Special ceiling and lighting section
A model town that grew on a prairie
Special plumbing section

Wisconsin Architect
northeastern section/september/1965
Two-way floor systems are designed to carry loads in two directions. Whether a slab acts as a one-way or a two-way slab depends solely on the dimensions of the panel, as shown below:

The action of a one-way floor is typified by this framework which has a high ratio of long to short span.

The action of a two-way floor system may be compared to that of a frame in which the ratio of long to short span is 2 to 1 or less.

Two-way flat plates are economical for medium to heavy loads on spans up to about 30 feet. They present a smooth undersurface as the photo shows. In the accompanying tables, material quantities for concrete, reinforcement and formwork are stated in units per square foot of panel with no allowance for waste or breakage.

Designs are based on a concrete strength of $f_c=3,000$ psi; a steel stress of $f_y=20,000$ psi; and the use of A305 reinforcing bars. Write on your letterhead for further free information. (U.S. and Canada only.)
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notes of the month


The Northern Section of the Wisconsin Chapter, AIA, holds its annual Outing for members, wives and children on September 17, 18 and 19, 1965, at Driftwood Lodge, 7 miles west of Minocqua. For further information contact Wayne Schoepke, P.O. Box 95, Wausau, Wisconsin.


The State Commission on Aging will hold its biennial State Conference on Aging with its theme “Focus on the Future — Let’s Begin Today”! on October 26-27, 1965. All members of the Wisconsin Chapter, AIA, are urged to attend. For further information contact: James F. McMichael, Executive Director, State Commission on Aging, 6 West — State Capitol, Madison 53702.

The Social Development Commission of Greater Milwaukee in cooperation with the University of Wisconsin-Milwaukee School of Social Welfare, Milwaukee Extension Division, Department of Social Work, The American Institute of Architects and Federal Housing Administration will hold an Institute on “Ways and Means of Providing Low Rent Private Housing for Older Adults” on September 22, 1965, at the University of Wisconsin-Milwaukee Student Union, 2200 East Kenwood Blvd.

PROGRAM
9:00 a.m. — Coffee and Registration.
9:30-10:30 — Opening Remarks.
Chairman: Mr. Willard Downing, Professor, University of Wisconsin-Milwaukee School of Social Welfare.
Welcome: Honorable Henry W. Maier, Mayor of Milwaukee.
Dean Quentin Schenck, UWM School of Social Welfare.
Dr. George Parkinson, Chairman.
Continued on Page 32B
HUGE NO. 13  Fourdrinier paper machine and its 72 x 385 foot building at Thilmany Pulp & Paper Co. have been Peerless protected since "start-up" in 1963. The machine has a 182" wire; makes one-time carbonizing paper at speeds up to 1,500 ft. per minute. A prominent member of Wisconsin's great paper industry, Thilmany produces packaging grades for consumer products, covering and water-proof papers for construction and industry, converting papers and coordinated packaging designs for retail stores.

BELOIT CORPORATION, paper machine  RUST ENGINEERING CO., engineers  OSCAR J. BOLDT CONSTRUCTION CO., general contractor  AZCO INCORPORATED, mechanical work, process piping, instrumentation  RELIABLE PAINTING SERVICE, paint contractor  PEERLESS PROTECTION, epoxy primer, epoxy coating, heavy duty enamel

PEERLESS PAINT MANUFACTURING COMPANY  APPLETON, WISCONSIN

CHEMICAL RESISTANT EPOXIES  TRAFFIC CONTROL PAINT  CONTRACTOR FINISHES SWIMMING POOL FINISHES  GOVERNMENT SPEC. PAINTS  URETHANE FLOOR FINISHES RUST INHIBITIVE PRIMERS  DRI MIST FLATS LATEX EMULSIONS  HEAVY DUTY ENAMELS
are you aware of...

The Wisconsin Chapter, The American Institute of Architects, in cooperation with its members of the Public Relations Committee, has prepared and available folding display frames with mounted photographs of contemporary and historic architecture.

These frames and mounted materials are available to organizations, institutions and individuals, interested in furthering the understanding of architecture, its attributes and significance in the past and more so in the present.

To acquaint the general public and its younger members specifically with the importance of architecture seems to be a most worthwhile effort in the community of Wisconsin if its "Renaissance" is to be successful and complete.

It seems to be of paramount importance considering the lamentable fact that Wisconsin does not have an architectural school which may account for some of the lethargy, unawareness and the general misconception about architecture one encounters here.

The folding display frames and displays can be used to remedy some of these ills.

They may be displayed by themselves as exhibits in areas of fairly heavy traffic such as lobbies of banks, office buildings, museums or schools, including all public buildings. They may also be utilized by lecturers to supplement their talks with graphic definitions. They represent a means to illustrate buildings at their openings or dedications, giving explanations as to the building's type, function and the reasons of the architect to have designed it the way he did.

They may be used at temporary exhibitions such as fairs, art shows and conventions.

The folding frames, designed for temporary exhibits, can easily be shipped, installed and taken down, the frames are designed to fit a station wagon for easy transportation. Each frame has six panels which unfold and fold in zig-zag fashion. The ready to mount panels for these frames have dimension up to 40 x 40 inches. These may easily be installed and exchanged without damage to either frame or mount. Displays other than the ones already available, can be affixed onto a "pegboard" panel by means of standard "pegboard" hooks — all of which are on hand. The pegboard itself then can be affixed to the frame.

For permanent exhibitions there is a prefabricated metal system available. Any type of exhibit can be constructed for this 4 x 8 feet, four panel system, which can be free-standing or affixed to a wall.

It should be mentioned that the members of the Public Relations Committee would welcome the opportunity to assist anyone who wishes to make use of the permanent exhibit possibility.

Concerning the display material itself, the Wisconsin Chapter, AIA, is building a large and varied library making use of the mounted photographic displays of the award winning buildings by State architects yearly given in connection with the Chapter sponsored Awards Program for Wisconsin. It also has available the complete selection of the National Award winning buildings given to members of the Institute in the National Awards Program. In addition to this photographic material is available about well known contemporary and historic buildings in the State and Nation.

All architects and interested parties are encouraged to avail themselves of these displays. Information on any display project may be obtained through the State Chapter Office at 3902 N. Mayfair Rd. in Milwaukee, phone 464-4520.
While there has been an unusual amount of legislation introduced in the current session of the Legislature, which is of interest to registered architects and professional engineers and which directly affects the Wisconsin Registration Statute (Chapter 101.31), this article must of necessity be summary in nature and is limited only to legislation of paramount concern.

Generally, the current legislation of primary concern is an outgrowth of, or a reaction against, a policy of enforcement of the registration statutes, whereunder a substantial number of established Wisconsin industrial concerns, some having been in business for several decades and having a large number of employees, were advised by letter that the use of the word "engineer" or "engineering" in their corporate name constituted a violation of certain provisions of Chapter 101.31, Wis. Stats. Understandably, industry became concerned by the letters and further concerned as a result of a number of prosecutions being commenced by counsel for the Registration Board in enforcement thereof. Industry management could not understand why, after many years of established use of a corporate name and the similarly lengthy existence of the registration statutes, industry suddenly should be faced with such prosecutions.

Similarly, the construction industry became concerned over preserving its historical position in the construction process, and became fearful that supervisors of construction would be required to be registered persons under the act.

Representatives of both industry and construction, through members of the Legislature, introduced legislation to alleviate the problems encountered.

These proposed bills, being Assembly Bill 451A, and Amendment IA thereto, and Bill 407A, became of grave concern to architects as well as engineers, since they incorporated substantive changes in the registration law and imposed definitions of "responsible change" and "responsible supervision of the work" seemingly unrealistic in nature and contrary to the interest of the public and registrant alike. In addition, the right between owner and registrant to contract for supervisory services was substantially abrogated.

In light of the provisions of such proposed legislation, the Wisconsin Chapter of AIA, via its legislative representatives, sponsored a Joint Resolution (Joint Resolution 73S), providing that a legislative study be made prior to undertaking of any legislative change.

While the Joint Resolution, calling for the study, was unanimously supported at the legislative hearing, by the representatives of the professional societies, construction and industry, it became apparent that more positive action would be necessitated in light of the progress in the legislature of Amendment IA to Bill 451A. The most objectionable provisions contained in Substitute Amendment IA, were the definition standards as follows:

"SECTION 2. 101.31 (2) (g) and (h) of the statutes are created to read:

101.31 (2) (g) 'In responsible charge' as used in this section means that the registrant has direct control over the personal responsibility for any architecture or professional engineering services or work, so as to assure the application of competent knowledge and judgment in the performance of his professional duties and agreements.

(h) 'In responsible supervision of construction' as used in this section means that the registrant has direct control over and personal responsibility for on-the-site inspections or observations to the extent necessary, as required by the progress of the work, to assure that the erection and assembly are in substantial compliance with the approved drawings, plans and specifications and with all applicable laws, ordinances, rules, regulations and legally prescribed standards relating to the erection, construction, installation, enlargement, alteration or repair of any building or structure, or parts thereof, or of any appurtenances thereto." (Underlining for emphasis only.)

Generally, the registrant has always acknowledged and has accepted responsibility for the design and plans bearing his professional seal. The professional services rendered in this capacity are rendered as an independent contractor, performing professional services for the client. However, the word "direct" and "personal" are not necessary to the definition of this responsibility and could be given a narrow interpretation whereby the registrant might well be deprived of availing himself of helpful services of subordinates or associates or become violative of the statute.

Similarly, but even more importantly, is the definition of "in responsible supervision of construction." Supervisory services performed by a registrant are rendered pursuant to an agency relationship, as the agent and representative of the owner. In this capacity, the extent of the agency, or supervision desired, has always been a matter of private contract between the owner and architect. Depending on the nature of the project, observation or inspection may be desired by the owner only two or three times during construction (i.e. when the roof is completed, mechanicals are in and on completion), or inspection may be desired only once a week or once a month during active periods of construction, or again, the contract may provide for continuous on-the-site inspection. Also, due to the exigencies of work schedule or the number of projects in active construction, these inspections may be undertaken by a qualified associate or subordinate, even though the responsibility remains that of the registrant under the contract.
However, the definition as set forth in Substitute Amendment 1A to Bill 451A would impose by statute "... personal responsibility for on-the-site inspection or observations to the extent necessary ... to assure ... substantial compliance." Thus, the registrant is given the right not to contract for supervisory services, but if he does contract, he becomes personally and directly responsible for on-the-site inspections as to assure substantial compliance. The liability features of such a statutory provision are obvious.

Such a statutory provision presenting rather ultimate alternatives is not in the interest of, or to the protection of, the public or the registrant. The right of contract between owner and registrant should be preserved. In this spirit, the legislative representatives for the Wisconsin Chapter of the AIA drafted Amendment 2A to Substitute Amendment 1A to Bill 451A, the inspection definition paragraphs being amended to read as follows:

"SECTION 2. 101.31 (2) (g) and (h) of the statutes are created to read:

"101.31 (2) (g) 'In responsible charge' as used in this section means that the registrant has control over and responsibility for any architectural or professional engineering services or work, so as to assure the application of competent knowledge and judgment in the performance of his professional duties and agreements. (The words "direct" and "personal" have been deleted).

"(h) 'In responsible supervision of construction' as used in this section means that the registrant has responsibility to make observations to determine substantial compliance with the approved drawings, plans and specifications and with all applicable laws, ordinances, rules, regulations and legally prescribed standards relating to the erection, construction, installation, enlargement, alteration or repair of any building or structure, or parts thereof, or of any appurtenances thereto. Nothing contained in this section shall be construed to impose upon a person, registered under this law, the responsibility for the performance of any of the foregoing functions unless he specifically contracts to provide the same, except as may be otherwise imposed by law." (The "direct" and "personal" wording has been deleted, the imposition of continuous on-the-site inspection removed and the right of private contract preserved.)

After meeting and consultation with legislative representatives of construction and industry, and circulating the proposed amendments to the representatives of the professional societies, Amendment 2A was introduced on July 20, 1965, by Assemblyman Atkinson, of Milwaukee, Wisconsin. On July 30, 1965, Amendment 2A was passed by the Assembly and immediately messaged to the Senate. However, the Senate adjourned until October and no further action will be undertaken on this bill until that time. The bill substantially improves the problematic definition sections.

With respect to Joint Resolution 73S, no action was taken by the Legislature before adjournment. Discussions with members of the Senate and the Senate Committee indicate that no action will be taken by the Legislature on the Joint Resolution as a result of the fiscal note which assesses a high budget cost to the bill. The passage of Joint Resolution 73S is dependent on the Department of Administration revising its cost figures and amending the fiscal note.

Assembly Bill 883 was introduced June 15, 1965, at the request of G. K. Anderson, Froehlich, Huber and Pommerening, the substantive portion reading as follows:

"SECTION 1. 101.31 (2) (b) and (6) (i) of the statutes are amended to read:

"101.31 (2) (b) The practice of architecture within the meaning and intent of this section includes any professional service, such as consultation, investigation, evaluation, planning, structural design, or responsible supervision of construction, in connection with the construction of any private or public buildings, structures, projects, or the equipment thereof, or addition to or alteration thereof, wherein the safeguarding of life, health or property is concerned or involved.

