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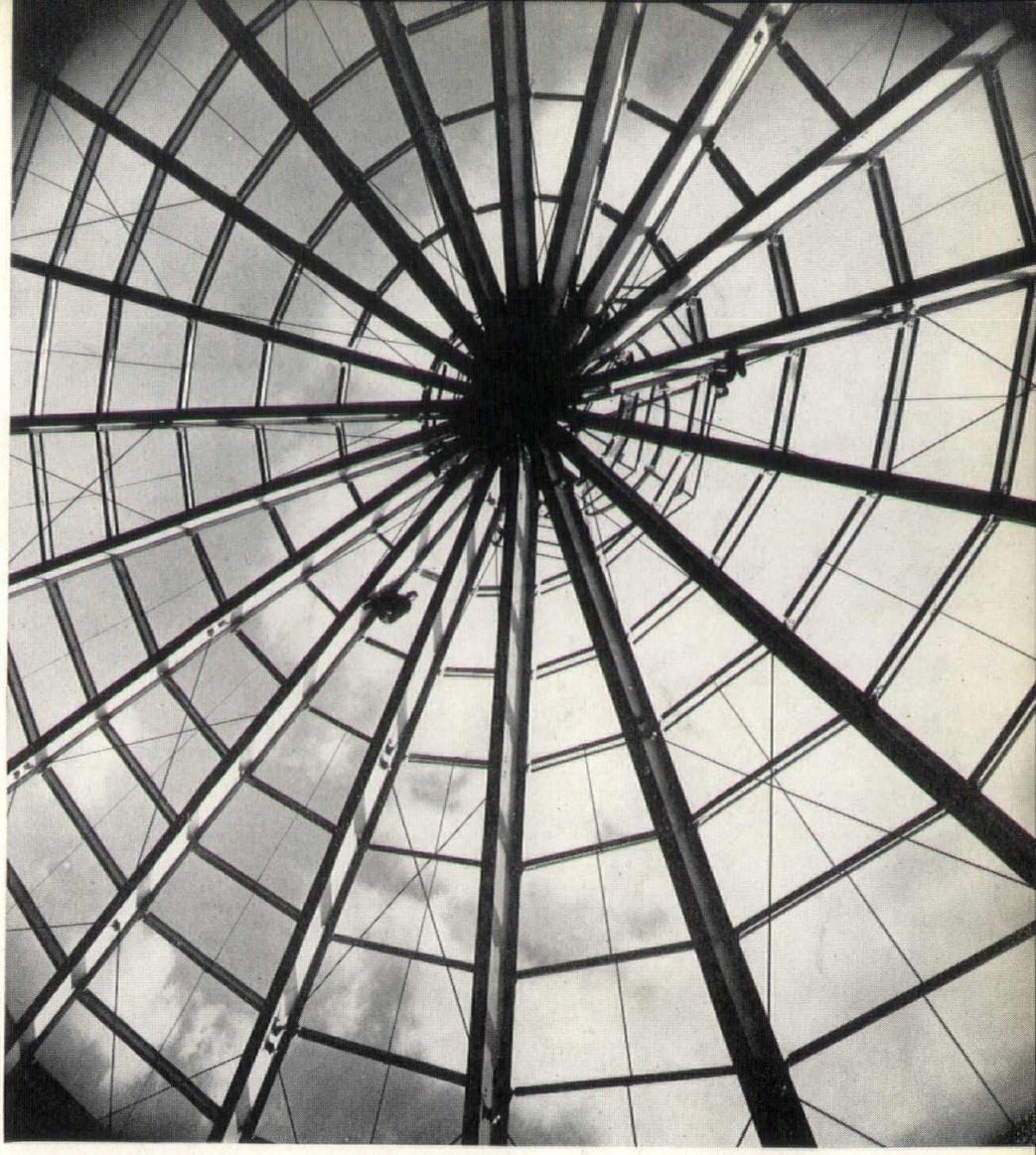

THE SPIDERWEB . . .
The roof skeleton of a new Ford research building

NORTHWEST ARCHITECT

MAY-JUNE 1952

IN THIS ISSUE:

VOLUME XVI NUMBER THREE

A beautiful roof . . .

and it's fire resistant!

As you probably know, the mineral surfacing used in making Nelson's Master Roof shingles is carefully graded ceramic granules . . . in which colors are applied and fused by firing.

Thus these granules combine permanent, colorful beauty and effective resistance to fire.

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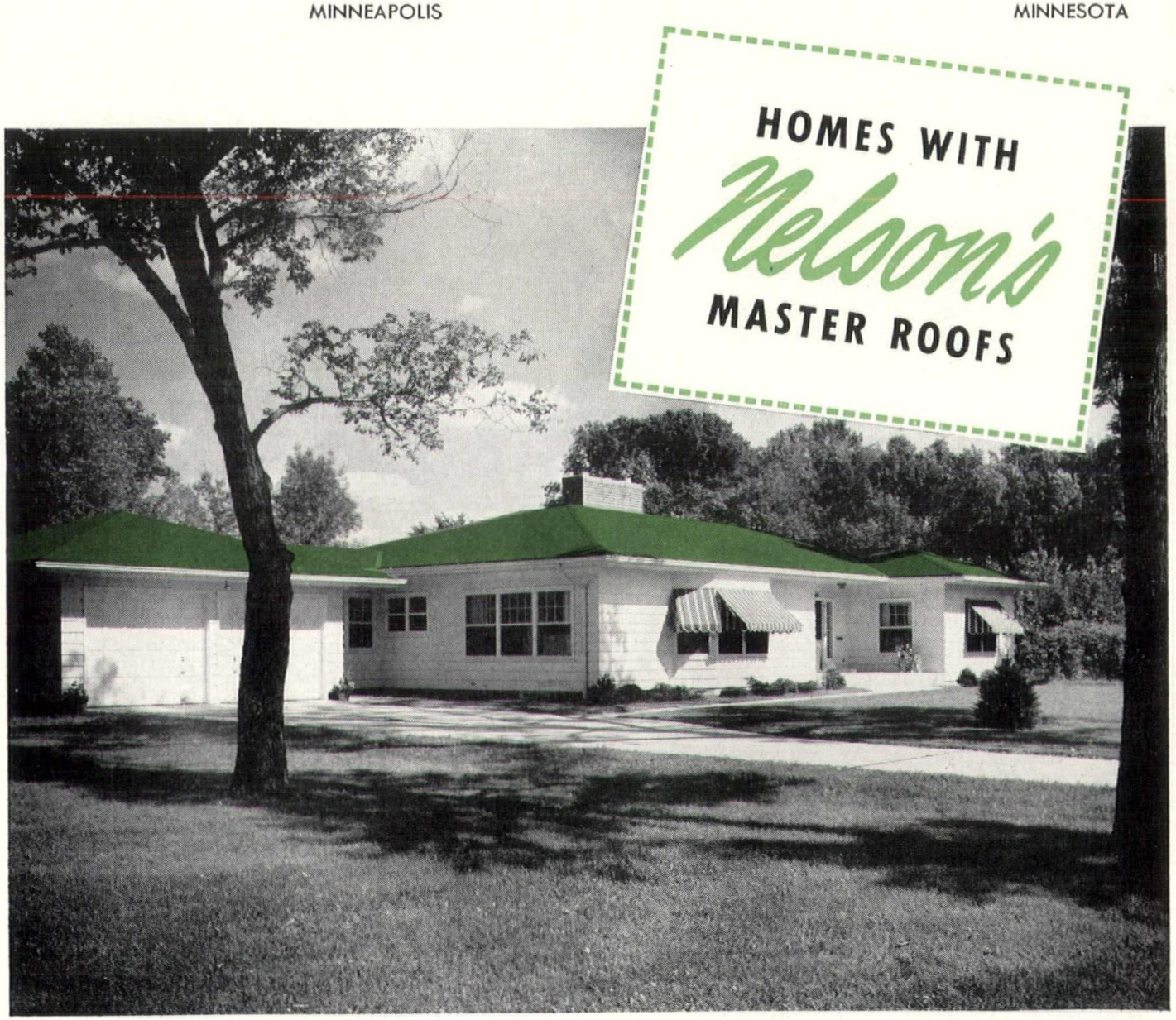

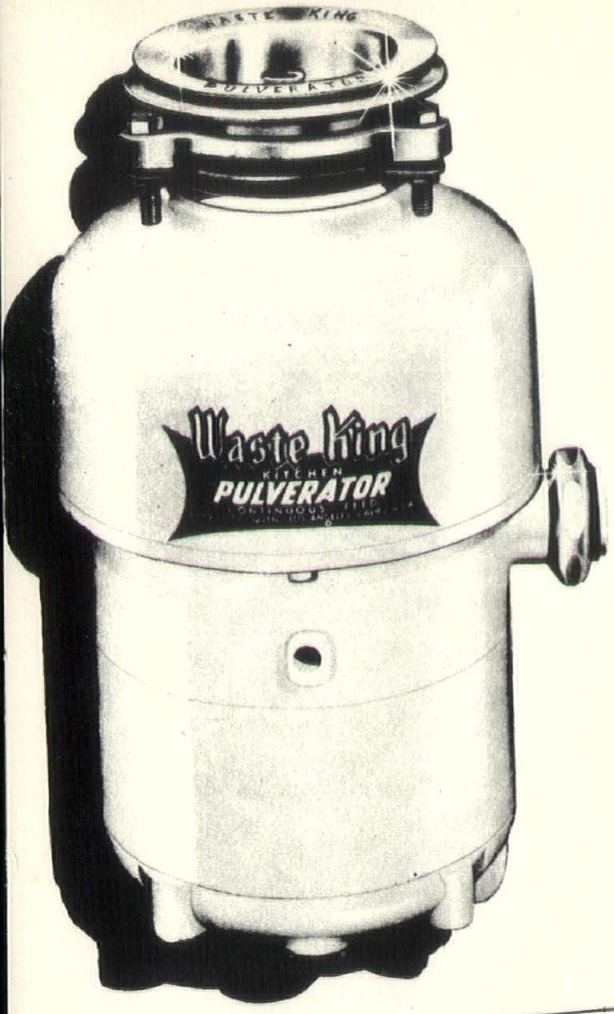

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FOR YOUR PERSONAL USE ONLY

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WE WANT YOU TO KNOW WASTE KING "the *QUIET* ONE"

with exclusive "Hush Cushions" that make the Waste King Pulverator the quietest disposer on the market. Also, seals sink mounting and drain line connection against leaks. Saves service call-backs . . . saves time, labor and money for the plumber.

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WASTE KING SCOOPS THE INDUSTRY WITH "Hush-Cushions"

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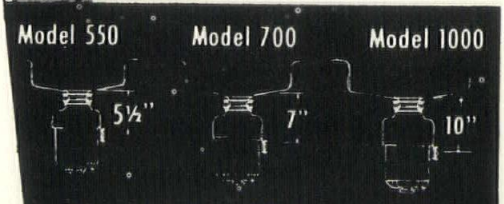

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NO ORDERS WILL BE ACCEPTED WITHOUT THIS ORDER CERTIFICATE:

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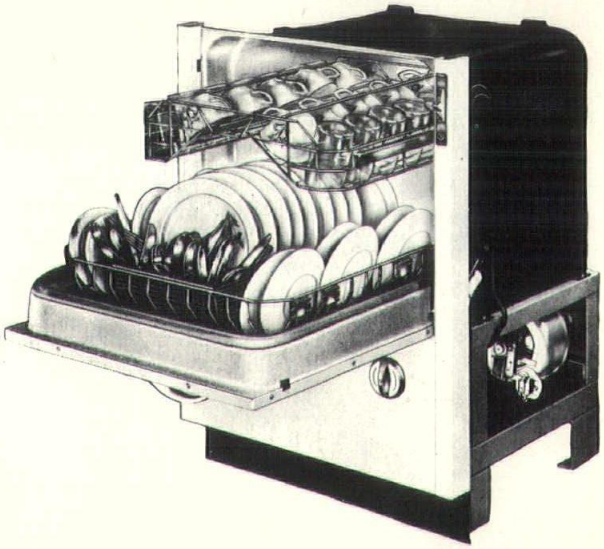

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NORTHWEST ARCHITECT

Official Publication
Minnesota Society of Architects
E. Richard Cone, St. Paul, President

CENTURY BETWEEN THE AGES
1852 - 1952
Age of Masonry Ends and Metal Sends Architecture
OFF THE EARTH - INTO THE SKY

CRYSTAL PALACE
PAXTON LONDON 1851

BROOKLYN BRIDGE
ROEBLING 1869

TALLEST TOWER
EIFFEL PARIS 1889

STUDY the picture on page 30. It is a concept of the new age in building which began to take form one hundred years ago.

BUILDING a vast glass and iron palace at the London Exposition of 1851—eighteen acres under roof and by far the largest building ever built—John Paxton, a gardener of superb imagination, demonstrated what unbelievable fabrics metal and glass could be successfully asked to produce.

VIOLLET LE DUC, then 37, studying the buildings of men through the ages, had been gathering exact information and arranging this knowledge into a logical system of relations between construction and architecture.

IN THIS NUMBER you will read what the great Frenchman did and said; how his words finally rebuilt the opinions of stubborn mankind, thus opening a kind of Golden Doorway to the Future, so prophetically tokened for that key industry — "TRANSPORTATION," in its

COLUMBIAN EXPOSITION BUILDING
BY LOUIS SULLIVAN, CHICAGO, 1893

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Publication Office: 2642 University Ave., St. Paul 4, Minnesota

VOLUME XVI
NUMBER 3
1952

PLYMOUTH CONGREGATIONAL CHURCH, Minneapolis; Architects — McEnary & Krafft; Electrical Contractor — Batzli Electric Company; Fixtures—Branham, Mareck & Duepner.

AN EXAMPLE OF INCANDESCENT LIGHTING IN A CHAPEL INTERIOR. COMBINATION OF A LUMINOUS TYPE LANTERN WITH DOWN LIGHTING FOR GENERAL ILLUMINATION PLUS SPOT AND FLOOD LIGHTING OF CHANCEL PROVIDES A COMFORTABLE ATMOSPHERE FOR WORSHIP.

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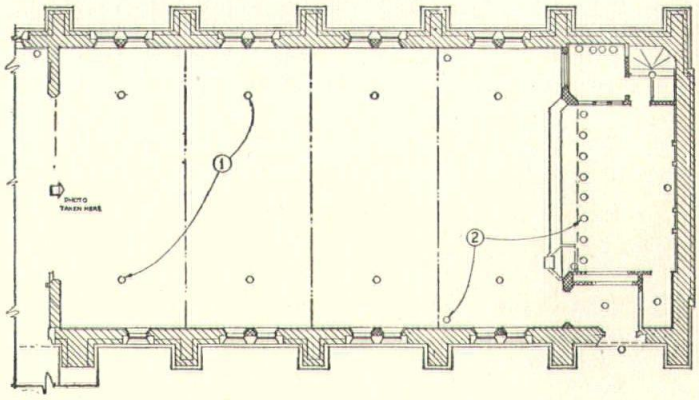
Designed for Approximately
10 F.C. of General Illumination

❷ Spot and Flood Lights
Flexible Mounted Bullet Housing



Information compiled by Lighting Service Section

NORTHERN STATES POWER COMPANY

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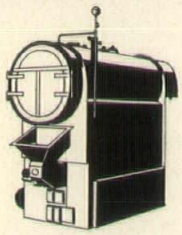
Call....BROS, Minneapolis



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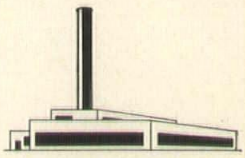
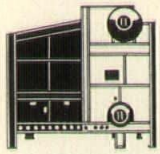
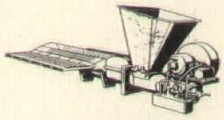
11'2" Diameter, 135' Long, 1" Thick



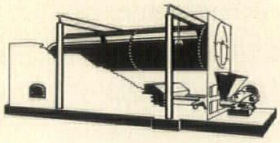
Stacks and Breechings



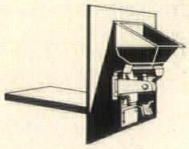
Bros Water Tube Boiler



Bros Hydraulic Underfeed Stoker



Bros HRT Boiler



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Greetings

From State President Cone

Reserve the dates—mark them up on your calendar! You can't afford to miss the 1952 convention to be held the 6th and 7th of June.

A committee under the driving leadership of Louis Lundgren has been working with greatest effort towards an inspirational, educational and entertaining event. Program Chairman Brooks Cavin has combed the country from the Atlantic to the Pacific for interesting speakers. Norman Fletcher of Boston's "Architects Collaborative" will expose the inner workings of the Harvard Graduate Center and Frank Cox of Berkeley, California, will tell us "What Makes a Successful Modern Shopping Center." A panel of four outstanding men in the field of art will give birth to a new era of art in architecture.

The success of the convention, however, will depend on you. All these attractions are, in a way, bait to bring the members of the profession together. The success of a profession depends on its co-operative and collaborative efforts. It is healthy for members to get together and mutually talk over their problems. It is of benefit to the profession (and often to the individual) to personally know one's competitors as it tends to put competition on a higher plane. To this end, a Friday afternoon session will be devoted to a general discussion of office practice, gripes and suggestions. Bring your pet peeve, expose it and hear it batted around.

Again this year the Producers' Council will have a tremendous exhibit and a corp of engineers to answer questions.

If all this is not persuasion enough, the Auxiliary will complete the job. The ladies have gone all out for a full and attractive program.

E. Richard Cone

From A.I.A. President Stanton

The American Institute of Architects
Glenn Stanton, President

May 1, 1952

Dear Friends:

Maytime is with us so our annual convention is not far away. The Octagon staff and our New York committee, headed by Arthur C. Holden, have put in many a day to make this meeting our best. That is some assignment when past conventions are considered. While we have an interesting program, the board has also left plenty of room for discussion and, as usual, we have plenty to discuss.

