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Another Blue Ribbon Installation

For

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Air Conditioning Contractor: Spencer Air Conditioning Company

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Known as a progressive and aggressive firm, Haarstick Lundgren and Associates Inc. attributes its constant growth to the success of a team approach—the collaboration of specialists—and to the young men of creative enthusiasm who have been attracted to the operation. The unusually large number of associates, introduced on these pages, is evidence of the quality of personnel who have joined the firm. Forty of the staff members are college graduates, including four holding master's degrees, while nineteen are registered as architects or engineers. Six architects hold certificates from the National Council of Architectural Registration Boards. Architects and engineers are registered in 12 different states, representing a total of 38 separate registrations.

Haarstick Lundgren and Associates Inc. occupy a total of 9,990 square feet of office space in the First National Bank Building, St. Paul, and at 333 Montgomery Street, San Francisco.
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SPRING LAKE PARK, MINNESOTA
ST. PAUL'S PRIORY PROJECT

Construction was started in June, 1957, on the first stage of a seven million dollar building program for the Benedictine Sisters of St. Paul's Priory. The master plan includes a high school for 750 girls, priory convent and novitiate for 150, chapel to seat 700, a junior college and a home for the aged.

The $1,750,000 high school was the first unit to go under construction on the 80-acre site at Larpenteur Avenue and Highway 100 in St. Paul. Prior to completion of this building, it is expected that work will begin on the convent and chapel, completing the first design stage of the project.
AUGUSTANA LUTHERAN CHURCH
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Low-Cost Tube-Line is comparable in price with aluminum pipe railing. Blumcraft Deluxe-Line is less costly than quality custom-built railings.
A Time-Honored Material
Gains New Flexibility

The following material on granite, on the general nature of this native building material which has a prominent place in building, has been gathered from sources within the industry—Editors.

Within the past 10 years technological advances and modern methods in quarrying, fabrication and transportation have promoted granite to where it is an important factor in today's architecture. The availability and numerous sources of granite contribute greatly to its ever-increasing usage, while its inherent beauty and competitive price are equally important factors in its architectural prominence in the tasteful use of natural materials.

From the dawn of civilization—and even before—man's story has been recorded through his use of building materials and the resulting structures erected for his protection and shelter. Nature's materials and their place in this technological age evolved from this need. Granite, one of the most durable natural construction materials, was widely used principally because of its qualities of imperishability and strength. Because of its lasting qualities and use in architectural expression of structures, granite later became classified as a monumental material. Despite these qualities, a lack of technical knowledge and fabricating facilities restricted its use.

Granite was originally a modular material; cut by hand in definite sizes, it frequently dictated the planning and design of a building. The fact that it was (and still is) a great monumental stone where impressiveness and grandeur were keynotes did not prevent it from being passed by for more economical and flexible materials in recent-day construction. Technological developments brought about revolutionary methods of quarrying and fabrication, the result being that granite is no longer a dictorial material but a flexible one with a wide field of applications, plus the fact that engineering trends eliminated granite's previous two-fold function of supporting a structure and adding to its embellishment. Today granite is still available in its original quarry size but from then on it becomes a custom tailored element aimed at meeting the varied needs of architecture with a wide range of colors and textures.

The very nature of granite's birth indicates the reasons for its unchallenged reputation as a high-grade building material. Hardened by ages of compression and friction, this crystalline rock has natural qualifications of exceptional compressive strength, durability, inherent beauty and character. The quartz, feldspar and other dark-colored minerals combine for these qualities. In most instances granite sources are located relatively near the earth's surface and at this time it appears to be available in unlimited supplies. This factor, coupled with modern machinery and methods as well as skilled technicians, assures man of a building stone that should enjoy an even greater popularity for years to come.

The need for an outlet and the introduction of synthetics and composition materials posed a challenge to fabricators of natural elements. It appears they have met this challenge for, despite the synthetics, there is a great trend toward the use of natural substances and granite is currently a prime example of this trend.

NORTHWEST ARCHITECT
Building granite can be classified in three major use categories. They include:

1. As a masonry unit, with its certain limitations governed by the structural design of the building under consideration.

2. As a functional wall panel, externally in curtain wall construction or internally as a controlled decoration feature.

3. In monolithic form purely for ornamental relief as part of the basic design, such as in base columns, sculpture, etc., art and architecture being important as a combined part of large and small projects alike.

Many suggestions could be advanced as to possible use of granite in the various elements of any building. However, it is considered that with the modern and efficient facilities employed in quarrying and fabricating, plus the close liaison between supplier, designer and constructor, that the use of granite can be best met by leaving the final choice to the design element of any project in keeping with the wishes of the client and the desired expression of the structure involved.

Granite fabricators are realizing more and more that their material must fit a given project. Therefore, they are trying—and succeeding—to give the architect the benefits of granite through research and skill. Chemical and mechanical treatment processes have been devised to enhance granite’s appearance when advantageous and, although color is a permanent characteristic in the stone, the variety of shades attainable through different quarries is a definite plus in the flexibility column. A Minnesota granite fabricator, for instance, offers its product in 15 colors.

When one considers that this material can be used in three categories of construction, he can begin to comprehend its flexibility. The experience and skill prevailing throughout the granite industry follows a piece of the stone to the job site in that the modular factor is controlled by the fabricator. Anchors for fixing are pre-set to the architect’s specifications, while the other variables are limited by the fabricator’s experience. In addition, many of the granite companies deliver their products to the job site via special equipment designed for that work.

**Uses Range Widely**

Its field of flexibility ranges from floor material to carved decorative pieces. With more than 100 varieties and colors being quarried within the United States, granite can be had in many finishes, from natural split face to polished. Interesting textures and colors can be achieved by treating the surfaces in various ways.

Whereas the initial cost of granite has been lowered by modern fabricating processes to be competitive with other materials, its maintenance cost is less than that of any building material incomparable usage. Largely immune to abuse, it is waterproof and unaffected by freezing or staining and will not fade. An inert substance, granite is not affected by salt, acid or other chemicals, and when polished its beauty is an inherent part of the permanent expression. Maintenance costs should entail merely an occasional washing. Replacement costs are practically nil, witness the many monumental granite landmarks of the old world which are standing after centuries.

On the other hand, like any material, granite has its limitations. For instance it can be fabricated in sizes limited mainly by transportation restrictions. Although it can be prepared in a variety of shapes—from free-form sculptured pieces to large pieces of flat veneer—it must be fabricated in thicknesses which consider its strength and fracture point. Although granite weighs the same per cubic foot as aluminum, due to its crystaline structure and lower tensile strength, thicker sections must be used. However, certain granities of a Minnesota fabricator, for example, have been prepared in thicknesses as low as seven-eighths of an inch to meet special conditions.

**Permanency Must Be Recognized**

Because of its permanency, granite’s color and texture are unchangeable once the stone has been installed. In addition to being a desirable factor, this can also be a detriment in certain applications where variety in appearance is desired and the material has been used excessively.

Having endured as nature’s premium building material since the dawn of civilization, granite undoubtedly has an even brighter future in the structural world of man. Technological advances will continue to improve granite’s utility, thereby augmenting its unchallenged position as a building stone.

Fabricators, in meeting the challenge of man-made materials and maintaining an outlet for their substance, must, to survive, keep pace with modern trends and continue to carry out research and development to serve mankind in his search for a better way of life.

Proper control of a material, including granite, is vital in all design. The flexibility of granite, in itself, assists architects in this control factor. In exterior design, an architect is not concerned with one material but with a massing of elements, while at the same time the adjacent buildings, openness of surroundings and a limited budget must have his consideration. Conservative use of any material is vital to insure expression while maintaining functional balance. Flexibility and the modular control factors have a definite bearing on the architect’s decision, while color range, handling at the job site and the experienced tradesmen who become affected by the job are also items of consideration.

The internal application of a building material can be decorative or functional, or both. When they dovetail in purpose, a material’s use is enhanced and more economical. The architect must consider whether a material’s use is limited and to what use—control of color, its relation to space and lighting and whether to achieve a warm or cold effect. Utility of a material is another important factor, while its economy, relation to the intended life of the building, its lighting effect on the decorative scheme and the ease with which the decor can be changed when a certain material is used must have the architect’s attention.

The human reaction factor cannot be disregarded for the uncultured appearance of a structure is sure to affect the building’s use or patronage, or at least limit its beauty. Whether to date a building, inside or out, is another point of question. The monumental effect, which can reach a high degree through proper use of granite, is sometimes good and should be attempted.
The business features of architecture came in for a thorough going-over during the North Central States' Regional Conference in Rockford, Ill., September 25-27, with many phases of practice being given the speech-and-seminar treatment by leaders in the profession.

Among those who attended from this area were Harold T. Spitznagel of Sioux Falls, S. D., who was one of the speakers, G. W. Brandhost, Victor Gilbertson, James Fenelon, executive director of the Minnesota Society of Architects, and Milton Leadholm of Minneapolis, P. Bettenburg, Milton Bergquist, Donald Haarstick, James Hirsch, Robert Howe and George Townsend of St. Paul.

The conference opened on an inspirational level when Dr. Carl S. Winters, pastor of the Oak Park, Ill., Baptist Church and well known speaker, gave a keynote talk on "The Builders' Glory Road."

"Architects shape the world," he told some 300 listeners attending the conference, "and in this way they work hand-in-hand with God. They are dreamers of dreams and the builders make the dreams come true." Dr. Winters impressed again on his listeners the truth of "make no little plans. . . ."

"A logical plan, once projected, will never die," he said. Covering many aspects of life today and the part that architectural planning of individual structures and whole communities play in our future, he said slum clearance and residential planning were the "lungs that breathe life into a city."

Attorney Bernard Tomson of Mineola, N. Y., whose speech was the theme of the conference, "This Business of Architecture," told the architects that they are primarily responsible for what happens and will happen in building.

"Architects are the only persons in society who should be entrusted with the job of construction," he said. "They are professionals whose sole goal is not profit making. . . . They not only design the buildings but follow the construction process through to the finished product." He pointed out that people only become architects after their basic five years of education plus additional training. He pointed out further that most states have residency requirements of "around three years before aspirant architects are permitted to take the state examinations."

Mr. Tomson cited figures that showed that out of 42,725 persons in the United States who took state examinations in 1955 and 1956, only 55 per cent, 25,784 of them, passed. Mr. Tomson writes a column on legal aspects of construction for "Progressive Architecture."

This was the first conference held in Rockford and, in addition to the speeches and seminars held, included an outstanding exhibit of architectural problems, tour of the city and its outstanding industries and buildings and social events. An evening event was a costume ball based on the centennial theme of AIA.

A display of Rockford from the city planner's angle attracted much attention, according to Don V. Patton, conference chairman. He said that visiting architects felt the planning was forward-looking and intelligently founded but some pointed out the exhibit was too technical for the general public although valuable for those attending the conference.

An awards program was part of the conference, with
11 entries for awards to "those who strive to improve and enlighten the practice of architecture." First award went to Foley, Hackler, Thompson and Lee of Peoria for the proposed Warren County school. Second place was won by Skidmore, Owings and Merrill of Chicago for a display of project budgeting and project performance. Third place was given Allen, Patton and Bates for a program analysis for the Freeport County Club.

At the seminar "Progress in Architecture," Professor A. K. Laing, chairman of the department of architecture at the University of Illinois, served as moderator, introduced the subject by asking what constituted a measure of progress in architecture. He thought some frame of reference was necessary and as an architectural historian suggested that history might provide some clues. Taking first the transition from Romanesque to Gothic architecture, Mr. Laing referred to the widely held idea that the change was due to structural advance. He cited in contrast a recent article by former Dean Joseph Hudnut of Harvard, in which Mr. Hudnut stated his belief that Gothic architecture had its genesis in the monastic vision of the Celestial City rather than in the new concept of structure.

Mr. Laing then spoke briefly of fifteenth century Florence and of the curiosity and intensity of life which characterized this period. He also cited examples of the close identification of architect and artist with the people of Florence and the keen interest and understanding of art and architecture by the Florentines.

With respect to the nineteenth century he cited the confusion which resulted from the idea of inevitable progress and the common delusion that industrial progress invariably brought progress to all areas of life. He thought this delusion became especially noticeable in the changes which occurred in the New England mill towns between the early and mid-nineteenth century. By mid-century industrial progress in these towns was accompanied by retrogression in the quality of life for the workers and by the overuse of the land.

