Library

“Technology In Architecture”  March, 1961

INDIANA ARCHITECT
Caloric Announces Completely New "Ultramatic" Built-in Gas Ranges!

Features of the new Caloric oven-broiler units include dramatic contemporary styling; an 18"-wide oven that fits a standard 24"-wide cabinet opening; removable oven and broiler doors for easy cleaning; a "Keep-Warm" oven system allowing temperatures down to and including 140 degrees; and a choice of seven standard colors, including black, white, coppertone, yellow, turquoise, pink, or brushed chrome. The new Caloric built-ins are also available with combination electric clock and interval timer; Roto-Roaster rotisserie; illuminated control panel; automatic clock control; and a meat thermometer that turns the oven off automatically.

The new "Ultramatic" ranges are color-coordinated to match other Caloric products including countertop units, sinks, splash plates, and ventilating hoods.

An unusual "extra" offered with the Caloric units is a complete kitchen color planning service by nationally-known New York color stylist Beatrice West. The color planning service is available free to homemakers or builders using Caloric appliances.

Years of Experience Mean The Finest in Architectural Panels By Caloric

Caloric's experience and facilities produce the finest in porcelain-enameled curtain wall panels. Our know-how in metal fabricating and porcelain enameling is based on many years of experience producing the high-quality kitchen appliances demanded by the American housewife.

Skilled ceramic engineers, enamel craftsmen and metal workers, utilizing Caloric's modern laminating presses, metal fabricating, tool and die facilities and huge porcelain enameling plant supply the construction field with high-quality porcelain for a variety of applications.

To express our faith in the expansion of the curtain wall industry, Caloric has spent, during the last year, in excess of a million dollars on new equipment and facilities to create the finest porcelain enameling and laminating departments in the world.
Grace Methodist Church—Valley Stream, N. Y.
General Contractor: Willart Associates, Inc., East Rockaway, N. Y.
Masonry Contractor: Sorrentino Contractors, Inc., Inwood, N. Y.
Tebco Face Brick Supplied by:
Andrew Miles Stone Co., Lynbrook, N. Y.

NOW... 37 Color Combinations! 4 Textures!

The outstanding jobs are going Tebco! And for good reason. No matter what type of building—municipal, commercial, industrial, residential—Tebco Face Brick offers limitless design possibilities. Evans' big million-brick-a-week production assures fast, dependable delivery of the colors, sizes, and styles you need. For lasting beauty that never loses its appeal, design and build with Tebco. It meets all ASTM and FS standards. Write for new full-color Tebco Catalog.

Tangerine Blend, Standard, 45 K.

THE EVANS BRICK COMPANY

General Offices: Uhrichsville, Ohio • Telephone: Walnut 2-4210
Sales Offices: Cleveland, Ohio • Columbus, Ohio • Pittsburgh, Pa. • Detroit, Mich.
Bay City, Mich. • Fairmont, W. Va. • Toledo, Ohio • Philadelphia, Pa.

One of the nation's largest producers of Clay Pipe, Clay Flue Lining, Wall Coping, Plastic Pipe and related construction materials, with over 50 years of faster, friendlier service.
The sign of economical, care-free summer comfort equipment from 3 to thousands of tons of cooling capacity—for homes, business and commercial establishments, institutions and industries.

Specify

...trouble-free comfort!

low-cost operation!

**GAS Summer Air Conditioning**!

Gas Air Conditioning offers many advantages in addition to a wide choice of equipment:

**Flexibility of Location.** Minimum vibration and low noise level of light weight Gas equipment permit installations from basement to roof top.

**Structural Savings.** Dead loading can be used with Gas equipment as opposed to live loadings required by large, high speed equipment.

**Year-Round Use of Boiler.** Using Gas-fired heating boiler to supply steam or high temperature hot water to summer air conditioning equipment improves annual load factor of boiler.

**Wide Range of Operation.** Gas air conditioning provides maximum flexibility of loading.

Call or write for specific information regarding types and sizes of equipment, gas rates, and engineering data.
Cinder Block's TEE-JOIST Floor and Roof System, featuring handsome recessed filler block, was used to excellent advantage in this Indianapolis office.

CONCRETE

No Forming Required . . . Rigid . . . Firesafe
Attractive . . . Acoustical . . . Maintenance-Free

ARCHITECTS and building engineers with discriminating taste and a knowledge of construction values have found the TEE-JOIST SYSTEM to be the very finest. In addition the system offers a major contribution to efficiency and all-around economy in construction, as well as combines the advantages of precast and cast-in-place methods.