"(6) (i) Written or written and oral examinations shall be held at such time and place as the board determines. The scope of the examinations shall be with special reference to the applicant's ability to design and supervise architectural or engineering work, which shall insure the safety of life, health and property. The board shall place on file with the secretary and the industrial commission a record copy of the examination and a record set of answers and solutions to the examination at least one day prior to each scheduled examination. A candidate failing an examination may, upon application and payment of the required examination fee, be examined again by the board. No restrictions may be placed on the number of times or the frequency of examinations at which an unsuccessful candidate may present himself for re-examination.

"SECTION 2. 101.31 (4) (e) of the statutes is created to read:

"101.31 (4) (e) The action of the board or any division thereof in granting or denying an application for registration or certification shall be subject to review under ch. 227."

The Assembly took no action before adjourning on July 30, 1965. However, this bill was acted upon by the Committee and the Committee voted for its adoption by a vote of 7 to 1.

It is generally agreed that the word "aesthetic" may be deleted from the scope of the examination, substituting "structural design and planning" without materially altering the ability of the Board to examine the applicant's competency. It has also been generally accepted that the Registration law should be amended to permit judicial review under Chapter 227 of the Wisconsin Statutes. However, there remain serious objections to the requirement of filing answers and questions to the examination, as well as with the frequency that an applicant may take an examination that he has failed. Conferences are being arranged with the legislative representatives and legislators in a effort to secure an elimination of the objectionable portion of this Bill.

While the foregoing only represents a few of the legislative concerns faced by our Chapter, perhaps it will be of assistance in demonstrating the need for your continued support in protecting the professional standards of your profession.
Visitors to Door County return to the Potter's Wheel year after year. It is interesting to watch this unique craft shop develop, and fascinating to see the infinite variety of pottery forms that emerge from a ball of clay.

The potter, Abraham Cohn, had a dream: to keep working at what he loved to do, while he and his family enjoyed the beauty and pure air of Door County for the summer. So, ten summers ago he sat outside under a chestnut tree in Fish Creek and made pottery while people gathered to watch. He had to discard many a pot marred by fly tracks and pokes from inquisitive fingers; he might still be there, except that he had to stop working when it rained.

He solved this problem by transforming a barn, just north of Fish Creek on Highway 42, into a studio and showroom. When he and his wife, Ginka, first drove through the semi-circular drive of their present property, its potential was apparent. There was an old farmhouse offering cherished privacy. Near it was a stone tower with a circular staircase leading to a top deck where one could stargaze, watch the sunset, or share a birdseye view of the ten acres of apple orchard, meadow and woods which is now theirs. The tower once housed a gravity pump system for watering the orchard. A few steps from the tower was the 40 by 20 foot barn, meant to be the studio and gallery for display of finished work. One look and they were intrigued with the wealth of space. It never occurred to them then that they would one day feel the need of more. Around the curve of the drive, set in the orchard, was a charming cottage. In the early years this cottage served as a place for family and friends to stay when they came up to give generously of their labor and ideas in the process of transformation.

To appreciate the barn in its present form, one must realize that the Cohns had both limited time and funds. A few weekends in the Spring and two weeks from the time the children got out of school to the official opening on July 4th was all the time they had to work with each year. Bills were paid at the end of the season as summer profits were turned back into paying for more improvements.

That first year they felt like pioneers as they drove up pulling a trailer loaded with pottery, clay, and all the necessities of living for the summer. The inside of the barn was a discouraging sight, but they tackled it enthusiastically. A partition was torn down, winter's dust and cobwebs cleaned away, and a wooden floor laid over the grease-stained concrete. Display boxes were built directly into the floor around the two supporting pillars. They are now filled with chipped stone, although they have tried other materials such as sawdust and sand as well. The rest of the display was set up on makeshift boards supported with cement block and old dock posts.

Abe set up his workshop in one of the two sheds that extended off the back of the barn. Every year, he is the first to grow impatient with the excitement of remodeling, as his need to continue his own work always takes precedence.

In the following years they replaced a leaky barn roof and installed a skylight in the process. The huge sliding doors of the barn that opened to let in light,
also let in flies and rain just as freely. They screened
in the space and also cut into the opposite wall of the
barn so that one could see and walk through the barn
to the orchard. The roof of the shed Abe worked in
was raised so that he could walk all the way into it
and fiberglass installed all around to let in daylight.
Artificial light is a necessity all day long in the
downstairs of the barn.

As increased production made it logical to use the
loft, a new floor was laid over the old one that had
showered dust on the space below. A stair railing was
installed with rope stretched decoratively between the
railing and the steps. Gradually more permanent shelv­
ing and storage space was devised.

Just last year, as they drove up, they noticed a barn
that had been blown down. It was made of beautiful
weathered cedar, a wood the Cohns have grown to
respect and admire, both for its beauty and weather­
resistant qualities. A visit to the farmer resulted in
purchase of enough to create display areas, wall covering,
and to conceal fluorescent lights in one end of the
barn. The spaces between the cedar were covered with
off-white burlap stapled to plywood. This offers dis­
play space for paintings, wall hangings, and Abe’s
tile murals.

The farmhouse also needed attention and in the
course of replacing a leaking roof, they extended it,
adding a living area and bedroom. In this new section
Abe made sculptured door handles for all the closets
and drawer pulls for the built-in dresser. This work
started in association with architect Abe Tannenbaum.
In 1958 Cohn won the Tiffany Foundation grant of
$2,000 and used it to explore his medium in relation to
architecture. He did an eleven panel facade for the
Tannenbaum office building on 58th and Fond du Lac
Avenue in Milwaukee. He hopes to incorporate more
of his ideas for architectural use of stoneware in his
summer studio in the near future. His new highway
signs with light buff stoneware letters on rusty iron
plates is an original and effective use of the material.

Looking back, the Cohns can see the advantages of
having the place grow gradually in answer to their
needs, but they also realize there are many problems
that could have been avoided had they been able to do
more at one time. The heat in the loft of the barn is
their major unsolved problem, which could have been
avoided had they insulated the roof at the time it
was replaced. There is a lovely beamed roofline which
they wish to preserve. The have tried ventilators, a
powerful fan, and four openings cut and screened in
the walls of the loft without avail.

While busy and involved they are constantly re­
freshed by the environment of Door County. They
burn the dead applewood to make an ash glaze. They
discover clay deposits along the beach and test it for
its potential use in their work. The theater, concerts,
and interesting people they have met make their sum­
ers the most stimulating part of their year. A love
for Door County has transformed their summer place
from one which answered their personal needs to one
which has made a distinct contribution to the cultural
life of the area.

As Abe works visitors watch, and his wife, Ginka,
answers questions. Abe loves the challenge of his medium. He responds to the plastic quality of the clay as he explores its possibilities. The results are spontaneous, natural forms.

Owners of Cohn pots find that they are conversation pieces, and the first piece acquired often becomes the beginning of a collection. A common experience is to select a pot for a gift and then discover one cannot live without it. That's how it starts.

Part of the technique of enjoying a good pot is picking it up and handling it. This is approved by the Cohns. It is difficult to say what catches the eye first. Sometimes it is the rich, earthy colors of the glazes; or it could be the unusual textures, or the variety of decorating techniques. Occasionally one may mistake one of his pitchers for an early American antique, or feel sure that vase must have been unearthed by an archeologist, but that impression is in the mind of the viewer, and not the intention of the artist. His pottery has a timeless quality that blends with many decors.

Familiarity with Abraham Cohn's work brings an awareness that all the pots on the shelves are not made by him alone. In an unusual twist of the father handing down his profession, Abe's father, Philip, age 77, has been learning from his son for the past four years and has shown amazing aptitude and talent. A special display shelf holds his work.

Other talented potters have learned their craft from Abe and become eligible to display and sell their work as well.

There is an impressive variety of objects to view. There are vases, bowls, pitchers, covered jars, mugs, teapots, sugar and creamer sets, ash trays, lamp bases, planters, wind bells, casseroles and candlestick holders.

While improvements at the Potter's Wheel have been introduced from year to year, this summer marks a dramatic expansion. The idea of an addition to the barn exploded into being the end of last summer. Influences by the need for more work space, weather, and the Door Harbor School of Arts all converged to bring about its existence. Unusual cool, rainy weather brought large groups of people into the shop, where they stayed happily due to the fascination of watching Abe at work and a hospitable cup of coffee. As children watched, their faces expressed an eagerness to have a piece of clay that was irresistible. They got their clay, but it soon became apparent that space was needed for them to work, and the first plans were made to add an area for this purpose.

The Door Harbor School of Arts was looking for a new home. They also wished to include pottery in their curriculum. The founder of the School, Madeline Tourtelot, purchased the property adjacent to the Potter's Wheel as a site for the school. With the architecture of the school reminiscent of a barn structure and done in rough cedar, as is the addition at the Potter's Wheel, the buildings share a unity of design and spirit. The Cohns hope to cover the rest of their barn with cedar to further unify both their own building and its relationship to the School.

This summer the School's classes in pottery and metal craft are held at the Potter's Wheel.

The add excer was designed from the inside out. The shed was torn off and the space extended into an L-shaped area that created a courtyard leading from the barn to the new space.

Abe Cohn's future plans for the courtyard include making hanging stoneware light fixtures, large planters to set on the beach stone floor, and a tile mosaic wall to cover the side of the exposed storage shed.

A large gas kiln has just been constructed outside the studio to accommodate the increased needs of the Potter's Wheel. Abraham Cohn is now looking forward to many summers in which he can concentrate his creative energy on his art, and enjoy the hard-worked-for convenience of his new studio.

We suspect they'll always be "growing" in one way or another at the Potter's Wheel.
THE KOHLER VILLAGE

"a model town that grew on a prairie"

Considering today's laments about the "mess" we have made of the American urban scene, it seems that in the development and existence of the Kohler Village, situated in the Northeast Section of the State — some 50 miles north of Milwaukee and 3 miles west of Sheboygan — more than one lesson can be learned.

It can even be ventured to state that after 53 years of developing this industrial community it is proof of the fact — expressed as early as 1912 — that planning, and this implies "professional" planning before building is one remedy for our present problems.

On a recent visit we were struck by what seems to a city dweller an uncanny human scale, an environment that immediately delights and invites the instinctive desire to walk. Although the Kohler plant is the heart of this community and covers approximately 200 acres, it has been screened by triple rows of trees, two broad avenues and is very little in evidence as the place where today 4,000 people work.

After an extensive stroll we became convinced that this village had not grown by itself. The farsighted concept of a sensitive planner was in evidence everywhere. We decided to find out.

We went to the Kohler Company, known to millions of people as Kohler of Kohler, a leading manufacturer of vitreous china and enameled cast iron plumbing fixtures, faucets and fittings, internal combustion engines, electric generating plants and precision controls, and, as the story of Kohler Village unfolded, our speculation was confirmed.

John Michael Kohler, who as a young boy had come to this country with his father from Austria, established a small manufacturing company in Sheboygan in 1873. The company made plows, windmills, feed cutters, watering troughs and other equipment for the farm. Later enameled kitchen utensils were added and in 1883 the company began manufacturing enameled cast iron plumbing fixtures to satisfy the demand of the advent of "the bathroom age," unequaled in any country or period.

In 1899 business was growing so rapidly that expansion became imperative and the Kohler Company removed to its present site. Just what motives actuated the company to move westward from Lake Michigan and the railroads to a level stretch of inland farmland, is not known, but it could have not been a better location for the village which was to be.

The people working at the plant lived for the most
part in neighboring communities and went to and from their work by means of an electric line and by highways. There was no settlement at first around the factory, except a mere sprinkling of cottages that made their appearance gradually.

At that time and for a number of years to follow, the efforts of the Kohler Company were directed toward building up a factory. The plant stood out in the country surrounded by farms; the company acquiring only such lands as might be needed for its future use.

The Milwaukee Sentinel, in an article dated 1930, describes the then named Riverside hamlet as follows: "A straggling little group of drab homes made its appearance. Besides being small, the hamlet looked anything but promising. It had muddy streets, the two or three narrow roads were out of clay and sometimes in wet weather they were virtually impassible. A one-room school house served as the sole educational center of the scattered families and there was a solitary church for worship. Other buildings huddled in the environs of the big plant included fifty dwellings, two structures serving as both saloons and dwellings, a combined store and dwelling and, of course, the factory buildings, where were employed at that time 750 men."

The New爱你 Times of October 11, 1931, described the scene: "When there was the need of a new plant, the concrete mixers came upon the scene and there soon were other masses of walls. Industry grew gigantic and depressing."

In 1912, the hamlet known as Riverside, was incorporated in the month of October. Judge Michael Kirwin granted the petition, ordering incorporation of the village provided the proposal carry at a special election. November 12, 1912, the election was held and a 46-6 vote determined that henceforth the community would be a self-governing village — Kohler Village.

Walter Jodok Kohler, who had succeeded his father as head of the company in 1905, ex-Governor of Wisconsin and a man of a notable career in industry, realized that it was inevitable that with the growth of the factories the growth of a town would come. He was determined to have the right kind of a town.
The ravine itself, a densely wooded valley cleared of underbrush and accessible by means of bridges and paths holds at its northern end a natural “Bowl,” which, with some planting and grading became a natural open amphitheater. Souza’s band played at the dedication ceremony in 1919.