Mr. Laing saw a healthful tendency to think in terms of the whole man. He envisioned great advances in the means of construction, particularly in the rise in strength-to-weight ratios in materials and in the new structural design concepts. He thought there was much room for progress in the area of better understanding of the requirements of building types and in that intangible element—creative expression. He then introduced Mrs. Charlotte Link, Head of the Equipment Department, Perkins and Will, who spoke on the procedure used by that office in the design, specification, co-ordination and installation of equipment.

Robert R. Denny, public relations director for Henry J. Kaufman & Associates, of Washington, D. C., spoke on the PR's of Architecture. His speech is printed in the October issue of the A.I.A. Journal, where our readers can study it so we will not duplicate it here.
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By Harold T. Spitznagel, AIA, Sioux Falls, S. D.

Talk at North Central Regional A.I.A. Meeting

Perhaps I should make some sort of apology for the use of written material as this usually forecasts a drab performance by a neophyte speaker. The last phrase may be borne out irrespective of whether the talk is on or off-the-cuff. I felt that in this particular instance, where architects from five states are in attendance, it would be better that I try to arrange my thoughts on paper rather than to put my trust in a few notes which would undoubtedly lead to a garbled expression. For your information, I am generally conceded to be one of the outstanding garblers in the entire North Central region, if not actually in the Institute itself.

I frankly am amazed to find anyone here at this hour of the morning particularly in view of the fact that the convention program is not by any means a classified document. Neither the speaker nor the subject are of a type which would lure one from his bed, much less sustain even five offices, particularly when the economy is that of agriculture, which at best is a highly uncertain and at the moment a depressed business, and, perhaps even worse, completely dependent upon the vagaries of the weather. I have had an office for 27 years and our operations extend over an approximate area with a 250-mile radius. I employ 20 men at the moment and 3½ girls in the front office. I am sure that you would all like to come and see the half girl but I am not going to whet your appetites by telling you which half I have.

For the past five years I have had a completely independent operation, including two mechanical engineers, two structural engineers and an electrical engineer, and from experience I can tell you that this is not only a great satisfaction from the standpoint of the quality of the work produced but I feel that it is highly advantageous from a cost standpoint. Previous to this time we were forced to resort to consulting mechanical engineers at a point 260 miles from the office and this was not in any way satisfactory. Unlike some of the offices in the larger cities it is necessary to offer permanent employment to the employees because of the fact that the office is remotely located and I have had the good fortune of having lost but three employees in the past 27 years, all three of which established their own offices, one in Sioux Falls.

By and large, my practice is probably identical with that of all of the other firms of similar size, with three possible exceptions, which I think might be of interest to you although I do not in any way recommend their adoption.

First—I know that you are all confronted with the problem of the coffee break and because our office is located in a suburban area, relatively distant from the nearest cafe, we installed a small combination sink, range and refrigerator unit and one of the girls prepares the coffee and serves the rolls in the morning and the afternoon. One of the standard jokes in the office is whenever she delivers the tidbits to a conference and at least I always laugh heartily. In addition to the coffee and rolls we have an honor system candy, cigarette and peanut box and you will probably be amazed to know that at the last audit the income had accumulated to a total of $575.43. As the fund accumulates and the restlessness increases a move is quickly organized to spend the balance. The last “spend the balance” opera-

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tion resulted in the chartering of a 41-passenger air conditioned bus and the entire office's taking off for Sioux City, a distance of 90 miles to the south, where we enjoyed an excellent dinner, complete with cocktails and liqueurs, plus an extremely fine Ice Show. These outings have never failed to improve the morale of the employees and from everyone's standpoint they are practically free of cost.

Despite the low margin of profit and the frequency of the entertainment, I noticed on the bulletin board in the drafting room last week that a new motto had been placed there—"If this place had better management, we would have longer coffee breaks." Its content is not only distasteful but I felt that they sort of rubbed salt into the wound when they had it engraved in formica and attached to the board with Miracle Adhesive.

**Picture Presentation Is Timely**

The second item which I have found to be of interest and should perhaps appeal to others is a new, at least with us, method of presenting a preliminary study of a building to a committee or group. This is particularly adaptable to a church meeting, where there are a great number of people present. The process is relatively simple in that the Polaroid company has recently come out with a film which permits the production of instant transparencies as contrasted with opaque prints, with which I am sure you all are familiar. The kit for the production of the transparencies comes complete with clip type mounting frames and a package with sufficient film for eight exposures at a cost of $7.95. These can readily be projected in any projector which will show 2½-inch square slides, such as a very compact unit manufactured by Ansco, called Dualset, selling at $39.95.

The advantages of this process are, or should be, apparent to anyone and on many occasions we have worked on drawings as late as 4 or even 5 o'clock in the afternoon, made the transparencies and projected them that evening. The effect can be enhanced by the application of a colored transparency over part of the area which greatly enlivens the projections. I recommend it to anyone confronted with this problem. As everyone knows the difficulty of distributing a number of prints of a project is that it requires but a few moments to have as many discussion groups in progress as there are plans and then it is impossible to get the attention of the committee.

The last of the three suggestions which I have to make has to do with the problem of specification writing. If your office is like my own, one takes his life in his own hands if he comes within shouting distance of the girl or girls engaged in writing specifications. This portion of the contract documents cannot be prepared until the drawings are nearly finished and, as everyone knows, the combination of an irritated client and a confused architect, plus a bedeviled stenographer, make for hell-fire in its most violent form.

It is common knowledge that large areas of the specifications are repetitive and either by the use of standard sheets or the duplication of old stencils can any of the laborious part of the operation be eliminated. We have found from experience that we like to have a complete set of stencils for every project, with the result that there is a never ending problem of re-writing the same thing to preserve the stencil file in its complete form. About six months ago we tried out and finally invested in a Flexowriter, manufactured by the Commercial Controls Corporation of Rochester, New York. Briefly, it is a tape operated typewriter which writes at the speed of 100 words per minute. The original tape is typed on the machine that types the copy and we usually run one tape to the page. The machine can be set so that it stops automatically at any point for the insertion of other data or can be stopped manually for any changes in the specifications. This does not by any means completely solve the specification writing problem from the standpoint of the stenographer but, once she has familiarized herself with the operation of the machine, it is indeed a great time saver as it eliminates the possibility of error and does not require proof reading, not to mention the fact that it is a most soothing sound to hear the machine typing probably faster than its operator while she is answering the telephone. The cost of the model which we selected is close to $2,700, this particular model being a proportional spacing machine similar to the executive IBM typewriter.

As a member of the public relations committee I am never for a moment permitted to forget that the best public relations in the architectural profession is a satisfied client and that the satisfied client is the result of a completely satisfactory performance on the part of the architect. In addition to this satisfactory performance, I believe there is a still further responsibility on the part of the architect and I also regret to admit that this phase of our practice is often either knowingly and intentionally scuttled or, if recognized, the average practitioner avoids facing the facts of life in connection with his practice. I refer to the position usually taken by the architect wherein he considers himself to be infallible. He assumes this robe of infallibility and in so doing divorces himself from any errors or mistakes in connection with the construction of the building, concluding that these are something that the owner or contractor is subject to but as the architect he is completely immune therefrom.

**Architects Aren't Infallible**

I believe that this lack of assumption of responsibility on the part of the architect is a weakness which should be recognized and dealt with appropriately. By this I mean that when the architect makes a mistake he should recognize it as being his mistake and not attribute it to stupidity on the part of the contractor or ignorance on the part of the owner. In my own practice I have never hesitated to face up to blunders attributable to shoddy work. It is, as you know, not easy to face the facts, particularly when they are obviously the work of stupidity or carelessness on the part of one of your employees or, and I hesitate to say it, yourself but in the long run it is best that this be done and certainly should gain the respect of both the contractor and the client. During the past year my structural engineer, in designing a beam for a penthouse, apparently confused the time of day with his take home pay in computing the total load of the member, with the result that about six months after the building had been accepted by the owner some unexplained settlement and unexpected
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cracks developed in the masonry. While the owner called our attention to the condition he was not particularly concerned and I am certain would have accepted the repointing of the walls if done without cost to him.

Upon being advised of the condition of the structure we are once started an investigation and found that not one but two of the beams supporting the penthouse were undersized. We made a complete investigation of a possible solution and found that the only ultimately satisfactory way to cope with the situation would be to remove all of the exterior brickwork on the penthouse and replace it with some lighter material such as Robertson metal walls or corrugated transite. We restudied the details and ordered the revisions installed by the contractor. In this particular instance the cost of the revisions amounted to $3,800 and, I might add, represented by far the largest expenditure of this type we have made. The work was completed, there has been no further difficulty and the client never registered a serious complaint either before, during or since the change was made.

Unpleasant as it may be, I feel that I would have shirked my duty if I did not mention one facet of the architect's practice which probably generates more ill will than the sum total of all of the other shortcomings and that is the seeming inability of the profession to provide the client with accurate and dependable cost estimates. I am fully aware of the fact that it is difficult to estimate the cost of a building months in advance of the time that the contract is to be awarded, particularly when you consider that with a complete set of plans and specifications the contractor's firm bid will vary as much as 25%. I personally do not plead immunity from this shortcoming and, if pinned down, I would seek refuge under cover of the Fifth Amendment. The owner's reluctance to accept realistic estimates, coupled with the average architect's lack of courage to inform the client or perhaps more accurately to spend the necessary time to prepare such an estimate, inevitably leads to trouble of nuclear proportions and in time would neutralize the most elaborate and costly public relations program that could possibly be devised.

In citing these problems, I do not particularly wish to expose our stupidity and I merely cite these cases as ones which I think support the fact that the architect should at all times recognize his shortcomings and be willing to correct situations resulting therefrom without attempting to pin the dilemma on the contractor or owner. A good performance by the architect with the acceptance of the responsibility in connection therewith should leave in its wake a completely satisfied client and contribute to the much desired better public relations.

May I call your attention to the fact that costly as the average architect considers the public relations program, the acceptance of the modular concept as a planning idea and acceptance of the standard material size or material component idea as an obvious means of accomplishing design objectives.

Is this a particularly profound thing? To me it is, or can be, very important to us and to our people. For this “progress” movement extends into the future, as surely as it can be traced into the rather recent past and the point that makes the whole build-up so exciting to me is the fact that we don't know where we stand today on the curve of progress, timeless progress. We truthfully can’t say where we are now on the “betterment” curve, though we can be pretty sure that what's ahead looks encouraging, even boundless. . .

The recent progress—tangible—that I see has been due to, or accomplished by, pretty intelligent application of standardization principles, without sacrifice of individuality or opportunity for ingenuity—perhaps the opposite, in fact. Bunshaft, Saarinen and Netsch have in cases made standards. But the salient point here is that this standardization, this componentism, represents
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the first real impact of the American industrial manufacturing approach on our buildings. We are beginning—note that I say beginning—to think of designing and putting together buildings that are composed of parts instead of pieces. . . . Parts instead of pieces, simple, repetitive, often interchangeable parts instead of pieces. Think that over well, please—for this concept has made American industry in other areas. . . .

There are two other aspects of this "Progress in Architecture" idea that should be touched on here this morning:

1. Research (applied and basic)
2. Architect—manufacturer relations.

My company has in recent years been devoting increasingly more management time, laboratory space, trained personnel and, of course, dollars to research and development activity, most of it at Niles. Currently, something in the neighborhood of 1½c to 2c of every gross sales dollar of our architectural products is being reinvested in R & D. (This is a substantial proportion of net profit after taxes, incidentally.) None of this relates to the day-to-day problems of quality control in manufacture, you understand; rather it pertains to long-term and short-term investigation of the behavior of materials. . . .

Make no mistake in your mind on this point—research, soundly specified and well supported, will make for progress but the somewhat sad fact today is that neither your and my profession, nor yours and my industry, has yet found the formula for the coordination—catalyst slant for basic building research. . . . Which of the segments of the building industry is going to take the weight of leadership toward "Progress in Architecture" through research? Will it be finance, design, construction and performance, supply or possibly government?

As this previously referred-to idea of "parts-rather-than pieces" for buildings concept has grown, there has developed, I think, a need for a somewhat different relation between the designing and practicing architect and his supply sources than that which prevailed about 25 years ago. Perhaps this thing that I am now talking about is best illustrated by a look at architectural curtain-wall as you and I see it in its various forms today. The fact is, of course, that the curtain wall has existed in this country on paper, and in peoples' minds, since back in the early 1930s. But it has only really been fairly recently, since about 1950 or so, that the wherewithal to accomplish curtain-wall design has been at all available to the architect and his client. . . .