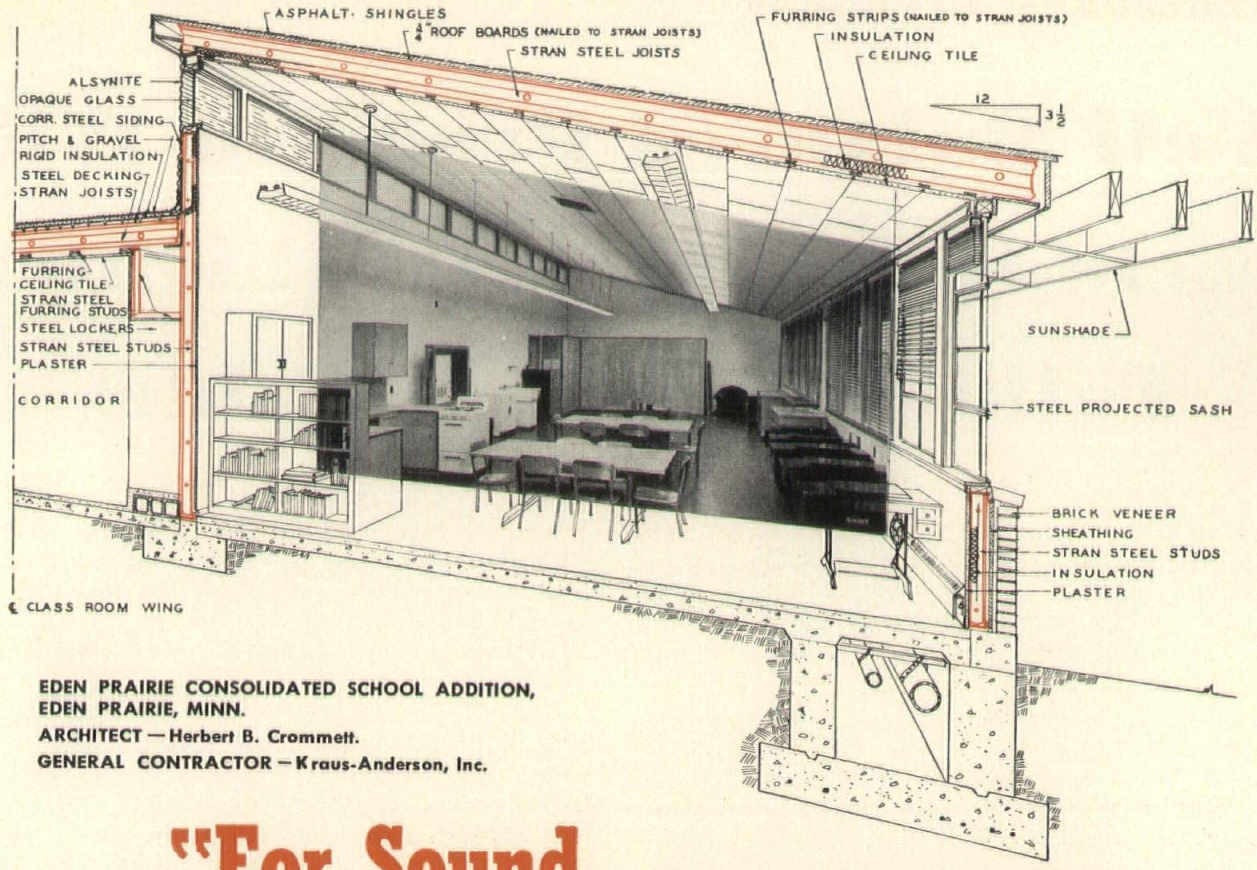
The Institute has made progress in many directions, including better relationships with other professional societies and, with their co-operation, improvement in architect-engineer contracts with the army. Our final goal has not been reached, but we are hopeful.

Of great current concern is the tendency of municipal, county and state governmental bureaus to encroach on private practice. An active committee has laid a good groundwork in a campaign to correct the problem.

The board needs your counsel and we are looking forward to your participation in the New York sessions.

All best wishes to the Minnesota Society of Architects and the *Northwest Architect*.

Sincerely,
Glenn Stanton



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Minnesota Convention

Well Balanced Program Will Include Technical and Lighter Talks and Round-Tables

An excellent blending of formal discussions, seminars and just plain "bull sessions" has been planned for the annual convention of the Minnesota Society of Architects in St. Paul, June 6 and 7, according to members of the St. Paul A.I.A. Chapter, who are hosts to the state architects and guests.

Presided over by President E. Richard Cone, the sessions are geared to a tempo which will give every architect something which will fit into his specialties and answers to many of his problems in the several phases of today's architectural practice.

Registration starts at 9:30 a.m., the first day and President Cone will call the first session to order at 10:30. Following his welcoming address, W. H. Rabe, president of the Producers Council, will speak to the architects on behalf of his closely allied organization. A general business session will follow. Recess for noon luncheon closes the first morning's business.

IAC Member to Speak

Guest speaker at the luncheon will be Norman Fletcher of Cambridge, Mass., member of the famous TAC, The Architects Collaborative. He will discuss the Harvard Graduate Center and later take part in a panel discussion. A graduate of Yale School of Architecture, Mr. Fletcher is co-author of the winning design in both the Smith College Competition and U. S. Plywood Small Homes Competition. At present he is an instructor in the Harvard School of Architecture.

In the afternoon panel consideration of "Architecture and the Arts," he will be joined by Alonzo Hauser, Prof. H. Arnason and Warren Mosman. Mr. Hauser is a well-known St. Paul sculptor. Mr. Arnason is head of the Fine Arts Department at the University of Minnesota and director of the Walker Art Center. Mr. Mosman is a graduate of the Yale Art School, fellow of the American Academy in Rome and former instructor and associate director of the Minneapolis School of Art. He is now art consultant with Ellerbe & Co.

Hair-down session of the meetings will be guided by Dave Griswold when the "Office Chatter and Bull Session" is held Friday afternoon. Suggestions, gripes, ideas, experiences, student comments and all else will be poured into the mill during the session, which promises much. Mr. Griswold has recently opened his own architectural office in Minneapolis following experience as an associate of Magney, Tusler and Setter and the Fred O. Watson Co. He is a graduate of the University of Minnesota.

Presentation of the Award of Merit in the architects' exhibit will complete the first day's sessions. Richard F. Hammel is in charge of the exhibit, which will show the work of the state's leading designers.

Election of officers for 1952-53 will open the second day's meetings, together with reports of committees. Mr. Hammel then will present the new Education Building at the University of Minnesota. He is consulting architect to the St. Paul board of education and as such governs much of the technical work on the city's new multi-million dollar school building project. A graduate of the University of Minnesota, he holds a master's degree from Harvard and is a member of Tau Beta Pi. He worked in Honolulu for three years before returning to the University of Minnesota as an associate professor and assistant to the advisory architect of the university.

A building's "environment" will be considered by a plant expert when Prof. Orville Dahl, university botany department chairman, talks about "Landscaping Your Buildings in Minnesota." Prof. Dahl took his sabbatical year in 1951 and traveled through the Scandinavian countries, obtaining much valuable information for use in America's northern climes.

Shopping Center Pix at Luncheon

The Saturday noon luncheon will feature a color film on the development of shopping centers, presented by Frank Cox of Berkeley, Cal., who is with that division of the Kawneer Company. The afternoon will be given over to visiting the Producers Council exhibits and two tours, one to the low rent housing projects in St. Paul and the other to the Chemical Engineering and Education Buildings at the university and low rent housing projects in Minneapolis.

Harold Spitznagel, who made a hit when he spoke at the Regional Convention in Minneapolis, will be the guest speaker at the climactic banquet of the two-day meetings. Mr. Spitznagel is well known for his championing of the cause of good architecture in the

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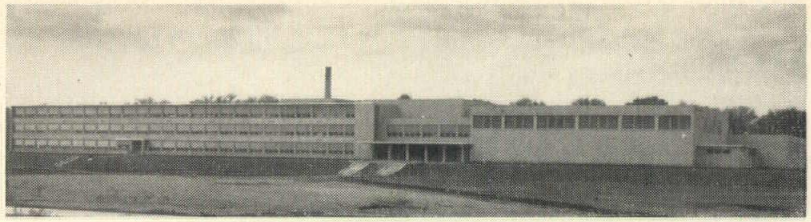

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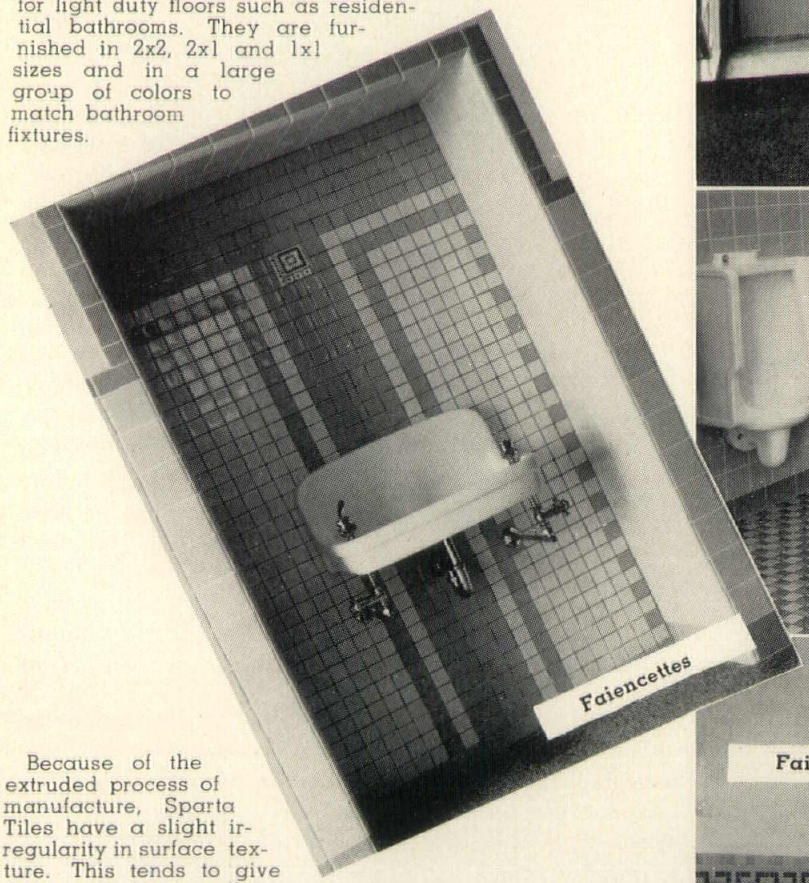

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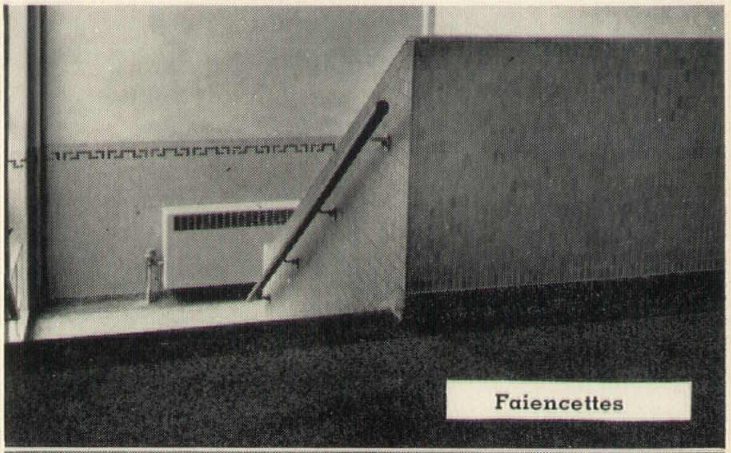

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When—June 6 and 7, 1952

The Program

Friday, June 6

9:30 a.m.—Registration.

10:30 a.m.—Welcoming Address by President E. Richard Cone.

Welcoming Address by President W. H. Rabe of Producers Council.

11:00 a.m.—Business meeting; new business, appointment of committees.

12:30 p.m.—Luncheon—Guest speaker will be Norman Fletcher of The Architects' Collaborative, Cambridge, Massachusetts. Subject—"The Harvard Graduate Center."

2:30 p.m.—Panel Discussion—"Architecture and the Arts," under the direction of four able leaders—H. Arnason, Director of Walker Art Gallery and the Art Department at University of Minnesota; A. Hauser, Sculptor, Norman Fletcher, The Architects' Collaborative, and Warren Mosman of Ellerbe and Company.

3:30 p.m.—Office Chatter and Bull Session—suggestions, gripes, experiences, student comments, etc., with David Griswold as Moderator.

4:30 p.m.—Presentation of Award of Merit, with comments by architect.

Saturday, June 7

9:30 a.m.—Reports of committees; election of officers.

10:30 a.m.—"Education Building, University of Minnesota," by Richard Hammel, Architectural Consultant for St. Paul Department of Education.

11:30 a.m.—"Landscaping Your Buildings in Minnesota," by Orville Dahl, Landscape Architect from University of Minnesota.

12:30 p.m.—Luncheon—Color film on "Development of Shopping Centers," Frank Cox of Berkeley, California.

2:30 p.m.—Producers' Council Exhibits.

3:00 p.m.—Tour A—Visit to the two low rent housing projects in Saint Paul.

Tour B—Chemical Engineering Building and Education Building, University of Minnesota Campus, and low rent housing project in Minneapolis.

6:00 p.m.—Producers' Council Cocktail Party, St. Paul Hotel.

7:00 p.m.—Banquet. Speaker, Mr. Harold Spitznagel of Sioux Falls, S. D.

Dancing will follow.

For the Wives

By Mrs. Habbley W. Clarke

State Women's Auxiliary President

It is quite apparent, after perusal of the information recently mailed out by the Women's Auxiliary of the St. Paul Chapter of the American Institute of Architects, that programs chuck full of interesting events are scheduled for both architects and their wives during the June state convention. There is little doubt that the girls of the St. Paul Auxiliary have been a busy lot this year getting such a fine list of events lined up for their visiting guests.

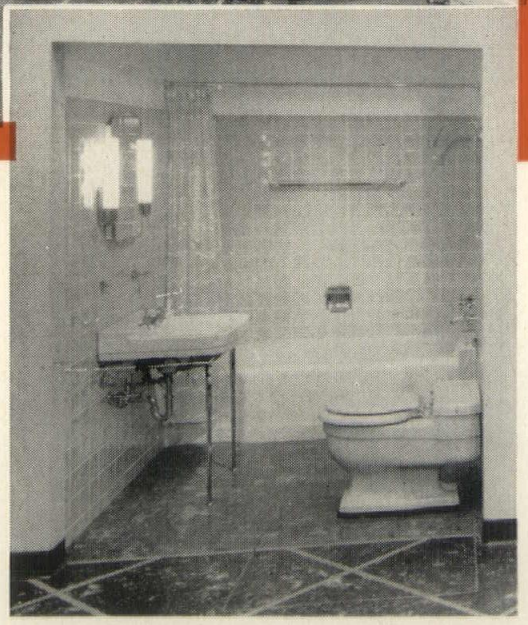
One event not listed on the printed programs will be an opportunity to see the very beautifully detailed model of the new State Capitol Approach. Anyone who has seen this will welcome the opportunity to study it again and, for those who have not seen it, a real treat is in store. It will be fun on the Friday afternoon tour as it passes through the Capitol Approach project to observe what portions of the contemplated work have already been completed and what parts are now being worked upon. This model will be only part of a display on exhibit, which will be open to both architects and their wives, at the Science Museum of the St. Paul Institute.

Mrs. N. Holger Mortensson, St. Paul chapter chairman, with Mrs. Larry E. Hovik as chairman of convention arrangements, set up a fine organization to assist the state president, Mrs. Habbley W. Clarke, in working out details. Working with Mrs. Clarke on the committee in charge of reservations and registrations are Mmes. Donald Haarstick, Theodore L. Sime, Kenneth

(Continued on Page 19)

The Best in the Northwest

MODERN—BEAUTY



Units to carry out your design ideas are on excellent display in our showrooms. Come in and study them. We shall be at your disposal to answer questions and help solve special problems.

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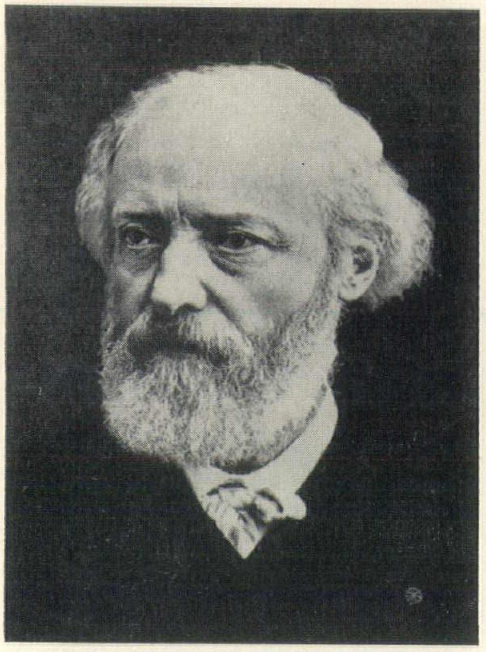

LE DUC 1814 - 1879

Eugéne Emmanuel Viollet le Duc Known to the world of scholars as VIOLLET LE DUC, but for us still a FORGOTTEN ARCHITECT. TO THIS brave and wise Frenchman the world of building owes a debt for its DECLARATION of ARCHITECTURAL INDEPENDENCE

In which we reverently bring fragrant bits of resiny fuel to lay upon the drifted autumn leaves: watch the bright clean flames spring again from the smouldering coals buried for a hundred years.

By William Gray Purcell

ONE rainy Sabbath morning in the early days of radio I lay on my back before the wood fire looking up at the shadowy roof. Into the room came the sound of a minister preaching a sermon in New York, three thousand miles away. The whole situation of time-distance, where he was, where I was, seemed then a fantasy. I suppose all this was what fixed the speaker's words. But then too, his theme was novel. Great men — so many of them — never reached the goals they struggled for. Instead the world gave them applause and gratitude for some secondary action not a part of the life program they had set for themselves. Often they died thinking they had lost.

He reviewed a dozen biographies of the world's greatest men. The targets they failed to hit sped their arrows on to another that made them famous. Good sense tells a man to put his best efforts into *all* he does, thus insure that he may not miss the winning chance.

SUCCESS does not carry you on to your goal; a goal appears to match what you became in the struggle. Big reputations fade, little men unapplauded are seen to have moved mountains.

FOR STUDENTS of architecture, another of those remarkable paradoxes appears in the record of a man who spent most of his life in reconstruction archeology, for ancient French historical monuments. Yet he was the first man of the Machine Age to state the case for a free architecture detached from antique style-form precedent and wholly related to the practical and cultural circumstances which alone could give it form and actuality. Like the heroes in that air borne sermon, he made his struggle in a cause which he knew was right. Its aims he stated with a Gallic logic that the world was not wholly to forget. The battle he began was finally won, but not until sixty years after his death, and was recorded in building forms which he could not have remotely imagined.

IT was Viollet le Duc who first, in modern times, announced and set in logical analyses the broad principle of the "form and function" relation.

HE WROTE in 1864, "And that is not architecture which does not regard the *MATERIAL* in prescribing a *MODE* of building and the *FORM* which results from it." It was to be Louis Sullivan of Chicago who would apply to building in America a potent philosophy that was destined to grow from this so simple proposition. Like the coming of the "small rains," there arrived in the world, without excitement or publicity, a charter for the revolution in the arts, the end of which is not yet seen, will never be seen, because all that we can know and experience in architecture is

part of his "caravan of days," the great flowing stream of man's creative accomplishments.