The streets in the Kohler Village have a variety of contours, some are straight, forming square blocks, others are winding because natural contours of the ground made it logical to be so. Trees sometimes determined the location of a street. The width of the streets was governed by the anticipated traffic requirements and in most cases there were made provisions for eventual widening. Everywhere are generous tree-planted grass plots along the curbs and at intervals one finds circles or geometrically shaped parks at street intersections. At first utility wires and poles were located at the rear lot lines. Today 90% of them are underground, a most welcome fact in the entire picture.

The homes of the Village are unpretentious. They have a peculiar charm partly due to the abounded landscaping, well-tended lawns, shrubs, trees, hedges and flowers. As the Kohler Village emerged a variety of styles or types of houses can be observed. One distinct feature is shared by all of them old and new — they are all well kept and are witness to the pride of their owners.
We were surprised to learn that Kohler Village has a 95% home ownership — surpassing the nation's home ownership by some 30%. The owners of the homes in Kohler Village are not necessarily affiliated with the Kohler Company, and are free to sell their homes as they see fit.

Most of the houses in the early beginning of the Village were financed through the Kohler Improvement Co., a non-profit corporation organized by Walter J. Kohler for service and not for profit. This corporation also served the purpose to build homes economically, by purchasing materials in large quantities. Large scale operations under supervision of architects have been undertaken under unified supervision.

Today, Kohler Village has some 1,500 inhabitants. The basic master plan is followed very closely. After West One — a predetermined area was developed, South One followed, and just recently West Two "was opened," meaning that the land which is held by the Kohler Company will be sold to people who want to build homes. The firm of Perkins and Will, architects
of Chicago, supervised the plans for the new homes to be built.

Kohler Village has attracted attention nationally and has been publicized nationwide since its inception. All through the praising reports since 1932 mention is made of the thousands of people who have visited it. But it was the dream, idealism and vision of Governor Walter Jodok Kohler who initiated and guided this planned industrial community and in 1929 he expressed himself: "Kohler is a town-planned village, illustrating the practical possibilities of cooperation and foresight in community planning. World famous town planners, architects and landscape gardeners, with the help of our own organization and, of course, the wholehearted assistance of the people of Kohler Village, have played a part in the development of this American community. To carry on a development of this type requires that a people have a vision, but be not visionary. It requires the faith and courage and cooperation of a great many persons, for the future of this or any other community depends upon the public spirit of the citizenry and upon coming generations."
Light is the good friend of space, but also one of its worst enemies. Before considering some aspects of the positive relationship between light and space I would like to draw your attention to two tested formulas for using light to destroy space.

The first recipe is for the destruction of interior space, and its ingredients are, first, a large room of square or rectangular shape, with or without windows; second, a sufficient quantity of fluorescent tubes suspended from the ceiling and evenly spaced so as to produce an illumination level of at least 100 foot-candles in every part of the room; third, a translucent plastic membrane hung below the lights in order to conceal the tubes, further diffuse the light, and insure its even distribution. Take this combination of ingredients, multiply it at least fifty times, stand it up on end and you have the Union Carbide Building, one of New York's many monuments to spaceless architecture.

The second formula should be applied to the elimination of exterior space, particularly street space. First, remove any existing incandescent street lights of somewhat ornate design but well scaled to the street. Second, replace these with modern, free form, thirty-foot high, two-headed light standards of fake bronze finish. These must be lamped with high intensity mercury vapor bulbs capable of considerable glare. This simple recipe is transforming New York's Fifth Avenue from an "incandescent" street of low intensity, generous shadow patterns and subtle spatial elegance into a spatial wasteland of cold, intense illumination, hard edges, glare and no shadows. This formula can easily be applied to any street in the land with similar effect.

These two examples represent an unfortunate trend in modern lighting practice toward the radical increase in illumination levels for all kinds of lighting accompanied by the extensive use of fluorescent and mercury vapor light sources. Space is, of course, the victim.

Prior to some further words on the subject of illumination levels, I think it advisable to briefly analyze the concept of architectural space. While no verbal definition or description can convey the experience of space, it is certainly possible to say some meaningful things about it.

First of all a distinction should be made between space as quantity and as quality. Genuine architectural space is more than mere volume. It has its own characteristics and identity, a real presence as it were. In this sense it is incorrect to think of space as simply a void, or as the nothing which surrounds and is surrounded by something. Both the space and the objects in and around that space participate in each other and are conditioned by each other. While architecture can be bold and even aggressive, space is fragile and easily destroyed. Architecture defines space, but it is the space within and without which is the true reality of the building, as Frank Lloyd Wright has said, and a building must be designed as much for the space it contains as for its structural form.

Historically, architects have often been as concerned with natural light and its effects on the building as they have been with the forms of the building itself. In fact, more often than not, the forms of the building were a direct consequence of the action of the light. Light both penetrates and envelops a building and it is through this interaction with the solid structure that space is generated. The patterns of light and shadow delineate the building.

In Gothic and Byzantine architecture, light was of particular importance as a spatial element. Both periods saw an attempt to dissolve structure in light. This, of course, had its theological basis, but purely in architectural terms this use of light was exceptionally effective. At the same time light was so desirable, darkness and shadow were also continually present and it was actually through the dark-light tension that the vast, dramatic space of the great cathedrals came into being. This came to be a kind of recapitulation of the world drama in architecture, with the forces of light and darkness pitted in struggle and the struggle being necessary to the very existence of both.

The majority of modern architects are less sensitive to the power of light as an architectural and spatial determinant than were their ancestors. This is in part due to the availability of artificial light sources, today, and their ease of manipulation. It is also due to certain modern concepts of space, particularly that which treats space as the empty interior of a cube. Mies van der Rohe is the father of this view with his admonition that less is more. This kind of space is essentially negative in character, a void. It is simply the gap between objects. The walls are something and the space contained is nothing. This static notion of space is implicit in much of modern building which might be characterized not uncharitably as "showcase architecture." The effective space is almost entirely outside of the structure.

Insofar as a building is a glass box or a composite of glass boxes, it is subject to this characterization. The interior is often a simple rectangular volume or series of such volumes with all exterior walls of glass.
Kohler has developed the slip-resistant bathtub to protect bathers from falls. It increases safety especially for children and older people. Kohler SAFEGUARD is not an accessory. An integral part of the tub, it consists of a textured section of the tub bottom which provides a firm footing—but also comfortable to sit on. This section is the same acid-resisting, easy to clean, smooth and beautiful enamel used on all Kohler tubs.

SAFEGUARD is optional at slight extra cost on any bathtub made by KOHLER. Specify SAFEGUARD when ordering, and add "S" to the bathtub plate number. Sell SAFEGUARD as a desirable extra in all installations to be used by young children and the elderly. For details write, SAFEGUARD, Kohler Co., Kohler, Wisconsin.
Kohler color with a decorator surprise—lavatories in new accent shades

Antique red with white for pure drama. Look what a new idea in bathroom fixtures can do. You put a bright splash of color, create a new center of interest, with lavatories in bright, bold color that contrast with other fixtures. If you like to do the dramatic—make it Antique red with white. Accent colors are offered in Radiant, Farmington and Tahoe enameled cast iron lavatories. For a booklet full of accent color ideas write Accent, Kohler Co., Kohler, Wisconsin.

Jade with Cerulean blue is quietly daring. Just the right shades to make an unusual combination both compatible and imaginative—so lovely to live with.

Expresso with Suez tan for a warm rich look. Imagine what happens when you add your pet accessories and colorful towels in burnt oranges, deep greens, earth colors.

Citron with Sunrise yellow. These colors live together in absolute harmony so you'll love them forever. Yet they offer a decorating surprise that makes guests envious.

Blueberry with Argent gray for elegance. What a beautiful beginning for bathroom decoration that says nice things about your taste and is a challenge to your imagination.
There are no architectural elements or details within to constitute an individualized interior space. All sense of space is derived directly from the outside, through the glass walls. All spatial interest as seen through the windows is actually outside of the building. If the view is bad, as is the case in most urban construction, the space inside is insignificant. This type of building has little sense of enclosure and no sense of shelter, both of which are important in architectural space. The glass box is really something to be viewed from the outside, like a showcase in which merchandise is displayed.

There are three particularly interesting examples of showcase architecture, from a spatial standpoint, in the New York vicinity. Countless other less distinguished examples dot the land. Skidmore, Owings and Merrill's Manufacturer's Hanover Trust Building on Fifth Avenue is a classical showcase. Viewed from across the street it is magnificent. But inside the space is flat, dull and depressing, due in large measure to the comprehensive luminous ceilings which produce a completely shadowless light. The only real space available is that seen through the windows which, in this case, is inconsequential. This building generates very little of its own inner space but participates heavily in the outer space of Fifth Avenue which it enlivens to a considerable degree at night.

The Seagram Building is a complex example of the showcase where again space is borrowed exclusively from the outside, in this case through tinted glass. In terms of space and esthetic appreciation, it must be seen from the outside in its Park Avenue setting. There is no significant architectural space inside the building except on the ground floor and in the Four Seasons Restaurant. Although the office workers are plying their skills within a monument, they must participate in the same type of anonymous non-space as their compatriots in all of the lesser buildings up and down the avenue.

Philip Johnson's own house in New Canaan, Connecticut, is perhaps the ultimate showcase. He has the advantage of incandescent light, but basically there is no interior space at all, only the outside brought in.

Opposed to these showcases is, of course, Frank Lloyd Wright and the whole tradition of architecture as shelter; of a genuine inside and outside space, both related but each with its own strong individual character as well. Within this tradition light is brought into the interior in a selective manner as a strongly informing spatial element. The showcase, on the other hand, admits light en masse, without discrimination.

Space has its friends as well as its enemies among human beings. The architect can be either friend or foe. It is possible for him to generate an exciting complex of spaces or to ignore space entirely. The illuminating engineer has, in recent years, proven himself to be frequently hostile by his insistence on exaggerated lighting levels. The engineer does not light spaces, but rather visual tasks and in so doing concentrates narrowly on human efficiency instead of considering the total human personality. The architect, if he cares about space, would do well to design his own lighting and leave only the execution to the engineer.

The continuing increase in recommended levels of illumination in the United States is a serious threat to architecture and space and to the human being's experience of both. The Illuminating Engineering Society of America has established minimum recommendations for various visual tasks which are patently excessive. It is advisable to take these not only with a grain of salt but also to examine the research upon which these recommendations are based as well as some of the presuppositions of the Society. On the basis of the evidence, which I will go into briefly, it would not be unreasonable to assume some economic motivation behind these recommendations. I am sure that it would be difficult to find a utility company or lighting manufacturer willing to admit that these recommendations were excessive. The assumption, which is certainly unwarranted, is that if some light is good, more is necessarily better, ad infinitum.

The usual reason given for the high levels is the more efficient performance of the visual task. The IES divides the visual world into a range of visual tasks, which is in itself a dubious basis for lighting theory and design. Should not the basis rather be the total human being who is performing these visual tasks only as part of his human activity? A person never just works, he lives and experiences reality in a variety of ways even while performing a specific visual task. Lighting must serve all aspects of the human being at all times. This is particularly important in relation to space, which is man's constant environmental influence.

Another dubious engineering assumption suggests that since the eyes have evolved under daylight levels of illumination, these should be the guide to artificial lighting. Actually the eyes have evolved under a wide variety of intensities, from bright sunlight to total darkness. Night has always been with us, as have sunrise and dusk. It is this evolution under varied visual conditions which has given the eye its adaptability. The eye is remarkably agile and is able to see under light intensities ranging from as low as one ten-thousandth of a foot-candle to as high as ten thousand foot-candles.

There is no ophthalmological evidence that lighting, good or bad, intense or low level, can cause permanent physiological damage to the eye. A person with healthy eyes could read for a lifetime by candlelight and show no ocular ill effect. Contrary to the implications of the American lighting industry, there is no connection between low levels of illumination and ocular disability. The only form of lighting which might cause eye damage is that emitting excessive quantities of ultra-violet radiation such as a welding arc. Too little light might cause visual fatigue but a more common cause of eye strain is glare, which is a real problem in high intensity installations. Actually most cases of visual fatigue and eye strain are symptomatic of the lack of physical or emotional health of some other sort in the individual. Better light—
better sight is a noble saying so long as better light is not equated simply with more light.

The American IES recommendations appear suspicious when compared with those of other countries, particularly European countries which are as highly developed technically as the United States. In most cases European recommendations are one-third to one-tenth of those in the U.S. An example: for very difficult seeing tasks such as precision assembly work, the U.S. recommendation is from 500 to 1,000 foot-candles, while in Britain the recommendation is from 70 to 150 foot-candles and in Sweden it is 30 to 50 foot-candles. This situation speaks for itself.

The American recommendations are based primarily on the IES interpretation of research conducted by the physicist, Dr. H. Richard Blackwell. A number of ophthalmologists and psychologists have also conducted independent research in this area, but their findings have been ignored by the IES. Even if we accept Blackwell’s results, it is hard to see the IES recommendations as a logical consequence of these findings. Blackwell found that in reading ordinary 10 point book type, 99% accuracy of visual performance could be achieved at less than one foot-candle. How this becomes 30 foot-candles in the IES code is hard to see, scientifically. For some specialized seeing tasks Blackwell found very high levels necessary. For instance, detection of a broken black thread on a spinner bobbin required 2,920 foot-candles. On the other hand, a broken while wool thread on a spinner bobbin required only 1.26 foot-candles.