Aesthetics and performance and economics have perhaps never before been more coupled in American architecture than they are right now in the curtain-wall. There have been and are perhaps two different approaches to your modern curtain-walls. First, extend the use of windows, and accompanying similar elements, with in-fill panels, over a greater area of the building. Second, apply an independent, non-load bearing envelope around the structure of a building, into which may be introduced windows, glass, color elements, etc. At Kawneer we have always believed in the second approach. With this policy decision has come the formulation of a number of what we call "curtain wall fundamentals." In brief, these fundamentals include the putting together of all curtain walls so that they satisfactorily take into account four basic performance standards, rooted to:

1. Thermal expansion and contraction.
2. Heat transmission through the wall.
3. Condensation on metallic elements.
4. Weathering.

At Kawneer we now manufacture and supply two versions of curtain-wall, embodying the best that we know to take care of those fundamental needs, plus of course expected requirements of appearance, longevity, low maintenance, short term and long term economy, easy erection. These two curtain-wall types (based on economics) are:

1. Unit-wall (standard component, modular . . . some variations) and
2. Metal-wall (custom . . . strictly to varying design needs).

Note that I mentioned that economics has a vital clue in the proper use of one variety of wall versus the other. Actually, both versions employ and embody the same "curtain wall fundamentals." In the unit-wall (or standard, modular program), tooling costs and production accommodations are set to contemplate a fairly high volume of similar components, which may be combined in design especially well for a variety of single story or multi-story buildings of modest to medium size. In the metal-wall (or custom curtain-wall) tooling is usually justified to—within limits, of course—accommodate a much wider latitude of wall design requirements. Here, actually, specialized retooling and die costs may be amortized over a sufficiently large number of units for one building to not make the per-unit (or per square foot) tooling cost much of a factor.

At Kawneer our several years of curtain-wall experience has ranged from jobs which to us meant curtain-wall contracts ranging from about $2,000 to about $4,500,000 per building. The curtain-wall cost will range from 2 or 3% up to 11 or 12% of the cost of the whole building. It is difficult to set a rule-of-thumb index as to where a standard curtain-wall product is a must, or where the realm of the custom curtain-wall becomes possible, or even better. This to us is an impelling reason for a desirably close liaison between architect and curtain-wall supplier, early in the design stage. . . .

The reasons for urging this early-in-the-design-stage consultation between the architect and the manufacturer-fabricator-supplier are well taken and they are based on sound procedure, rather than on the desire of a supplier to obtain a competitive advantage. Standardization must always be accompanied by possible variations in order to provide an element of design flexibility. It is well known that there are ground rules that should be understood to allow the best and most economic applications of these standards, plus variations or options. It is only logical that we design with these standards as a tool and aid, rather than to try to jocobble a project to accommodate standards. The timing is important. And we find that close contact and co-operation between a designer and an informed product specialist presents a surer way of getting the most out of a product opportunity. Helpful as well conceived product literature and technical material may be, it cannot be a totally satisfactory substitute for good communication between architect and manufacturer.

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The recommendations may then be inserted in their proper place in the "Recommendations." The committee has completed 1 and 2 above and will follow up on 3 and 4 when they re-convene in October.

The "Recommendations" are divided into eight sections as follows:

I. "Standard Check List for Specification Titles." This was probably one of the committee's foremost achievements in terms of acceptance by architects and contractors. It is estimated that 90% of Minnesota architects follow this specification. In addition it has become a pattern for joint committees all over the United States. Contractors have been enthusiastic about the Standard Check List because of its logical order and its contribution to ease of takeoff. In many localities the contractors themselves have sold the architects on its usage. A committee is now studying the Standard Check List to revise it to conform with technological changes and new product development.

II. "Codification of Committee Actions." As problems are presented to the committee, a subcommittee is usually appointed to study the problem. If the subcommittee's conclusions are accepted by the Joint Committee, they are then issued as recommendations and coded to conform with the AIA General Conditions and

Standard Check List numbering system. These problems are the heart of the joint committee's agenda and provide a full program for the committee during its 18 meetings held each year.

III. "Insurance Check List." Because insurance policies and their correct application are so integral a part of construction, the committee developed this "Primer" listing various types of policies and their intended coverages. The check list was adopted from the AGC of America Insurance Check List.

IV. "Revised Insurance Recommendations." The word "Risk" is well known both to those who have adequately prepared for it and those who have been forcibly introduced to it through unforeseen circumstances. Chapter I contains specific amendments to the AIA General Conditions and Chapter II contains cautionary and advisory statements.

In the committee's own words "The purpose of these recommendations is to offer insurance protection that will reduce the individual contractor's liability for damage to property and for injury to the public during the course of his business. As a standard practice, this will lend to the industry generally an increased financial stability by helping to protect both contractors and owners from unmeasurable hazards and liabilities over which the contractor can have no control."

V. "Working Drawing Standards" and

VI. "Manual of Supervision" sections of the Handbook of Architectural Practice. These suggestions were requested by the national AIA to assist them in revising the Handbook and deal with details of practice recommended to be followed by architects.

VII. "Masonry Specifications." This detailed specification was issued as a supplement to the Standard Check List, Section 8 (Masonry).


New committee appointments for 1957-8 are: David Griswold, chairman, and Gordon Matson replaces Virgil Siddens.

SPECIFICATION TITLES TO BE REVISED, HELP WANTED

The Standard Checklist for Specification Titles is going to be revised by a subcommittee of the Minnesota Joint Co-operative AIA-AGC Committee, according to David J. Griswold and P. M. Dougall, co-chairmen.

"We want all architects, engineers and others who believe certain changes should be made to send in their suggestions immediately so the subcommittee can organize the material and do the best possible job," the announcement said. Suggestions and other materials should be sent to the committee's office at 910 Builders' Exchange Building, Minneapolis 2, Minn.
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That's how a Crown Iron Works engineer might begin when he describes to a layman how his firm licked a tough design problem on American Hardware Mutual's new building.

The cereal box represents the thin, hollow, stainless-steel vertical ribs that support the glass wall. But Minnesota's extreme temperature variations (−34 to +108) would make these panels expand and contract so much they'd be tough to hold weather tight. Crown engineers couldn't do anything about the temperature, so they applied some old-fashioned ingenuity.

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American Hardware Mutual Insurance Co. is the ninth consecutive insurance building in this area Crown Iron Works has helped build. Among the others are Prudential (shown above), North American, Lutheran Brotherhood.
C. David Loeks, for seven years city planning director for St. Paul, has been named to head up the new five-county Metropolitan Planning Commission, where he will start his forward-looking the first of the year. Well known in planning circles in this area, Mr. Loeks was recommended from among 30 applicants for the job and was named unanimously by the commission.

Articulate, well backgrounded in the many ramifications of architecture and planning and a man who is keen in presenting a project, Mr. Loeks gave his views of his new job to the Minneapolis Tribune, from which we can do no better than to quote.

"This is a job that needs doing," he said. "A planner has to be able to communicate with people, stimulate them into action and get their help. My philosophy (as director of city planning in St. Paul) has been to surround myself with idea men. I act as sort of a catalyst to bring them together."

"The 1957 legislature created the Hennepin-Ramsey-Anoka-Dakota-Washington county planning body following rejection of similar legislation in two previous sessions. Major obstacles had been, on the one side, suburban-rural fear of Twin Cities' domination of the 27-member commission and, on the other side, conservative-urban disinclination to foot the bill for suburban planning. But from the hot forge of three sessions' compromising has come a law which apparently has great chance for success. The commissioners are chosen mostly by local governments, with a few members named by the governor. They are said to be seriously intent upon devoting themselves to unselfish, and unpaid service.

"Beginning in mid-1958 revenue will flow from a one-tenth mill property levy in all five counties. The commission is said to be unique in this respect for all other similar regional planning bodies, so far as it is known, are financed by specific appropriation. Until 1958 a pair of private donors will furnish funds to get the commission show on the road. Loeks tells of another unusual aspect.

"We are a unique urban complex," he said. "There's not another one in the world. We have the classic pattern of suburbs but our downtowns (Minneapolis and St. Paul) are separated by 10 miles of high economic development."

"Loeks, who has been in the forefront of the metropolitan area planning idea since its local inception a half-dozen years ago, underlines the fact that the new commission is advisory only. It has no power, as such, beyond its tax levy power. Other than that its function is wholly advisory.

"Our job, as I see it," says Loeks, "is to supplement, not supplant." The commission will strive to coordinate planning local units within the metropolitan area, to recommend to them what it—and they—think best for all of them as a unit.

"Where would we like to be in five years?" asked Loeks. "We'll aspire to a lot," he guessed, "and settle for less. We'll hope for a general appreciation and understanding by the key citizenry. We ought to have adopted and in the process of implementation effective public services such as storm and sanitary drainage, recreation, vehicular circulation, a broad pattern of land use for the region, a need to develop and agree upon standards for community development, with basic tools like zoning, building codes and other land use controls which can be used by the local communities for their day-to-day guidance. Our success will be measured by the quality of local planning—by our stimulation of broader-gauge, intensive planning. Metropolitan planning may be a secondary effect, better local planning the primary effect."

"Loeks anticipates that in his first year he will spend a great deal of his time in establishing good relationships with community planners. He'll find out what their problems are and urge their full participation in the actual process of metropolitan planning. He foresees failure of the commission if it becomes remote from local needs or becomes a supergovernment.

"Then the local people won't have to fight it," he points out. "They can drag their feet." Loeks thinks the Minneapolis-St. Paul district may become the major planning area of the country. Currently it has every possibility of success, he feels, because it is being launched in an era of good will."

FOURTH BITUMINOUS CONFERENCE PLANNED AT U OF M

The Fourth Annual Bituminous Conference is scheduled for November 20 in the Center for Continuation Study at the University of Minnesota and registrations for the one-day institute are now being accepted. The program is conducted annually in cooperation with the Asphalt Institute and the Minnesota Bituminous Pavement Association. Nationally known speakers and moderators have been assigned important subjects relating to bituminous materials and asphalt construction methods.

Highlighting the noon session will be Walter B. McKendrick, Jr., consultant engineer representing the American Association State Highway Officials and their road test now in process. Types and uses of materials will be the subject of L. C. Krchma of Socony-Mobil Oil Company of Kansas City. B. A. Valleraga, managing engineer for the Pacific coast division of the Asphalt Institute from San Francisco, will report on flexible paving techniques. An authority on seal coating operations, Jerome P. Kearby, engineer director for the Kansas Asphalt Contractors Association in Topeka, will present a paper relating many years of experience on that subject. Base courses and surfaces will be covered by Profs. Miles Kersten and Theo. Thomas of the university school of engineering, assisted by W. L. Hindermann, managing engineer locally for the Asphalt Institute.

The conference is open to anyone interested in the field of bituminous construction.
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585 tons of Pacal Structural Steel and 180 tons of Reinforcing Steel went into this $3,000,000 single story structure to be used as a combination distribution center and manufacturing facility. The new steel-concrete block building is located on a 105 acre tract in Golden Valley—a Minneapolis suburb.

Minneapolis-Honeywell distribution center and manufacturing facility located in Golden Valley.
Here, too, steel is doing a job better by **carrying the heavy load**—providing for larger glass areas, improved natural lighting and making possible big recreation areas uncluttered by conventional support columns.

533 tons of Pacal Structural Steel went into the 3 story Highland Park Junior High School at St. Paul, Minnesota.

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52 NORTHWEST ARCHITECT
HAARSTICK, LUNDGREN AND ASSOCIATES OPEN OFFICE IN SAN FRANCISCO

Haarstick Lundgren and Associates, Inc., St. Paul architects and engineers, have announced the opening of an office in San Francisco, Calif. The second office will make it possible to better serve clients in the western part of the United States, according to the firm's principals.

Robert A. Bennighof, associate, will be in charge of the western operation, which will provide both architectural and engineering services. Mr. Bennighof is a graduate of the University of Minnesota, with a bachelor of architecture degree, and holds a master of architecture degree from the Cranbrook Academy of Art, Bloomfield Hills, Mich. A member of the American Institute of Architects, he has had varied experience in architectural design in private practice and for architectural engineering firms.

Growth of the firm, which has achieved a nationwide practice since its founding eight years ago, has prompted the expansion move, the principals said. There are currently more than 60 members in the St. Paul office, including architectural, engineering, administrative and clerical personnel.