In 1867 le Duc had been appointed lecturer in the École de Beaux Arts by the Government Minister appointed to serve this French National School of Art. The faculty hated him and the students, well conditioned in aristocratic tradition, refused to listen to him. After a few stormy sessions, he resigned, hired a private hall, invited those interested, and began his famous "Lectures on Architecture" published as a book in 1864. It is this book together with his *"Analytical Dictionary"* which constitute a heritage of living architectural thought which no architect can afford to pass unread.

In 1864 Ruskin said — "I should have written that book."

In 1879 he was honored throughout Europe as the most compelling of thinkers.

In 1950 an English critic, John Summerson, says, "No starting point so firm, no background so solid as that provided by Viollet le Duc."

EVER SINCE I left college I have set as one of my interests a continually better understanding of this man and an acknowledgment of his ideas. Why was I so impelled?

WHEN I first began serious reading about architecture in 1900, I repeatedly met the name of Viollet le Duc, his dictionary and his lectures. I became curious to know about them, but was deterred because I could not read French, and further discouraged because while there was in the Cornell general library at that time the two volume set of his lectures which had been acquired in 1891 and 1892 under Professor Babcock, I did not know it. There was, in 1899, only an index card for the duplicate set which Andrew D. White had made available to the Architectural Library. The books themselves were "lost," perhaps "conveniently," and have so remained. The Parisian Architectural faculty of 1902 just did not dare let students read this man's writings, especially Chapter XIV, for reasons which we shall see.

Curiosity is a powerful mover, and I made some inquiry about this man who was held in such high esteem outside architecture; "why didn't we learn about him?" No answers. It was to be some years before I found out for myself why Bozart hated him.

If curiosity moves you — read this Chapter XIV of "Lectures on Architecture," pages 140-169, in which he describes the ideas and procedures of the official School of Architecture. Here is a powerful indictment of an entrenched educational monopoly, in logic clear and devastating, backed by an encyclopaedic knowledge not to be confuted. Possibly he may have realized the momentum of this world menace, but scarcely could he have believed that his battle, so well begun, would stand at stalemate for twenty years until his cause was taken up by an unknown student, who remained to study in Paris for less than a year, but under whose strategy the struggle was carried on in every western center of culture for another fifty years, and more.

TO BRING this down to our own times and deal with working ideas now familiar to even newspaper readers, let's examine the influence of le Duc on the young American student who was to prove his most effective exponent.

WHEN LOUIS SULLIVAN was studying in Paris during the years 1874-75 le Duc was not only alive, but his Dictionary was appearing one volume a year, packed with closely reasoned definitions of everything connected with building and its art. His lectures had been out only ten years and you can be sure that controversy had not abated. It is certain that the eager and athletic imagination of Sullivan, not only could not have failed to read this man, but we can now place the writings of Sullivan in parallel with those of le Duc. One of the many sources of Sullivan's ability to reason logically, write cogently, and apply such intellectual exercises to practical life, is to be found in le Duc's writings and in those courses in the French School which were uncontrolled by "classical" traditionism. Read what Sullivan wrote in his "Autobiography of an Idea" about his studies in Paris; but read exactly what he says and not what our new anti-nature cults tell you "he said" or "intended to say." *Before all,* read le Duc with care and humility, lifting all examples, metaphors and so on into the implemental world *you yourself know,* of which he could only dream. Help him on with his dream! Your most competent thought is still needed at all levels.

LET us read what this le Duc has to say and enjoy something of the force of his style, however much it may lose in translation.

"ONLY SIMPLE PRINCIPLES are productive and it may be remarked that the simpler they are the more beautiful and varied are their products. *WHAT IS SIMPLER THAN PLACING A STONE HORIZONTALLY ON TWO VERTICAL SUPPORTS?* **Yet from this so simple principle what a numerous train of deductions were drawn by the Greeks. When the Romans were able to discover the principle of the molded vault — the hive structure — they certainly started from a simple principle; but what combinations did they not obtain by working out this primitive conception?"** Volume I, Lecture X, Page 455.

"TO BRING TO LIGHT a very simple principle amid a confusion of principles — and to *HAVE THE COURAGE TO APPLY IT* **uncompromisingly is a proof of a very special genius."** Volume II, Lecture XI, Page 5.

SAID SULLIVAN on this, "When you have made your thunder don't run away."

"WE ARE APPROACHING A PERIOD when it will no longer be permitted to adopt, in public building, forms which are not *THE EXACT EXPRESSION OF THE REQUIREMENTS* **of the case. Now not only do I believe that the rigorous observance of these conditions is not opposed to an**

(Continued on Page 43)

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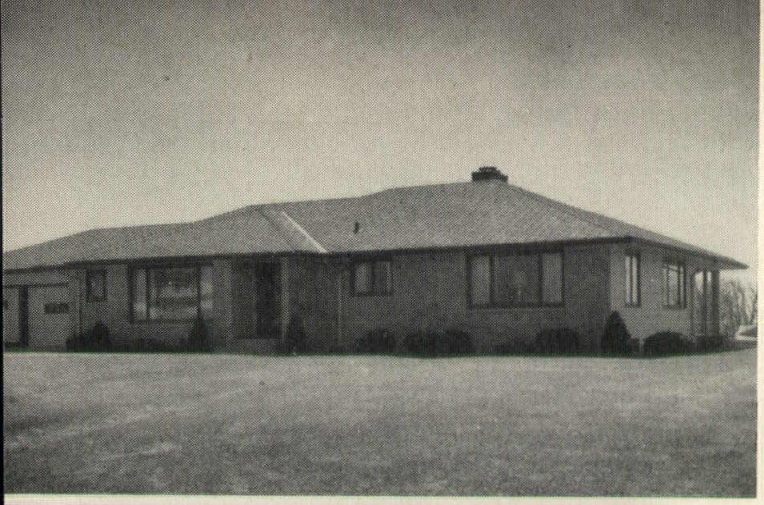
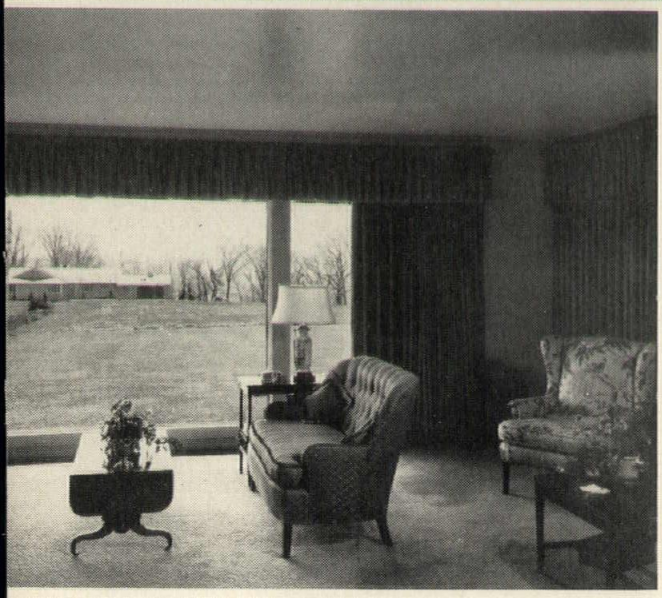




Residence of Architect

MAX O. BUETOW

2152 Upper St. Dennis Road St. Paul, Minnesota

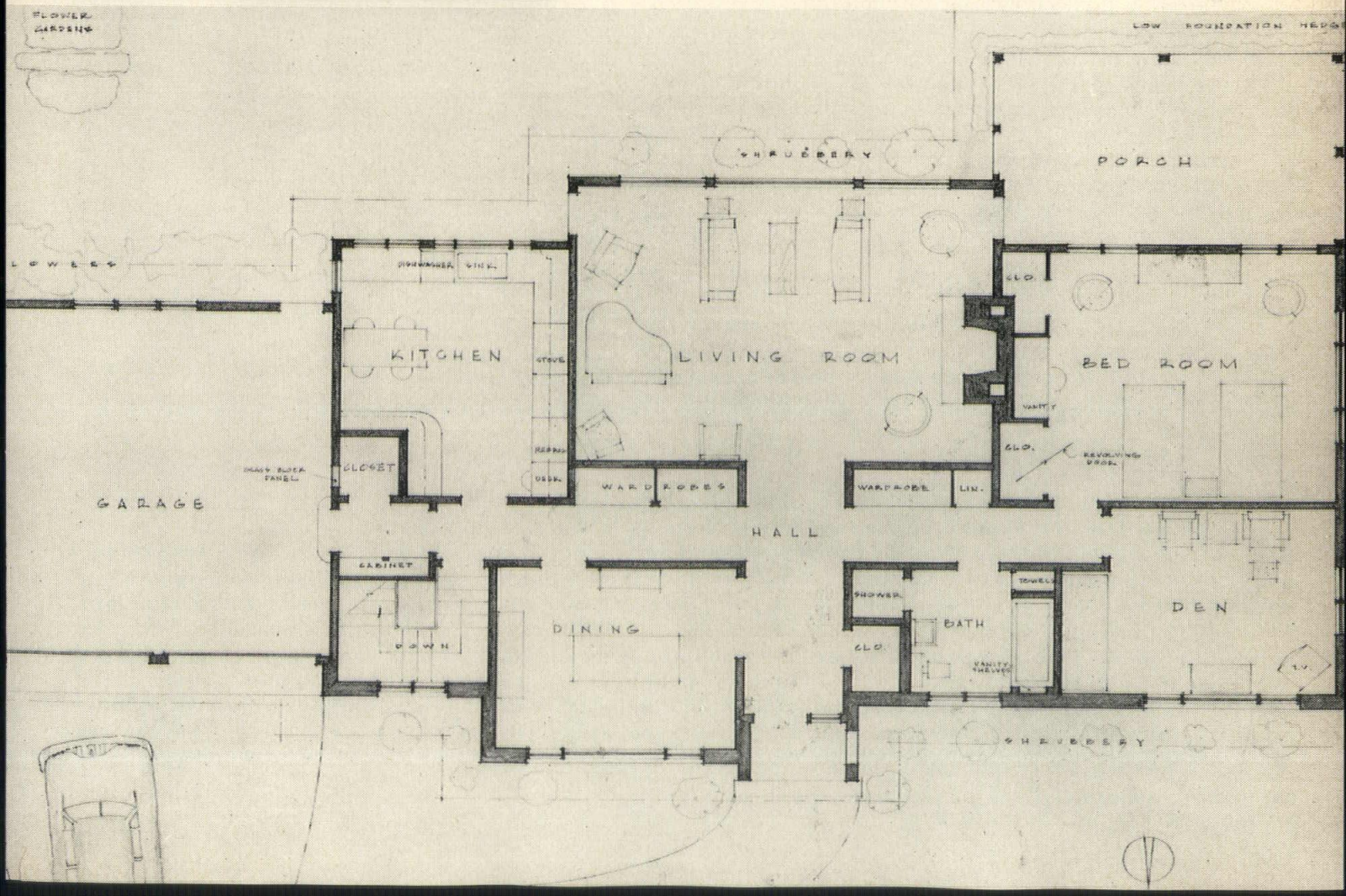
Plan prepared by architects Max and Gerald Buetow in collaboration with Mrs. Max Buetow, who contributed many helpful, practical suggestions.

Connecting hallways provide convenient access to all rooms without passing through any one of them to reach front entrance, bedrooms or bath.

Spacious living room with full length picture window affords a panoramic view of the surrounding exterior.

Pella casements with their wide glass exposure, self contained storm sash, rollscreen and ease of operation, fit perfectly into the basic theme of the design.

Pella Casements . . .



A.I.A.'s Partner:

THE PRODUCERS' COUNCIL

Mr. Rabe

Many architects are not familiar with the origin and purpose of the Producers' Council. They do know that the Producers' Council has informational meetings and a Christmas party, also that the council participates in the state A.I.A. convention. These are some of the activities.

Approximately twenty-seven years ago, the council came into being at the request of the board of directors of the A.I.A. The board of directors and representatives of the building material producers of the United States met. This meeting resulted because the architects realized that the time had come for a better understanding among architects and producers as to their common interests in products entering into construction.

As a beginning, a demonstration had been prepared to show the wastefulness of product literature and advertising distributed to architects. At the institute's fifty-fifth convention creation of a producers' section of its structural service committee was authorized. This was formed to advise and counsel with manufacturers on the character of their advertising as to size, form and content and to promote sincerity and reliability of statement in advertising.

Independent Group Formed in 1923

In 1923, a separate organization of producers was formed and the president of the institute was requested to appoint a special committee to represent the institute in co-operation with a similar committee acting for the producers in developing an independent organization of producers.

As the co-operation continued, changes were effected in the name of the council which became The Producers' Council Incorporated and the structural service committee of the institute became the structural service department, now known as the department of education and research.

The literature and seal of the council were permitted to bear this statement "The Producers' Council Incorporated affiliated with the American Institute of Architects." The agreement of affiliation had as its objectives (1) a closer and more professional relationship between architects and the producers and (2) the issuance of trustworthy information regarding materials and their uses.

Today the Producers' Council has thirty-two local chapters created for a local relationship between architects and producers. As a result of the most recent review of the agreement of affiliation, it was agreed that the institute and council can most effectively co-operate on the following activities:

1—To raise the standards of advertising.

2— To advance the knowledge of the most effective use and assembly of materials commonly used together in building construction.

3—To furnish, as rapidly as possible, advanced knowledge of materials and methods resulting from research or field experience.

4—To assist in education of students of architecture, engineering and related construction arts.

5—To instruct the construction industry and the public in economies of modular co-ordination.

6—To assure the architectural profession of the maintenance of the proper standards of advertising material appearing in the council bulletin.

It is the hope of the council that in the future, all segments of the building industry will co-operate more closely. We believe that this co-operation is necessary for the welfare of the industry.

W. H. Rabe, President
The Producers' Council, Inc.
Minnesota-Dakota Chapter

SUBDIVISION REGULATIONS SUGGESTED

Subdivision regulations for guidance of land use experts have been suggested in a currently printed government publication, "Suggested Land Subdivision Regulations" of the Housing and Home Finance Agency.

It is available from the Superintendent of Documents for 45 cents. Included are sections on procedures, design standards, required improvements, plats and data, variances, etc. It is intended as a guide to drafting of subdivision regulations, allowing for local deviations due to area peculiarities and requirements.

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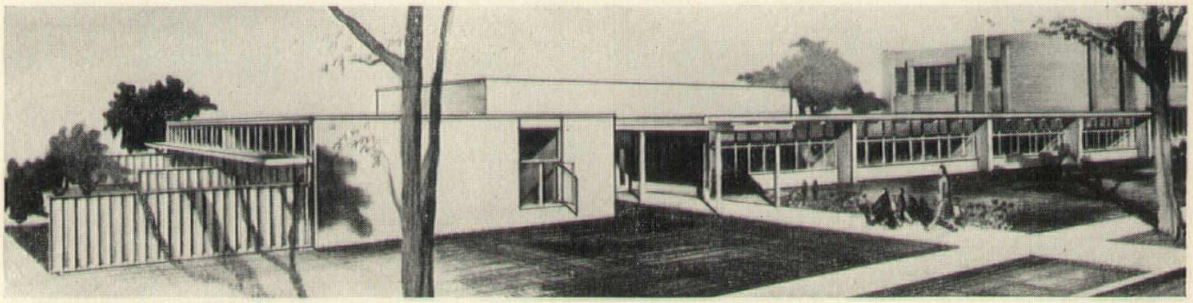
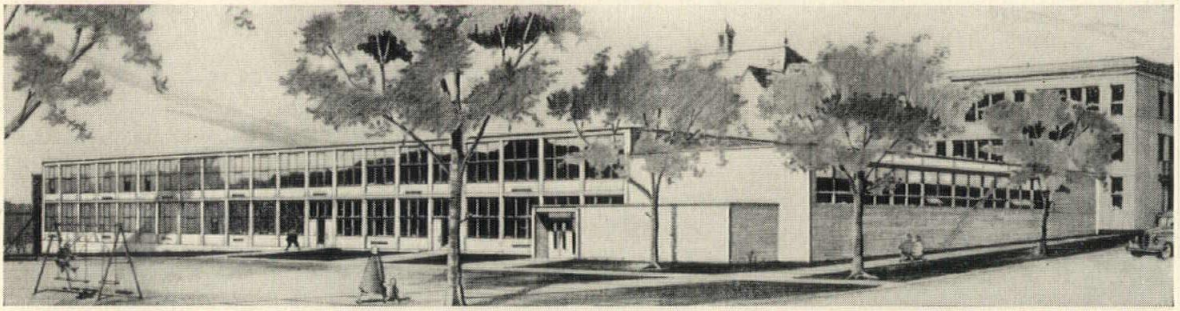
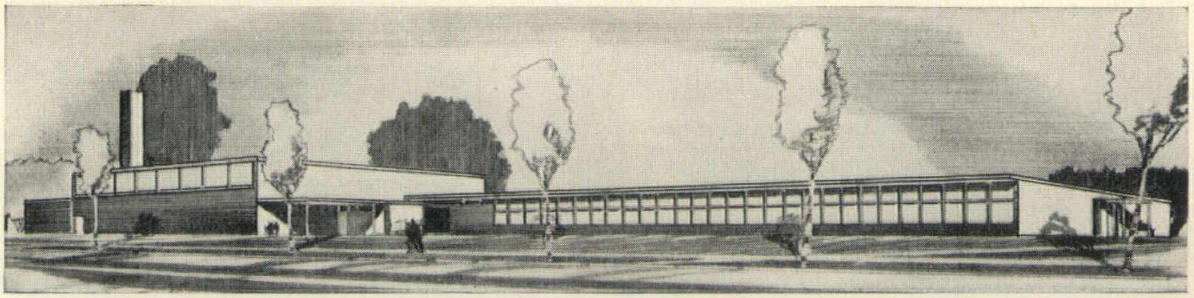


Addition to Chelsea Heights School, St. Paul, Minn.
Architects—Haarstick, Lundgren & Associates, St. Paul, Minn.
Genl. Contractor—Sauers Construction Co., St. Paul, Minn.



Addition to Blue Earth Elementary School, Blue Earth, Minn.
Architects—Haarstick, Lundgren & Associates, St. Paul, Minn.
Genl. Contractor—Lysne Construction Co., Blooming Prairie, Minn.
Roof Deck Contractor—



Elemenrary School Building, North St. Paul, Minn.
Architect—E. D. Corwin, St. Paul, Minn.
Genl. Contractor—I. L. Moe & Son, Bayport, Minn.
Roof Deck Contractor—Curran V. Neilson Co., Minneapolis, Minn.

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Architects-Contractors Committee Issues Cost-Plus Contract Details

The Joint Co-operative Committee of the Minnesota Society of Architects and the Associated General Contractors of Minnesota has taken action approving and recommending procedures for submitting requisitions for partial payments on both lump sum and cost-plus contracts. Following is the Recommended Standard Practice for Cost-Plus Contracts:

Recommended Standard Practice

As Revised and Approved by Minnesota Joint AIA-AGC Committee for Submitting and Clearing Contractors Periodical Payment Requests in Cost-Plus Work
April 24, 1952

1. The contractor shall submit a statement in at least three copies listing all invoices, payrolls and charges, incurred for the work adding overhead fees or profits as separate items, with a single copy of all supporting payrolls, invoices and charges attached to the original statement. Except for minor items, such copies shall be carbon copies of vendors invoices and contractors payrolls.