The American IES was quick to align itself with the upper level recommendations, which continue the direction it has been following in recent years, despite much independent research to the contrary. The IES opens itself to the criticism of being unscientific because it apparently accepts Dr. Blackwell’s findings and approves of his approach, and yet the code reflects only the upper levels of his recommendations. For most part the tasks which, according to Blackwell’s findings, demand low levels of illumination are the more common ones in the average daily experience. In other words, for the bulk of visual activity of most people, a relatively low level of illumination is adequate.

Since there is little relation between illumination intensity and ocular health and since for most seeing activity relatively low levels are adequate in terms of efficiency and accuracy, the architect and lighting designer can feel free to design lighting which will best suit the architecture and delineate the space. I do hope that more architects will become aware of this freedom and concentrate on the space intensifying aspects of lighting, rather than simply on the performance of so-called visual tasks.

One of the principal arguments favoring the extensive use of fluorescent lighting, particularly in large office buildings, has been economic. If one considers that the need for high lighting levels is exaggerated, then this argument is largely answered, as is the one against incandescent lighting because of its heat.

Generally speaking, incandescent light is more pleasant, esthetically and psychologically, than fluorescent or mercury vapor. The human eye and psyche identify with the red/yellow range of the spectrum as with warmth, security and agreeableness. The continuous spectrum of incandescent and sunlight is more compatible than the line spectrum of fluorescent and mercury light, both of which are deficient in yellows and reds. Apart from color (which can be altered in the fluorescent tube by the addition of colored phosphors), incandescent and fluorescent light are quite different in their effect on space. The way the light is produced in each case is radically different, affecting the resultant light quality. Incandescent light is generated by the heated filament while fluorescent is produced by the action of mercury vapor on the phosphor coating inside the tube. This results in a directional source in incandescent, similar to the sun, and a non-directional or diffused source in fluorescent. The incandescent filament, like the sun, represents a point from which rays of light emanate. These rays cast shadows, giving clarity and sharpness to objects, and delineate architectural space. The phosphor particles in the fluorescent tube, on the other hand, affect the character of the light-form projected by the tube. It is basically without shape and direction, aimless, as it were. Since the light originates from an infinite number of points all over the surface, and the rays crisscross one another, the final effect is diffuse and entirely non-directional. The light produced causes fewer, less distinctive shadows and gives a flatter, less highlighted quality to space. Incandescent light is specific, fluorescent light is general. They contrast as the rifle does to the shotgun.

The ultimate extension of the incandescent bulb is the spotlight, or downlight, wherein the energy is concentrated on a selected object leaving the surroundings relatively dark. The use of this kind of lighting can be a powerful spatial determinant and can produce a space full of excitement and mystery.

The ultimate extension of the fluorescent tube, on the other hand, is the luminous surface, particularly the luminous ceiling. Here the entire surface is a light source. The light has no directional quality, but rather a blanketing effect akin to daylight under an evenly clouded sky. There are no shadows because the light strikes all objects evenly from all points of the ceiling and the three-dimensional sharpness of objects is drastically reduced. The space becomes flat and monotonous. The basic assumption of much luminous surface design is that darkness and shadow in any form are undesirable. Darkness must be washed away like dirt by the bathing light. The ideal becomes complete and perfect lightness, pure and white. A space blanketed by a luminous ceiling is confining as a cloudy day is depressing when compared with sunlight. A thoroughly diffused, all encompassing artificial light can reduce the perception of the space to confinement, particularly if the light level is high and the space is without windows. It is difficult to identify with such a space because the lack of shadow and contour makes objects seem unreal. Such a comprehensive light source dominates the space it is supposed to delineate.

The character of the space and its relationship to
Lighting an object or a space involves more than simply making it visible: it also means making it visually interesting. Mere brightness will attract, since the eye is guided by reflex, called phototropism, toward the brightest object in the field of view, but visual interest is needed to retain the eye’s attention. Both obvious and subtle characteristics of the object must be revealed by light. This is a matter of light and shadow, of multiple minute contrasts within the area of the object, of contours and surface texture, of highlights and contrasting lowlights.

It is the function of lighting to distinguish between objects so that some come forward and others recede, according to their importance in the composition of the space. To quote the noted British physicist, R. G. Hopkinson, from his book on lighting: “The visual picture of the world outside is formed from a complicated pattern of light, shade, color and contour. . . . The essence of good lighting in a building is to enhance this pattern that important objects are seen well and unimportant objects are allowed to recede unobtrusively into the background.”

Light, which is a powerful formative element in the realization of space, can have an equally damaging effect if improperly used. The considered use of light, both natural and electrical, is essential to complete spatial expression in modern architecture. An ordinary building can be considerably improved by the judicious application of light. Good lighting is mandatory for an important building to achieve its full measure of greatness. Conversely, a great building will suffer immeasurably from an inappropriate lighting system. It is a sad thing to see when this happens, particularly in a city like New York where there are so few buildings of genuine architectural and spatial merit. Such is the unfortunate current fate of the Guggenheim Museum.

Frank Lloyd Wright’s untimely death before the building was completed left the lighting decisions in the hands of an unsympathetic museum director and insensitive illuminating engineers who, together, literally ravished the building. The lighting system which was installed was completely at odds with the spatial quality of the building.

The general architectural characteristics of the Guggenheim Museum are, of course, well known. Basically, the building is comprised of a continuous spiral of reinforced concrete surrounding an inner well which is capped by a domed skylight. The space is continuous. As the form of the building unravels, the space evolves. While the expanse of the inner well is breath-taking, the perimeter spiral is intimate and well scaled to the human being. This dual experience of monumentality and intimacy is continually present during one’s movement around the fluid space. The presence of the great domed well is awe-inspiring, while the sheltering quality of the ramp is continually reassuring. This union of the expansive and the protective is highly successful.

In spite of much criticism, the building functions beautifully as a gallery. The creative use of space as an environment for display is rare in modern museum design. It is useful to be able to view art objects individually at close range, and again at a distance across the well where they can be seen in relation to the show as a whole. The cross-reference in viewing between the singular and the panoramic is related to the spatial alternation between the intimate and the awesome.
Wittily nostalgic, fancifully inventive, exquisitely crafted, marvelously designed and infinitely amusing and bemusing. . . . These phrases are not a whit too extravagant in characterizing the elegant creations in decoupage turned out by artist Wayne Jung of Sheboygan.

Mr. Jung's way with decoupage (cutting out) results in permanent forms for keeping and combining ordinary and singular memorabilia—a delightful surrealist kind of esthetic eccentricity with its own rationale. He is well-known in Wisconsin, not only for his accomplishment with scissors but also as: a former teacher at the Layton School of Art where earlier he was a graduate; a painter who has exhibited his works, from miniatures to murals, in New York City as well as in Wisconsin and elsewhere; a distinguished interior designer. He is associated with his brother, Nelson Jung, in the Jacob Jung Co., 825 Wisconsin Ave., Sheboygan.

For years he had been collecting 19th century paper dolls (the kind with hinged arms and legs), unusual antique steel-engraved illustrations, cut-outs of the lithographed variety that sentimental ladies decades ago pasted into their souvenir books or used to make valentines; bits of old lace and other tiny bric-a-brac, fancy liners from old envelopes, gold stars, velvets and such.

One day he succumbed to impulse, seized a scissors and began to dissect his treasures and to combine them into little visual dramas which he enclosed within whimsically handsome frames. His titles suggest the content: "Haunted Reflections," "Mid Pleasures and Palaces," "East of the Sun," "West of the Moon," "Love Letters," "Imperial Sun," "Game of Hearts," "Rover Boys in San Francisco," "Breakfast at Tiffany's," "Fine Fish Kettle," "River Boat Shuffle," "Birthday Bouquet," "Opera Box."

They all take some looking into, to get the points made. Consider "Scarlet Mermaid," in which the deep-sea beauty's body is a Lillian Russellish paper doll. Over her abundant hips and nether limbs, Mr. Jung pasted scales cut out of red metallic paper. Arms akimbo, she expresses in her whole attitude a "so what" message. At her indifferent eyes' level is a scene a Victorian schoolboy might have pasted into his scrapbook, minus Lillian, of course. It depicts sailors, hirsute and in quaint attire, lowering divers encased in antique equipment into the waters. The viewer knows, if sailors and divers do not, that they will get a cold reception from Lillian reclining so languidly amid massive paper cutout sea shells on the sandy bottom.

Sequins get play in several of the decoupage creations, for instance, in "Ziegfeld Moth," in which the rosy fragile creature gleams with pink spots as well as minute gold stars. Deep-hued watercolor dyes color many of the steel engraving cutouts Jung uses as backdrops, and he depends upon casein washes and stippled effects to unify the elements of his compositions. Several ultra-dazzling decoupage confections are intricate geometric patternings. Examples of these are "East of the Sun" and "West of the Moon," each in appropriate hot and cool color moods.

Particularly surreal is "The World of Night," in which decoupage-maker Jung arranged Renaissance architectural details, cut from a centuries-old Italian engraving, so that perspective depth is suggested through banks of arches. One curtained window in the whole ensemble has been pierced by his scissors and a chartreuse insert pasted behind it, to suggest a single point of intense light in the vast-seeming mysterious composition.

Artist Jung's pasting accomplishment is so deft, and so entrancingly daft, that he has been able to fasten convincingly a series of paper tears to the orbs of a sat Dickensian maid, in an item entitled "Love Letters."

Many of Mr. Jung's decoupage-dramas are in the hands of collectors who bought them from solo exhibit in Sheboygan and Palm Beach, Fla. Upon request, he will bring small groups of his creations to the family shop for display.
1) **IMPERIAL SUN.**
Scrapbook figure of 1880s is printed with real mica snow. Background architectural print is from a 17th century book on Norman churches.

2) **BLUE WINDOW.**
Scrapbook head was cut from an original Trade card of 1880s advertising Hood's Sasparilla. 18th century French architectural engraving forms window above embossed Valentine flowers growing from a 1920 decor print.

3) **LOVE LETTERS.**
18th century prints form a room for an embossed scrapbook head of the 1880s. She weeps paper tears as tiny letters burn in a fireplace from an old German decor print.

4) **THE ACROBAT.**
Paper doll of the 1880s — arms and legs are movable.

5) **SISTER ACT.**
Portrait paper dolls of original "flora-dora" girls. Background is an actual piece of German silk damask. Costumes cut from an 18th century print of Italian ceiling decoration.

6) **INTO THE TEMPLE.**
Trade card figure from an original Morton Salt ad of 1880s steps through a doorway that was a title page from a book dating back to 1760. Details in the background came from an old German dictionary.

7) **MID PLEASURES AND PALACES.**
Scrapbook figure of 1880s rides a lion cut from an 18th century engraving. Background of blue leather. Urn holding valentine flowers is from a 19th century French flower print. Architectural fragments cut from books from 1726 to 1927.
GRADUATES

The photographic reproductions shown are design problems executed by two Wisconsin students who received their B.A. degree in architecture this past June. Both students were provided with Tuition Grants by Wisconsin Architects Foundation, each having qualified for consideration by having high scholastic standing and acute financial need.

One of the most outstanding of our four June graduates was Charles Tichy of La Crosse who graduated with honors, third in his class, at Iowa State University with a g.p.a. of 3.34/4.0. Professor Vernon F. Stone said his aptitudes were in all fields of academic studies rather than his being accomplished particularly in design. He is an excellent student with tremendous concentration and perseverance, and a potential in research and education. Consequently, the award of a Fellowship at N.Y.U. for architectural research in the historic roots and background of American architecture is an opportunity for which he was particularly suited. Unfortunately, it was learned that he, like so many young men, was called into active duty by virtue of his being in the Naval Reserve. He is stationed presently in San Diego in the U.S. Fleet Anti-Submarine Warfare School. Mr. Tichy's terminal design problem is shown, a Museum at La Crosse for the County Historical Society.

Dennis R. Heintz of Milwaukee graduated from the University of Illinois in June. According to Professor H. G. Pundt, Mr. Heintz did outstanding work in architectural engineering courses, with structural design as his preferred career. He is employed presently as a draftsman in the school research program at Inland Steel Company, Milwaukee. His design problem reproduced here is an interesting conception for a Pottery Factory.

Summer occupations of current students not reported in the last issue:
Roger F. Potratz '67 — Oconomowoc — University of Oklahoma — Roto Swing Door Co., Oklahoma City.
Michael J. Plautz '67 — Willard — University of Illinois—Summer Traveling Scholarship—NE U.S.A.

NEED IS ALWAYS WITH US

As has been reiterated in the past, the Foundation is constantly looking for funds. May we at this time remind the Wisconsin Chapter AIA members that memorials are one of its sources of revenue. A memorial made by an architect honoring someone's memory through a contribution toward our professional education program will be appreciated and respected by the bereaved family.

POSTSCRIPT

To show what the present day student faces in having to go out-of-state to study architecture, we have learned that tuition at Washington University (St. Louis) has been increased $500, from $1,200 to $1,700/year. The University of Illinois has posted an increase of $230. Other schools are following suit.

If it were possible for a Wisconsin student to get his architectural training in his home state, his tuition would be $320 annually!