PATCH AND ERICKSON MOVE

Patch and Erickson, Architects, have moved to a new office building at 2815 Wayzata Boulevard, Minneapolis, according to word from Roger W. Patch. The office building, of which the firm will occupy the second floor, was designed by them and is in the modern theme. Main floor will be occupied by the K. M. Clark Engineering Company.

ENGINEERING EDUCATORS MEET AT U OF M

The training of engineers to meet society's growing needs for technical personnel was of principal concern to members of the north midwest section of the American Society for Engineering Education when they met on October 18 and 19 at the University of Minnesota. Professor Paul A. Cartwright of the University of Minnesota electrical engineering department, the group's chairman, presided at the annual meeting of engineering educators from Iowa, North Dakota, South Dakota, Wisconsin, Michigan and Minnesota. The divisions of engineering education held group meetings on October 19.

Arthur Upgren, professor of economic studies at Macalester College, St. Paul, spoke at the annual dinner. He discussed "What's Ahead for Business and Education." Toastmaster was Athelstan Spilhaus, dean of the University of Minnesota institute of technology.

MINNESOTANS WIN INTERNATIONAL SOLAR HOUSE AWARDS

Top prizes for designs of houses using solar heat went to two Minnesotans in the International Solar House Competition recently judged in Grand Canyon, Arizona. Winners were Peter R. Lee, University of Minnesota student, and Mrs. Robert Bliss, wife of a Minneapolis architect.

Mr. Lee's design, which took first prize of $2,500, will be built at Sundown Estates, north of Scottsdale, Ariz. He will receive the architect's fees from the $30,000 house. Mr. Lee will be graduated from the university in December. The Minneapolis firm of Bliss and Campbell will execute the Lee design.

Mrs. Bliss's second prize of $1,500 was for a design which featured a variety of indoor and outdoor living spaces.

ST. PAUL BUILDERS EXCHANGE PLANS 1958 HOME-A-RAMA

Appointment of a committee under the chairmanship of George S. Withy of W. R. Shaw Lumber Co., has set the machinery in operation for production of the 1958 Home-A-Rama, to be sponsored by the St. Paul Builders Exchange and other community building groups. The show will be held February 15-22 in the St. Paul auditorium.

Good Design Looks Better—Always!

The Council Chambers of the Minneapolis Court House have gained added dignity in the design of the rail posts, desk frames, grills and skylight members done in a statuary bronze. This is another example of the fine craftsmanship done by Minnesota Fence & Iron Works. Throughout the years this firm has served the architects, engineers and contractors of the Midwest in meeting all of their requirements.

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SOUTH DAKOTA CHAPTER CONVENTION PLANS EXPANDED PUBLIC RELATIONS

Expansion of a public relations program, study of products and methods exhibits and general convention business occupied members of the South Dakota Chapter, AIA, at their recent annual convention in Pierre, S. D.

Officers of the groups are Roland Robel of Watertown, president, Clarence Herges of Aberdeen, vice-president, and Jean Kroeger of Sioux Falls, secretary.

“Our chapter was particularly concerned with putting into motion a new public relations program here in South Dakota,” Secretary Herges said about the meeting. “This fact has long been overlooked by architects in general and by us here in South Dakota in particular, although we now feel we have taken a step in the right direction.

“Another important thing we did during the convention was have a long discussion with the new state engineer, Alfred Kemper, to go over the revised procedures which are to be used by architects throughout the state in dealing with state construction projects.

“The architects who attended the convention were unanimous in their opinion that the Producers’ Council added a great deal to our meeting with the exhibits shown and we certainly appreciated this opportunity to see the displays.”

The chapter is planning to carry through the rest of 1957 and into 1958 the many things which were considered by the convention and developed the projects given the group’s okeh.

AIA AND NAHB SEEK ARCHITECTS INTERESTED IN DEVELOPMENT BUILDINGS

An effort to contact architects interested in development home building and creation of a film strip setup in this field of activity has been announced by the American Institute of Architects, which is working with the National Association of Home Builders and the FHA in the project.

Aim of the project, according to word from L. Morgan Yost, FAIA, chairman of the committee, is to inspire architects, home builders, FHA people and consumers to think toward better planning and design.

Complete details of the project can be had by writing to Mrs. Gery Witt, Film Strip Co-ordinator, AIA, 1735 New York Ave. N.W., Washington 6, D. C.

MINNESOTA GRADUATE ON NORTH CAROLINA STAFF

Thomas H. Hodne, B.A., BArch, University of Minnesota 1955 and MArch, Massachusetts Institute of Technology 1956, has been appointed assistant professor of architecture in the School of Design, North Carolina State College in Raleigh, N. C. He will also participate in a city planning project in Cleveland, Ohio, as a principal in the firm of Klein and Hodne, consultants for the Ohio City Planning Project, in collaboration with Adams, Howard & Greeley, city-planning consultants from Cambridge, Massachusetts.

SEPTEMBER-OCTOBER, 1957
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NORTHWEST ARCHITECT
Home building industry representatives from a six-state area will converge on Minneapolis on November 6 as the second annual Midwest Housing Conference gets underway in the Hotel Leamington. An estimated 1,200 persons from Minnesota, Wisconsin, Iowa, North Dakota, South Dakota, Montana, and central Canada are expected at the five-day meeting sponsored by the Minneapolis Home Builders Association.

A big feature of the show will be the Showcase of Builders Products, a two-floor display of the newest materials in the home building field. National, regional, and local manufacturers will be represented.

The entire first day will be devoted to the Cost Saving Conference developed by the National Association of Home Builders. Experts in home building and associated fields will emphasize planning techniques in the areas of financing, land acquisition and development, home design and construction, management, budgeting, cost control and taxes—all designed to cut operating expenses. The Cost Saving Conference has been described as an industry-wide attempt to stem rising home building costs and to prevent the prices of new homes from climbing higher.

W. O. Dale of Dale Tile Co., Minneapolis, past president of the National Tile Contractors Association of America, will appear on the panel discussing “ Bathrooms Need Planning” on Friday, November 8.

A quartet of well-known names will headline the speaking program. They are George Goodyear, president of the National Association of Home Builders; Dr. Arthur Upgren, nationally recognized expert in the field of economics; James M. Lange, executive editor of Practical Builder magazine; and Frank Uphues, architectural director of the Crane Co.

Kitchen planning will be explored from the feminine angle by a panel featuring some of the nation’s leading women kitchen consultants. They are Annabelle Heath, assistant administrator of Housing and Home Finance Administration; George V. Tonelli of the Curtis Companies kitchen planning division; Diana Young, kitchen planner and color coordinator for Youngstown Kitchens; and an as yet unnamed representative from the home economics department of General Mills.

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PRODUCERS’ COUNCIL ANNOUNCES BUILDING INDUSTRY TV SERIES

The story of the nation’s largest industry, construction, is being carried to the American people for the first time through the medium of television in the show, “Building America,” sponsored by the Producers’ Council.

The program, a filmed documentary series, is planned for showing by more than 200 television stations with an estimated weekly audience of more than 7,500,000 persons. It will be distributed through the Public Service Network, Princeton, N. J.

Producers’ Council President Fred M. Hauserman pointed out that “this is the first time any concerted industry-wide effort has been made to inform the public of the importance of the building industry to living standards and modes of living. Through public service we hope to make the people aware of how this gigantic $50 billion industry is serving them. At the same time we feel that the series will be of direct benefit to architects, builders, distributors and other segments of the building industry.”

Each program will be made up of four five-minute documentaries. A three-minute editorial or interview will present current news from the industry. Represented in these editorials will be exciting new ideas and developments of the industry being generated by architects and builders. Governmental policies and action, as related to the industry, will be discussed by administration and congressional leaders.

This activity was conceived by the Producers’ Council merchandising committee under the chairmanship of David S. Miller, vice-president of marketing, Kawneer Company, Niles, Michigan. “Building America” has already had thorough pilot testing in a similar type of documentary series produced by Public Service Network over the past two years, its sponsors said, and it has already built up a large viewership.

Production and distribution costs of the documentary series is being borne by participating members of the Producers’ Council. Initially, many programs will be edited from high quality, existing films by the Public Service Network.

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NORTHWEST ARCHITECT
LATH AND PLASTER PLAYHOUSE GIVEN AS FAIR PRIZE

A lath and plaster playhouse, designed in the moderne style by Lyle Landstrom of Thorshov & Cerny, Minneapolis architects, for the Minnesota Lathing & Plastering Institute Public Relations Bureau, was given away during this fall's Minnesota State Fair.

The playhouse was an exhibit during the ten days' run of the exposition and attracted crowds of persons, including smaller fry who were enchanted by its unusual shape and features as a playhouse.

"Main desire was for something different and unusual to attract crowds and to bring to the attention of the public possibilities of the use of lath and plaster," Mr. Landstrom said. "In addition, the playhouse was to have a base 8' x 8' and be capable of being transported since the playhouse was to be the subject of a raffle. To arrive at a design, Mr. Cerny took his design staff to lunch, presented the basic program, then gave his designers one hour after their return to the office to register their ideas for an intra-office competition for the design of the playhouse.

"Besides the basic program, the designer had the following intentions: the playhouse should have an expressive use of lath and plaster, unique only for that material; it should have a delightful character to appeal to children; and it should have a satisfying sculptural form since it was to be completely freestanding. The final design utilized four hyperbolic paraboloids springing from the four corners of the base. This type form was selected because its warped surfaces clearly demonstrated the inherent plasticity of plaster and could readily be constructed by straight lathing channels; also, hyperbolic paraboloids are inherently strong and it was thought the double curved surfaces would best be able to withstand moving and the abuses of children.

"The playhouse was framed with straight lathing channels, both sides covered with expanded metal mesh and then stuccoed inside and out. In the completed playhouse the channels serve only as edge reinforcing with the stucco hyperbolic paraboloids acting as true thin shell structures with the expanded metal mesh providing the necessary tensile reinforcing. The playhouse was then screened-in, using conventional detailing. To our knowledge this was the first use of hyperbolic paraboloids in a structure west of the Alleghanies, excluding Mexico."

ARCHITECTURAL SALESMEN'S SCHOOL SPONSORED BY PRODUCERS' COUNCIL

Architectural salesmen can now enroll in a unique new training course aimed at improving their effectiveness in selling and servicing the architectural profession. A series of schools for such training recently was announced by The Producers' Council, whose president, Fred M. Hauserman, said the purpose of the institutes is "to develop in the salesman an understanding of the problems and desires of the architect and his associates, and by so doing, create a harmonious and profitable working atmosphere."

The schools will be conducted on a regional basis at leading universities in conjunction with their departments of architecture. Enrollment at each school will be limited to 60 students and classes are to be held in four sections, with 15 students assigned to a section. The course will run for a full school week and will comprise four periods a day with an evening period devoted to study and preparation.

The first school will be held at Rensselaer Polytechnic Institute, Troy, New York, the week of November 17, 1957. A later session will be conducted at Ohio State University, Columbus, Ohio, the week of April 20, 1958. Negotiations are currently underway for subsequent training courses to be given in Texas, California and Florida.

Salesmen-students will be instructed in a variety of subjects related to developing their abilities in working with architects. The curriculum will be divided into three phases: "Organization and Services of Architectural Firms," "How Products and Material Get Specified" and "How to Approach the Architect and His Staff."

A series of lectures will give salesmen an inside look into the operations of the architectural office. They will cover the architect's place in industry, his educational background, responsibilities of principals and associates and client relations. Other topics to be studied include: specification writing, design appreciation, bidding procedures, and contract and sub-contract negotiations.

At the conclusion of the course a copy of the student's record will be forwarded to his employer. His architectural customers also will be notified of his attendance at the institute. Students successfully completing the course will be awarded achievement certificates. Further information regarding curriculum and admission requirements can be obtained from Robert W. Hurst, Producers' Council, Inc., 2029 K Street N.W., Washington 6, D. C. Membership in the Producers' Council is not necessary for training course eligibility.

SILLARS NAMED MANAGER OF CEMENT PUBLICATIONS BUREAU

Robertson Sillars has been made manager of the publications bureau of the Portland Cement Association and will supervise editing, layout and production of publications and visual aids. He succeeds J. L. Schneider who will devote full time to his duties as assistant secretary of the association.