2. All charges shall be approved by the architect if they are proper under the terms of the contract between the owner and contractor, and shall be disallowed if not. The architect shall verify the statement for compilation and addition.

3. The original statement with corrections, if any, and all the copies of supporting papers shall be promptly forwarded to the owners with the architects certificate approving payment of total amount considered currently payable, subject to any retained percentages provided for in the contract.

A copy of the architect's certificate, and a copy of the contractor's statement, showing and explaining charges in the statement, if any, shall be mailed to the contractor at the same time.

A third copy of the contractor's statement with revisions, if any, shall be kept in the architect's files.

4. Periodical detailed audits of all statements may be made by the owner.

5. The statement for final payment shall be made after the completion of all work at the site. Certification shall be made when satisfactory evidence of payment for materials and sub-contractors has been submitted and such certification shall include all amounts previously retained.

A recommended sample form for requisitions on lump sum contracts has been prepared by the committee and is available from the A.G.C. office. It should be noted that in the sample form for lump sum contracts the items listed for payment are tied in or are identified with the Standard Check List for Specification Titles. The items and numbers, wherever possible, should be taken from the check list.

The Joint Co-operative Committee invites comments concerning its recommendations.

Minnesota Convention *(Continued)*

small city. A graduate of the University of Pennsylvania, he worked in Indianapolis and Chicago for a while and then returned to Sioux Falls, S. D., to open his office in the '30's. Through the years since he has carried on his work at a high level of design and his buildings in the area are contemporary in the finest sense.

The Producers Council exhibits shown in connection with the convention will present the latest in materials and give architects a chance to get manufacturers' and distributors' advice on material problems. In addition to the formal aspects of the two days' meetings, plenty of opportunity for recreation will be provided and the out-of-session discussions among members and guests will provide added possibilities for enhancing knowledge of the many things which today must be gathered into the architect's store of working knowledge.

For the Wives *(Continued)*

Fullerton, E. Richard Cone, Donald A. Wright and Donald W. Denzier.

The committee on identification tags under Mrs. Mortensson has already completed a large part of its work by relying on the handiwork of the entire group at a couple of the regular monthly meetings. As a result some unique and clever tags are forthcoming—ones anyone will take pleasure in wearing. Assisting her in obtaining materials and alloting work were Mrs. Gordon M. Comb and Mrs. James Hirsch.

The Friday Luncheon in the University Club and the most interesting afternoon program are under the able direction of Mrs. Allan H. Meinicke, assisted by Mmes. Grover Dimond, Frank Clark, Thomas F. Lynch, John W. Dawson and Robert Kerr. Mrs. George Darrell is acting as chairman of the Saturday luncheon in the St. Paul Athletic Club. Working with her are Mmes. Thomas Horty, James D. Voigt, J. R. Corwin, Charles K. Berg and Earl Wesley.

Prizes to be drawn for at the Saturday afternoon program are being donated and gift wrapped by members of the St. Paul Auxiliary. Mrs. Louis R. Lundgren is in charge of collecting these and will be assisted at the drawings by Mrs. Thomas F. Ellerbe.

Mrs. Jack Witherspoon is in charge of souvenirs, which will be distributed with the help of Mrs. Mark Nelson and Mrs. Elza L. Gardner. Heading up decorations for all events is Mrs. Edwin Larson, assisted by Mmes. Edwin H. Lundie, Norman Johnson, Gerald Buetow, Max Buetow and William Shannon.

GENERAL HOSPITAL NURSES FEED ARCHITECTS' WIVES AT TEA

Miss Georgia Nobles, director of nursing for Minneapolis General Hospital, and student nurses there recently gave a "thank you" tea for wives of Minneapolis architects in appreciation for support by the architects' wives of various activities of the school. In the next issue we shall give a detailed report of the various activities of this group.

Producers' Council Gathers for Information Meeting


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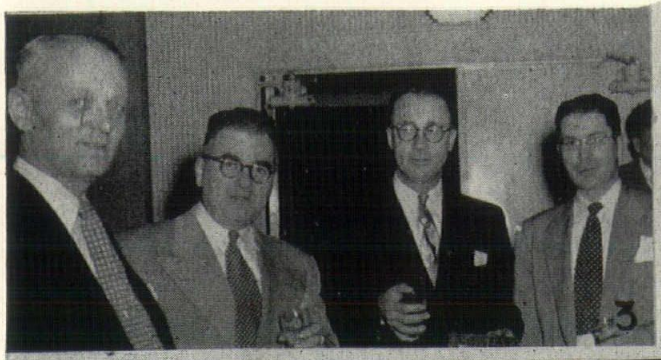
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We present on the opposite page a series of pictures taken at a recent informational meeting sponsored by the Producers' Council under the auspices of the Northern States Power Company's industrial and commercial sales division for members of the A.I.A., Minnesota and Dakota Chapters. The pictures show, in each case left to right . . .

1—Bob Olsen of NSPC's lighting division, who is general chairman of Producers' Council activities.

2—John Newhouse, supervisor of commercial electric cooking for the firm.

3—W. H. Rabe, president of Minnesota-Dakota Chapter of the Producers' Council, Clair Armstrong, president of Minneapolis Chapter of A. I. A. E. P. "Andy" Albert of Crown Iron Works, Minneapolis, and Bob Olsen of NSPC.

4—Don Greene and Fred Gabbert.

5—Siv Bertozzi, architectural engineering department, Minnesota Mining and Mfg. Co., Arthur Schultz of Lang & Raugland, architects, Paul Haugen, MMM's architectural engineering department, and Worth Dubois of MMM's mechanical engineering department.

6—President Rabe, George Townsend, Hal Fridlund, editor of NORTHWEST ARCHITECT, Bob Olsen, Bob Bowman of Kawneer Co., and Andy Albert.

7—D. W. Grosshandler, sales education manager, C. J. Imhof, zone manager, Midwest district, Walter Sormane, sales manager, and E. C. Alft, Midwest district manager, all of Hot Point's commercial equipment division.

8—Ken Backstrom, George Townsend and Bert Flick.

9—Rolande Johnson, business manager of Immanuel Hospital, Mankato, L. A. Gauthier, Walter Gilbert, manager of industrial sales, NSPC's Minneapolis division, H. T. Westerlund, Mankato sales division manager for NSPC.

10—Lloyd Kneen, Art Laatch, C. T. Bremicker, vice-president of sales for NSPC, John Newhouse, Walter Gilbert and Emil Souba.

11—Jack Witherspoon, Gardner Ellerbe, Arthur Schultze and Telford Moore.

12—Charles Jones, Habbley Clarke, Russ Danielson and Dan Faurell.

HOME CONSTRUCTION PROD SET FOR SEPTEMBER

A prod to home construction will be the National Home Week scheduled for September 14 through 21. During the week model homes are put into the spotlight, allied industries make special advertising efforts and architects specializing in home design have an opportunity to help put across good modern planning.

In some areas groups of architects and contractors cooperate in arousing community interest in home building through special events and find aid in publicizing the event through their newspapers and local radio stations.

Drive-In Lobby Featured in New

RIDPATH HOTEL

The new $3,000,000 Ridpath Hotel, which opened April 5 in downtown Spokane, Wash., is the first hotel in Western United States to feature a drive-in lobby for guests arriving by automobile. Designed by Architect Ned H. Abrams of Sunnyvale, Cal., it also demonstrates the important savings that can be made with lightweight design and fireproofing—in this case, $102,500 in structural steel and foundation costs alone.

Two years ago, Spokane's most spectacular fire gutted half of the existing 5-story Ridpath and it was imperative that the new hotel, planned for 13 stories, proceed without delay. By saving 250 tons of structural steel, Mr. Abrams was able to get clearance after government controls had clamped down and the steel had been ordered. Had the structure been built any other way, there would be no new Ridpath today, Mr. Abrams said.

Vermiculite plaster fireproofing eliminated 5,000 tons of dead load, compared with poured concrete fireproofing. Another 2,500 tons of dead load were eliminated with lightweight concrete floors. This total dead load reduction saved $62,500 in steel costs (250 tons at roughly $250 per ton). In addition, $40,000 was saved in the cost of foundations, since they could be cut down in size because they carry less weight.

The new hotel and its busy location are shown at the left. Note the window cleaning track and clubhouse at top. Below is the inviting entrance to the "auto lobby."

The Producers' Council, Inc. Minnesota-Dakota Chapter

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The new Ridpath has a prefabbed light stell skeleton that is welded throughout to provide an exceptionally strong and rigid framework. The steel is fireproofed with suspended ceilings of vermiculite plaster, 1" thick on metal lath for public spaces. This fire-resistive plaster was also used on all partitions and linen chutes, as well as on exterior walls for additional fire protection and insulation value. Steel columns on bedroom floors are concealed in the partitions, which are built of steel studs and channels and metal lath. Free-standing columns are fireproofed with 1½" of vermiculite plaster.

The thoroughness and efficiency of the fireproofing are shown by the 4-hour fire rating granted the structure and also by the lowest insurance rate it is possible to secure for a building of this type. The annual saving in premiums amounts to $2,000, a saving that will go on year after year.

The clean-lined brick and glass facade of the building is as modern as they come. Exterior walls are brick veneer over a back-up wall of 1 inch grout on paper-backed wire mesh, steel frame and vermiculite plaster on metal lath. Granite, marble and travertine were used lavishly for trim.

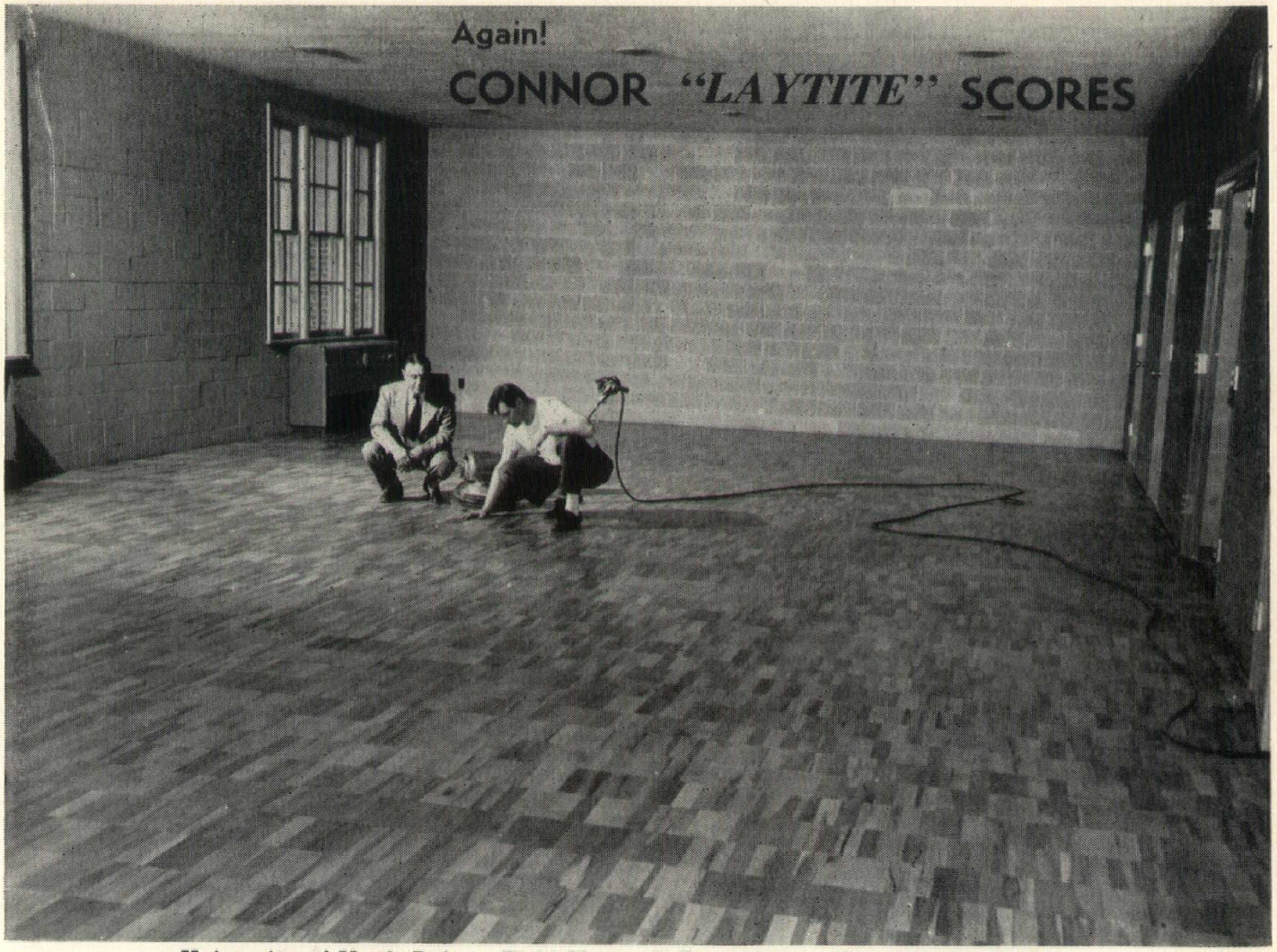
The hotel's mezzanine with its fine fireplace and the open well to the "auto lobby" below.

All windows are double-glazed vacuum sealed plate glass set in steel sash. The hotel is air-conditioned throughout—another Spokane "first"—and is said to have more double-glazed vacuum sealed windows than any other building in the west. The glass will be washed easily and safely from a tramcar, which can be raised, lowered and moved diagonally. It rides on a steel rail that projects 3 feet all around the roof line.

The two lane drive-in is on the main floor. The entrance, which is on Sprague Avenue, is completely open, enabling traffic to move in and out of the hotel freely. Behind a glass partition, just a few steps away, are the registraion desk and elevators, so that travel-worn motorists can check in and get to their rooms with minimum effort and without passing through a lot of people. An attendant unloads baggage and takes the car to basement storage, where three floors (ramp connected) accommodate 100 cars. It is expected that this will prove an effective solution of the parking problem, clogged unloading zone and motor court encroachment on hotel business.

On the main floor, also, are the dining room, breakfast bar, kitchen, cocktail lounge and an arcade from which fire specialty shops open. Store fronts are heavy plate glass and polished granite, doors of plate glass, hardware is extruded aluminum. Minimum use has been made of partitions; maximum use of planters and screens. Most of the floor area is carpeted for a luxurious effect. Only main traffic lanes are terrazzo.

The dining room is terraced around a circular, copper-hooded island hearth, ringed with booths. The raised section with its tables overlooks the hearth and a stainless steel kitchen with an open broiler, where a show can be put on in the preparation of food. The lower portion of the kitchen is stone, the upper part, copper. The cocktail lounge and a cheery breakfast



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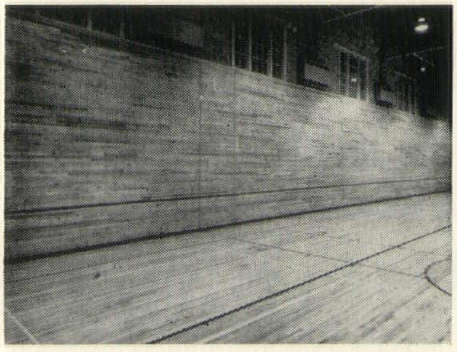

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"Laytite" regular strip flooring installed in main gymnasium over a diagonal sub-floor, first grade 25/32"x1½". Also installed in an adjacent gymnasium—not illustrated.

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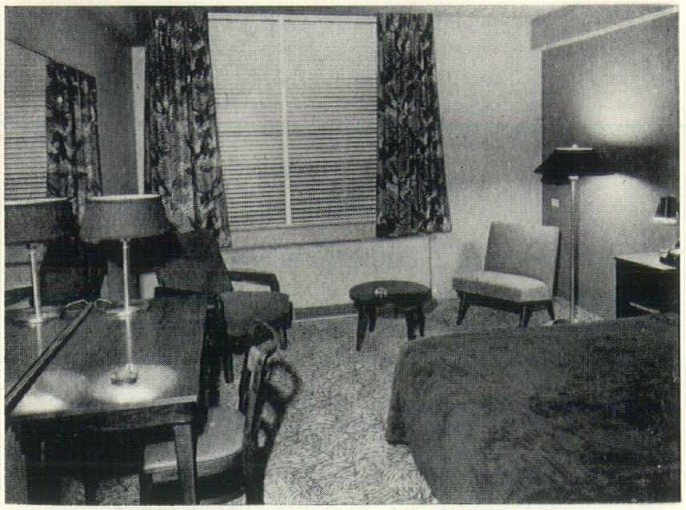
bar open to the right. The latter is separated from the dining room by folding doors. The dining room seats 118; the breakfast bar, 40. These facilities are supplemented by a series of private dining rooms and complete accommodations for conventions and group gatherings.

The oval terrace lounge on the mezzanine strikes another new note in hotel accommodations. It features a stone fireplace at one end and an open center well that is encircled by a protective railing, and overlooks the drive-in lobby below. Office space occupies the far corner at the east end. The banquet room, opening at the west end, seats 300 and on occasion is used as a ballroom.



One of the Kidpath's inviting rooms

There are 300 guest rooms, 20 to the floor on the typical layout. Typical room size is 12′ 6″ by 13′ 7″ but the wide entry-way and absence of projecting columns give the effect of a larger room. Space-saving 2-inch solid partitions of vermiculite plaster were used within rooms. All but 66 bedrooms are the one-room-suite type, a living room by day, a comfortable sleeping room at night. At the south end of each floor is a suite of three rooms, one with a double bed, one with twin beds and one with two double beds.

All rooms are wired for radio and television and have individual air-conditioning units and temperature controls. Bells on room telephones have a special volume control that can be modulated by the guest. The hotel was furnished at a cost of $450,000. Every room has its own bath, including the three-room suits. Baths are ceramic-tiled from floor to ceiling and, despite the size of the building, virtually all plumbing lines and soil pipes are brass or copper.

The unique bathroom access panels represent a cost saving of more than $2,500. They were made specially of channel iron, 18-gauge mesh and vermiculite plaster. Metal panels would have cost about $18 each. The plaster panels were only $6 each and have the further advantage of being lightweight and fireproof.

The entire thirteenth floor is occupied by the Spokane University Club, which has a long-term lease on this portion.

The steel and weight-saving features of the hotel have attracted wide attention. The all-welded aspects are treated in a current issue of *Steel Construction Digest*.