Ceilings may be flush or handsomely recessed with precision-ground, light-weight filler block between load-bearing, factory cast concrete TEE-JOIST . . . all covered with a steel reinforced concrete slab to form a floor or roof. It's light and strong . . . cuts deadweight load without cutting strength. Saves materials, manpower and money, too. Compare and see for yourself the many advantages of this superior system. Call today for the facts.

CINDER BLOCK & MATERIAL CO.
2200 N. Montcalm St. Phone ME 2-1432 Indianapolis
WOOD POST
SCULPTURED BY BLUMCRAFT IN HAND RUBBED OIL FINISH • SEND FOR GENERAL CATALOG M-61

Blumcraft of Pittsburgh
Copyright 1961 by Blumcraft of Pittsburgh • 460 Melwood St., Pittsburgh 13, Pennsylvania
The Capitol Medical Building, designed by Fleck, Quebe and Reid, Inc., Indianapolis architects-engineers, reflects an appropriate introduction for this March, 1961 issue on “Technology in Architecture.” Now nearing construction at 1925 North Capitol Avenue, in Indianapolis, the Capitol Medical Building was designed and constructed as a “lift-slab” structure, a relatively new type of building design for this area. A further explanation of this building and its interesting design is provided on Page 23.

Again, Architects Specify Flameless Electric Heating

- Here is another example. Architects are specifying safer, cleaner, more dependable electric heating in modern schools, churches, hospitals and commercial buildings. Flameless electric heating is practical for home use, too. See us today for complete details!

PUBLIC SERVICE COMPANY OF INDIANA, INC.
PENTELIC MARBLE HAS ITS POINTS, BUT NOTHING GOES AS FAR AS STEEL CURTAIN WALLS IN SOLVING THE ARCHITECT’S PANDORA’S BOX OF PROBLEMS. FOR AN ENTERTAINING LOOK AT THE ARCHITECT’S PLIGHT SEE CURTAIN TIME, A 16 MM, COLOR, 15-MINUTE MOTION PICTURE PRODUCED BY SYMPATHETIC PEOPLE. BORROW A PRINT BY WRITING U.S. STEEL, FILM DISTRIBUTION CENTER, 525 WILLIAM PENN PLACE, PITTSBURGH 30, PA

SURE WE GOT A NAME FOR IT....CURTAIN WALL!
Le Corbusier Wins AIA Gold Medal

Le Corbusier, the world famous, Swiss-born architect, has won the 1961 Gold Medal of The American Institute of Architects.

Last year's AIA Gold Medalist was Mies van der Rohe. In 1959, Walter Gropius received the coveted honor.

Le Corbusier, whose real name is Charles-Edouard Jeanneret, was elected winner of the AIA Gold Medal by the Institute's Board of Directors meeting at the Octagon in Washington, D.C., AIA's national headquarters.

The famous architect, who resides in Paris, France, and is now a French citizen, has been invited to attend the AIA national convention in Philadelphia, April 23 to 28, to receive the honor in person.

Le Corbusier was born in La Chaux-de-Fonds, Switzerland, in 1887. His career as architect, painter, sculptor and writer began before World War I in the studio of Auguste Perret in Paris and Peter Behrens in Berlin, both pioneers of modern architecture.

His first book, "Towards a New Architecture," published in 1923, firmly established him as a controversial but leading prophet of modern architecture and city planning. His work continues to have a profound influence on world architecture.

The originality and uncompromising nature of his designs, kept him from doing much building during the early part of his career. His plans for buildings that were never realized, such as the League of Nations Palace in Geneva (1927), achieved as much fame as those that were, such as the still standing Ministry of Light Industries in Moscow (1929 to 1935) and the Swiss Pavilion at the Paris University City (1932).

In 1938 Le Corbusier, with the Brazilian architect Oscar Niemeyer and others, took part in drawing up plans for the Ministry of Education in Rio de Janeiro. It was completed in 1943. Many architects consider this building the forerunner of today's best office buildings both in structure and design. It consists of a glassy vertical slab raised on stilts with sun-control louvers and a sculptural superstructure of penthouses containing mechanical equipment and recreation facilities. A freeform structure, housing an entrance hall and garage, is partly "slid" under the raised slab.

Although he visited the United States in 1935 to lecture here, Le Corbusier became best known in this country when he served as representative of France on the United Nations Headquarters Commission immediately after World War II. He participated in the early stage of designing New York's UN headquarters.

Most renowned among Le Corbusier's recent work are his revolutionary apartment blocks in Marseille, France (completed 1952) and his chapel "Notre Dame du Haut" at Ronchamps, France (completed in 1955).