Mr. Sillars joined the association in April, 1957, as

SEPTEMBER-OCTOBER, 1957
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Minnesota Concrete Products Association
assistant to the manager, publications bureau, after six years with the Adult Education Association of the U.S.A., where his last post was editor of publications. Mr. Sillars has been editor of "Adult Education," a quarterly, and "Adult Leadership" and is the author or co-author of a number of articles and books in the fields of adult education and group leadership.

CONCRETE CONFERENCE SET FOR MINNEAPOLIS, DECEMBER 16

The Seventh Annual Concrete Conference will be held Monday, December 16, in the Museum of Natural History auditorium, University of Minnesota, Minneapolis. Plans for the event conducted by the construction industry in co-operation with the University's Center for Continuation Study were announced by L. J. Allen, of Landers-Norblom-Christenson Co., Minneapolis, committee chairman.

Other committee members handling details are Dr. Paul Andersen, professor of civil engineering, University of Minnesota; Charles W. Britzius, president, Twin City Testing and Engineering Laboratories, St. Paul; Edward Carsberg, concrete engineer, Minnesota Department of Highways, St. Paul; Prof. Winston Close, school of architecture, University of Minnesota; George F. Cook, president, Cook Construction Co., Minneapolis; Orville J. Evenson, business agent, Local 557, Cement Finishers Union, Minneapolis; John Horbach, business agent, Local 720, Plasterer's and Cement Finishers' Union, St. Paul; Reuben Lindh, Twin City Ready-Mix Concrete Co., Minneapolis; John Magney, partner, Magney, Tusler and Setter, architects, Minneapolis; Robert W. Randall, district structural engineer, Portland Cement Association, Minneapolis; C. K. Preus, Minnesota Highway Department testing laboratories; Ralph Rapson, Head, University School of Architecture; Prof. T. W. Thomas, civil engineering, University of Minnesota; Edward Saugestad, Ready-Mixed Concrete Co., Minneapolis.

YRJANSON NAMED PCA QUALITY CONCRETE ENGINEER

Appointment of William A. Yrjanson as quality concrete engineer for Minnesota, a new post of the Portland Cement Association, has been announced by Fred R. McComb, Minneapolis, district engineer. Mr. Yrjanson will co-operate with concrete producers and contractors, analyzing technical problems and assisting in construction details.

A native of Mahnomen, Minn., Mr. Yrjanson is a graduate of South Dakota State College at Brookings with a degree in civil engineering. As a graduate engineer his first job was as materials engineer with the Army Engineers in construction of Fort Randall Dam in South Dakota. From 1951 to 1955 he was materials engineer of the Corps of Engineers at Chamberlain, S. D. For the past two and half years he was assistant chief of the pavements, drainage and materials section, military construction branch, Engineers' Omaha district office. He is a member of the American Society of Military Engineers.

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Illustrated is the Devin Klein Clothiers store interior, designed by Chipman Piatt, Chicago architects.

We invite and would appreciate the opportunity of bidding on any drawings.

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Northwest Architect
Marble and stone producers, dealers, importers and others in the marble industry met in Minneapolis recently for the annual joint conventions of the National Association of Marble Dealers and the Marble Institute of America. Many architects attended during the four days the conventions were in session. Members from all parts of the United States were present.

John R. Magney of Magney, Tusler & Setter, Minneapolis architects, talked to the group on the merits of the industry's public relations and product literature promotional program as it is addressed to architects and what the architects' response to the program is. Others who attended included Brooks Cavin, president of the Minnesota Society of Architects, and Milton Leadholm, representing the Minneapolis Chapter, AIA.

The on-site part of the program found the entire convention going to the Babcock and Mankato Stone Company plants and quarries in the southern part of the state. There they saw actual quarrying and processing operations and were given interpretations of the work being done as related to building problems.

Our numbered pictures opposite show (1-r) . . . 1—W. H. Runge, Jr., Alabama Marble Co., Knoxville, Tenn., John J. Craig of J. J. Craig Co., Knoxville, and Roy E. Mayer of Carthage Marble Corp’n., Carthage, Mo., who are vice-president, president and secretary-treasurer, respectively, of the National Association of Marble Producers . . . 2—G. R. Shoffner, Knoxville, Tenn., A. T. Howe, Proctor, Vt., and W. H. Runge, Sr., Gantts Quarry, Ala. . . . 3—Bob Johnson of Twin City Tile & Marble, Charles Yarbrough and Elliott Potter of Carthage, Mo. . . .

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Refer to Sweet’s Catalog File 19e/MC
MC KENZIE HEADS PRODUCERS COUNCIL TECHNICAL BULLETIN COMMITTEE

Ralph McKenzie, designer and advertising manager of Flour City Ornamental Iron Company of Minneapolis, has been elected chairman of the publication committee of the Producers Council Technical Bulletin.

In announcing the election of Mr. McKenzie, David S. Miller, vice president and merchandising manager of the Kawneer Company and a director of Producers Council, Inc., said, "We have watched with a great deal of pride and satisfaction the growth and progress of our 'Technical Bulletin' under the editorship of Francis X. Brown.

"The Publication Committee will undertake an immediate idea study of the needs and desires of architects of AIA with the thought that basic principles should be established in promoting the betterment and modernization of the 'Technical Bulletin.'"

Members of the publication committee include C. L. Ammerman of Ammerman Co., Don Poor of Ceco Steel, Don Guthrie of Dow Chemical, C. W. Reene of Portland Cement Association, John J. Schmitt of Celotex Corp., Dean Randall of Minneapolis Honeywell, J. D. Lentz of Crane, William P. Markert of National Concrete Association, Jack McIntyre of New Castle Products and Mike P. Komar of Inland Steel.
Insulation Engineers
Gives Special
Northern-Lite Show

A special event to present all aspects of its Northern-Lite Window was staged recently by Insulation Engineers, Inc., Minneapolis, for architects and others in the construction industry of this area.

“This new window unit,” M. L. Fergestad, company president, said during the showing, “which combines the well known Rusco prime window unit with an interior, sliding sash and casing of fine wood, sells for an exceptionally low price. It is of major importance to home builders of this area because it offers outstanding insulation features as well as beauty.” The Northern-Lite windows have been used in the Pleasant Hills homes development in south Minneapolis, designed by Hal Fridlund of Minneapolis and one of the area’s newer residential expansions.

Our pictures above show some of those who attended the showing. Top row, l-r, are Mr. Fergestad and Bob Ames of Ames & Crommett . . . Jim Lanenberg of Insulation Engineers, Gordon Matson and Jim Horan . . . bottom, Harley Johnson, Marvin Fergestad, Al Meinicke and Carl Beutow . . . Jim Olson, Ralph Anderson of Insulation Engineers and Ralph Anderson . . . Larry Hovik, Dave Griswold and Marvin Fergestad.

The montage on the opposite page shows (l-r in numbered pictures) 1—John and Mrs. Whitlock, Lee Olstad and Harley Johnson . . . 2—Jim Kellet, Roger George and Bill Ireland with Sally Sullivan of Insulation Engineers . . . 3—J. K. Daniels and Donly Lee . . . 4—Clarence and Mrs. Reikstad . . . 5—Lyle Halverson and Fred Morse . . . 6—Don and Mrs. Erickson, Roger and Mrs. Patch . . . 7—Jim Lanenberg, Chuck and Mrs. McFarland and Saul Wernick . . . 8—Gil Langseth, George and Mrs. Mastny and Bob Sundt . . . 9—Robert and Mrs. Kerr, Helene and Lee Dahlen . . . 10—James O’Rourke, Ken Buetow, George Normandin and W. T. Townes . . . 11—Alie Tichich, Willard Lundstrom, Mrs. and Al Meinecke. . . .

(More Pictures on 68-69)
INSULATION ENGINEERS (Continued)

The montage opposite shows more of those at the Insulation Engineers display—1— Paul Williams of Rusco with Architects Tom Stahl and Leo Wolf . . . 2— Lilian Kosman and Carla Meddens from Amsterdam, Holland, Mrs. Carl Beutow, Earl Angell, Valerie Stupnitsky and Helen Angell . . . 3— V. D. Peter, Fred Lowen, George Stertz and Mrs. Peter . . . 4— Mrs. Saul Wernick, Harvey and Mrs. Thompson . . . 5— Carl Hesselgrave, Sally Sullivan, Dick Bartholow, Wayne Fix and Jim Lanenberg . . . 6— Paul Williams, Fred and Mrs. Mosse . . . 7— Len Anderson, Dick Vosejpka and Joe Winsatt . . . 8— Mrs. Ed Witt, Mrs. and Larry Hovik and Bob Ames . . . 9— Mrs. W. T. Townes, Mrs. and Dick Zejdlik and JoAnn Normandin . . . 10— Mrs. and Gene Peterson, Mrs. and Dwight Churchill . . . 11— Arleigh and Alice Lammers, Vivian and Bob Wilson.

SPECULATIVE BUILDING

The dither of today's building industry has given the comics something to toy with, according to a little anecdote reported by columnist Leonard Lyons. Seems, he reported, that Jack Wakefield, who used to be in the dress business, met his old boss, found his old boss had switched from dress making to construction "because there are no returns; after all, who sends back a building?" the old boss showed the comic his latest building, a house of worship. "What denomination is it?" asked Wakefield. "Don't know yet," reported the old boss, "I built it on spec."

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FLOOR AREA 144,367 sq. ft. • 36 CLASS ROOMS • 1,600 STUDENT CAPACITY

The ground floor of this modern high school is supported by a structural slab over excavated crawl space. "Smooth Ceilings' System of flat slab construction was used throughout the building, except roofs of Auditorium and Gymnasium. It's the last word in fireproof and earthquake resistant high school buildings. Investigate all the many time and money saving features made possible by the "Smooth Ceilings" System.

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JUNIOR HIGH SCHOOL BUILDING—BUTTE, MONTANA

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Be an active member . . .

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. . . in your society
. . . in your AIA!
DULUTH BUILDERS' EXCHANGE
SPONSORS GOLF AND SUPPER

Attracting more than 650 members of the building industry, the 55th annual golf tourney and buffet supper of the Duluth Builders' Exchange was held recently for members and guests. The event was held at the Northwood Country Club and was arranged by a committee under the chairmanship of Roy Howard, exchange manager. Numerous golf and door prizes were awarded to the skillful and the lucky.

Our pictures in the four-group montage here show, top left, Art Lucas, Jr., A. G. Johnson and Phil Johnson; right, Roy Howard, Bob Mars, Jr., exchange president, and Eugene Lambert, Duluth mayor and former exchange manager; lower left, the program committee of Lang Remillard, Jim McDonell, Art Goranson, Hank Swor and Bill Carlson, chairman; right, Sid Garon and B. E. Schilling.


(More Pictures on 72-73)
BEST TOOLS BELONG TO EVERYONE, EVEN ARCHITECTS

Take care of "Your 10 Best Tools"—your fingers—is the advice the National Safety Council imparts in a new eight-page pamphlet. Cartoon illustrated, the colorful pamphlet warns workers against hand injuries. Its cleverly presented and even drawing board workers can well heed its suggestions. Further information and prices can be obtained from the National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

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DULUTH EXCHANGE (Continued)

More pictures of the Duluth Exchange doings include:

1—Frank Sibley, Charles Nelson, Fred DeBoer, Bob Prescott and Fred Kuettel . . .
3—Dale Chilberg, Bill Whitney, Jr., George Larson and William MacLeod . . .
4—Don Carlson, Lee Older and Bill Roedter . . .
5—Chet Schwar and Walter Hurtley . . .
6—Jim Sanderson, Ray St. George and Fred Gregg . . .
8—Jess Bradley, Walter Plys, Doug Bourgeois, Bill Bradesen and Frank King . . .
10—Evert Hjerpe, Keith Mettner, Bud Nachtigall and Vince Nordman . . .
12—Bill Sander, Lud Schermer, Andrew Ketola and Dick Whiteman . . .
13—E. L. O'Toole, Art Davidson and Charles Kirkwood . . .
14—Martin Wold and C. H. Smith . . .
15—Bert Haas, Art Swanson, Sr., Art Swanson, Jr., and Myron Thompson . . .
16—Walt Gilmore, E. B. Calhoun, Paul Flament and Helge Haugen . . .
18—Mike Rich, Wayne Youngren, Roy Kuettel and Frank Amendola . . .
19—George Jacobs, George Schanen and Bill Kempinsky . . .
20—Otto Westenfield, Bill Sliney and Jack Sutherland.

