireplace, draft promotion must be made at the floor line, on the bed of the hearth at the *bottom* of the fireplace opening.

THE REASON flues won't draw is that the weight of the cold air in the flue is greater than the total weight of the much larger body of warmer air in the room which is pressing in through the face of the fireplace opening. This pressure is what produces the "draft." Actually a "draft" is not a pull at all, but a push. The entire operation is powered by very small differentials of weight, accounted in ounces, not pounds. Whenever fireplace design is based on the assumption that "heated air rises" it will be only an accident if the fuel combus-

tion is successful. "Hot air doesn't rise" and when you start to push it around you have to supply a place for it to go or it will push right back, put smoke in your eyes and smudge on your walls. Even Sinbad couldn't compel the smoke to go back in the bottle.

The designer of a costly home in Portland with many correctly designed fireplaces had weather-stripped all doors and windows so effectively that no fireplace would draw until someone opened an outside door. In this instance the proper pressure was potential in the room but there was no replacement air for any that would otherwise have been pushed up the chimney. An opening the size of the flue was cut in the outer wall of the rooms with fireplaces. Then fires blazed. Fewer weatherstrips would have introduced air more equably. The people needed air even more than the fire did.

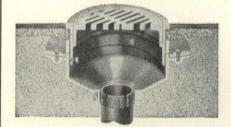
R FINALLY, and this holding the most possibilities for very smoky fireplaces, you can raise the entire fire bed and hearth 12 inches above the floor. Your opening would now appear much broader than high. This often makes improved proportions. In all this, pay little attention to throat or damper, except to see that it is clear of obstruction, of old brick spalls and mortar fallen down, and is fully as large as the chimney flue. Do not expect any new trick damper to cure smoky flue. They have their good points in insuring clean construction, labor saving, and easy closing against heat loss when fire is not burning, but one must have some ventilation in a room and most dampers should remain open most of the time.

So many new fireplaces today are very large with one entire end open—or both. These require a flue up to 1/4 the area of the opening measured around the corner, or around both corners, and they seldom get it. It is unsafe to count on a smaller flue proportion, especially if fireplace opening is tall, or subjected to cross drafts in the room. If a fireplace is "open through" between two rooms, it will not work at all unless there is some other uncurtained, unobstructed door or other opening between these rooms at least ten times the fireplace opening size. This is necessary because changes in pressure due to opening of outside doors, or pressures built up inside the house by outside winds and resulting vacuums will tend to equalize, by rushing through the two faced fireplace carrying the smoke along into the opposite room.

You can build into such big flues an inexpensive steel tilt damper with an iron chain hanging down inside the flue and hooking to a spur in the brick joints on the inside of the fireplace, as an effective control. Thus these very large flues can be quickly closed tight to conserve heat, reduce down-drafts, all easily adjusted, link by link with a poker, to produce the size slot in the chimney flue that has been found best for combustion.

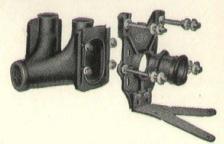
S O WHEN ALL IS SAID AND DONE, the architect's problem in fireplace design or reconstruction moves on beyond the mere study of fuel costs and soon takes the penetrating mind into the available crafts. Accounting for the functions of the home fire takes us into

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physics, psychology, physiology, and the nature of recreation, entertainment and education. The tradition of the open fire is filled with stories of its influence on the lives of great men. The fireplace designer must know fires well enough in his own experience to know how to build fires and keep them alight, and be enough of a poet to know how to put them to bed or watch them safely fade to coals in the darkening room. When you know the answers and have integrated them all to the equipment of the room and the people living there, you will have no need to be original. Your hearth unique will have been born to your credit and everyone's satisfaction for a long time to come.

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Fine cabinet (above) opens into service unit (below).



with sink and burners as shown or with burners and plain counter top.

Closed, the Dwyer "400" is a smartly styled cabinet in rich mahogany color or in blonde moderne. The top lifts to reveal cooking burners, work area and deepbowl sink built into a streamlined, crevice-free counter of gleaming white vitreous porcelain. Below are a modern refrigerator (plenty of ice cubes) and a storage cupboard with push-button doors. A single lock secures both doors and top against intrusion.