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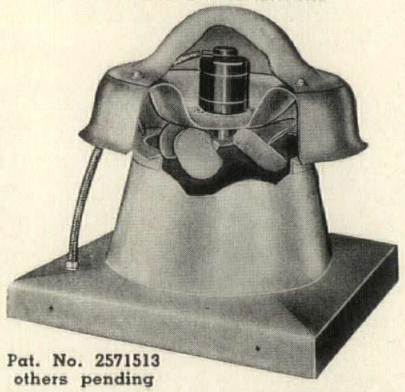

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AirXpeler "PB" designed by engineers at the request of engineers who want a modern type ventilator to work with present-day buildings, ships and other applications. Fan blade is a specially built pressure type to operate efficiently at static pressure up to ½ inch.

By installing a reverse switch motors can be run forward or backward, so they exhaust out foul air or blow in a supply of fresh air. For absolute quietness in schools, hospitals, churches or offices use "X" or "Y" units in specifications.

The correct designing of the AirXpeler ventilator head and cover with its curved surface that fits over the full venturi inlet, allows the air to strike the curved surfaces and creates a negative pressure or suction without the use of electric motor. If the wind is not strong enough for gravity ventilation, you have positive ventilation by turning on motor.

Refer Sweets 1952 Catalog Eng. Sect. 5e/Amm
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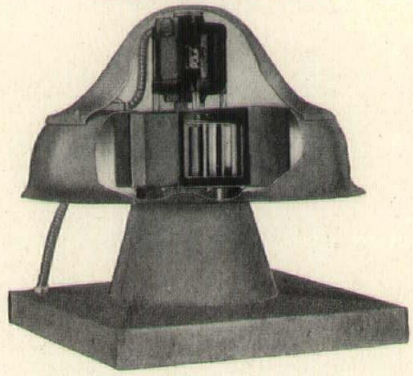

AIRXPELER "BW-Hi Static" power roof ventilator consists of a regular forward curve blower wheel within a scroll type of housing. The full venturi inlet eliminates turbulence and reduces noise. No need for backdraft damper.

Exceptionally efficient on static pressures above ½-inch *as scroll housing is unchanged.* Any manufacturers' blower wheel and scroll housing moves more air when mounted on venturi base with spun storm band.

Compare the low height and beautiful streamlined appearance of the AIRXPELER "BW-Hi Static" Ventilators with usual gravity type or utility belt driven blowers and pent house fans. Sturdy construction of heavy mild steel, treated to withstand moisture, steam, mild acid and lactic fumes *(acid resistant or other special metals on request, extra).* Regular finish is hard-baked gray enamel *(hammered effect)* for durability.

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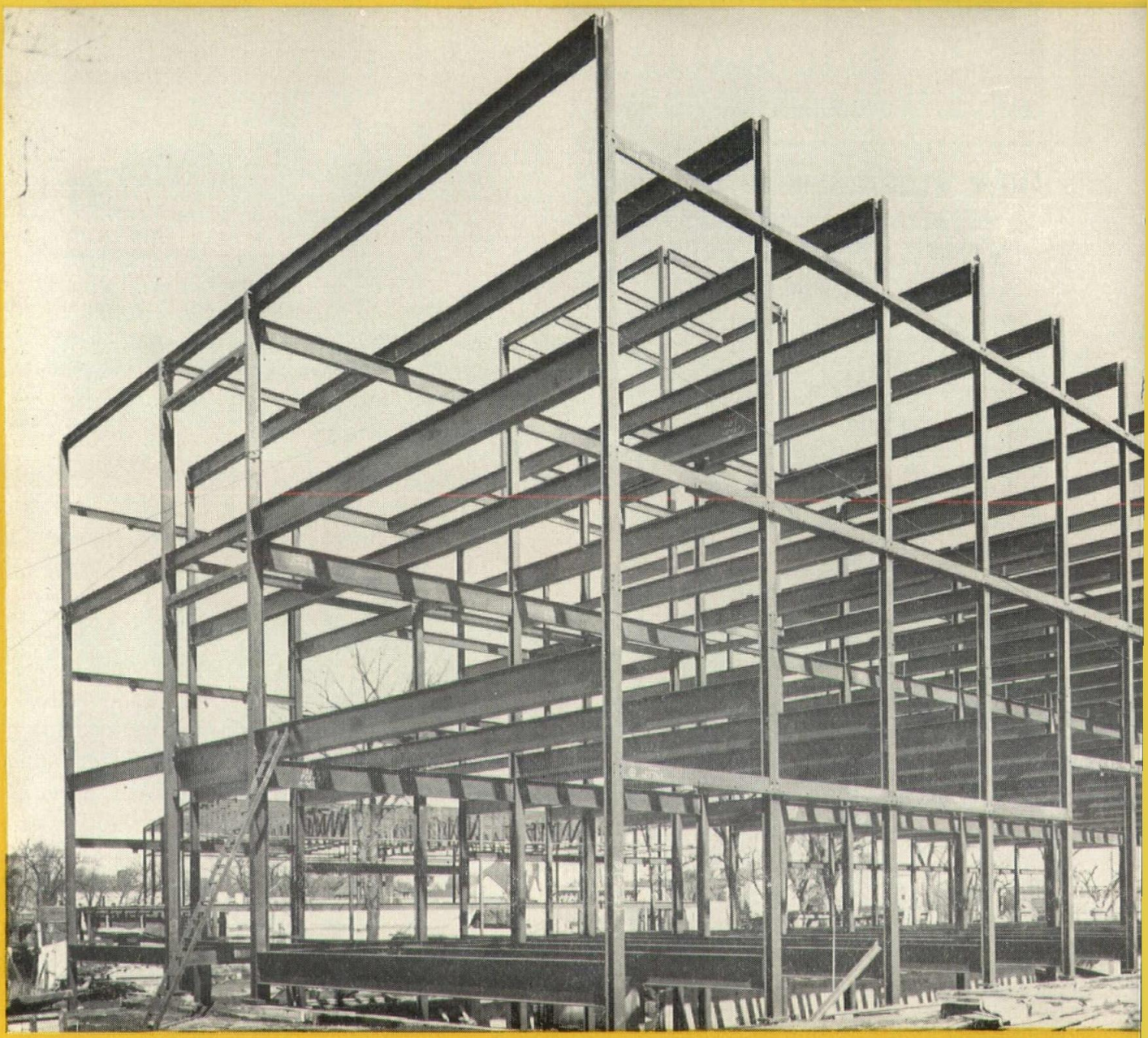
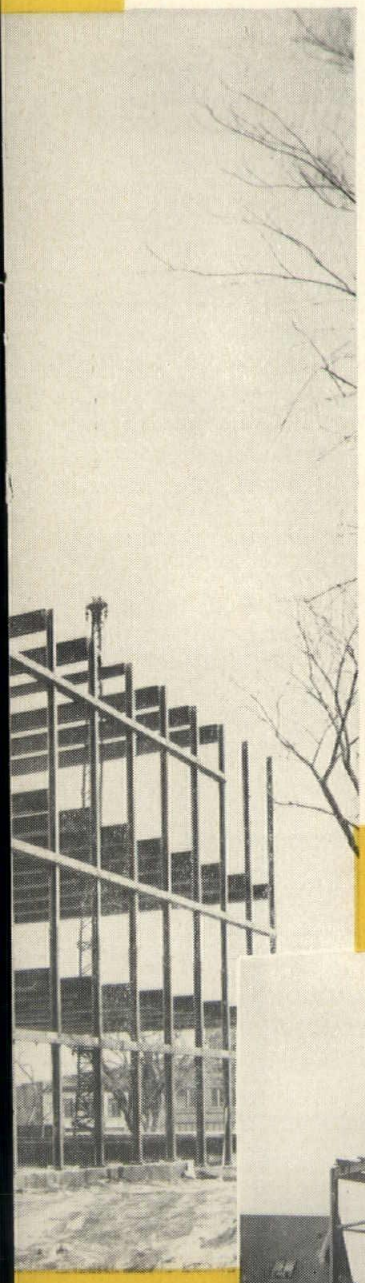


Partially completed framework f
the Secondary Laboratory Scho

Grows . . .

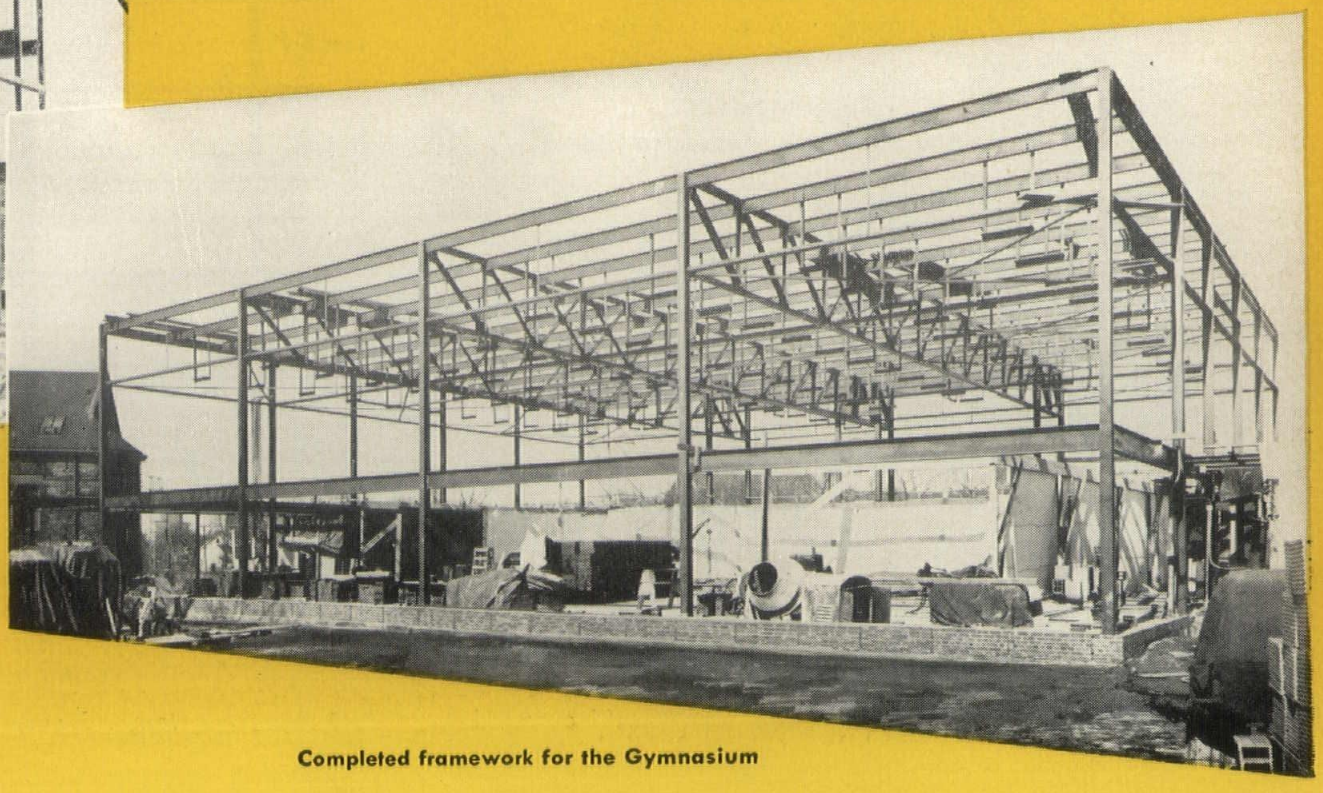
WITH PACAL STEEL



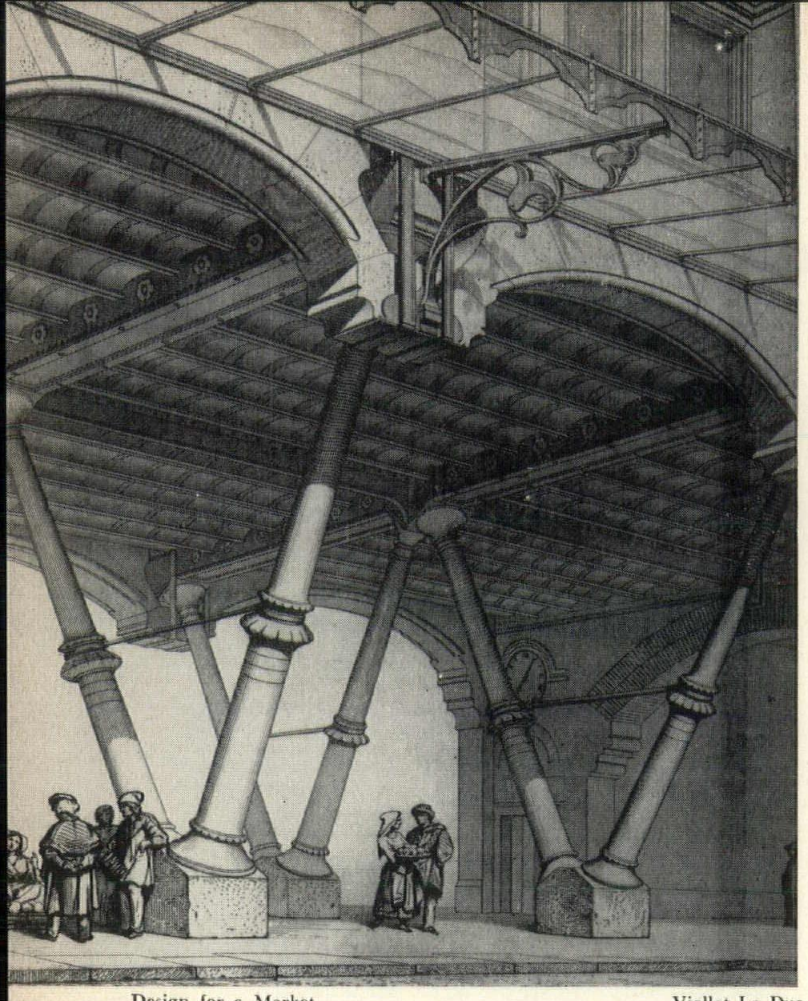
PACAL STEEL plays an important part in the building program of one of America's great educational institutions, the University of Minnesota, Minneapolis.

The latest construction on the campus using Pacal Steel is the Secondary Laboratory School and Gymnasium which will contribute substantially to the ever-growing functions of the University.

The architects for this magnificent project are Magney, Tusler & Setter, Minneapolis, Minnesota. Contractor—D'Arcy Leck Construction Co., Minneapolis, Minnesota. Steel Erector—Gust A. Erickson, St. Paul, Minnesota.



Completed framework for the Gymnasium



Design for a Market — Viollet Le Duc

Le Duc's Progressive Imagination

STUDY the amazing adventure pictured here; designed without benefit of "trial and success" in the innumerable engineering structures that in 1852 were yet to be built and tested the world around. Try to imagine yourself in the Paris of Napoleon III. Your practical reactions would be the fear the building wouldn't hold up. Your asthetic sensibilities would be shocked—"raw bones of horrid iron!, displacing honorable stone."

It was hard for them to imagine *ahead*. It is equally hard for us to *penetrate* the quaint architecture and realize how bold, how honest, how right this building was — and is. You may agree with me when you study the structural diagram of the 1952 American Office Building for Physicians shown opposite.

It is rather unbelievable that this structural system of *eighteen* hundred and '52 was not to be used again, to my knowledge, until *nineteen* hundred and '52, in the MIDWILSHIRE MEDICAL BUILDING of Los Angeles, by Architect Victor Gruen, A.I.A., R. L. Baumfeld, Associate. In this contemporary American building, with Edgardo Contini as Engineering Consultant, we find rising from basement, up through the first two floors, a row of giant steel crotches directly along the center line of the long axis of the building. Upon these rest pairs of columns which alone support the upper five stories of the building. The floor girders are cantilevered out eight feet to support the very light enclosing walls.

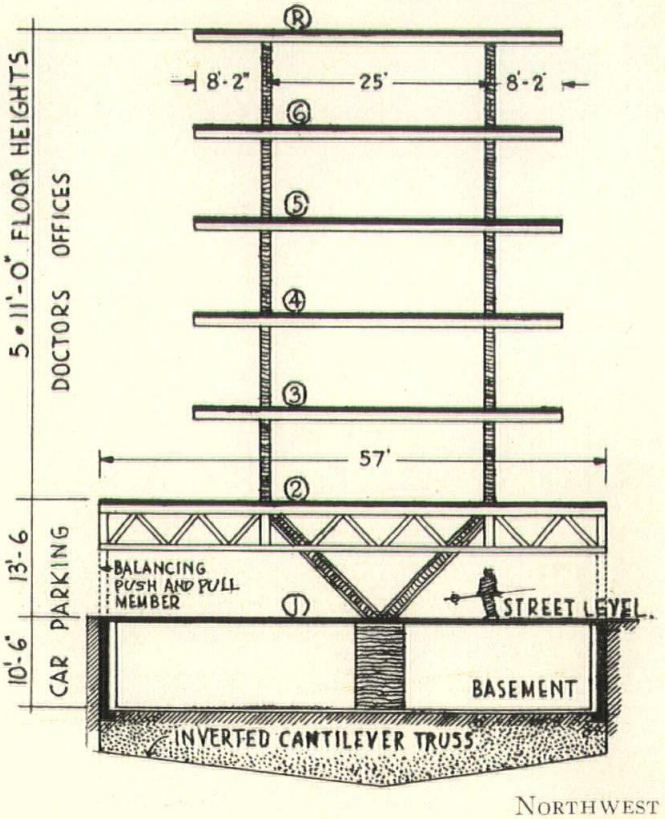
The entire steel structure and loadings of upper five floors are carried by columns down to cross trusses. Total loads on columns are transmitted through diagonal struts to central row of piers. Footings under piers are designed as inverted cantilever beams anchored under basement walls. These walls shown in black, act as continuous beams.

During the one hundred fruitful years between Le Duc's first proposal to use this dynamic system, in structural fabrics of buildings *at the very beginning of the age of iron,* and *this last word of the age of steel,* it is amazing that in all that varied structural invention no one should have rediscovered and put to practical use this perfect member relation in a metal framed building skeleton.

Messrs. Gruen, Baumfeld and Contini have achieved a very bold application of this principle, to a tough automobile maneuver and storage tangle, in the machine age horseless-carriage-stable which occupies the two lower floors of this distinguished building. Photographs can be seen in *Progressive Architecture,* Dec., 1951, pp. 74-77. Detailed study of this project is essential to any architect planning commercial buildings. And this Medical Office Building is truly "original," for although it uses Viollet le Duc's principle I would be greatly surprised if these 1952 Los Angeles colleagues of A.I.A. ever heard of our French hero of the building art; very few Architects do know about him. Hence this month's story.