The purpose of the Foundation's program to aid worthy Wisconsin students is obvious, as is the effort to promote the establishment of a school of architecture in the University of Wisconsin.
on the boards

Northeastern Section

Our Redeemer Evangelical Lutheran Church and School, Appleton, Schutte, Phillips, Mochon, Architects, Appleton.

Our Savior's Evangelical Lutheran Church and School, Appleton. Schutte, Phillips, Mochon, Architects, Appleton.

In 1946 the DeGelleke Company was started to engage in the marketing and contracting of acoustic ceiling products. The key word in those early days, as it is today, was Service to the Architect and to the builder.

This service has led to a constant growth to make the DeGelleke Company a respected and major factor in the building industry. A complete line of acoustical ceiling products, ventilating ceiling products, Luminaire ceiling lighting and Radiant Acoustic ceilings are marketed and installed.

The DeGelleke Company maintains a constant vigil to assure their clients of the best possible workmanship and to keep up the inborn DeGelleke tradition of service-with quality.

Several years ago DeGelleke Company pioneered the radiant acoustic ceiling in Wisconsin. The Burgess-Manning Company had acquired the patent rights to a new concept in ceilings. This system utilized water-carrying coils as a part of the ceiling structure, with perforated metal pans attached directly to the coils.

The perforated metal pan acoustic ceiling (another origination of the Burgess-Manning Laboratories) was, and is, the finest acoustic ceiling devised.

By attaching these pans directly to the water coils they became a radiating surface; hot in winter for uniform heat — without draft; cool in summer to absorb heat and carry it away.

Since those days — many fine buildings, schools, hospitals, office buildings, etc., have accepted and enjoyed the comfort, cleanliness and economy that only the radiant ceiling can provide. In Wisconsin such buildings as the Northern Colony Infirmary at Chippewa Falls, Municipal Hospital at Beloit; Bethany Lutheran Church School at Madison; Elementary Schools in Evansville; Court House in Elkhorn; Allen-Bradley and Cutler-Hammer office buildings in Milwaukee to name a scattered few of many.

"Housekeeping" is minimized. There are no projections into the room to clean around, no fans to clean, no filters to change. Every square foot of floor is usable.

The DeGelleke Company staff of experienced ceiling specialists will give the architect, designer, and engineer every assistance at their command to assist in the design and application of numerous products into new, unique and different ceiling applications.

A few years ago DeGelleke Company also pioneered the use of the Armstrong Luminaire ceiling. This ceiling integrates lighting, acoustics and ventilation diffusion into a harmonious vaulted pattern. Available in three modular patterns the Luminaire ceiling provides high candle power illumination without glare or shadow. The modules give the architect a wide possibility in new ceiling designs.

Radiant ceilings have come a long way since they were first introduced to America back in the 1940's.

The original radiant-acoustic ceiling, as developed in the European countries was an unwieldy system of square pipes and perforated panels locked onto them. Versatility and adaptability were noticeable by their absence.

The Burgess-Manning Research Laboratories re-engineered the system to American manufacturing standards and introduced it as the "Burgess-Manning 3-Way Ceiling; Radiant Heating, Radiant Cooling and Acoustic."

In 1963 Inland Steel Products Company at Milwaukee acquired the Burgess-Manning ceiling and has expanded the line. The original ceiling is now known as the IRC/ BM Ceiling and the total line as Inland Radiant Comfort System.

Today, the many superior advantages of radiant ceiling for year-round comfort conditions are not limited to a sterile flat surface. Coils are adaptable to space conditions; ceiling can be arched, vaulted, flat, square, round, segmented; textured, colored, tinted, white; or intermixed with other materials.
a new generation of radiant ceilings is born . . .

It is hard to improve the original concept of the Burgess-Manning radiant-acoustic ceiling.

Draftless, uniform, radiant heating and cooling — the kind best matched to the needs of the human body — still provides the most comfortable means available to man for controlling indoor thermal environment.

By adding acoustical control, Burgess-Manning engineers came up with an efficient, economical system that has answered the requirements of hundreds of schools, offices and hospitals all over the United States and Canada.

These installations are operating effectively today and their good performance through the years has resulted in repeat orders from many building owners.

Now Inland engineers, some of whom are former Burgess-Manning people, have come up with a significant technical improvement for thermal heating and cooling — the new Inland IRC/HP Radiant Ceiling Panel.

May we tell you more?

DeGelleke Company, Inc.
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or if you prefer, write to Inland Steel Products Company, P.O. Box 393, Milwaukee, Wisconsin 53201

Wisconsin Architect — September, 1965
The Integrated Ceiling System

The average person probably considers ceilings as static objects. This may be true in some cases, but many ceilings today are the means of concealing and containing most of the room’s requirements.

The advent of the integrated ceiling changed many conceptions of function. It is possible today with modern materials to combine sound absorption, sound attenuation, fire rating, appearance, air distribution (supply and/or return) and lighting in one ceiling system. Truly a ceiling is no longer merely a covering.

The ceiling contractor of today must have the engineering capacity to judge and deal effectively with the complex details, the variety of available systems, and the other trades involved in the total project. He also must be able to supervise trade sequences during installation in a manner that makes engineering sense.

The up-to-date architect should be especially interested in reducing his supervision load by having correlation and cooperation in this area. He should take a firm position on the following matters:

1. Become familiar with ceiling contractors of nearly equal capacity and restrict bid comparisons to these firms.
2. When a substantial job has been planned on the basis of using the engineering capacities of a particular subcontractor, have the courage to require the general contractor to use that man for the work. The industry is ready for this.
3. Develop a consulting relationship with a qualified ceiling contractor.

One of the most exciting and perhaps the most misunderstood present day concept is the air delivery ceiling system.

Architects, long seeking a way to “clean up the ceiling” have been receptive. They and the mechanical engineers have seen in the air delivery acoustical ceiling answers to the age-old problems: drafts, dirt smudges around diffusers and the need to squeeze branch duct work into inadequate space along with the problem of integrating lights and diffusers into a module.

Literally acres of pressurized plenum systems delivering air via slotted metal channels or through perforated metal pan ceilings have been operating for more than 25 years.

These early systems had their limitations.

Acoustical contractors justifiably can be proud of the current air-delivery ceiling boom. It is of their making.

Specifically, Walter Ericson and John Nienas experimented, designed, perfected, patented and finally marketed the modern fully engineered system. It was through Mr. Ericson’s Insulation Service Company of Milwaukee that he installed and field tested his system of air delivery.

Today at least seven major acoustical ceiling manufacturers now offer some type of air-delivery system. The vast majority of them utilize the same basic principles perfected by Ericson and Nienas a decade ago.

The primary purpose, in fact the only purpose, for air conditioning is to create an environment of comfort for people. To do this the system must deliver air at the proper temperature, humidity and air motion.

Temperature and humidity of conditioned air are controlled by the primary (heating and cooling) equipment.

This equipment, however, provides only part of the control needed for effective comfortable air motion.

Proper air motion was, and still is, basic.

While overhead introduction of air proved both convenient and logical, some problems remained. Always manufacturers sought improvements that would provide an adequate supply of fresh conditioned air into an area without the problems of draft and stratification.

During the experimental stage some attempts were made to utilize the space above the ceiling as an air supply chamber. The ceiling itself contained a myriad of holes so that it would serve in its entirety as a diffusing device.

This was the case some 25 years ago when metal pan ceilings were widely used as a diffusing device.

New problems developed, namely: stagnation.

The experimentation that was carried on in the late 40’s and early 50’s by Ericson and Nienas were based on the “designed penetration” concept. This concept is one of supplying the conditioned air to a predetermined level below the acoustical ceiling at the velocity comfortable for people in that room. This involved a jet orifice theory that is used by all diffuser manufacturers combined with a means of control (damper device) to adjust volume and balance the system.

There are two apparently diametrically opposed schools of thought in regard to the pressurized plenum concept of air-delivery acoustical ceilings. One large group shares with Ericson and Nienas the conviction that relatively high aperture velocities (usually not less than 400 FPM) should be achieved. This is necessary in order to “penetrate” the conditioned air to the sedentary level. They contend that this is required if the system is to provide air motion of roughly 25 to 50 feet per minute at the sedentary level as dictated by the A.S.H.R.A.E. Society.

Those belonging to the other school hold to this premise: the interaction of the supply and return air systems provides the necessary changes of air. The need for control and balance is not as necessary if uniformity is achieved.

This is similar to the old metal pan concept.

The acoustical phase of a ceiling is not nearly so complex since the attenuation and sound absorption ratings are well catalogued by all manufacturers. They are understood easily and sound treatment of a space has many other facets to consider with the ceiling being only one of many.
KEY FACTORS
IN THE SELECTION AND INSTALLATION OF VENTILATED CEILINGS

• CONTROL
  VARIABLE PATTERNS
  WITH DAMPERED JETS
  AND SLOTS

• JET THEORY
  NOT JUST PIN
  HOLES — BUT
  ENGINEERED ORIFICES

• PENETRATION
  JET ACTION
  DELIVERS AIR TO
  PREDETERMINED LEVEL

• ENGINEERING
  EXPERIENCED DESIGN
  AND AIR BALANCE
  CONTRACTORS

First Wisconsin National Bank
Purchasing Department
Architect: E. J. Krause
Mechanical Engineer: George Volk

Auto Acceptance Corp.
Luminous Ceiling
Architect: Roger Sutherland
Mechanical Engineer: Earl Pollock

Auto Acceptance Corp.
Vaulted Ceiling
Architect: Roger Sutherland
Mechanical Engineer: Earl Pollock

Wisconsin Architect — September, 1965
New In-Wall Transformer Saves Space and Cost
by J. M. Frank, P.E., Vice President, Marketing Hevi-Duty Electric Company
A Division of Basic Products Corporation

It was the architect's concern with costly "waste space" in building design which prompted the Hevi-Duty Electric Company to develop a completely new dry-type transformer for in-the-wall mounting.

The old expedient of housing the transformer in an electrical closet could no longer be justified in light of the ever-rising cost of modern construction. The architect had better and more economical uses for the square footage required for transformer closet or floor space.

Hevi-Duty set out to develop a transformer which could be purposefully integrated into the overall design of the building. The result was a new transformer concept — the convenient housing of the core and coil unit in a trim, recessed wall enclosure — and which now permits transformer installations to be made in any location in schools, hospitals and office buildings.

The shallow profile of the in-wall transformer allows in-wall mounting within a single or double course of standard 8-inch building block, depending on the transformer rating. Where stud-type construction is used for walls, sufficient space can be provided by simply "furring-out" the small space required for the transformer. The cost of providing the furred-out area is offset by eliminating the expensive and unsightly mounting brackets used for conventional transformer installations.

SMART APPEARANCE
Surface trim is available for any of the in-wall transformers. The architect has the option to use these transformers for either semi-flush or surface mounting, thanks to their trim silhouettes and tamper-proof characteristics.

The exposed cover has a clean, uncluttered design. To make it inconspicuous, the cover can be painted so that it blends in with the surrounding wall surface.

LOW SOUND LEVELS
An important feature of the in-wall transformers are their exceptionally low sound levels. This quiet operation — 25 KVA models, for example, are rated at only 40 or 41 decibels — invites installation in occupied areas: classrooms, corridors and offices.

Modern vibration dampening techniques are employed to muffle operational sound. Even the lowest ambient sound levels will tend to completely mask the minimal sound emitted by the transformer.

In addition, the enclosure is lined with a sound absorbing blanket. This blanket is specially designed to absorb the low frequency (120 c.p.s.) vibrations produced by the transformer. Overlap miter cut core construction and specially designed louvered ventilation panels help assure noiseless performance.

COLL SAFE OPERATION
Use of Class F insulation has enabled us to build a transformer shallow enough for in-wall installation, but which still has the maximum temperature of the front panel limited to 35° C above a 40° C ambient. The temperature rise of the core and coil does not exceed 115° C rise above a 40° C ambient.

Careful attention to the design of the grill provides for proper ventilation of the enclosure. Normal heat rise will not be noticed. However, if it is necessary to reduce unwanted heat gain in extremely warm locations, the top grill on the cover can be eliminated and ventilation opening provided in the top of the case for venting to the outdoors via duct work.

The grill is also tamper-proof! Openings are louvered to prevent the insertion of foreign objects into the electrical components. School children, for example, cannot push pencils or other objects into the enclosure as is possible with the expanded metal under-panels of conventional transformers.

All in-wall units are engineered and tested at Hevi-Duty's modern Watertown, Wis., plant in accordance with ASA, NEMA and AIEE standards.

These transformers are available for either single or three-phase operation. Standard KVA ratings for single-phase models are 10, 15, 20, 25, 30, 371/2 and 50. For three-phase operation, the ratings are 9, 15, 20, 25, 30, 371/2 and 45 KVA.

Special in-wall transformers for specific applications can be designed and built to meet exact customer requirements.

ISOLATING TRANSFORMERS FOR HOSPITAL OPERATING ROOMS
The in-wall's flush design lends itself to the complete packaging of isolation transformer, ground detector, and circuit breakers for hospital operating rooms. Packaging of the complete isolating transformer system conserves space, simplifies installation and maintenance, and presents a streamline, attractive appearance. The in-wall unit can be flush mounted in any location outside of the operating room.