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VERTICAL TURBINE PUMPS & SERVICE

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STERling 1-9553

NORTHWEST ARCHITECT
COLD SPRING AND CASEWIN HOLD OPEN HOUSE FOR ARCHITECTS

The fourth annual barbecue for architects and some others in the industry was held recently under auspices of Gold Spring Granite Co., and Casewin, Inc. Ralph Alexander of Cold Spring and John Paul of Casewin were the hosts and the event was held at Mr. Alexander’s summer home in Excelsior, Lake Minnetonka.

Our two montages of pictures give our readers an idea of the fun, etc., at the event. In the four pictures here are shown (l-r) at upper left, Architects Cy Kirsebianer, George Townsend, Jim Horan and Horace Matson being served . . . upper right, Pete Williams, Ralph Alexander, Vangi Hultquist and Ralph Shimer . . . lower left, Vangi Hultquist with group of architects just off Harley Johnson’s cruiser . . . lower right, Lee Dahlen, John Paul, Curly Roberts, Jack Alexander and Dave Nordale.

Our second group shows . . .


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- Fabricated Structural Steel
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- Residence Beams and Columns
- Plain Steel Bars, Channels, Angles, Beams, Plates, Sheets Wire Mesh
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Accurate and precise fabricating by St. Paul Structural Steel Company eliminates costly on-the-job fitting and reaming, keeps building projects "on schedule".

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SEPTEMBER-OCTOBER, 1957
A Fire Story for Architects...

Does a fire-resistant ceiling pay off?
The accompanying photographs show how the ceiling fireproofing in a suburban Minneapolis supermarket saved the market itself and probably the entire shopping center when a fire broke out recently, according to Western Mineral Products Co., Minneapolis.

"The ceiling construction is comprised of a scratch-and-brown coat of lightweight plaster, one inch thick, machine-applied to diamond mesh metal lath attached to steel bar joists," the company reported.

In upper picture the contractors study the ceiling to see what will be needed to recondition it. The lower picture is a closer view—note melted light bulbs next to temporary light.
The finish coat is machine-applied vermiculite acoustical plastic. Acousti-
cic plaster sprayed on by machine

costs approximately 30 to 40 per

cent less than other acoustical treat-
ments that are incombustible.

"Although the fire was intense

and concentrated against the ceiling,

melting light bulbs and burning

through wood members supporting a

paneled partition, the only damage

to the plaster was blackening from

smoke. All that had to be done was

to brush off the soot with an in-
dustrial-type vacuum cleaner and re-
spray with additional acoustic.

"Another advantage of fireproof

construction is quicker resumption

of business. The owner of this mar-
tet held a fire sale three days after

the fire and salvaged part of his in-

vestment in stock. He was operating

normally within about three weeks.

"Large savings in insurance rates

are also possible with a two-hour

fire rating or better. A 10,000-
square-foot store would get a net

80 per cent co-insurance rate per

$100 of insurance per year as fol-

ows:

"This is on the basis of no ex-

posure. In other words, that the

store is surrounded by a parking lot

and that no other structure is with-
in 50 feet.

"Both owner and tenant will ben-

efit greatly from reduced insurance

costs resulting from fire-resistive con-

struction. How much saving there

will be for any prospective building

can be determined without cost by

submitting plans prior to construc-
tion to the fire insurance rating bu-

reau having jurisdiction."
CROWN IRON EXPANDS FABRICATION AREA AND STORAGE

The second plant expansion in three years and third in a little more than a decade has been announced by Crown Iron Works Company, Minneapolis, one of the nation's oldest structural and ornamental metal fabricating firms. The new area, due for completion this fall, will add 8,500 square feet to the company's fabricating facilities and storage area, according to Clifford Anderson, president.

It will also provide better and expanded painting facilities and storage under roof, expediting material handling and permitting rapid shipment in any weather. The increased production tonnage potential will permit jobs to move through the plant faster from drawing board to customer delivery, Mr. Anderson said.

The wing, 50 x 170 feet and 32 feet high, adjoins the present structural fabricating shop, itself newly completed in 1955. The roof is supported by structural steel fabricated and installed by Crown without interruption to current plant operation.

In 1946 Crown remodeled its office and plant. Today the firm is one of America's leading fabricators of structural steel, of ornamental iron, stainless steel, bronze and aluminum metal work and of special machinery, conveyor screws and castings.

Crown recently finished work on the new Bloomington high school and currently is completing assignments on schools located in Monticello, Pine Bend, and Bozeman, Mont.

DRAFTING AND ENGINEERING IDEA BOOK AVAILABLE

A free booklet showing shortcuts to speed drafting and computation work has been made available by the Frederick Post Co.

Post went to leading engineers and draftsmen and asked them what techniques they use to save time without sacrificing precision in their work. From the many interesting tips and drafting shortcuts suggested, a total of 59 have been compiled into one handy booklet called “Time Saving Tips for the Draftsman and Engineer.”

Clearly written and well illustrated, this booklet shows new approaches to old problems. A copy of the booklet can be obtained from Reader Service Division, Frederick Post Company, 3650 N. Avondale Avenue, Chicago 18.

PELLA ANNOUNCES SLIDING DOOR FOR COLD CLIMATES

A new insulated sliding glass door, Thermo Door, manufactured by Ador, is being distributed in this area by Pella Products. This door was designed and engineered exclusively for use with one-inch dual glazing, the company reported. It extends the practical application of sliding glass doors to cold climates.

The Thermo Door actually consists of two units, an outer frame and an inner frame, separated by a non-metallic insulation barrier. This barrier minimizes straight line heat flow through extrusions. Condensation on interior metal surfaces is reduced. In addition to insulation of extruded sections, the Thermo Door is double weatherstripped throughout to provide continuous weatherseal. The weather-stripping is a hi-pile wool mohair, silicone treated to lessen moisture absorption.

Sliding glass doors have been used extensively on the west coast and in southern areas for years and now they can be used in cold weather climates, Pella officials pointed out.

GLOBE OFFERS NEW SERVICE TO ARCHITECTS

Globe, Inc., Minneapolis, distributors of plumbing, heating and air conditioning equipment, have just announced the opening of a new customers' service room for the use of architects and their clients at the firm's offices, 607 N. Washington Ave.

“This conference room is a large, comfortably appointed room with a private telephone and is removed from the general offices,” the com-
pany said. "It is designed for the use of architects so they can sit down with clients and firm up plans. Being in conjunction with the beautiful new Globe showrooms, these facilities should prove to be a great help in making on-the-spot decisions which in turn will be a big time saver for the architect. Globe extends a cordial invitation to all architects to use these facilities at any time."

ELECTRO-COTE BUILDS ST. PAUL ADDITION

The Electro-Cote Company, St. Paul, developing nation-wide distribution for its sealants and caulking products, just recently completed an addition to its Minnehaha Avenue building which will enable it to more efficiently handle an increasing volume.

Walter T. Miller, president and general manager, said the expanded production area provided by the new building allows the organized receipt of raw materials in bulk form into the manufacturing area.

Ten-X sealer, created for the expanded mobile home industry and now extensively used in the fabrication of aluminum combination windows to seal mitred corners and between glass and frame, is one of the rapidly expanding products sold nationally by Electro-Cote to factories and jobbers. Ten-X is also used as a sealer in the automobile industry.

Duragum tape and bead caulk is another of the products developed by Electro-Cote Company research as a companion product of the well known Tuck brand caulk and tub seal products.

PRESHRUNK CONCRETE BLOCKS SPECIALTY OF ST. PAUL CEMENT WORKS

Acceleration of carbonization of concrete blocks by exposing the block to a concentration of carbon dioxide results in a block which will have an absolute minimum of shrinkage when placed into a building, according to the St. Paul Cement Works, which uses this process on its materials.

"The rate and ultimate amount of shrinkage of a concrete masonry unit is dependent on the chemical changes in the cement paste, which occur with the absorption of carbon dioxide."

ASPHALT . . . the way to get the most Interstate Highway for the dollar

The Facts Favor Modern Heavy-Duty ASPHALT PAVEMENTS—With Excellent Riding Qualities—Very Low Maintenance—Safer— Much Less Glare.

MORE STRENGTH — $900,000
WASHO test proved standard Asphalt pavements well able to carry the heaviest legal axle loads. Fleets of loaded semitrailers were driven over these test loops 238,000 times.

MORE LENGTH — Oklahoma’s saving on paving Turner Turnpike with Asphalt . . . enough to have built 10 miles more road. The Turner Turnpike was designed to carry axle loads of 28,800 Pounds

MORE WIDTH—Wider roads have been proved safer roads. With Asphalt construction, you can have greater lane widths and still keep costs lower than with other paving.
dioxide from the air," officials of the company pointed out. "When cured in air it may take as long as one year for this change to take place. When the cement paste pores of a normally cured block are filled with water, or exist in a 100% relative humidity, carbonation is insignificant.

"As drying of the units occurs and the pores become empty the paste becomes more susceptible to penetration by carbon dioxide. The maximum rate of carbonation is attained at about 50% relative humidity. When the relative humidity approaches 25% the cement paste does not contain enough water to facilitate carbonation and shrinkage again takes place at a very slow rate.

"By the introduction of carbon dioxide into our curing process the potential shrinkage of the concrete masonry units has been considerably reduced. On potential shrinkage tests following the Modified British Method it was found that the potential shrinkage for ordinary pressure steam cured units was .05 to .06%. Similar tests on our units subject to normal pressure steam curing and the carbonation process gives potential shrinkage results of .01 to .02%.

"Other properties of the concrete masonry units, such as compressive strength, absorption, texture and general appearance, are not affected by the carbonation process."

Additional details can be obtained from the company at 865 Lafond Ave., St. Paul 4, Minn.

Layne-Minnesota Sponsors Clean Water Course
Layne-Minnesota Co., Minneapolis, industrial and municipal well developers, recently sponsored a two-day course in the prevention of water well pollution. The course, given to field engineers in the firm's employ, was conducted by Kenneth Moehrl, director of research for the Layne Organization, Memphis, Tenn., of which Layne-Minnesota is an affiliate.

Lee Rogers, president of Layne-Minnesota, said the refresher course is a part of the firm's continuing study in water development. The two-day course dealt with improved techniques in scaling wells so surface water does not infiltrate and contaminate the water below the earth's surface from which the wells draw their supply.

Mr. Moehrl and his associates have just concluded 22 months of intensive research in additives which will strengthen the endurance characteristics of cement surrounding well casings. The cement thus treated will insure the permanence of wells and water supplies, he pointed out.
The present technique of sealing wells, he explained, is to pump cement slurry through conveyor pipes located inside the well casing. Pressure is applied and the slurry is forced up around the outside of the casing from the bottom all the way to the top of the well.

In wells sealed with Layne-developed cement, the annular space surrounding the well casing is effectively closed against all undesirable infiltration into the water bearing stratum, Mr. Moehrl said.

**HAWS INTRODUCES ONE-PIECE SINK TOP**

A complete one-piece deck-top, receptor and fountain unit molded in lightweight fiberglass has been introduced by Haws Drinking Faucet Company, Berkeley, California. These Series 2500 units are available in white and a selection of five decorator colors at no extra charge. They are particularly designed for varied school applications.

"An outstanding feature of this new product is the complete absence of any rims, cracks or joints, eliminating undesirable dirt and water accumulation," the company said. "Water runs unhindered from deck-top to receptor. Series 2500 units are in standard lengths of four and six feet and are 24 inches deep, furnished with integral backsplashes and endsplashes as required. Installation is easy and quickly accomplished by screwing wooden receptor backing onto a prepared frame or standard cabinet.

"A wide variety of Haws drinking faucets and pantry faucets equip this unit for varied school classroom and laboratory uses. All fixtures are vandal-proof mounted to prevent turning. The rugged reinforced fiberglass plastic has proved itself ideal for fountain design; it is acid and alkali resistant and impervious to stains.

Hough Manufacturing Corp., for 50 years a manufacturer of decorator products for the home, has made two additions to the accessories of its Hufcor Accordion Door, according to officials of Gardner Hardware, Minneapolis, exclusive Northwest distributors of Hough products.
Additions to the line are a “Cremone Bolt” and a “3-Way Glide Switch.”

The Cremone Bolt locks the door in position top and bottom. This provides the architect with a maximum degree of room arrangement, flexibility and door control. A door equipped with a Cremone Bolt can be securely locked in the closed, open or any predetermined intermediate position. Normal hardware allows such locking in only the fully closed position. This bolt is factory installed and completely concealed within the door stile post. The operating handle and escutcheon harmonize with the balance of the hardware.