Now look again at Viollet Le Duc's 1852 building. In any era it would be certainly a bold concept to balance a masonry mass on the thin point of cast and wrought supports. But look closer. The girders of the floor above are cantilevered beyond the diagonal column caps, *through* an opening in the wall — no, it is not really an opening and those are not arched "openings." See, they are little masonry bridges! They spring

(Continued on Page 45)



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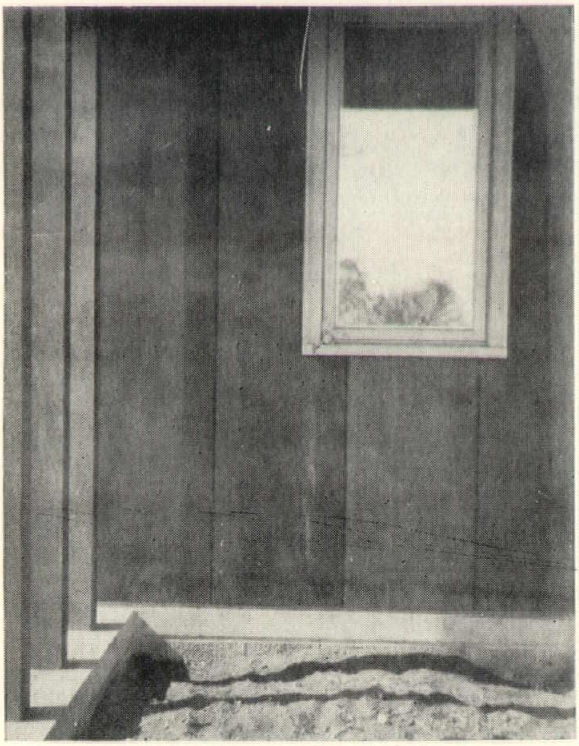

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Shown is the Frank Villaume home in St. Paul. Picture at the right shows the combination of PALCO PANEL and shakes.

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"The Module's" Popularity Grows

Modular construction as it is used in design and construction today was given a thorough going over during a joint meeting sponsored by the Minnesota Society of Architects and Associated General Contractors on April 17. About 60 members of the two groups heard William Demarest, Jr., of A.I.A. headquarters in Washington, and John Magney of Magney, Tusler and Setter, Minneapolis architectural firm, discuss the factors involved in modular work. Knowing the keen interest of our readers in this fast-growing method, we here reprint Mr. Magney's remarks to the Minneapolis meeting.

MODULAR COORDINATION

By John R. Magney of Magney, Tusler & Setter

Our office has used the modular system as standard office practice for the past several years because it makes drafting room procedure much easier. The system standardizes office practice without standardizing architectural design and detail. Because it is a simpler system, it reduces the chances of drafting room errors and reduces drafting room costs.

To appreciate the system, an architect has to believe that a building should be laid out in increments of the materials used in its construction. In a building of standard brick, the increment is approximately 8½ inches. A quick glance at an old brick scale will indicate a large number of uneven dimensions and fractions involved in the old-fashioned system. To complicate it further you have to add a brick joint for the openings and subtract a brick joint for the piers. A similar complication is encountered in the vertical dimensioning.

In the modular system the basic increment for measurement is 4 inches, regardless of what material you are using. Horizontally the dimension from center to center of mortar joints is an increment of 4 inches. Vertically the dimensioning is similiar. If you are using cement blocks or modular brick, 3 courses in 8 inches, the vertical dimension should be in multiples of 8 inches. If you are using the nominal 4-inch high brick, the vertical dimensions can be multiplies of 4 inches.

Because the increment of measurement is so simple, the dimensions can be determined with an architect's scale. For this reason, the principal dimensions can be determined in the sketch stage. This eliminates the costly, time-consuming process of converting the sketches to masonry dimensions.

One of the great advantages of the modular system to the architect is that it permits him to use a design module in designing his buildings. Some grids that we have used successfully are 3'-4", 3'-8" and 4'-0". These grids determine window openings or mullin centers, locate many partitions, determine column centers and eliminate a large amount of dimensioning. And they fit in automatically with modular units, whether they are masonry, glass block or windows. We also show these grids in mechanical and electrical drawings because they are used to locate lighting fixtures, ceiling grilles, access panels, etc.

I want to make a special point of the value of these grids. They afford a tremendous opportunity to save time, material and money. They reduce the chances of making errors in the drafting room and on the construction job. I just can't say enough good things about them.

Detailing is also simplified because of the 4-inch grid system. It is not necessary, or even desirable, that you remember all of the so-called imaginery 4-inch grids in all three directions. In working out a window detail, the only important grids are those at the head, jamb and sill. The head detail of a window, for example, is timed to the head grid of the window opening and it just has to fit and it will fit. Many of the window manufacturers are supplying details of their modular windows. To work these into a modular opening is strictly a case of tracing.

Interior detailing is similar. Whether the partitions are partition tile, exposed brick, cement block or glazed ware, the basic principle holds—time the detail to the peripheral grids and it will work. In a 3-foot masonry opening you can use a 3-foot door if the frame is hollow metal and the masonry extends into the frame. If the masonry butts the frame, use a 2'-8" door or increase the opening 4 inches where a 3-foot door is desired. With wood frames and bucks you will find that a masonry opening 6 inches wider than the door size will work satisfactorily. In this case you may use a 2'-6", 2'-10" or a 3'-2" door. Vertical dimensions work out in a similar way. In interior detailing the modular system is very helpful when an architect prefers to use a partition material which in itself is the finished wall. As you know glazed ware and structural glazed units are only made in modular sizes. In dimensioning with the modular system, there are a few basic principles to remember. The dimension line which is taken to a grid line is shown with an arrow. A dimension to anything off the grid line is shown with a dot. This distinguishes the grid lines and ties any detail to the general grid system.

The modular system also applies to the structural frame work. Wood frame construction has been modular for longer than any of us can remember. It is common practice to set joists, studs and rafters 16 inches on centers, which is an increment of 4 inches. This accommodates 4-foot-wide sheets such as plywood, fiberboard, gypsum board or rock lath.

For obvious reasons it is impossible to make structural steel shapes in increments of 4 inches. It is sufficient to locate the center line or any face of a steel member on a grid.

Reinforced concrete beams and columns are sized in the modular system. A nominal 12x12 column is actually 11½ x 11½; an 8" wide beam is actually 7½ inches wide. This allows forming lumber to be used more economically. In a case where modular face brick runs by a modular concrete column, the actual clearance between the brick and the column is very nearly

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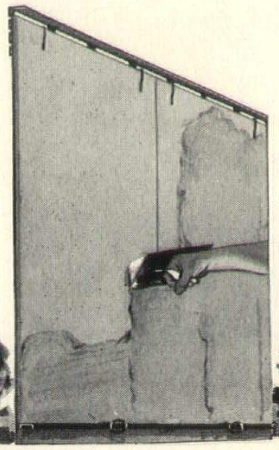

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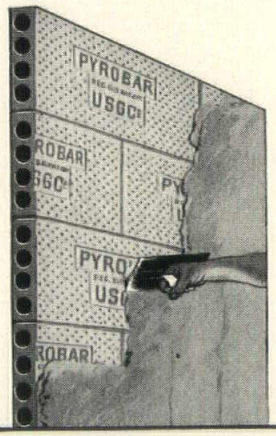

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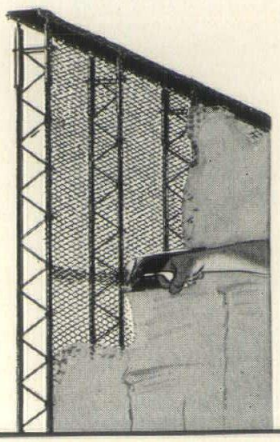

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the same as when you use standard brick and use 4½ inches from the outer face of the brick to the face of the column.

Foundation walls for modular masonry walls are sized the same as the masonry. You may use modular cement blocks or a poured wall of the same thickness as the masonry walls above. The common dimension is 12 inches less a brick joint or an actual thickness of 11⅝ inches.

I mentioned previously that the vertical dimensions which included the floor to floor dimensions should be in increments of 4 or 8 inches, depending on the size of masonry unit. The grids which determine the floor to floor heights are known as the floor grids. The finished floor is always ⅛ inch below the grid.

Several years ago we were very handicapped because the supply of modular brick was so limited. This is not true today. I feel safe in saying that an architect can find modular brick in any color and texture he desires because so many brick manufacturers have elected to make modular units.

It has been said that a modular masonry brick wall is monotonous because all the brick and all the joints are uniform in size. This is not true. In fact, if the architect selects a blend of brick, the brick will have a tolerance of at least plus or minus ⅛ of an inch. This is taken care of by varying the width of the vertical joints, just as we do with standard brick, except that a brick and a joint will equal 8 inches.

Much Criticism Not Well Founded

Much of the criticism the contractors have aimed at the modular system is not well founded. At least it is not based on faults in the system but rather on misuse of the system. Sometimes the architect has not laid out and detailed the building properly. Sometimes the modular units have not been manufactured the proper size. It has been our experience that wherever a contractor has been open minded and is trying to learn the system, he has proved to himself that it is a better way to build a building. He has proved to himself that the building is easier to lay out horizontally and vertically, that there is less waste of material, and that his costs are lower.

Time does not permit more than touching on the basic principles of modular co-ordination. The system as we understand it today is not perfect—there is still a lot of pioneering to be done by architects, contractors and building material manufacturers.

The first, and perhaps the greatest, responsibility lies with the architect. To make this system work, he has to understand it and practice it thoroughly and completely. He must detail and specify accurately and use modular materials properly and intelligently. He must educate his staff and his clients on modular methods. In order to do this, an architect must invest some time and money in converting his drafting room. It will take several jobs before he will realize any reduction in his production costs.

Having used the modular system for several years, I am convinced that it is a better and more economical method. I sincerely hope it is here to stay. I am very unwilling to return to the archaic practice of using standard brick, which contributes nothing but confusion to the building industry.

In closing, may I strongly recommend that you try the modular system. I am sure that advantages I have outlined will more than pay for your conversion costs. It is my sincere hope that most architectural offices will adopt modular co-ordination as their standard office practice.

A.I.A. Convention's Technical Theme—

STRUCTURAL RESOURCES FOR ARCHITECTURAL DESIGN

Speakers and other features to be worked into the technical sessions of the June 23-27 convention of the American Institute of Architects in New York promise another outstanding group of meetings for attending architects from this area.

Architectural concrete, interest in use of which has led some to refer to the present era as "The Age of Concrete," will be considered by three program speakers and be the subject of seminars. Roger Corbetts, New York builder with wide experience in the material, will talk on "Precast Structural Systems." O'Neil Ford, San Antonio, Tex., architect, will tell about the "lift-slab" system which he first employed in buildings of Trinity College in San Antonio. M. J. Holley, professor at M.I.T., has chosen the subject of "Pre-Stressed Concrete."

Conservation of materials also will be spotlighted when C. S. Whitney, New York consulting engineer, talks on "Shell Structures," Henry L. Wright, Los Angeles architect, discusses "Conservation in School Buildings" and William H. Scheik, executive director of the Building Research Board, National Academy of Sciences, Washington, D. C., tells of "Governmental Specifications Problems and Codes."

A building products exhibit showing carefully screened technical developments will be set up in co-operation with the Producers Council. Many will show latest developments of products in line with the theme of structural resources for architectural design.

Seminars scheduled will allow architects to air their views on problems in pre-stressed concrete, thin shell vault and dome construction, prefabricated structural unit construction in concrete, reinforced brick masonry, aluminum as a structural frame material and theoretical trends in relation to concrete and steel. The convention also will present a worthy group of tours, special exhibits and recreational activities.

The annual banquet will hear the A.I.A. gold medalist, Auguste Perret of France, describe the significance of progress in reinforced concrete design. Closing talk of the business sessions will be given by Hugh Ferriss on "The Architect and Improvement of American Cities."

F.Y.I. (For Your Information)

INSULATION ENGINEERS ADD LINES, NAME BASS SALES ENGINEER

Exclusive distributorships for aluminum windows and an all-steel overhead door have been announced by Insulation Engineers, Inc., Minneapolis, simultaneously with announcement of naming of Jason "Jay" P. Bass as sales engineer for the firm.

Mr. Bass, a University of Minnesota graduate in civil engineering, has more than 25 years' experience in engineering and building product handling. He will work closely with architects, designers and engineers in the field.

The Reynolds Metals Company has named the firm as exclusive distributors for its aluminum windows, which comprise a complete line of casement, double hung and awning type windows furnished complete and ready to install with storms and screens.

The Morrison Roly-Door 4-sectional all-steel overhead garage door is the other exclusive announced by Insulation Engineers. The door is delivered complete, with no extras, officers of the company said. Installation requires no cutting or fitting in the field and setting in of the door is faster than ordinary. It is supplied in three sizes, 8 x 7, 9 x 7, and 16 x 7.

—

LIGHTING DIFFUSION SOLVED

That all-important general illumination to enhance attractions of merchandise on display was provided without interfering with an exposed sprinkler system, as shown

in our illustration, during a recent remodeling of a large eastern department store.

Use of Skylike Fixtures, made by Silvray Lighting, Inc., Bound Brook, N. J., solved the problem. They give a reflected glow, well diffused, in a manner easily seen in the picture. Light came from 300-watt silvered bowl lamps. Designers of the installation pointed out the units can be relamped from below without need of ladders.

—

HOME BUILDERS SPONSOR BUILDING DEGREE

A new college course, believed the first of its kind, has been announced leading to a bachelor's degree for home building specialists. A four-year course, leading to a business administration degree, with special courses of particular value to home builders, has been arranged for in-

clusion in the curricula of Trinity University, San Antonio. It may be the first of other similar courses.

—

FLEXICORE ISSUES SLAB INFORMATION

A what-is-it, how-to-use-it catalog has been printed by The Flexicore Co., Inc., of Dayton, Ohio, in which the architect will find answers to some of his long-span and related problems.

The folder-catalog shows cut-away and other drawings of how the Flexicore slab units are constructed and why, detailed descriptions explaining the stress-and-strain backgrounds for the design of the slabs. A simple load chart forms a basis for calculations in planning slabs and the Flexicore unit's relationships to modern heating systems are fully treated.

The material can be obtained from the company at 1932 E. Monument Ave., Dayton 1.

—

RADIOACTIVE MATERIAL HANDLING INFORMATION PRINTED

Information, much of it previously highly classified by the government, has been published on the handling of radioactive materials and the published reports are of value to architects and engineers whose work deals or will deal in the future with buildings where radioactive materials are used, such as laboratories, hospitals, certain agricultural and industrial sites.

"Laboratory Design for Handling Radioactive Materials," is the title of the publication. It is the result of a recent conference on the subject sponsored by the A.I.A. and

Atomic Energy Commission. The material was put into printed form by the Building Research Advisory Board, National Academy of Sciences, 2101 Constitution Ave., Washington, D. C., and can be obtained by writing the board. Price is $4.50 per copy with special rates for quantities of five or more.

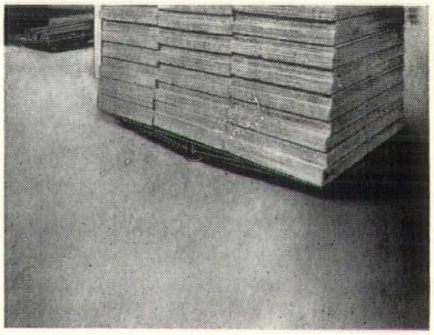
"All phases of the subject were covered in the five intensive sessions with a high level of technical thoroughness and vigor," the board announcement of the sessions and subsequent publication said. "Layout, construction, shielding, surfaces and finishes, air supply and exhaust and waste disposal were among the topics discussed.

"The five main papers, with accompanying panel speeches and general discussions, are all included in this publication. Also included are an extensive bibliography and a glossary of terms used in nuclear science and technology."

—

MAGNESIUM CEMENT MAKES DURABLE FLOORING

A hard, dense, durable and easily maintained mass for floors has been developed from magnesium chloride,



magnesium oxide and certain other materials and is being marketed by the Flash-Stone Co., Inc., as Magna-Crete.

The material is ready to use, is mixed to mortar consistency, spread and troweled for finish. Its makers report it is comparatively light in weight, has good bonding qualities, resistance to oils and greases, a granite-hard surface, silence, moderate price range, high structural strength, long life and low maintenance cost.

A bulletin of details can be had from J. P. Eldridge Advertising, 1412 Packard Bldg., Philadelphia 2, Pa.

The new Pella door is used here as a convenience wall between two living-working spaces.

PELLA LINE ADDS WOODEN FOLDING DOOR

A new folding screen type wooden door has been introduced to its Pella line by the Rolscreen Company of Pella, Iowa. The door, made of a series of wooden panels 3⅝ inches wide and ⅜-inch thick, folds against the door jamb, thus conserving wall space.

The folding door is supported by a metal track fixed to the door opening or against the ceiling. It is recommended as a movable wall as well as a door and so is valuable in design of living-dining areas, closet and wardrobe fronts, church and Sunday school rooms, hospitals, classrooms, study halls, etc.

The doors are available up to 12 feet high and 20 feet wide. They are fully assembled at the factory and come as a complete, packaged unit. They can be ordered in three standard colors, with natural wood finished, with oak, birch or mahogany veneers or unfinished.

The well-known Pella line already includes casements, rolscreens and venetian blinds.

—

BOWMAN MADE KAWNEER DISTRICT MANAGER

R. G. Bowman is now Northwest district manager for The Kawneer Company, manufacturers of aluminum, stainless steel and bronze architectural products. Mr. Bowman will headquarter at 15 E. 38th St., Minneapolis.

He succeeds E. P. Albert as district manager. The area covered is Minnesota, North Dakota, South Dakota, eastern Montana, northwestern Wisconsin, upper Michigan and three provinces of Canada.

STANDARDS FOR ENAMELED CAST IRON REVISED BY COMMERCE DEPARTMENT

Commercial standards for enameled cast iron plumbing fixtures have been republished as a third edition by the U. S. Department of Commerce.

Issued as publication CS77-51, the standards provide minimum requirements for enameled cast iron fixtures like bath tubs, lavatories, sinks, laundry trays, drinking fountains and the like. Requirements consider phases

of materials, thickness, warpage, enameling, acid resistance, inspection rules and marking.

"In order that purchasers can be assured that they are obtaining fixtures conforming to this standard," the department said, "it is recommended that ware complying with it shall bear a sticker or label containing the following wording:

" 'The manufacturer declares that this enameled cast iron fixture complies with all the requirements and tests of Commercial Standard CS77-51, as developed by the trade under the procedure of the Commodity Standards Division and issued by the United States Department of Commerce.' "

—

INDUSTRIAL FINISH PLATON AVAILABLE FOR OTHER USES

Formerly used for industrial finishes only, Platon, clear finish made by the Minnesota Platon Corporation of Pipestone, Minn., has

The several sizes of Platon available are shown.

now been made available for finishing floors, woodwork and other features of buildings.

The product, which its makers report is not a varnish or paint, comes in gloss, satin and flat finishes. It can be used for finishing all kinds of wood surfaces, indoors and out. It is applied by brush or spray gun and its thinness allows deep penetration into both hard and soft woods, thus giving excellent bond. It dries dust-free in 20 minutes and additional

coats can be applied in six to eight hours.