All components, from the primary breaker to the ground detector, are carefully coordinated to insure proper operation of the overall system. Components can be varied according to individual specifications.

A low sound level — 37 decibels or less — makes the transformer virtually inaudible and ideal for hospital installation.
When inspecting Hevi-Duty In-wall Transformer installations, you just can't help being amazed at their inconspicuous placement and adaptability to any available wall space. Although in plain view, you'll note flush mounting and good blending characteristics. Virtually inaudible, eliminating electric closet space, and providing substantial savings in wiring costs, they are the answer to your dry-type transformer needs.

For complete brochure contact your local Hevi-Duty representative or Hevi-Duty Electric Co., Milwaukee, Wis. Phone: (414) 383-6250.

Under construction view of an In-wall installation. Note the close proximity of all distribution system components.
Now Everything Is Up in the Air

The Integrated Electric Ceiling Provides Light, Heating and Cooling, Acoustical Control, Communications, Power for Machines — and Beauty, Too!

Since man first learned to crawl into a cave or hide under an overhanging rock to avoid the elements, he has been challenged and frustrated by the very ceilings which protect him. Overhead shelter brought a measure of protection from rain, snow, cold and heat, but also created a prison of stale air, odors and darkness.

Less than two centuries ago, the American pioneer was poking holes in the ceiling of his log cabin or sod hut to admit light and expel smoke.

As man struggled to conquer his environment, his thoughts turned ever upward — to his ceilings. He strove to make them larger and stronger. He yearned to make them beautiful enough to rival the sky which they hid from his view.

But for all great outpouring of architectural and artistic accomplishments, man was unable to improve upon the basic function of the ceiling. Renaissance ceilings brought awe to the beholder. Baroque and rococo ceilings attested to man's rising state. Four decades after the invention of the electric light bulb, electricity was only an element to be added to the ceiling. Ceilings were still just ceilings — an overhead covering to keep out the weather.

But electricity had provided man with a revolutionary technology. It was inevitable that, given his eternal preoccupation with ceilings, he would seek a total application of that technology to his overhead environment.

The modern, integrated electric ceiling began to emerge in the post-World War II period. The initial efforts to combine the new technology with service and beauty were halting and unsure. There was a fight for space between lighting, acoustical materials and air supply. But progress was made. In the lobby of the General Motors Technical Center, Eero Saarinen created a ceiling of luminous plastic framed by baffles which served the multiple purposes of sound control, brightness control and air supply.

But the integrated electric ceiling withheld its full potential until a new problem presented itself for solution. Every rising standards of lighting created ever rising heat levels. This heat had to be controlled. Then came the realization that this heat could also be used. Soon lighting fixtures were designed with air return ducts built into them. Today it is practical to create a ceiling of beauty that provides light, fresh air, cooling and heating, acoustical treatment, communications and power for machines. All of its components may be located where they will be easily accessible for maintenance, cleaning and future alterations.

Today, if a new ceiling does not have most or all these advantages, it well may be obsolete when it is installed — as obsolete as the log cabin or sod hut ceiling with holes for light and air.

Of course, the construction of a modern, integrated electric ceiling can serve up many frustrations to the architect who struggles with a variety of specialty contractors to get the job done. Conflicts of jurisdiction between contractors and between unions can make him wish for the simple days of lath, plaster and gas jets.

Fortunately for the harassed architect, this problem has also been solved.

Recognizing that modern ceilings are electric ceilings, the National Electrical Contractors Association has developed a program through which Qualified Contractors who are members of the association can assure to architects and owners both a unified installation and a guarantee of performance.

When specifications for the electrical ceiling are put into the Electrical Specifications, the NECA member can coordinate the entire installation in the least possible time at the most economical installed cost and with a minimum amount of jurisdictional disputes.

The architect consults with the local chapter of the National Electrical Contractors' Association to determine local trade practices and they write his specifications accordingly.

Electric space conditioning with integrated ceiling has been best accomplished by a single responsible qualified electrical contractor who sub-contracts the sub-elements of the system and guarantees the performance of the entire system.

The architect designs a ceiling that cools, heats, lights, communicates, controls sound and beautifies. The local NECA member installs it and guarantees its performance, too. At last, it seems, man has been able to realize the full potential of his overhead environment. And most of the frustrations have been eliminated.
Modern Integrated Electric Ceilings
Put Everything Up In the Air

• COOLING • HEATING • LIGHTING • COMMUNICATIONS
• SOUND CONTROL • POWER RACEWAYS

Your Qualified Electrical Contractor Knows How to Get It There and He Guarantees Its Performance!

Today's integrated electric ceiling gives the architect new freedom in interior design. And when the architect makes his design for this ceiling a part of the electrical specifications, the qualified electrical contractor can take it from there. That's because most of the functions of an integrated ceiling are powered or controlled by electricity ... and electricity is the electrical contractor's business. Carpenters, sheet metal men, plasterers, plumbers, heating and refrigeration men — the work of all these specialists is coordinated by your qualified electrical contractor. And he'll guarantee the performance, not only of the electrical functions, but of the entire electrically space-conditioned ceiling system.

Consult your Qualified Electrical Contractor
ELECTRICAL CONTRACTORS' ASSOCIATION
Milwaukee Chapter

Wisconsin Architect — September, 1965
PLANNED LIGHTING

is an important factor in good BUILDING DESIGN

Our lighting engineers have a wealth of helpful information about the techniques and advantages of planned lighting, based on actual installations. They will be happy to be of whatever assistance they can on any project you have in mind.
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Continued

Keynotes:
1. Dr. Donald P. Kent, Chairman of the Department of Sociology and Anthropology, Pennsylvania State University.
   Topic: Speaking on the Broad Spectrum of Elderly Needs.
2. Mr. Sidney Spector, Assistant Administrator, Housing for Senior Citizens, Housing and Home Finance Agency, Washington, D.C.
   Topic: Speaking on the Federal Program.
   Topic: Speaking on the Financial and Management Aspects.

10:30-12:00 — Round Table Discussion.
   Coordinator: Mr. Lawrence Katz, District Director, Federal Housing Administrator.
1:00- 2:30 — Round Table Discussion (Continued).
   Coordinator: Mr. Lawrence Katz.
2:45- 3:45 — Question and Answer Period. Audience Participation.
   Chairman: Mr. Willard Downing.
3:45 - 4:15 — Summary.
   Mr. James McMichaels, Executive Director, Wisconsin Commission on Aging.

ROUND TABLE PARTICIPANTS
Dr. Donald P. Kent, Washington, D.C.
Mr. Sidney Spector, Federal Housing and Home Finance Agency.
Mr. Lawrence Katz
Mr. Karl Maier, Jr., Vice President, Northwestern Mutual Life Insurance Company.
Mrs. Lillian Leenhouts
Mr. William P. Wenzler
Mr. Clinton Mochon
Mr. George Bockl, Bockl Realty.
Mr. James McMichaels, Wisconsin Commission on Aging.
Mr. Raymond McClelland, Executive Director, United Community Services of Greater Milwaukee.
Dr. Harold Cook, Director, Medical Services, Milwaukee County Hospital.
Mr. Richard Perrin, Director, Milwaukee Department of City Development.
Prof. Willard Downing, Professor, School of Social Welfare, University of Wisconsin-Milwaukee.
Prof. Norbert Stephaniak, Professor of Commerce, University of Wisconsin-Milwaukee, Division of Commerce.
Prof. Douglas Marshall, Professor of Rural Sociology, University of Wisconsin-Madison.
Rev. W. Suedkamp, Director of Catholic Charities, Archdiocese of Detroit.
Mrs. Vivian Wood, Assistant Professor, School of Social Work, Extension Division, University of Wisconsin-Madison.
Mr. Elmer Winters, President of Manpower, Inc.
Registration forms may be obtained by contacting the Institute on Low Rent—Low Cost Private Housing, Social Development Commission of Greater Milwaukee, 161 W. Wisconsin Ave., Suite 6069, Milwaukee, Wis. 53203.
Across the United States architects, electrical engineers, building owners, maintenance supervisors and merchants have become aware of the many benefits of polarized light, and they are specifying it for both new and older structures.

Among the users of polarized lighting — considered by illumination experts to be a major scientific breakthrough — are schools, libraries, hospitals, banks, churches, utilities and technical industries where visual efficiency ranks as a prime requirement.

Polarized lighting virtually eliminates glare and reflection. It provides a quality of illumination which steps up visual efficiency double the level of ordinary illumination without visual discomfort. People see natural color, detail and texture in their true light. People have fewer headaches, less eyestrain and make fewer errors — thus improving their performance.

Now it is possible to specify complete integrated ceilings with polarized lighting combined with acoustical tile and partitions as well as air distribution systems. One contractor does the entire job, saving the architect, builder and buyer time and money. A completely integrated ceiling system of this type out-performs combinations of components and costs less to install.

It is generally agreed that lighting, more than any single component or system, does more for the total interior environment. Polarized lighting in an integrated ceiling system enables one to see the interior — its shapes, relationships, textures and forms as the architect intended them. Psychologically, the effects of lighting are also important to consider.

Besides complete integrated ceilings, polarized lighting is now available in new lighting fixtures or panels or in replacement panels for existing fixtures when a re-lighting program is planned. Polarized panels are the best and most economical means of up-dating a lighting system in a commercial or an institutional structure.

As a pioneer in integrated ceiling systems, Building Service, Inc., has installed polarized lighting panels successfully in many Wisconsin buildings. A list of these will be furnished on request.
When assistance is required, our men know our products and their related fields,” says Ray E. Stickler, vice president of Stickler and Downs, Inc., “and we are fully prepared to assist the architect. Furthermore we insist that our men keep up to date with all the newest trends in the industry and we fully subscribe to the fact that only a knowledgeable staff is a good staff.”

Ray E. Stickler is a graduate engineer of Marquette University and specializes in the field of sanitary engineering.

“We founded our company on the predication that we would not only offer the best lines in the plumbing industry to our clients but that we would also offer to the same clients our extensive services,” says Byron F. Stickler. “And as we have grown we have seen to it that our services keep abreast of our line of products.

In 1931 Mr. B. F. Stickler, who holds a degree in industrial engineering from Carnegie Tech., started with a will and hoped that there would be a way. And as the country struggled with the depression, Mr. Stickler struggled with his young company. But sticking to his creed that he would serve as he sold, the firm became established.

“Of course, it wasn’t easy,” B. F. Stickler continues. “but I felt very good about the whole thing because I stuck to the idea that service sells and it worked out.”

“And we do have the ‘know-how’ on the practical side to carry out our service to our clients,” says James S. Piskula, secretary of the company. Mr. Piskula can apply his practical knowledge to any plumbing problem because he is a licensed plumber with many years of experience in the field.

“Consistent with the high principles of Stickler and Downs, Inc.,” says Gary H. Nelson, “we only offer what we consider the finest lines in the plumbing industry. We represent Josam Manufacturing Company — drainage products; Sloan Valve Company — flush valves; Bruner Corporation — water conditioning equipment; Fiat Metal Products — shower floors and stalls; Elkay Manufacturing Company — stainless steel sinks; and Beneke Corporation — toilet seats.”

Mr. Nelson has a plumbing contractor background and is a full time salesman for the firm.

There are nine employees that are ever present to sell and service the products that Stickler and Downs, Inc., represents. And very important in the whole scheme of things is a full time service man who assists clients, distributors, and contractors.

Stickler and Downs, Inc., belongs to and takes active part in the Producers’ Council, ASCE, ASSE, C.S.I. and the Builders Exchange.

This is proof of the tradition that when assistance is required, Stickler and Downs, Inc. knows how to provide it.
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Wisconsin Association of Plumbing Contractors

A record of having trained more skilled mechanics in its field of activity than any other apprenticeable craft is one of the proudest achievements of the 70 year-old Wisconsin Association of Plumbing Contractors and its 14 affiliated local associations, according to John DeBelak, of DeBelak Bros., Milwaukee, the organization’s president.

The success with which the plumbing industry has met and continues to meet the challenge of demand for skilled manpower is due entirely, DeBelak asserts, to the enthusiasm with which members of the association have dedicated their services to the 26 joint plumbing apprenticeship committees now functioning throughout the state of Wisconsin.

"Where there is not a functioning joint apprenticeship committee in our industry, we make it our business to find out why," the plumbing contractors’ state president points out. "When we find an area with a manpower demand that is not being met, the problem is dropped in the lap of the state joint plumbing apprenticeship committee. In nine cases out of ten, a new committee is put together for the area with very little delay."

The Wisconsin Association of Plumbing Contractors, organized in 1895 as the Wisconsin Master Plumbers Association, represents 318 of the state’s leading firms of plumbing contractors, nearly all of whom are also engaged in the hydronic heating and air conditioning business. About one-third of the membership is composed of members of the Milwaukee Plumbing Contractors Association, the formation which pre-dated the organization of the state group by some 14 years.

Four of the affiliated local associations whose members hold simultaneous membership in the state association, have full-time executive directors. They are the Milwaukee association (Ralph F. Weber, 808 N. 3rd St., Milwaukee); the Madison Association of Plumbing Contractors (Edward R. Stege, 133 S. Butler St., Madison); the Southern Wisconsin Association of Plumbing & Heating Contractors (James Barry, P.O. Box 208, Janesville); and the Central Valley Plumbing & Heating Contractors Association (Donald L. Myers, P.O. Box 212, Appleton). Administration of the state association’s affairs are under the direction of Robert Hammersmith, 808 N. 3rd St., Milwaukee, who doubles as editor of the organization’s monthly magazine, “The Wisconsin Master Plumber.”