“The 3-Way Glide Switch is a new way of stacking a number of accordion doors against a wall when not in use,” the announcement said. “The old way, or the method used by most manufacturers today, is to put two 2-way glide switches together. This not only means two sets of equipment with more product and installation cost but requires considerable moving of the doors from one position to another to accomplish the stacking against the wall.”

A descriptive catalog and other details can be had from Gardner Hardware or by writing to Albert Hough, Hough Manufacturing Corp., Janesville, Wis.

“I saw it in the Northwest Architect.”
patterns add a new style note to modern decorating while filling the architects' need for light control. The glasses also are being used in churches, libraries, restaurants and other types of community buildings. Both glasses let light in but assure privacy. They are available in clear or gold tints; maximum size 48 x 100 inches.

Mondial United Corporation is at 625 Madison Avenue, New York 22.

GLO-LITE SHADES PROVIDE PRIVACY WITH GLOW

Glo-Lite, a new Polyflex plastic woven slat shade is made from 3/4" plastic slats which overlap each other, making it impossible to see through and assuring complete privacy. Glo-Lite allows soft, glowing light to filter through and give windows a three-dimensional effect, its makers report.

"Glo-Lite shades roll up and down smoothly and offer many opportunities to achieve a truly distinctive room decor," the announcement said. "The flexible slats will never become brittle and they are not affected by heat or light, by corrosive atmosphere or chemicals.

"Glo-Lite shades have several advantages over wooden and bamboo types, permitting light without glare, privacy without gloom. It is more durable, will last much longer, and is much easier to clean. Glo-Lite is available mounted on a window shade roller, or roll-up from bottom. It comes in five decorator colors selected to blend with any color scheme: frosty pink, desert beige, pastel green, ivory and white." Added details can be had from Artcraft Venetian Blind Mfg. Co., St. Louis.

SEPTEMBER-OCTOBER, 1957
School Architects:

... for up-to-date schools specify the NEW up-to-date ...

"MAP-TAK"

MAP and DISPLAY RAIL

SPECIFICATIONS: Over all chalkboards and tackboards in classrooms, install Map-Tak map and display rail, in dull-gold (or dull-aluminum) finish, as manufactured by W. E. Neal Slate Company, Minneapolis, Minn. Erect securely, according to manufacturer's directions. Cork insert shall match balance of tackboard in classrooms. Provide one hook per three feet of rail.

Designed and manufactured by:

W. E. Neal Slate Company

1121 DARTMOUTH AVENUE S.E.
MINNEAPOLIS 14, MINNESOTA
Federal 9-2783

has been announced by A. L. Karp of Greenwich.

"The usual time and tedium of drawing and redrawing the common but complex symbols of steel/concrete construction in industry, housing, transportation, utilities and public works can be halved by using these templates instead of drafting tools and reference volumes," the source reported. "Four of the templates cover these aspects of wide flange steel detailing in \( \frac{1}{6} \), \( \frac{1}{4} \), \( \frac{1}{2} \) and 1" scales: steel beam, column and pipe shapes, channels, joists, angles, removable concrete forms, rivet spacing scales and angle legs—even in junior sizes. The fifth template, specializing in reinforced steel details, includes bar bends and hooks, bar size sections, concrete forms, stirrup bends, etc.

"The complete kit of five (each \( 5\frac{1}{2} '' \times 9\frac{1}{2} '' \)) reversible mattefinish templates of dimensionally stable Vinylite, imprinted with all pertinent data, is $17.50; separately, $3.75 each."

A. Lawrence Karp's address is P.O. Box 242, Greenwich, Connecticut.

NEW WALL CLOSET SAVES SPACE

A new, space-saving, versatile, wall-hung closet combination with syphonic-action reverse-trap bowl and concealed tank that can be installed in any 6-inch wall has been announced by Ingersoll-Humphreys Division, Borg-Warner Corporation, Mansfield, Ohio.

Designed to operate quietly with normal water pressure in standard size pipe or tubing and with no special drain pipe requirements, the new unit requires neither the expense of special floor construction nor the conventional commercial chair carrier.

This new closet provides savings of from 6 to 9 inches in space through the elimination of the tank from the bathroom. The new closet is available as a complete "package." Both bowls and access panels are available in white and six pastel colors, matching other Ingersoll-Humphreys enameled cast iron, porcelain on steel and vitreous china fixtures.

Complete details are available from the manufacturer.

SILV-A-KING ADDS TO LINE

The addition to their line of the Uni-Lite, a series of one lamp shielded fixtures for recessed and surface mounting, has been announced by Electro Silv-A-King Corporation.

Constructed to provide continuous wireways for continuous mounting, the same fixture also mounts individually. Both fixtures come completely assembled.

Surface Uni-Lite has a patented metal one-piece frame basket containing diffuser and side panels. The basket is hingeable, removable and interchangeable in equal fixtures. Available with either Polycube® 45° x 45° ½" cube styrene louver, #93 Alba Glass or #70 Low Bright-
ness Lens diffusers 4 ft. or 8 ft. tandem rapid start operation. Vinyl side panels are available.

Recessed Uni-Lite has a lay-in Polycube diffuser and uniform width end and side flange trim allow a smooth, trim appearance when installed. Has its own pair of adjustable hangers for various ceiling types. 4 ft. and 8 ft. tandem rapid start and 8 ft. and 16 ft. tandem Slimline.

For more information contact the corporation at 1535 S. Paulina St., Chicago 8.

NON-ELECTRIC FIRE ALARMS BUILT INTO HOMES

A desire to help protect the lives of children who may occupy the homes he builds has prompted Edward A. Nahigan of Santa Ana, Calif., to install Big Alert Fire Alarms in every home according to Interstate Precision Products Corporation.

The units are installed between the ceiling joists with a special flush-mounted ceiling bracket. After plastering in, the entire unit is covered with a decorative metal grille.

"The Big Alert is completely non-electric, entirely mechanical in its operation," the company said. "Because of this its installation cost is low. An average six-room house requires about eight Big Alert alarms, an installation costing approximately $60."

"The overall cost of installing a non-electrical fire alarm system such as this is small in relation to the value added to each home," Mr. Nahigan said. "I find home buyers tend to get an impression of extra quality in homes that have builder-installed fire protection systems. From my own experience I can trace increased home sales to such installations."

Details can be had from the company at 707 E. Vermont Ave., Anaheim, Calif.

A new brochure on "Sylvania's Panelessent Lamp" has been made available by Sylvania Electric Products, Inc. The four-page brochure details the construction and characteristics of the new lamp and pictures a number of its applications.

"The Panelessent lamp is Syl-
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at the price of standard

When your plans require steel shelving of a special size to fit a specific use, call Neubauer. No extra charge is made for sizes in odd or fractional measurements. Tell us what you need and we'll furnish a custom built shelving job to your specifications at the price of standard.

Call us at Sterling 9-5841 or write for Shelving Catalog.

NEUBAUER MFG. CO.
535 Lowry Ave. N.E.
Minneapolis 18, Minn.
vania's trademark name for a device which produces light by the principle of electroluminescence, the creation of light by the excitation of certain phosphors placed in an electric field," the announcement said.

"First announced by Sylvania as a commercial product six years ago and first manufactured and marketed by the company more than three years ago, the Panelescent lamp is the only device on the market producing light by electroluminescence."

The three-color brochure includes sketches as well as pictures to supplement the text. It is available from Sylvania Electric Products, Inc., 1100 Main Street, Buffalo 9, N. Y.

**BELL & GOSSETT ADDS NEW PACKAGED LIQUID COOLERS**

Two new packaged liquid coolers have been added to the B&G line. These are 60 ton and 75 ton units and expand the Bell & Gossett PLC line to 10 separate units so that sizes now range from 7½ tons to 75 tons.

The new units are true packaged units. Only outside wiring and outside plumbing are needed during installation. All electrical controls are furnished and wiring is complete with a fully protected interlocking control system. The chiller pump and the tower pump are not only included but are sized to customers' specifications. All inside plumbing is finished and ready for outside connection.

"Many other refinements have been incorporated into the two new chiller packages," B&G said. "Molded Styrene has been used to insulate the chiller (evaporator). This further completes the "package" and also provides a positive vapor seal. Thermal conductivity (K factor) for the Styrene insulation is 0.23-0.28 BTU/in./sq. ft./hr./°F. Other equipment, usually considered as extras, has been included. Standard equipment includes gauges, compressor motor, all belts, driving sheave, compressor flywheel, increment start, full size heat exchanger and a full operating charge of Freon. The manufacturer has made every effort to make these liquid coolers a true package with minimum installation costs required.

"Packaged Liquid Coolers are operation-tested in the Bell & Gossett plant on a special test panel, constructed for this purpose to duplicate all field conditions under which the equipment is expected to operate."

Detailed specifications on all 10 B&G packaged units are available on request from Bell & Gossett Company, 8200 North Austin Ave., Morton Grove, Ill.

**BOOKLET DETAILS VALUE OF FIR PLYWOOD DIAPHRAGMS**

"Basic Facts about Fir Plywood Diaphragms," a new booklet from the Douglas Fir Plywood Association, will answer many questions of architects, builders and engineers about this relatively new design method. The booklet marks the first time that all available data about
**SUPER-GRIT TREADS**

- Type 141
- Type 142

**SAFE GROOVE TREADS**

- Type 49
- Type 46

**ABRASIVE CAST TREADS**

- Type 103
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plywood diaphragms have been compiled and published.

Leading off with a general description of a diaphragm—a thin structural element, either flat or curved and usually rectangular, capable of resisting shear parallel to its edges—the booklet continues with an explanation of how plywood diaphragms can be used to precisely engineer structures of any size or design to withstand lateral loads caused by windstorm or earthquake.

Subsequent sections take up the advantages of fir plywood for diaphragm construction, importance of diaphragms in wind and earthquake resistance and the technical explanation of how a diaphragm works.

A table shows relative performance of fir plywood and other materials in regard to deflection under shear stress. Other tables, in a section presenting detailed design data, give allowable shears and lateral bearing strength of plywood joints. This section also includes a number of large, legible diagrams of construction details of a design example.

Additional sections are devoted to cost, building code acceptance and grade specifications of plywood for diaphragms. Photographs and descriptions of existing applications complete the booklet.

"Basic Facts about Fir Plywood Diaphragms" represents the results of several years of research and testing by the research and engineering staff of DFPA, as well as by the United States Forest Products Laboratory and the Oregon Forest Products Laboratory.

Single copies are available upon request from DFPA, Tacoma 2, Wash.

NORTHERN-LITE WINDOWS SHOWN IN SPECIAL DISPLAY

Northwest architects were guests at an open house at Insulation Engineers, Inc., St. Louis Park, recently to see the new Rusco-Northern-Lite windows, formally introduced at that time. A special display of the Rusco-Northern-Lite complete window unit was built to demonstrate the features of the window. The display included a cutaway Rusco-Northern-Lite window unit "to show the quadruple weather stripping, the Schlegel wool pile insulation that insures a dust-free seal, the simplicity of installation and the life-time, trouble-free sliding smoothness of these windows," according to Marvin L. Fergestad, president.

"The Rusco-Northern-Lite window was invented, designed and tested especially for the Upper Midwest climate," Mr. Fergestad said. "In addition to its many superior features, these complete window units are lower in cost than any comparable unit now on the market."

Appointment of fourteen distributors in Minnesota, Wisconsin and North Dakota was also announced for the new window unit. The distributors include Ochs Window Company, Owatonna, Minn.; Rochester Wood Specialties, Rochester, Minn.; Landwehr Brothers, St. Cloud, Minn.; Rusco Window and Awning Co., Duluth, Minn.; Kvame Construction Co., Moorhead, Minn.; Rusco Window Co., Eau Claire, Wis.; Rusco of Chippewa Falls, Chippewa Falls, Wis.; Home Specialties, Moorhead, Minn.; N.W. Roofing & Insulating Co., Minot, North Dakota; St. John Sales, Winona, Minn.; E. J. Klampe, Rochester, Minn.; Kenneth Combs, Austin, Minn.; Kidder Rusco Window Co., Albert Lea, Minn.; and Mankato Building Supply, Mankato, Minn. Plans to expand distributorships throughout the seven-state area are now underway.