Floors finished with Platon are non-slip and require no waxing or scrubbing. Fixtures finished with the product won't spot from water, alcohol or other liquids and are resistant to cigaret burns.

—

VERMICULITE FLOOR DATA MADE AVAILABLE

Data on vermiculite-sand-concrete and its uses for fill over structural floors, floor slabs over supports on relatively close spacing and as slabs laid on the ground are being made available through the Vermiculite Institute, 208 S. LaSalle St., Chicago 4.

The information in the 12-page booklet the institute has published is the basis for saving much dead load in modern structures and a reduction in amount of steel required. The material is available to architects for the asking.

—

PERSPECTIVE DRAWING AIDED BY CLEVER DEVICE

Speeding the drawing of perspectives is a clever new transparent drafting tool called the Perspector, whose clear lines solve many drawing problems speedily and accurately.

Produced by the Reinhold Publishing Company to go particularly with its book on "Fundamentals of Perspective," the Perspector is of special value to owners of that publication. It also is a time-saver for those who have not acquired this booklet.

—

ADDED NOTES ON BUETOW HOME

Design of the home with needs of its manager, the housewife, uppermost in mind was basic thought in the Max Buetow home shown in the illustrations in one of our advertisements this issue. It is of interest to hear from Mr. Buetow at greater length about the design of the structure.

"The living room, of spacious dimensions, is the center of the house and its picture window stretching across the long length of the room affords the panoramic view across the beautiful river valley and rolling hills beyond during the day and at night the living room and other rooms also afford a view of the sparkling array of lights of the city, the airport and the bridges that cross the river valley.

"The living room has a fireplace with marble trim. Fireplace hardware and the shelf are enhanced by two antique candelabra. . . . The spacious and well-arranged kitchen catches the eye of every woman for it contains abundant cabinet space, every modern kitchen appliance for needs at parties and still is compact for everyday use. The color scheme in the kitchen is green for the woodwork, red for the counter tops and splashboards and the walls and ceiling are done in pale yellow.

"The basement was not overlooked so it contains a spacious social or rumpus room that still has its large round dining table to seat not less than 16 persons. A side room containing the snack bar and round table is off the social room. A ranch type fireplace in red brick and gray stone warms the atmosphere in the social room. The laundry and furnace room are located also in the basement."

—

LAW—IMPORTANT PHASES FOR ARCHITECT GIVEN IN NEW BOOK

Particuular points of law which haunt the architect and engineer are well summed up and put into workable form for the architect's library in a new book, "Architectural and Engineering Law," by Bernard Thomson, published by the Reinhold Publishing Co., 330 W. 42nd St., New York, at $7.00.

In connection with the recent publication of the Minnesota Society's "Circular of Information on Architectural Practice," the basis for

a "code of ethics" in this state, the new book can give designers a sound background of their rights and duties under the law. The first section of the book deals with license laws and their effects on architectural practice within and without a state.

Relationships of architects with each other and with engineers, formation of partnerships, etc., are given a wise backgrounding. Then the book carries the reader into his legal relations with his clients, certifications and so on.

Compensation and the many things which must be worked out to adequately assure him of pay for what he does has been given an entire section. Such details as mechanics' liens, etc., are thoroughly covered. Liability to owners is covered and the rights of architects relative to common law copyrights and contracts is discussed.

The book is a worthy addition to any firm's or individual's shelves of reference materials.

—

WARNS OF SPONTANEOUS COMBUSTION IN SAWDUST

Fires starting in sawdust through spontaneous combustion can occur quite soon wherever piles of the stuff are allowed to stand, according to recent research by Dr. W. F. Hesselink. His pertinent points:

"A temperature of 150 to 250 degrees centigrade is sufficient for wood to form live charcoal. Even a temperature slightly above 100 degrees is sufficient, it appears, to cause carbonization of the wood, then afterwards spontaneous combustion. Wet shavings also seem to be inclined to spontaneous combustion . . . and this is especially the case for pine woods. . . . It is obvious that when live charcoal is formed the process of ignition is encouraged in a large measure and can result in spontaneous combustion."

Particularly mentioned as danger points were sawdust bins connected with power saws, etc., where leaky roofs or foundations allow moisture to reach the pile. In some cases noticeable temperature rises within the pile occurred in a matter of a few months.

Le Duc

(Continued from Page 13)

artistic expression, but I am convinced that *THIS ALONE CAN PRODUCE IT."* Volume II, Lecture XI, Page 14.

This brings up at once the criticism that was constantly hurled at Sullivan — *"if Form and Function principles are followed, all buildings will immediately become merely latticed cages."* Well, that in a way is what happened. Not only have buildings become very impressive latticed "cages," but public taste has changed to hearty approval of such architecture.

"ART DOES NOT RESIDE in this or that form but in a principle — a logical method. Consequently no reason can be alleged for maintaining that one particular *FORM* **of art is Art and that apart from this form all is barbarism. The question is then** *NO LONGER THAT OF ADOPTING A FORM* **but of ascertaining whether the** *CONDITIONS NOW EXISTING* **are such that you** *OUGHT EVEN TO ADOPT* **that form. For if the conditions are different, that form which** *WAS* **a rational one** *SIMPLY BECAUSE* **it came to exist in a former building from a vigorous attention to a** *SPECIAL CONDITION,* **now offers no further reason for its existence in a new project, and should be abandoned."** Volume I, Lecture II, Page 56.

The most casual review of buildings designed by today's students and practicing architects will show that we are again trapped by forms now fashionable. Anticipating any proposed building one can predict the inclusion of a dozen cliché tricks and patterns taken from living buildings where, as le Duc says, **"they resulted from vigorous attention to special conditions."** But in our new-day projects more often than not unrelated to the wholly different demands of our super-gadget preoccupations. As in 1900 when a classic portico supplied "architecture" for church, bank, hospital or zoo, today current design employs a production line of "modern" patterns serving alike to supply "architecture" to dwellings, dormitories, veterans' memorials, and bird houses.

Let's get the motes out of our own "I's" before we condemn the old boys for being "unfunctional." In certain very important areas of human "functionings" architects of yesterday gave spiritual food which our packaged brands of design are too sterile to supply. In this matter of proper respect for the monuments of past scholarship, le Duc writes, **"Travel again, and let your head work more than your hand. You should know why and how a work of Art gives pleasure."** Rewarding "travel" demands no train or plane. The nearest library will do; or the 35c "Pocket." "Mentor" or "Signet" shelves in your book store.

Describing his design for a department store with display windows below he says, **"The overhanging stories give shelter to the shop fronts which are** *ENTIRELY UNOBSTRUCTED* (by masonry supports) *ALONG THE WHOLE BREADTH OF THE FRONT"* (between the party walls of freestone). He continues, **"I do not offer this as a** *MODEL* **for** *THE*

ARCHITECTURE OF THE FUTURE but as a study *TO SATISFY THE REQUIREMENTS OF OUR TIMES.* It is evident that constructions of this kind require to be designed and completely executed in the workshop before erection." In this he anticipates the various procedures of prefabrication.

This store building he analyzes seems commonplace good sense, if a little quaint, to us a hundred years later, but in 1859 it actually created riots in Paris. Even in 1920 the professors and potentates of architecture were still saying "are you going to stand a great bulk of building on a sheet of glass?" Of the five senses none but eyesight was recognized by architects and appearance still dominates even those who claim to be wholly free of the past. However only "modernists" would proceed as if it were intellectually and historically possible to cut ourselves off from the stream of living and thinking.

You now have something of the story of a man to whom the students of today owe their freedom to move wherever their interests lead them. And you can understand from this telling, brief as it is, why practically all architects from Japan to Kokomo, Indiana — architects who had indeed never heard his name — were nevertheless afraid of Viollet le Duc, just as they were afraid of Sullivan and the very simple good news they both were preaching. This was why they hated them and set about to destroy them. But they did not succeed.

The struggle for freedom in Architecture took the best part of a hundred years and it was the sons and heirs of Viollet le Duc who pulled down the gilded heirarchy which ruled the Arts of France, and through France the whole world, during most of the Nineteenth Century and for a third of the Twentieth.—W.G.P.

Backgrounding Le Duc

EUGENE EMANUEL VIOLLET LE DUC, architect and archaeologist; born January 21, 1814 in Paris; died September 17, 1879, in Lausanne, Switzerland.

He was educated at the Collège Bourbon (Paris) and in the atelier of Achille Leclère. At the suggestion of his father, who was employed in the conservation of public buildings, he made a journey through France, studying and sketching the monuments. He traveled through Italy in the same way. Returning to France, in 1840, at age 26, he undertook the restoration of the abbey church of Vézelay. About this time he became associated with Lassus in the restoration of Saint-Chapelle in Paris. In 1842 Lassus and Viollet-le-Duc were commissioned to superintend the restoration of the cathedral of Notre Dame, Paris. Later in sole charge of this work, he designed the central spire and great altar. In 1846 he began the restoration of the abbey church of St. Denis, near Paris. In 1852, age 38, he began restoration of Carcassonne and all its ancient fortifications. In 1863 he restored the romantic chateau of Coucy, one of the finest monuments of the middle ages, completely destroyed by the Germans in 1914.

In 1863, age 49, he was appointed professor of aesthetics at the *École des Beaux Arts.* As his lectures were not in agreement with the traditions of the school, *the students refused to listen to him.* He resigned in 1864 and published the lecture material he had prepared as the now famous *Entretiens sur l'Architecture.* All during his life he erected many new buildings throughout France. Among his many publications, the two most important are *Dictionnaire raisonné de l'Architecture francais* (Paris, 1858-1875, 6 vols. 4to); *Entretiens sur l'Architecture* (Paris, 1863-1872, 2 vols. 8vo and atlas).

Le Duc's Imagination

(Continued from Page 30)

not from the girder ends, but from a double skewback, or stone springer, cradled in a wrought iron hammock which is *suspended* below the girder. The little arches leap the span and never touch the steel. This is surely brave invention at the very beginning of iron in architecture.

Look underneath the upper floor and you will see terra cotta floor panels arched between the iron floor joists. This was going to seem very novel in New York and Chicago forty years later. Would become a patented "sky scraper" construction system. And see the clean, unbothered frames and sash of the upper floor windows, unique in any building anywhere in 1852.

Note the clean structural use of iron and glass for the canopy — the glass in large sheets, the iron reduced to its structural minimum. Note the horizontal wave pattern carved on the stone surface above the glass canopy. This gives a decorative lightness to the masonry. Architects from that time on to the American architectural school student revolt in the 1930's were to insert a heavy moulded belt course at this point, over all street fronts. In most cases this was mercifully concealed beneath slanting advertising signs. Such permanent, wholly commercial, building labels at once became the most conspicuous, but unanticipated, element in the design of business buildings. The important architects of the Gilded Age never gave signs a thought until the tennants had ordered them into place. Then the architects felt sorry for themselves.

The cast iron tubular columns of the V-crotch supports of le Duc's design, are divided into the practicable lengths in which such large members could then be cast. Every part of this design shows an alert knowledge of reactions arising from every possible relation between need and answer, materials and process. It also has a fine unforced sense of what is due to those forms by which the architecture carries its many subtle and gracious messages to the people who are to live with it.

This building as le Duc says "is not a model" for us, but sets forth a method. He was right. What he did here is still fruitful. View it with dignity and respect.

ILLINOIS TECH GRADUATES FIRST CITY PLANNERS

The first class of city planners to be graduated under a new five-year program by the Illinois Institute of Technology will be honored at the institute's June commencement.

The class is of 16 students who took four years of regular architectural work and, in their fifth year, courses in city and regional planning, equipment for buildings and industrial history.

THEY SAID IT

Edited by William Gray Purcell

Eidanger, Norway

EDITOR NORTHWEST ARCHITECT

Sir: —

When I was studying at the Technical University in Trondheim it was very interesting for me and for the other students in my class to read the Northwest Architect. It was an inspiration in our work to see news from U. S. A., although the climate and the nature here are so different from yours that it is impossible to give the houses in Norway that charming immediate contact with the garden or the nature as you can do, at least in California.

Ørnulf Jacobsen
Chief of Public Works

We like to feel that we are illustrating principles which apply equally to all "dwellings-of-the-spirit" outdoors and in, tropic and arctic. In "Bonytt" the Oslo journal of Norwegian Architecture we note the good feeling for Land and People which Norse artists are building into their work. Norway has as much as California, and a romance and countryside perhaps more genuine and unspoiled by commercial showmanship.— Editors.

♦ THE GLASS SANDWICH ♦

They Still Want to Know

East 43rd Street
New York City 17

NORTHWEST ARCHITECT:

Sirs:

Just why "Bozart"?

Why the corruption of the French? Do you think Bozart is now the kind of an art-form that the present-day "Bo" would like?

We have so many "Bos" these days — tabloid reading, gum chewing, shirt-hanging-out morons, etc.

That "U.N. ice plant!" From where we sit, the more we look at it, the feeling grows that it is a huge cage — captive creatures shut away by themselves.

Yours,

C. M. KEMBREY

♦ THE WORD "BOZART" ♦

Definition and Origin of the Word

IT IS TOO SIMPLE, taking it for granted that this term, which has now come into general use, is an expression of common illiteracy, more particularly a mispronunciation of the French "Beaux Arts." The word has a more interesting history than this obvious association of ideas, coincidentally made so apt, as we shall see below, by the now liquidated pretentions of the Nineteenth Century "School of Architecture."

* * *

First we must distinguish between the use of the term as a *spoken* word, with its colloquial reference to French academicism, and the *written* spelling of the word which pictures an entirely different set of connotations. So far as I know, I was the first to build and make use of this word. That was about the year 1910, when a few progressive architects were in the midst of the stiffest and bitterest part of their fight against the entrenched privileges of the *American Wing* of the French National Art School.

In the year 1911, we got some support from *Collier's* Magazine and Sculptor Gutzun Borglum, in an effort to prevent the building of a Greek Temple in Washington to honor Abraham Lincoln. We accomplished nothing. At that time, in my public speaking and writing, I made frequent use of the word BOZART. I intended to convey the idea that the applique procedures of renaissance design then fashionable, whether in architecture or the other arts, was an art of "BOZOS."

* * *

Now BOZO is a slang term used all through the West, and the meaning it carried, in common use, provided exactly the right base for describing the spurious, inorganic, *graphic* esthetic in architecture, which from 1890 to 1930 was successfully pressed upon the teaching of architecture in every architectural school in the U. S.

What does this word, "BOZO" mean to the man on the street, to the ordinary American? Well, it meant a man who was not a tramp, not a vagrant, not a hobo, words which all have their especial meanings. "Bozo" meant a genial sort of soul who nevertheless wasn't the real thing, a well-meaning faker, a man who was good natured, "smart," an agreeable companion who went along with the crowd — shall we say a sort of imitation Walt Whitman?

* * *

It was to be many years before this word of mine obtained general public acceptance. Beginning about ten years ago, (1940) one began to see it more often in print, in magazines like TIME, and in the newspapers. This may have been due to the fact that about that time H. L. Mencken *"The American Language,"* gave his authority to the word as a valid contribution to the American language. He titled one of his stories "THE SAHARA OF BOZART"—*American Essays—Mentor Books—M 26, page 117.* Now comes along the just published "DICTIONARY OF AMERICANISMS" and gives the following definition:

Bozo, n. (Origin obscure, Cf. Sp. *bozal,* a., inexperienced, stupid, foolish.) A fellow, "a guy." *Collier's* in 1911 used the word bozo—(the year after I first used the word *bozart.*) Also, 1921, *Collier's* 11 June 5/1 *"Joe is the bozo which I write all them letters to from France."* The *American Spectator* in 1939 says, "The origin of this slang equivalent of *fellow, guy,* so far entirely unknown, might well be sought in the Caribbean, namely in the so-called Papiamento of Dutch-owned Curacao. In this language the second person singular of the personal pronoun is *"bo"* equals *you* . . . the second person plural is *"boso,"* equals *you people. Boso,* used at the beginning of many sentences in daily conversation may well have been mistaken by outsiders for an indefinite term of address. In the Denver Post Feb. 15, 1947:

"When partner plays bridge at the lowest degree,
Refrain from an impulse to shout it.

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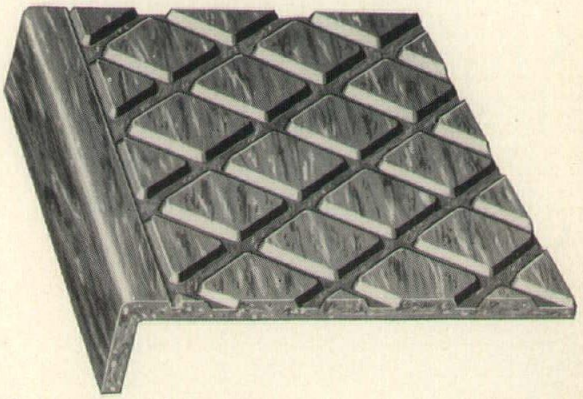

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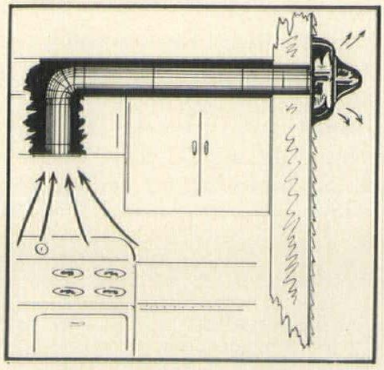

Here are ventilating fans designed for all-around operation; yet, are easy to install, and their beauty fits any design. Now you can specify a fan that is functional and complete. Made of rustproof aluminum construction, with quieter resilient mountings and non-overloading centrifugal impellers, JENN-AIR exhausters may be used in a wide range of applications. Will install in any area accessible by ductwork.

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Consider how lucky the bozo must be,
When knowing so little about it."

There is also a tendency in familiar address to speak to a friend of yours, as "BO." This is a sort of kidding, a talking down to him, but as a term of affection. So the word, "bozart," with its ironic implications toward "French School" architecture of 1850-1930, together with its down-to-earth laughing connotations toward the good natured but irresponsible man-of-the-road, has apparently given our language a new and vital word.—W.G.P.