Other organized local associations of plumbing contractors affiliated with the state association are active in Racine, Kenosha, Oshkosh, Fond du Lac, Manitowoc, Waukesha County, Green Bay, the Wisconsin River Valley, Northwestern Wisconsin, and Western Wisconsin. About 50 members in smaller communities hold direct memberships with the state and national association with which it is affiliated: the National Association of Plumbing-Heating-Cooling Contractors.

Next to its continuing program aimed at meeting the demand for skilled manpower, spokesmen for the plumbing industry associations at both state and local levels say that their greatest concern lies in the field of development and enforcement of reasonable and effective plumbing codes.

Through the combined efforts of plumbing association members throughout Wisconsin, the state enjoys the services of the nation’s finest team of plumbing inspectors, all of them licensed, experienced plumbers thoroughly trained in all aspects of the state’s plumbing code. Their services cost the state’s taxpayers nothing, since their support comes from fees paid to the state by licensed master and journeyman plumbers.

Ralph Schram, Milwaukee plumbing contractor, who is president of the Milwaukee Plumbing Contractors Association, said.

“In the field of public health protection, as far as safety in plumbing is concerned, Wisconsin enjoys an enviable reputation as the nation’s leader. This is largely the result of a series of plumbing codes, ordinances, and licensing provisions adopted by the state beginning as long ago as 1913.

“Because state law places the responsibility for adherence to good plumbing practices and observance of code requirements squarely upon the licensed plumber, architects, builders, and engineers engaged in the design and construction of today’s buildings in Wisconsin are assured of the use of nothing but scientifically proved and time-tested materials, installed by mechanics trained in the world’s finest apprenticeship program.”

At the 1965 Milwaukee Home Show, the Plumbing Industry Fund was the chief sponsor of an exhibit embracing more than 3,500 square feet of floor space, where products of nearly all of the major manufacturers of plumbing equipment and appliances were on display in one centralized location.

Ralph F. Weber, who manages the Milwaukee Industry Fund as well as serving as secretary of the Milwaukee Plumbing Contractors Association, observed:

“Plumbing lasts a long time. When people make almost any other major purchase they do so knowing that in four to six years they will want to replace it. That isn’t the case with plumbing. When people buy a house, they expect the plumbing to last practically the life of the building.” He summed up the purpose of plumbing associations by adding:

“Plumbing contractors have to be good to live up to that sort of an expectation. The materials they use have to be the best to deliver on that sort of a premise. The men who install them have to know what they are doing in any possible situation. It’s the plumbing association’s job to keep the industry good enough to do just that — and better.”

Architects in Wisconsin confronted with problem involving the plumbing industry are cordially invited to consult the Wisconsin Association of Plumbing Contractors, according to the organization’s officers. The association maintains its state headquarters at 80 N. Third St., Milwaukee 53203.
We showed 100,000 people what’s new in plumbing at the Home Show. If you weren’t one of them, call us!

Many architects did see our Home Show Plumbing Center Display. (We know because of the many favorable comments we’ve received from them.)

But in case you’re among the few who missed our show, don’t fret. We’ve got an office operating Monday through Friday from 8:30 am to 4:30 pm just to help you. (If it’s a real emergency, you can even call us after hours. We won’t mind.)

We can clear up questions on codes. Suggest new products. Recommend the best plumbing contractors for specific jobs.

Help! That’s what we’re here for.

Next time you have a problem concerning plumbing specifications give us a call. It doesn’t cost anything.

YOUR RELIABLE PLUMBING CONTRACTOR
Avoiding Valve Troubles by Proper Selection

by B. A. Steel — Wisconsin Plumbing & Heating Supply Co.

Everyone in construction, building maintenance, and machine design look to the architect and the engineers for impartial advice relative to the selection of mechanical equipment, particularly valves, to provide adequate and satisfactory operation. It is of particular interest to the manufacturers of this equipment to get sufficient information into the hands of the architects and engineers so that they will be better equipped to perform this service for clients. This becomes especially difficult because just bare facts and data very often must be supplemented by good judgment rather than by the set rules. In this respect, the manufacturers' representatives and distributors of this class of equipment can be of valuable assistance to the architects and also the engineers.

The following data (published by Mr. W. E. Jones, chief engineer of the Stockham Valves & Fittings Co., Inc., of Birmingham, Alabama) offers a groundwork for this very important function of making the proper valve selection.

Service Recommendations for Gate Valves:
Infrequent operation.
Fully open or fully closed, non-throttling.
For minimum resistance in line.
For minimum fluid trapped in line.
NON-RISING STEM:
Where headroom limited.
For minimum wear on packing.
RISING STEM:
Where headroom not limited.
Stem indicates position of valve disc.
No cavity in disc to trap heavy liquids or solids.
Inside Screw:
Usual construction for bronze and small iron gate valves, lower cost but stem threads exposed to conditions inside valve.
Outside Screw and Yoke:
Best protection to stem threads from conditions inside valve, but care must be taken to protect threads from external damage.
Stem threads can be lubricated.
DISC CONSTRUCTION:
Wedge Gate:
Minimum of rattle and chatter.
Usually used for steam service.
Can be installed with stem in any position.
Split Wedge or Double Disc:
Adjustment of seating surfaces.
Recommended for water and volatile fluids at low temperatures.
Not recommended for installation in other than vertical stem position.

Service Recommendations for Globe Valves:
Frequent operation, valve readily repaired in line.
Regulated flow, throttling.
Where some resistance in line not objectionable.
Where some fluid trapped in line not objectionable.
RISING STEM:
Where headroom not limited.
Stem indicates position of valve disc.
Inside Screw:
Usual construction, lower cost, but stem threads exposed to conditions inside valve.
Outside Screw and Yoke:
Best protection to stem threads from conditions inside valve, but care must be taken to protect threads from external damage.
Stem threads can be lubricated.
DISC TYPES:
Composition Disc:
Readily renewed.
Not generally used for throttling.
General purpose disc for steam, oil, water, gas.
Special composition (Hyar) for air, and Liquefied Petroleum Gas.
Fullway Type:
Readily reground.
For frequent throttling service.
Discs are of bronze, copper-nickel alloy, and stainless steel, depending on severity of use.
Plug Type:
For most severe throttling service.
Resistance to galling, erosion, abrasion, cutting, and corrosion.
Can be reground.
Made of hardened stainless steel.
Service Recommendations for Check Valves:
Control direction of flow (one direction only).
Quick, automatic, reaction to flow change.
Swing Check Valves:
For minimum resistance to flow.
For liquid service (low velocities).
For infrequent change of direction.
Where leverage and weights needed.
Soft faced discs for air and cold water.
Lift Check Valves:
For more frequent change of direction.
For steam, gas, or vapor.
Soft composition disc for air.
SERVICE RECOMMENDATIONS — GENERAL

There are many special valves manufactured for special valve conditions, which cannot be taken care of by the standardized equipment that is manufactured for regular distribution. One of these types of valves, which is one of the best known types of valves in the ball valve industry, is manufactured by the Jamesbury Corporation. The Jamesbury Corporation has put together complete data indicating service conditions as illustrated herewith. Complete tables such as this partly reproduced sample can be found in the libraries of most architects and engineers.

Valve troubles can be avoided by getting a thorough knowledge of the service requirements involved in the valve installation. The selection of valves from tables of service conditions as published by manufacturers who incorporate sound engineering and design in their valves (manufactured under quality controlled procedures) is the function of the consulting engineer and architect.

<table>
<thead>
<tr>
<th>Suggested Fluid Services</th>
<th>CONSTRUCTIONAL MATERIALS</th>
<th>SEAT &amp; SEAL MATERIALS</th>
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</thead>
<tbody>
<tr>
<td><strong>Ferric Nitrate</strong></td>
<td>D</td>
<td>A</td>
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<tr>
<td><strong>D</strong></td>
<td>A</td>
<td>A</td>
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<td><strong>C</strong></td>
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<td><strong>A</strong></td>
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<td>A</td>
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<tr>
<td><strong>Ferrous Chloride</strong></td>
<td>D</td>
<td>D</td>
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<td><strong>C</strong></td>
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<td>A</td>
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<td><strong>A</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Ferrous Sulfate 10%</strong></td>
<td>B</td>
<td>C</td>
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<tr>
<td><strong>A</strong></td>
<td>A</td>
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<td><strong>B</strong></td>
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<tr>
<td><strong>D</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Ferrous Sulfate (Sat)</strong></td>
<td>C</td>
<td>D</td>
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<tr>
<td><strong>C</strong></td>
<td>C</td>
<td>D</td>
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<td><strong>B</strong></td>
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<tr>
<td><strong>A</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Flourine (Dry)</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>B</strong></td>
<td>A</td>
<td>A</td>
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<td><strong>C</strong></td>
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<td><strong>D</strong></td>
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<td>A</td>
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<tr>
<td><strong>Fluorosilicic Acid</strong></td>
<td>A</td>
<td>A</td>
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<td><strong>B</strong></td>
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<td><strong>C</strong></td>
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<tr>
<td><strong>D</strong></td>
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<td>A</td>
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<tr>
<td><strong>Formic Acid (Dilute Cold)</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Formic Acid (Dilute Hot)</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Formic Acid (Cold)</strong></td>
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<td>A</td>
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<tr>
<td><strong>Formic Acid (Hot)</strong></td>
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<td>A</td>
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<tr>
<td><strong>Fruit Juices</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Freon (All Types)</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Furfural</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Gallic Acid (5%)</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Gasoline (Sour)</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Gasoline (Motor)</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Gasoline (Aviation)</strong></td>
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<td>A</td>
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<tr>
<td><strong>Gelatine</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Glucose</strong></td>
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<td>A</td>
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<tr>
<td><strong>Glycerol</strong></td>
<td>A</td>
<td>A</td>
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<tr>
<td><strong>Heptane, Hexane</strong></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td><strong>Hexanol, Tertiary</strong></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td><strong>Hydrobromic Acid</strong></td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td><strong>Hydrochloric Acid</strong></td>
<td>A</td>
<td>C</td>
</tr>
<tr>
<td><strong>Hydrocyanic Acid</strong></td>
<td>A</td>
<td>C</td>
</tr>
</tbody>
</table>

A—Recommended, B—Fair, See Introduction. C—Probably Unsuitable. D—Unsatisfactory, Blank—Lacking Information

Technical and factual information is available, to help you solve your particular valve problem, contact: Wisconsin Plumbing & Heating Supply Co., 822 S. 2nd St., Milwaukee.
TEMPERATURE AND PRESSURE ARE BALANCED AUTOMATICALLY IN SINGLE-DUCT SYSTEM

CARRIER "BREAKTHROUGH" MAKES VARIABLE VOLUME AIR SUPPLY PRACTICAL FOR CLOSE ZONING

AN ENTIRELY NEW kind of air conditioning system is made available to you by the new Carrier Moduline Weathermaster units.

With this very simple single-duct system, it is now possible to maintain accurate temperature control . . . room by room, or module by module . . . in spaces of any size. Moduline units do this by varying the volume of cool air discharged into the spaces served, according to changing needs . . . but with none of the disadvantages formerly associated with this method.

Self-controlling Moduline units compensate constantly for duct pressure changes. At the same time, air delivery is smooth and quiet at all volumes from low to maximum. There are no drafts, no stratification, no waterfall, no dead spots. Moduline is especially economical in interior spaces where close zoning is needed for offices, conference rooms, etc.

No field balancing is required. Just dial the maximum cmf to match the space design load, and the unit does the rest. Built-in controls are powered by system air that eliminates external connections — wiring or pneumatic.

PERMIT HANDSOME CEILING DESIGNS

Carrier knows that ceiling equipment must also participate readily in a pleasing ceiling design. Moduline styling is so handsome and flexible that many architects have achieved attractive results in a variety of arrangements including hung ceilings of all popular types — acoustical tile, exposed T-bar, concealed Z-bar and plaster.

The 1' x 4' face dimension of the unit coordinates with standard light fixtures, tiles and panels. The units may be installed as random singles, linked together in pairs, or coupled in lines of any length. With planned integration of lights and units, interior zones of any size or shape can be designed to assure great flexibility of space usage.

If partitions should be relocated at a later date, the units remain in place with no more than a simple twist of a dial required to compensate for the changed load. Each Moduline unit generally handles from 50 to 150 square feet, depending upon job requirements.
Central Air Conditioning in New Perspective

EXCLUSIVE NEW CARRIER ADVANTAGES SIMPLIFY DESIGN AND INSTALLATION, PERMIT CLOSE CONTROL

SINGLE DUCT DISTRIBUTION reduces first cost . . . is easier to design and install . . . saves space . . . eliminates duplication . . . simplifies central station control.

VARIABLE VOLUME shifts cooling capacity around the building to follow moving heat sources like lights and people . . . eliminates most reheat of refrigerated air . . . cuts initial and operating costs.

SELF-REGULATING PRESSURE CONTROL permits each unit or group of up to four units to admit the exact quantity of cool air needed . . . no matter what adjacent units do, and no matter how duct pressure fluctuates.