MEILINK ADDS NEW FIRE-RESISTANT VAULT DOORS

Five new fire resistant vault doors, ranging from 1/2-hour to 6-hour fire protection, have been added by Meilink Steel Safe Company, Toledo, to its vault door line. The company especially recommends these vault doors for schools, hospitals and other commercial structures where fire protection of permanent and vital records, irreplaceable

ELKAY INTRODUCES NEW STEEL SINKS

Design U-2000, a new line of ovalized stainless steel sink bowls developed for budget kitchens and project building, is currently being introduced by Elkay Manufacturing Company. Price to compete with porcelain-on-steel units, the U-2000 sinks feature slightly concave bowl walls, bigger corner radii, a sleek uniform finish and are completely sound deadened.

U-2000 sinks are available in a 32" x 21" double bowl model with ledge and a 24" x 21" single bowl model with ledge. Complete information is available from Elkay at 1874 South 5th Avenue, Chicago 50.
drawings, blueprints, patterns and other important records is essential.

Meilink Vault Doors carry the Underwriters’ Laboratories Fire Resistant Labels, the Group 1 Relocking Device Labels and the Fire Resistant Labels of the Safe Manufacturers’ National Association.

The flat sill construction of all Meilink Vault Doors provides easy entrance into the vault. The 2, 4 and 6-hour vault doors are formed with deep, insulated tongues and grooves to baffle penetration of heat and flames. All can be opened easily from the inside. Burglarious attacks are defeated by the Underwriters’ Laboratories approved Group 1 Relocking Device which deadlocks the bolts in event of attack on the lock by means of mechanical tools, explosives or torch. Additional information can be obtained by writing Meilink Steel Safe Company, 1672 Oakwood Avenue, Toledo 6, Ohio.

WEATHER KEPT OUT BY NUDOR DEVELOPMENT

A new, patented threshold called Weather Beater is an integral part of the d’Cor Aluminum Sliding Glass Door, manufactured by Nudor Manufacturing Corporation, according to the company.

“The Weather Beater features a double-woven, Silicone treated, wool pile with the additional protection of an aluminum polyvinyl chloride shield which positively prevents air infiltration,” the report said. “Another exclusive feature of the Weather Beater is its flat flush-to-carpet, trackless design. For free folder, write Nudor Manufacturing Corporation, Department NA15, 7326 Fulton Avenue, North Hollywood, Calif.”
DES MOINES CLAY COMPANY UNVEILS BRICK PACKAGER

Architects and engineers from Des Moines and other cities in Iowa witnessed the initial operation of the world's first automatic brick packaging machine, the "SCR package line," at the recent annual "Architect's Party" sponsored by the Des Moines Clay Company in its plant in Des Moines, according to W. J. Goodwin, Jr., president of the company.

"The Des Moines Clay operation is the first pilot plant test of this automatic brick packaging line which was developed as a full plantsized machine in the laboratories of Structural Clay Products Research Foundation, Geneva, Illinois, at a cost in excess of $100,000," Mr. Goodwin said. "Following the test runs currently being made, the Des Moines Clay Company anticipates being the nation's first brick manufacturer to offer automatically packaged bricks to the public."

Mr. Goodwin pointed out that this machine, which will automatically package some 10,000 bricks per hour in a new type of package, will provide lower 'in the wall costs' for clay masonry as well as assurance of high quality brick with proper color blending reaching the wall.

Robert B. Taylor, director of the Structural Clay Products Research Foundation, in a recent report stated that "in the field of labor economy we have developed a new type of brick and tile package for the hand-
ling of our products by mechanical means from the plant all the way to the scaffold position of the mason at the wall. The package contains 62 bricks made up of three strapped bundles of 20, plus two spacer brick. This package is adaptable for both large and small types of construction, by both large and small contractors, and can be handled by hand trucks on small jobs or in multiples on large jobs with mechanical fork lifting equipment.” Tests made using the packaged brick have shown savings of 15 per cent or more, due to labor savings by elimination of costly handling.

Plans are in progress for a nationwide meeting of member manufacturers of the Research Foundation at the Des Moines Clay Company plant to view the “SCR package line” under actual plant conditions in the near future. Additional showings are also contemplated for other construction industry groups.

When contacting our advertisers please tell them “I saw it in Northwest Architect.”

THERMAL TEXTURING OF GRANITE PROVIDES UNUSUAL SURFACE

Thermally textured granite has won acceptance and application on many large projects, according to John P. Alexander, secretary of Cold Spring Granite Company, Cold Spring, Minn., in describing the method by which this unusual surface is achieved.

Speaking before the International Acetylene Association in Minneapolis, Minn., Mr. Alexander first reviewed the origin and composition of granite. Mr. Alexander then analyzed the reason for the decline in the use of granite as a building material during the depression years. He looked forward to a resurgence of granite installation, keyed to this new process.

“What architects are looking for,” he said, “is a facing material which is not only handsome to start with but which will stay that way. Our company is using oxy-acetylene or thermally textured granite to meet this demand.”

Cold Spring’s thermal texturing
operation is relatively simple. Over a sheet of granite Cold Spring makes successive parallel sweeps with a 6,000 deg. F., oxy-acetylene flame. The torch head is held about 1 inch from the surface of the granite, which is often flushed by a thin film of water to reduce heat in the granite.

This treatment results in controlled spalling. This means that controlled amounts of minute chips of granite flake off. Because of the crystalline nature of granite, the surface produced by thermal texturing is not glassy smooth. Instead, a pattern of interesting highlights, shadows and smooth reflectant spots and areas produce a lively and unusual visual effect. Besides being intrinsically decorative and dramatic, the surface is also practically impervious to weathering.

Most dramatic effects result from the treatment of coarse-grained granites but it is also used effectively on fine-grained material. The resulting finish is quite acceptable for walking surfaces, building panels and almost any other granite application.

Thermal textured granite, he said, has been on the market only a year, yet more than 500,000 sq. ft. is either under contract or active consideration for building projects.

**COATING ANNOUNCED FOR SEVERE CORROSION AREAS**

A new building coating for use in areas where liquid and gaseous corrosive materials abound has been announced by the West Chester Chemical Co., under the name of Maintz.

"Maintz has phenomenal resistance to attack by corrosive chemicals in both liquid and gaseous form," the company said. "The list includes ammonia, chrome plating solution, sulfur dioxide, hydrofluoric acid, sodium hydroxide, pickling solution, ethanol and similar substances.

"Prolonged exposure to weather in both Florida and Canada shows clearly the durability of Maintz in outdoor applications. Laboratory and other tests indicate a service life in excess of 20 years."

Maintz is resistant to attack by ozone and oxygen at temperatures up to 80 degrees C., the company report said. It is also resistant to ultra violet light, attack by bacteria, molds and vermin, is highly resistant to abrasion and because it does not become stiff and hard with age it has good flexing resistance.

Basically available in black and white, the product can be custom tinted to customers' specifications. Details can be had from the company at Box 39, West Chester, Pa.

NEW INDOOR-OUTDOOR TEMPERATURE CONTROL SYSTEM IS INEXPENSIVE

Thermally sensitive resistors, referred to as “thermistors,” are the elements that perform the important function in Detroit Controls Corporation’s new indoor-outdoor temperature control system called the Weather Minder. Thermistors previously were used only for scientific and experimental work.

Mounted outside the home, the thermistor unit signals temperature changes (to within a fraction of a degree) to the control panel that serves as a central control between the room thermostat, the thermistor outdoor unit and the heating equipment.

With these three units the Weather Minder system automatically raises indoor temperatures as the outdoor temperature falls and conversely lowers indoor temperature.
Soriano Tells of Ideas on "Useful Architecture"

The philosophy of architecture and the practice of architecture blending into "useful architecture" were discussed before the recent annual meeting of the Utah Chapter of the American Institute of Architecture by Raphael S. Soriano. We would like to reprint here some of his remarks, as outlined in the Utah chapter's bulletin.

"In architecture, among the points of consideration one focuses itself quite brightly. . . . How to arrive at the most useful solution for a particular performance. . . . The most successful architecture for an architect."

"What is a useful architecture? A useful architecture is a performing architecture which serves well its occupants from the unified point of view of his total sense experiences. I do not mean the detached usefulness of particular parts—I mean a unified concept achieved through the use of significant relationships—the most natural relationships of every day's activities.

"Is this performance achieved by interpreting within the design all of the wishes of the occupant? Wishes which might include not only daily living requirements and color and textural likes and dislikes, but also many obscene 'feelings' about high and low, straight and curved, warm and cold? etc., etc., etc. . . . Is this performance achieved by interpreting within the design the architect's own 'feelings' about high and low, straight and curved, warm and cold? etc. . . . By which route will the problem be solved most simply, directly and with the least waste—by arbitrary, subjective thinking or by cognate, objective, reasoning?

"In arbitrary thinking there will be involved preconceived notions, personal whims, isolated tricks, a series of unrelated parts perhaps
sometimes cleverly executed and quite charming texturally or full of color but unrelated parts cannot be recognized as a concept. They can be only momentary appeal—as a feather dropped from a bird's wing is texturally, colorfully and structurally appealing but unable to perform alone. In objective reasoning there will be involved constant evaluation and integration of the relations of the constructive elements for performance. The smallest semblance of a personal 'feeling' trick or whim inflicted upon the work can destroy the natural concept.

"From point of analytical observation we find that progress in architecture has come from the architect using his knowledge and sensitivity in relating the newest materials of technological advancement into the simplest possible terms for top performance.

"The question will probably be asked as to what is the sensitivity of the Architect if it is not a 'feeling'—sensitivity comes from knowledge—knowing when to remain behind the series of evaluations rather than putting oneself ahead of them. By this is meant, in evaluating the relationships of any architectural solution, each decision, each material in comparison to another at once gives the architect its own intrinsic value. When one violates these natural intrinsic values by imposing upon them personal value then 'feeling' is involved not 'sensitivity.'

"In summing up, we find that the attitude of the client, his or her sensitivity and objectivity is equally important for a successful end result. Many times the client comes forth with an idea of great value. These ideas when on the plane of objective requirements should be taken seriously as a challenge of integration into the whole. In this case the clients have helped to contribute as much to the performance of the project as the architect. This is the way it should be. This is the way to architecture."

INTERIOR DECORATION
HOME STUDY
Barber-Colman Company.

"Uni-Flow Supply Grilles are true diffusers and are backed by engineering data to assure comfort," the company reported. "The return, exhaust and transfer grilles are designed to match the appearance of the supply grilles, providing a continuity of design throughout the installation.

"In addition to descriptive information and photographs of the Uni-Flo Grilles, the new catalog contains data on accessories and photographs of smoke tests illustrating the performance of the Uni-Flow Grilles and Accessories."

FARNHAM'S SETS UP NEW CONTRACT DEPARTMENT

Farnham's has announced the creation of a new contract department and the appointment of a St. Paul man as manager of its office furniture department. The contract department will specialize in complete installations of equipment in hospitals, hotels, banks and nearly every type of public institution. It will be headed by Elmer F. Newstrum, manager of Farnham's office furniture department for the past three years.

The announcement was made by William E. Mears, Farnham general manager, who said the new department "will enable Farnham's to figure prominently in the bidding of any job and will greatly expand the horizons" of the 63-year-old office furniture firm.

Succeeding Mr. Newstrum as manager of the office furniture department is Clark C. Briggs, formerly national sales manager for Telex, Inc., of St. Paul. Previous to that, Mr. Briggs was associated in various capacities with the Frigidaire division of General Motors in Billings, Montana.

Farnham's office furniture department has designed and furnished business interiors for such recent new buildings as the Lutheran Brotherhood Insurance Company, American Hardware Mutual and Marquette National Bank.

GALBRAITH NAMED TO STATE ARCHITECTURAL POST

James E. Galbraith was recently employed as an assistant in the State architect's office and assumed his new duties on September 23, 1957. Mr. Galbraith studied architecture at the University of Minnesota and since graduating has worked in the offices of Traynor and Hermanson, Bergstedt and Hirsch, Haarstick, Lundgren and Associates and recently resigned his position with Louis C. Pinault to enter state service.


1. The names and addresses of the publisher, editor, managing editor, and business managers are:
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- Managing Editor—C. J. Loretz, 2642 University Ave., St. Paul 14, Minn.
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- Brooks Cavin, President, Minnesota Society of Architects, 360 Robert Street, St. Paul, Minnesota.
- Louis C. Pinault, President, Weaver and Pinault, 2642 University Ave., St. Paul, Minn.

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C. J. LORETZ, Managing Editor

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