—

♦ TYPOGRAPHICAL ERROR ♦

. . **"1902 Gilded Age"** piece, March-April issue, 1952, page 20, next to last paragraph, 8th line, beginning **"I propose";**— the misprinted work **"evening"** should read **"people."** And last line of article on page 24 should read **". . . a living heritage of unselfed deeds."**

WELL, at that these typesetters are very, very good; month after month, with not a slip. This month there was no time for me to proofread. This weird "evening" Gertrude-Stein touch probably threw out the whole paragraph for you, so may we reprint it right:

I propose that you substitute for static **esthetics a philosophy of forms in a constantly changing development** continnum **shaped by action-meaning. Such a fluid concept would anticipate total grasp by even the simplest people. Everyone could thereby come with perfect naturalness to understand and be grateful for an expanding and enriched folk life. This idea envisions all the people** in all their ways **being recorded in living agencies and enjoyed by all. Architecture on such a base would at all times recognize design** as process **rather than as** objective. **So far I have seen no evidences of this basic issue being discussed by anyone. The possibilities are too vast to be analyzed here.**

—

♦ THAT GOLD-PLATED ERA ♦

A Strange Coincidence in Timing

We HAVE an old-fashioned attic with a ton of junk in it dating back to 1825. I had just mailed my "Cornell Story" to Editor Fridlund when our sister Dorothy came down with a dusty shirt-box marked "Interesting Papers" in Grandma's familiar and loving script; the contents, my college letters home. Off with the lid; there on top were the telegrams and letters concerned with Ambassador White's competition! My first thought, "Just how good was my memory?" "Were colleges really so exclusively concerned with the drawing arts rather than the building arts?" The briefest of quotes will not violate the contexts and will provide a firm answer, the dark type words are mine:

Ithaca, June 10th, 1902

My dear Bill: "Congratulations—Derk was second and I was third" . . . "Proctor was out on account of the unfinished state of his drawings" . . . (as for us three winners) . . . "I thought the designs would be judged from the point of view of neat draftsmanship **instead of architectural merit."**

Here we find a satisfied mental habit in the act of assuming, as a matter of course, that design proposals leading to good buildings were automatically expected to lose out to a pencil and paper competence.

College of Architecture
Ithaca, June 13, 1902

Dear Mr. Purcell:

"We" (the faculty jury) "thought surely Shreve

would be a prize winner and that Dercum had the best scheme" . . . (however) "A careful analysis proved that your plan was decidedly the best—and your exterior **had less objections than any other"** etc., etc. . . . "Accept our best wishes for further success **in competitions."**

Since the jury of five, as faculty teachers, had all been making "careful analyses" of all the plans for two months, and actually directing solutions, it would appear that the "sixth juror" Dr. White (only subconsciously acknowledged as present) must have been a majority.

The best wishes I really wanted, was future success in finding clients willing to *re-employ* me because I would have proved able to supply them buildable and usable structures. As business says, "The profits are all in the re-orders"—whence came the pleasing word "customer,"—those who make-it-a-habit.

R. C. CHAPIN DIES IN SEATTLE

A former, well-known Minnesota architect and designer of small homes, Rollin C. Chapin, died in Seattle on April 4. Mr. Chapin also was active in the Chapin

Mr. Chapin

Publishing Company, Minneapolis, which publishes the *Construction Bulletin*.

Born July 12, 1888, Mr. Chapin resided in Minneapolis until 1949, when he moved to Seattle. He received at least one national award for small home design and was active in both state and national organizational work. At the time of his death he was president of Pacific Builder and Engineer, Inc., construction publishers, and had recently organized his own architectural firm in Seattle.

ARCHITECTS FEATURED IN "GREATER MINNEAPOLIS" MAGAZINE

Architects and their contributions to the artistic and economic life of the community will be featured in a forthcoming issue of *Greater Minneapolis,* monthly publication of the Minneapolis Chamber of Commerce.

Material for the features to make up the issue was gathered by Editor Gordon Cowan from leaders of the profession in the city and state. He also sent questionnaires to all architects of the city to gather data on statistical facts of the profession.

The architectural issue is one of a series prepared by the magazine saluting various professions and businesses which have helped make the city what it is today. In preparing early plans for the issue the staff of NORTHWEST ARCHITECT aided the chamber's writers in getting information for use. Judging from other issues on special phases of the city's life, we can recommend that

architects obtain this issue when it is printed for reading and reference. No date for the featured material has as yet been announced but it probably will be early this summer.

C. A. PRATT ELECTED PRESIDENT OF VERMICULITE INSTITUTE

C. A. Pratt of Western Mineral Products, Minneapolis, was elected president of the Vermiculite Institute at the group's recent annual meeting. The group also adopted a plan to organize a new technical service department, a recommendation of the technical committee headed by Mr. Pratt.

Mr. Pratt

Mr. Pratt succeeds G. R. Stark of Austin, Texas, as president.

The new technical department will co-ordinate vermiculite with products of allied industries for constant improvement of building techniques.

F. T. Collins, consulting engineer of San Gabriel, Cal., discussed test results on vermiculite concrete sandwich panels in tilt-up construction. He said the light weight and resilience of vermiculite concrete make it an ideal material for this use. Sand concrete weighs 150 pounds per cubic foot and vermiculite concrete only 25 pounds per cubic foot. Fire resistance and adequate insulation value are provided in addition.

CLYDE SMITH PASSES ON

Just before press time, we received word that Clyde H. Smith, well known Minneapolis architect, had died. Clyde had been ill for several months before his death. He was a corporate member of the Minneapolis Chapter, A.I.A., and was active in the Architects' Home Plan Institute, a member of Joppa Lodge, F.A.M., and Zuhrah Temple of the Shrine.

Clyde was architect for a number of outstanding buildings, among the more recent of which was the office building for the Minneapolis & St. Louis Railroad. He has many fine residences to his credit and his office has just completed plans for the Third Church of Christ, Scientist, in Minneapolis. He was 66 years of age.

Remember? Remember! Attend YOUR convention —see pages 6-8-10.

Electricity as a Heat Source for Institutional Cooking Facilities

Kitchen problems may be the realm of the housewife but when they concern institutional kitchens they plague the architect. At a recent meeting members of the Producers Council and others heard about what electric cooking facilities have to offer in this field. We reprint the report here as at least a partial solution to some of the puzzling factors. . . . Editor.

Whether you are the chairman of the board, resident manager, dietician, chef of an institution or architect, here are eleven important reasons why electric cooking should be considered as an answer to your food service problems. Many institutional managers, supervisors, dietitians and chefs have looked to electric cooking in help them reach and maintain the food service standards which are demanded by the public. Whether it is a hospital, welfare institution, school or an industrial food service operation, the needs are the same—cleanliness, safety, dependability, accuracy, uniformity of product and speed and economy of operation.

Better Cooked Foods—The importance of perfectly cooked foods cannot be overemphasized. Electric cooking equipment, with accurate, adjustable temperature control and with the heat applied uniformly, produces consistently better cooked foods. This means that food is perfectly cooked and uniform as to taste, appearance and retains nutritive value.

Entirely Safe—Fire and explosion hazards from flame and combustion in the kitchen and bakery are eliminated when electric cooking equipment is installed. This frequently means lower insurance rates. By eliminating these hazards, the possibilities of breakdowns, costly repairs and severe injuries to kitchen personnel are greatly reduced. Such safety is imperative in any hospital or institution.

Cooler Kitchen—In electric cooking, heat is applied directly to the food or to the cooking vessel and therefore there is less waste heat than in most flame-type equipment—which loses a great deal of heat to the surrounding air. A cool kitchen promotes better employe health. Room temperatures in ordinary kitchens run high, often ranging from 110 to 120 degrees. Reduction of these high temperatures and elimination of objectionable fumes reduce labor turnover and lost time due to illness.

It is a startling fact that in a majority of institutional kitchens, health conditions prevail which would not be tolerated in industry. In the restricted quarters of the institutional kitchen, high temperatures, high humidity and pollution of the air from by-products of combustion tend to surpass healthful limits unless large capacity ventilating or air-conditioning equipment is installed. Ventilating costs to remove waste heat can amount to

four times the cost of the fuel itself. By reducing waste heat, electric cooking equipment also reduces ventilating and air-conditioning requirements, both in initial and in operating expenses.

High Employe Efficiency—Granted that electric cooking makes for more efficient kitchen layouts with more production per worker, the advantages of electricity are felt in other ways among personnel. The automatic controls, absence of spoiled foods due to faulty cooking, cooler kitchens, etc., make for more pleasant working conditions with less absenteeism and less turnover of employes.

Space-Saving Compact Kitchens—Every square foot of floor space in your kitchen represents an investment in dollars which should be charged to the cost of producing meals. Electric cooking equipment, because of its compactness, provides more cooking capacity per square foot of floor space occupied by any other type; e.g., flame-type range requires one and one-half times as much space per unit of cooking top area as does an electric range. Installation of electric cooking equipment releases floor space which can be advantageously used for other purposes.

Electric Equipment Upkeep—Electric cooking equipment lasts more than twice as long as ordinary equipment. The upkeep is, therefore, considerably less costly. Cost records show an average of only 1 per cent maintenance cost, or less, on electric cooking equipment as compared to a minimum of 5 per cent for other equipment of the most efficient type. Because electric equipment has accurate heat controls which prevent excessively high cooking temperature, sagging range tops and burned out linings are practically unknown.

Saves Where It Counts—Cost of serving food varies with institutions. However, the following figures show that the cost of raw food and labor make up the bulk of kitchen expense. Fuel or energy costs for cooking are almost insignificant.

Raw foods	43.70 per cent
Payroll and employe meals	29.46 per cent
Rent	8.00 per cent
General expense and administration	6.50 per cent
Depreciation	3.00 per cent
Light and power for refrigeration and ventilation	2.10 per cent
Replacement on breakage	2.00 per cent
Cooking cost (fuel or energy)	2.00 per cent
Heat	1.74 per cent
Laundry	1.50 per cent
Total	100.00 per cent

It is evident that a variation of 50 per cent in cooking costs will effect only a 1 per cent change in total expenditure. On the other hand, since the cost of raw foods and labor represents about 75 per cent of the total, economies of 5 to 10 per cent in these items will amount to much more than your total fuel costs.

Food Savings High—Granted that fuel in any method of cooking is only a very small part of your overall costs yet when you select electric cooking you will materially reduce food costs. For example, you cut food waste by eliminating rejects, burned toast, crippled runs of baked

and roasted food. These savings frequently amount to a large item in the overall cost. Automatic electric fry kettles will prevent burning or breaking down of frying fats and at the same time produce easily digestible fried foods—very important in hospitals. Savings in fat alone from the use of electric fry kettles amount to a substantial sum.

Less Shrinkage Through Automatic Controls—There is 5 to 15 per cent less shrinkage of meat roasted in an electric oven than under the best conditions in other types of ovens. The explanation is simple. There is no air circulating through an electric oven to carry off the products of combustion and at the same time to dry out the meat, removing the moisture and flavor. Rather, an automatic electric thermostat holds the oven at the right temperature for minimum shrinkage. Evenly distributed heat from top and bottom elements—accurately controlled—drives the meat juices from the surface to the center of the roast, thus preventing their evaporation. The result is a well-finished roast full or nourishing juices and natural flavor.

Field surveys indicate that a 500-bed hospital will roast approximately 5,000 pounds of meat per month, costing 48 cents per pound or a total of $2,400. If you concede that the normal shrinkage on this quantity of meat is 25 per cent or 1,250 pounds, you can see that a reduction of 10 per cent or 500 pounds by slow-roasting in an electric oven will result in a monthly saving of $240.

Electric Cooking Is Cleaner—Of utmost importance in volume cooking—particularly in institutional kitchens—is the fact that sanitation is easily maintained to meet rigid health standards. There is no combustion with electricity—no fumes, no dirt! Cleaning costs are reduced to a minimum when the cooking equipment itself is not a source of greasy film, dust and grime.

Saves in Time and Labor—Appreciable savings in time and labor are gained through the use of electric cooking equipment. Electric ranges have positive heat control, require less attention and no guesswork to operate and thereby provide the chef with more time for other kitchen duties. This is particularly true in oven work. With even distribution of heat, roasts and baked foods do not have to be turned around and shifted every few minutes. They don't need further attention until the baking cycle is completed.

Outer surfaces of pots and pans remain clean, thus reducing labor and time required for cleaning these utensils. The kitchen itself is easier to clean, because there is no smoke or soot involved. Much less redecorating is required.

TWO NDAC ARCHITECTS WIN ALL-STATE REGISTRATION

Two graduates of the department of architecture at North Dakota Agricultural College have passed the examinations of the National Council of Architectural Registration, which entitles them to practice architecture in all states.

The two are Robert Beals of Springfield, Ill., son of Mr. and Mrs. George Beals of 1041 College St., Fargo,

and Clarence Herges of Aberdeen, S. D., son of Mr. and Mrs. Henry Herges of Sisseton, S. D.

Beals, an NDAC graduate of 1948, interrupted his college career for army service and to work with Oscar Stonorov, nationally famous Philadelphia architect, on an exhibit for Philadelphia slum clearance. After graduation, he served his architectural apprenticeship with the firm of Hadley and Worthington of Springfield, Ill., and is now associated with the state architect for Illinois.

Herges, a 1942 graduate, recently opened his own office in Aberdeen after serving an apprenticeship with Ursala Freed, architect in that city. He is a veteran of three years in the army air force.

DIKE PROTECTS ST. PAUL CORRUGATING OPERATIONS

A new dike thrown up by a special emergency crew enabled the Saint Paul Corrugating Company to continue operations almost at normal rate during the most disastrous flood in Mississippi River history. The plant, located directly on the Mississippi at the south end of the Wabasha Bridge in Saint Paul, Minn., has been in operation since 1886. Its products include Lux-Right Areawalls, Yellow End Culverts, Saint Paul Skylights and other sheet metal products.

ADVERTISERS

Constructive Education

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Attractive buildings and grounds contribute much to the enjoyment of campus life. The construction of Macalester College's new Union does just this on the Macalester Campus. The focal point of beauty of this attractive building is its pillared entrance which faces the mall. Contributing greatly to its beauty are the step railings and balcony railings by Minnesota Fence. Inside, too, the ornamental and functional iron work adds distinction to the well-planned lines. The balcony railing in the magnificent auditorium (pictured upper right), the functional step railings in the rear of the Union (pictured upper left) the collapsible gate and wire cage guarding the bookstore (pictured lower left), the curving front entrance railing and balcony railing (pictured lower right) are just a few of the contributions to beauty and safety made by Minnesota Fence. Others include the grilles, area gratings and ship's ladder, to mention a few.

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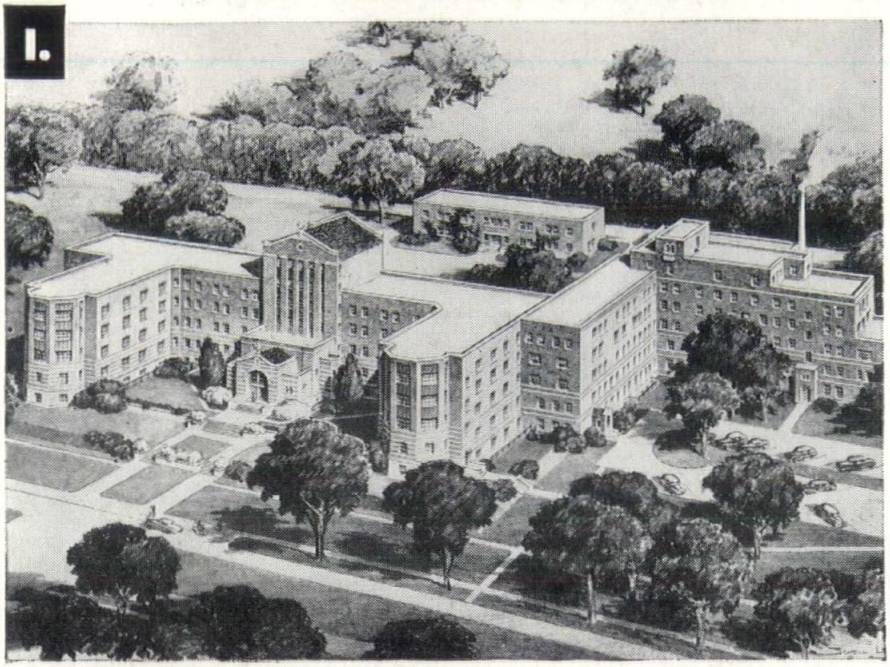

1. St. Johns Hospital, Detroit. Zonolite insulating concrete roof fill over structural concrete. Zonolite Acoustical Plastic ceilings. Architect: Maguolo and Quick; General Contractor: Cunningham-Limp; Plastering Contractor: N. DeCample.

Because Zonolite vermiculite concrete for roof decks or roof insulation is low cost—permanent—lightweight—firesafe, it is the choice of leading designers and builders everywhere. In Detroit, for instance, four well-known architects recently selected Zonolite concrete in four gigantic, new hospitals.

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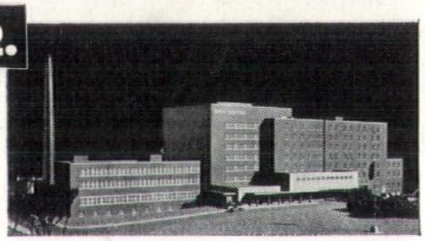
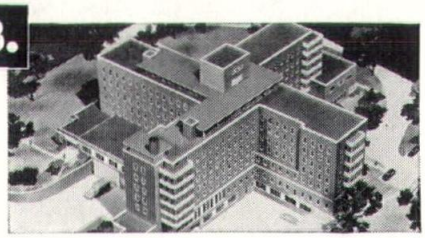
2.



2. Mt. Sinai Jewish Hospital, Detroit. Zonolite concrete roof fill. Architect-Engineers: Albert Kahn Associates; General Contractor: O. W. Burke.

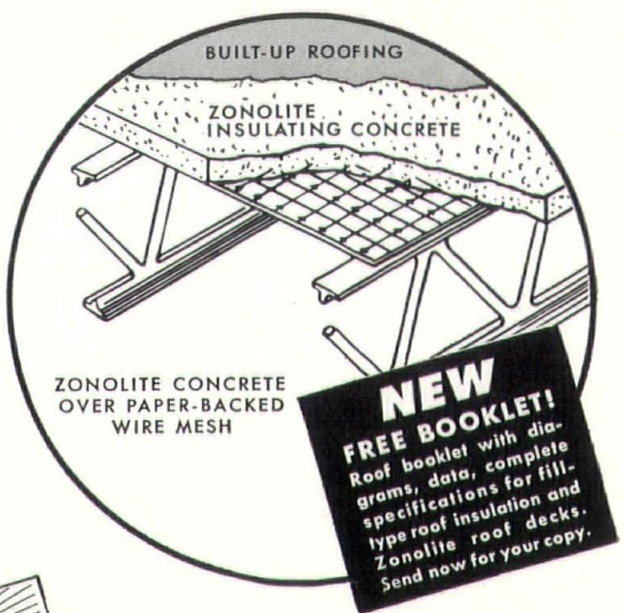
3.



3. Oakwood Hospital, Dearborn. Zonolite concrete roof fill over structural concrete. Zonolite plaster fireproofing throughout. Architect: Henry F. Stanton; General Contractor: W. E. Wood & Co.

4.

4. Mt. Carmel Mercy Hospital addition, Detroit. Zonolite concrete roof insulation over kitchen and dining areas. Architect: Victor Basso; General Contractor: Darin and Armstrong.



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