Installation is relatively simple. The Dwyer "400" is placed against the wall as a piece of attractive furniture.

In the compact apartment of the career girl or bachelor, in motels and hotels, in the business office for customer hospitality or employe convenience, in the home recreation room or on the porch—wherever there is need for close-at-hand kitchen facilities—the Dwyer "400" serves as a smart convenience.

The Dwyer "400" as well as other models of Dwyer kitchens are manufactured by Dwyer Products Company, Inc., Michigan City, Ind., and distributed throughout the northwest by Bartley Sales Company, 134 South Tenth Street, Minneapolis.

#### **Our Cover Picture**

John W. Todd Dwelling in Salmon Creek, Wash., W. G. Purcell, Architect, 1926

HIS PHOTOGRAPH of 1926 illustrates several basic fireplace design matters discussed in this issue. Here the burning fire is taken out of the usual cavern and brought forward into the room. The fire is built against a reflecting wall, not in some variety of little cage. The upper part comes forward, not to form a smoke-scoop or hood, but to provide a front-to-back space for a 350 sq. in. flue. Space was also necessary for an extra large throat with expansion chamber, below the mantel shelf line, to serve so wide a hearth having no walls at either side of the fire, as in the conventional fireplace. That great throat, about 90" long, point to point, and about 21/2 feet up inside, is gathered into a slot of a chimney flue only 8 inches deep, so planned to give more decorative than mass values to the brick surfaces. One third of the fireback at both sides of the burning area bend forward at flat angles to make the virtual equivalent of the three-sides-open type. Thus with no side-draft baffles, the very largest possible smoke stack is called for. How large can't be said by formula. Working from one house to the next we just tried for the largest flues possible. The results were uniformly successful.

The entire fireplace and chimney unit was organized for shallow depth because we did not want to use up the available floor space with too great an area of brick work. The stairway goes up behind the chimney. The vertical break in the chimney refers to another flue at the right hand side which serves the kitchen and house heating plant. The unsymmetrical organization of the various parts of this construction leaves a ledge at the left offering some extension of the mantel shelf at that level. This provides for self expression in daily room decorations. But principally this ledge at the left is just the height to serve as a firm hand rail for the stairs as they turn left on the landing coming down into the room. The double doors lead into the library and study. The casement window above allows the bedroom which it serves to benefit by the supply of warm air in the top of the living room which can be easily shut off at any

In this design our respect for the fire as a kind of living person, found a way to open up sight lines to the fire which are ordinarily cut off by the right-angled sides of conventional fireplaces, for persons sitting well at either side.

For most of our fireplaces valve types of rotating dampers were built into the chimney flue, eight feet or so above the floor. These were often operated from the stairs. This freed us from the mechanical frustration of even the best patented throat dampers, all of which are designed for the cavern type of fireplace. The rotating damper also enabled us to cut off excessive loss of the heated room air in very cold weather.

The raised hearth idea which I brought to Eastern U.S.A. in 1906 from the table level cooking hearths in the corner of old Viking kitchens, were a success from the first. American Indians also had them in Arizona.



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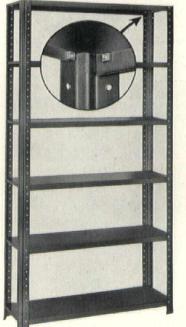
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2023 Central Ave. Minneapolis 18, Minnesota Raised firebed systems are now in general use, but modern designers tend to think of the raised slab below as a part of the fireplace *enclosure*. It should be thought of as a part of the *floor* of the dwelling, thus conveying to the domestic fire worshiper the historic and poetic idea of fire as related to the earth. Only when this feeling is satisfied can the architect safely proceed to organize the form of the complete facility in response to the practical necessities of fire and smoke control.