BUILT-IN CONTROL eliminates complex separate pneumatic and electric dampers and thermostats . . . centralizes responsibility for equipment performance. One unit with control governs up to four Modulines.

REASONABLY CONSTANT AIR MOTION in the occupied space, even when Moduline delivers below its maximum air volume. Twin-slot lateral distribution turns over all air in room . . . never 'dumps' cold air on occupants.

MODULAR DESIGN fits trim Moduline into standard construction . . . integrates with lighting in dozens of patterns . . . allows future partition changes without air system change.

EASE OF INSTALLATION is provided by linear design. An entire series of units can be connected at floor level and raised into position. Factory-supplied accessories meet every connection need.

SYSTEM BALANCING ELIMINATED by Moduline's calibrated cfm setting. Dial is set to desired number of cfm at installation . . . self-regulating pressure control does the rest.

CENTRAL AIR allows free cooling from 100 per cent outside air whenever outdoor temperature is below 50° . . . gives positive ventilation of every space to prevent stuffiness.

CONTROL ACCESSIBILITY eliminates access panels and ceiling openings. All working parts of Moduline accessible through door in unit face.

INSTALLS IN ALL STANDARD CEILINGS — plaster, lathboard . . . metal pan . . . semi-exposed or exposed tee . . . Simplex . . . acoustical fiber . . . exposed panel suspension. Even attaches to exposed ductwork.

NO WHISTLING, NO FLUTTERING as Moduline gradually changes air volume . . . sound frequencies change uniformly . . . no water throttling noises with all-air cooling . . . internal insulation absorbs sound.

35° TEMPERATURE DIFFERENCE between supply air and room air with Moduline if you wish. Complete mix of supply air with room air before it circulates to occupants. Cuts duct size and fan horsepower.

ANY DUCT PRESSURE from 0.75 to 5 inch wg allows either big ducts to cut fan horsepower or small ducts to save space.

WE WILL GLADLY WORK WITH YOU

LEARN HOW the new Carrier Moduline Weathermaster ceiling terminals can help you solve both esthetic and functional problems with an entirely new kind of air conditioning system.

Your consulting engineers will be happy to work with you in developing effective and economical systems to fit the exact needs of any building design job. Photographs and data are available to show you how architects have handled many specific problems attractively and efficiently with Moduline equipment.

Give us a call . . . we would appreciate an opportunity to serve you. Remember — the exclusive new advantages of Carrier Moduline ceiling terminals are available in Wisconsin exclusively through the Crichton Corporation.

Exclusive Carrier distributors in Wisconsin

CRICHTON CORPORATION

1114 N. Fourth Street
Milwaukee, Wisconsin 53203
Phone: 276-8950

Distributors of plumbing/heating/air conditioning equipment • refractories • pumps • industrial supplies
Here are some photos showing a recent Red Jacket installation by one of our key dealers...

**H. A. BERES, INC.**

New Berlin, Wis.

... at the New Berlin Redi-Mix Co. Among Beres' many other Red Jacket Pump installations was a large pump installation at the Holy Apostles School and Rectory, also in New Berlin.

Mr. Beres on the scene at the New Berlin Redi-Mix installation.

The Beres crew putting the Red Jacket Pump on the crane, prior to installation.

"Lining up" the pump for installation. Red Jacket Pumps come in a wide choice of sizes.

CRICHTON CORPORATION will gladly furnish you with performance comparison charts on Red Jacket Pumps. And, of course, Crichton hydraulic engineers are always happy to give you information and advice pertaining to your hydraulic pumping requirements. Crichton is the exclusive Red Jacket distributor in Southeastern Wisconsin.
for Modern, Advanced Plumbing Equipment

FOR THE newest developments in quality plumbing equipment (heating and air conditioning, too!) . . . for the most dependable, convenient, willing service anywhere . . . call on the CRICHTON CORPORATION of Milwaukee.

You can always depend on Crichton for modern, advanced, famous-brand fixtures . . . broad lines . . . ample stocks . . . prompt, attentive service. At Crichton, you can be sure you'll find exactly the right units for each individual job condition.

And that's not all! Crichton is the only major wholesaler in Wisconsin to maintain a large showroom of the latest plumbing equipment in smart, modern bathroom set-ups . . . for your convenience . . . to give your clients an attractive picture of how these fixtures can look in their new homes.

Crichton is the name — pronounced "Cry-ton." 276-8950 is our phone number. Give us a ring on your next job . . . or bring in your clients anytime to see typical installations of the latest bathroom equipment.

THESE TOP QUALITY PRODUCTS...WITH EXPERT SERVICE . . . ARE ALL AVAILABLE AT CRICHTON

- KOHLER BATHROOM AND POWDER ROOM FIXTURES IN ACCENT COLORS
- WASTE KING UNIVERSAL FOOD WASTE DISPOSERS
- ELKAY STAINLESS STEEL SINKS (STANDARD AND CUSTOM)
- SLANTFIN RADIATORS
- CARRIER FURNACES
- BRUNER WATER CONDITIONERS
- RED JACKET PUMPS
- DELTA FAUCETS
- CARRIER ROOM-TYPE AND CENTRAL AIR CONDITIONING
- SYMMONS SAFETYMIX SHOWER VALVES
- TUBE TURNS WELDING FITTINGS

- RHEEM FASHIONETTE BATHROOM AND POWDER ROOM FIXTURES
- RHEEM DEMAND-O-MATIC DOMESTIC WATER HEATERS
- SHOWERFOLD DOOR BATHTUB AND SHOWER ENCLOSURES
- NATIONAL U. S. BOILERS AND RADIATION
- KEWANEE BOILERS
- MODINE UNIT HEATERS
- MISTIC-AIR HOME HUMIDIFIERS
- MOEN FAUCETS
- POWERS REGULATORS
- JOSAM DRAINS
- STEEL AND COPPER PIPE, TUBING AND FITTINGS

Call Crichton . . . for prompt service on top brands

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Milwaukee, Wisconsin 53203
Phone: 276-8950

Distributors of plumbing/heating/air conditioning equipment • refractories • pumps • industrial supplies

Wisconsin Architect — September, 1965
Mo-Sai is a name that sparkles when architects discuss materials and methods, and no one is happier to hear talk about Mo-Sai than Edward Olsen of the Badger Concrete Company of Oshkosh, Wisconsin. As the only Mo-sai licensee in Wisconsin (as well as in several adjacent states), Badger has produced the exposed aggregate precast concrete units used in some of the most-talked-about buildings in this and nearby states.

But the Badger Concrete Company's reputation for skill and know-how in concrete goes way back before the days of Mo-Sai. Chris Olsen, founder of the company, was impressed with some of the new concrete products he saw in use in Denmark during a trip back to the old country in 1900. His curiosity aroused, Chris experimented with concrete and concrete products in the basement of his home upon his return to America. Finally he felt confident enough to start offering some of the results of his experimentation for sale. They sold — and the Badger Concrete Company was off to a great start!

By 1904 the business was producing blocks, sills, lintels, and other construction materials. In the years up to and through the 1920's Badger grew steadily in business and production facilities. Chris's son, Edward, joined the firm in 1914 and, except for service in the First World War, has been with the company ever since. Currently Edward Olsen is president of the company, with M. H. Olsen as vice-president and F. C. Olsen as secretary.

By 1940 the Badger Concrete Company was well enough known — and respected — to be invited to join with other master concrete producers in a select group organized to manufacture and promote the newly conceived product known as "Mo-Sai."

Mo-Sai had been pioneered by John Joseph Earley and Louis Falco, with the process being named "Mo-Sai" by Falco because of its mosaic textured appearance. Mo-Sai was a case of the right material appearing at the right time. Color and texture were assuming their rightful place in architectural design, and architects soon saw the possibilities of this new and exciting material. Mo-Sai had the advantage of rigid quality standards and manufacture under factory controlled conditions. It also offered, through franchised local manufacturers, all the benefits of combined research, technology, and Mo-Sai manufacturing experience developed in the various plants across the United States and in Canada.

With the advent of Mo-Sai, the Badger Concrete Company's business began to really thrive. In 1954 the firm purchased 18 acres of land on the outskirts of Oshkosh. There they built a new plant to house the special products division, which includes Mo-Sai panels and roof slabs. The older plant still contains facilities for the manufacturing of blocks, septic tanks, burial vaults, steps, and its administrative offices.

Thanks to the huge variety of combinations of color and aggregate finish, the scope of Mo-Sai as a construction material seems unlimited — and with it the growth of Badger Concrete Company.
Badger Mo-Sai in a variation of colors and textures perform numerous functions on Oshkosh's new science center. Badger Mo-Sai panel, mullions, and facia on the main building have an exposed surface of fine white quartz. Curtain walls of Badger Mo-Sai with an exposed brown quartz aggregate surface enclose the one story classroom area. On the planetarium, Badger Mo-Sai beams in graceful arcs of white quartz curve into the roof line while contrasting brown Mo-Sai wall panels match those on the classrooms. The glistening surface of white quartz Mo-Sai is also carried into the interior of the planetarium where it is used on the columns, beams and ceiling. For further information on uses of versatile, enduring Mo-Sai contact:
I write this report from deep in the Northland Woods where for each of the last eight years our family has enjoyed a brief respite from ordinary things. Having taken these vacations at about the same time each year some wonderful friendships have grown with families who similarly head this way in early August.

We got together the other day at a cocktail party in one of the cabins. A few new guests were there and after everyone had met and learned of each other’s job I found myself in a little knot of professional persons—a doctor, two dentists, a college professor, a lawyer and a lawyer turned investment banker. The conversation soon centered on professionalism. Everyone seemed willing and pleased to discuss his work. It wasn’t long and we learned that the doctor was an OB man, one dentist was an Orthodontist, the other a Periodontist, the college professor was a Ph.D. doing research in biochemistry and the lawyer was a Patent Attorney. But what else was this architect? Did he specialize? Well, yes, a sort of forced specialization. He also didn’t do certain buildings, not necessarily by choice, but because the opportunity had not presented itself. He was, simply stated, an architect.

The Ph.D. then gave his impression of an architect. He said he was the professional of the building industry. He said he knew engineers were also professionals of the industry but that not too long ago he thought the two were synonymous. The investment banker said that he’d been on several building boards including a school board and when one thought of building he thought of an architect first and an engineer later. Someone else noted that with the increase in volume in the construction business since, say, the war, more and more people began to know what an architect really was. He remembered that people always knew what an OB man was and a GP and an Orthodontist, but that the day when people thought architects “drew blueprints” had passed.

A bystander who earlier joined this circle of Martini-drinkers observed that it was impressive to hear so many professionals discussing their work. He admired professional men as leaders. They were people, he said, who were governed by ethical standards and he could trust them. He said that of all the men there he felt that the architect was carrying the greatest burden of responsibility and he explained why. He did a wonderful job for architects. The other men agreed in varying degrees. It made me feel great. It’s a fine “image” we have—at least in that group.

It was clear to me that afternoon that our ethical code is our best public relations tool. Ever think of it that way?

**P/C Producers’ Council**

This is the big month for this Chapter of the Producers’ Council. I refer to the annual Golf Outing which has fast become one of the major activities directed to architectural and engineering people in this area. Dean Harriman, and Claude Gagnon have teamed up as co-chairmen and really have done a job. Remember those delicious “Brats” and tap beer at the 10th tee last year? That was done by Jack Workman and he is back this year to do it again. I’m not sure, but I think the boys have cooked up some new surprises for this one too. Oh, yes, the place and date, and for heaven’s sake put this on your calendar! It’s at Port Washington Country Club again, and the date is September 21. Tee off times will be assigned so get your reservations in as soon as you get the first mailers.

Last month I asked if any architects or their staff used to play a band instrument. Come on you guys, think of the fun we could have at these outings and the big AIA Convention being planned for next year. If you are interested, call me at Owens-Corning Fiberglas in Milwaukee, telephone, 344-3811.

Russell Sandhoeftner
President, Wisconsin Chapter
Producers’ Council
Outstanding examples of Milwaukee area architecture incorporating hydronic heating and cooling systems highlight the 10 p.m. Sunday Weather Show on WISN-TV, Channel 12, starring John Coleman. In addition to his unique brand of weather forecasting, Coleman will present commercials which feature buildings of unusual architectural design, with the latest in modern hydronic systems. He will highlight the benefits offered by hydronic systems in personal comfort, dependability and long-range economy. The 52-week series is sponsored by Heating-Piping-Cooling Inc.
A first class job deserves a first class product. Specify plaster!

More and more builders are realizing that today's quality is directly related to tomorrow's new job. Maybe that's why more and more builders are suddenly becoming quality conscious.

When specifying plaster you know you're going first class. Look at the record: Plaster is fireproof. Plaster sounds better — eliminates more between room noises than any look alike substitute material. Plaster maintains and decorates easier and better. In fact, plaster is about the most versatile building material around.

And here's the clincher — You'll find that genuine plaster actually costs no more!

When is the last time you got a quality plaster bid? Isn't it about time you did?

It might be good for your quality image.

Specify genuine lath and

PLASTER

it lasts

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3274 N. 77th Street, Milwaukee, Wisconsin 53222 • Call A. T. Krueger at 442-4650