I find most fireplaces with a front and one side open most unsatisfactory both esthetically and mechanically, especially where the free corner is supported with a piece of pipe which is irrelevant to anything, and is an admission of engineering defeat. Surely it is no great problem to produce a clean cantilever which requires a projection of only two feet out one way and four the other. These little iron plumbing posts give one the frustration we all used to have in an old fashioned theater when sold a seat behind one of the many fancy slender cast iron columns supporting the balcony.

Nowhere in dwelling design is the lack of feeling for the natural and good life of the people so plainly held in esthetic and snobbish contempt as in the design of fireplaces. Fireplaces have become a principle area for the dynamics and dramatics of cult abstractions. The fire, the people, the quality of the rite of comradeship is all submerged. The modern designer tends to take the stage and manuever his building material into inescapable arguments. This simply is not architecture and is desparately distant from any satisfying of the true world of living humane functions and their expression in responsive forms. In such designing there is no sensitive appraisal and orderly subordination of relations each to each and each to all.

Notes on Photograph of 1913 on page ..... at head of our piece about

#### "OPEN HEARTH-FIRES"

HERE at 2328 Lake Place, Minneapolis, the dwelling place of the fire, as pictured unlighted in the photo-

graph, does not convey the sense of unity with the room made by the flow of the brick face wall into the fire-place and on across, and behind the fire. The 5/16 joints between the horizontal brick courses were formed, not to show a mortar finish, but faced with opalescent glass on which a film of gold leaf had been fired in a china kiln. This provided a subtle and changing color movement between matte gold and delicate parti colored irridescence. These glass ribbons were also used for the joints along the inner sides and around the fireback. The fire burned it clear of soot. It winked and glistened. I never knew of a piece coming out.

The mural was painted by the beloved animal painter CHARLES LIVINGSTON BULL. His weekly pictures on *Saturday Evening Post* covers for many years, illustrations for hundreds of books, and his very personal style in draftmanship and color made him a well known man everywhere.

We erected a little grandstand of planks against the opposite wall of the living room and invited the students of the Minneapolis Institute of Arts to come and see him at work. He made a talk to them about the obligation of the artist to bring facility and well informed content to his work, making people happy. A memorable event in Minneapolis art history this was. Bull's creative period extended from about 1896 to 1922, when he died, still a young man, his work now all but forgotten.

#### IDENTIFICATION OF PHOTOGRAPHS

Cover. John W. Todd dwelling. Salmon Creek, Washington. William Gray Purcell, Architect, 1926.

Page 26 Dwelling at 2328 Lake Place, Minneapolis, Minnesota. Purcell and Elmslie, Architects, 1913.

Page 27 Col. 1. Dwelling at 2649 Georgian Place, Portland, Oregon.

Purcell and Elmslie, Architects, 1920.

Page 27 Col. 2. Sydney Bell dwelling, 2622 Georgian Place, Portland, Oregon.

William Gray Purcell, Architect, 1927.

Page 30 Holt Bradford dwelling, Lake Oswego, Oregon. William Gray Purcell, Architect, 1927.

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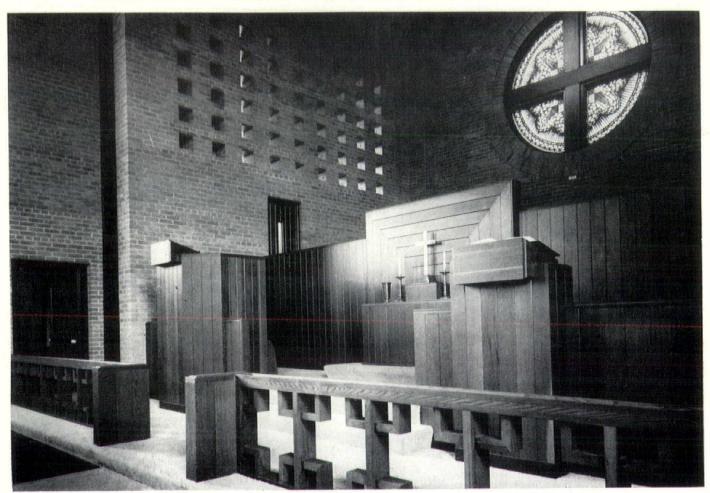
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