His largest project is the complete planning and design of Chandigarh, the capital of Punjab, a state of India. He received the commission to create a city for 150,000 people on a windswept plain at the foot of the Himalayas in 1951. Of Chandigarh's first completed public building, the Palace of Justice, one critic has written that Le Corbusier "achieved the timelessness that will make his architecture a permanent treasure of man's history."

Other Gold Medal Award winners were sculptor Alexander Calder, textile weaver Anni Albers, industrial designer Florence Knoll, and architectural photographer Ezra Stoller.

Alexander Calder, of Roxbury, Connecticut, was awarded the AIA Fine Arts Medal "for unique originality in devising Wire Sculpture (1927), Stabiles (1931), Mobiles (1932), Constellations (1940), and Gong and Towers (1951), as applied to architecture."

Anni Albers, of New Haven, Connecticut, was awarded the AIA Craftsmanship Medal "for her pioneering approach to the art of weaving, as an abstract expression of design, introducing new techniques over a long period of years."

Florence Schust Knoll, of New York City, is director of design and planning of Knoll Associates, Inc. She was awarded the AIA Industrial Design Award "for her broad role in developing interior design of manufactured furniture, textiles and interior design accessories in the service of contemporary architecture here and abroad."

Ezra Stoller, renowned architectural photographer of Rye, New York, was awarded the newly-established AIA Architectural Photography Medal "for his unique leadership in raising the standards of architectural photography to a high level of performance unmatched by others."

All awards will be formally presented during the AIA Convention at Philadelphia, April 24 to 26.
No New School Design is Complete without M.P.A.T.I. Stratovision by Westinghouse

Now! From Westinghouse — the pioneers in Stratovision and a major contributor to "Em Patty," Midwest Program on Airborne Television Instruction, comes THE ONLY "Em Patty" RECEIVER that fulfills EVERY requirement and recommendation for good vision and safety.

Such exclusive features as Shock-safe WOOD cabinets, phono jack for music instruction, isolated power transformer, long-life heavy duty power cord and front mounted controls and speaker.

Westinghouse receivers and Blonder-Tongue distribution systems are matched for perfect compatibility.

Westinghouse
EDUCATIONAL TELEVISION

RECEIVERS
WESTINGHOUSE APPLIANCE SALES
(Mr. John McClements)
1560 Stadium Drive
ME 2-3301

DISTRIBUTION SYSTEMS
BLONDER-TONGUE
Commercial Electronics, Inc.
15 S. Sherman Drive
FL 9-0886

FOOD SERVING
Equipment and Supplies

Everything for the preparation and serving of food in:

- Restaurants
- Hotels
- Hospitals
- Clubs
- Schools
- Churches
- Institutions
- Industrial Plants

CHINA — GLASS — SILVER
UTENSILS — FURNITURE
KITCHEN EQUIPMENT

NATIONAL
CHINA & EQUIPMENT CORP.
214-218 E. Fourth St.
Phone NOrth 4-5191
MARION, INDIANA

502 Massachusetts Ave.
Phone MEIrose 5-3564
INDIANAPOLIS
Stratovision

A NEW CONCEPT IN EDUCATION

The effectiveness of television as an important new means of classroom instruction has been clearly demonstrated. It has been proven that instruction with the aid of television not only gives more students the benefit of specially trained and talented teachers, but that it also affords wonderful new learning experiences. In the 1938-39 school year several hundred thousand grade, secondary and college students received televised instruction as part of their regular study program. This widespread and increasing use of television indicates its growing acceptance and importance in our American school system.

Yet educational television, today, still suffers from a serious drawback—its limited broadcast range. Ground based TV stations are limited in their telecasting range to line-of-sight distances, or normally about 35 to 50 miles from the transmitter. Consequently, educational television is most often available to schools in large Metropolitan areas. Where help is most needed—in small towns and rural areas—television is unable to lend educational assistance.

Originated in 1944 by Charles E. Nobles, a Westinghouse electronics research engineer, the idea for airborne television has since been proven a feasible method of long distance telecasting. Successful demonstrations of Stratovision telecasts have shown that a TV signal transmitted from a specially equipped aircraft, flying at an altitude of several thousand feet, could be received on TV sets in classrooms as far away as 200 miles.

Thus, by elevating the transmitting station a few miles above the earth, it is now possible to telecast courses to schools and colleges within a radius 4 times greater than ordinary ground based stations. Such a system means reaching many more students previously beyond the telecasting range. Within a radius of 200 miles of Montpelier, Indiana, educational telecast can reach a potential audience of more than five million students, in over 13,000 schools in six different states. Employed to its full capability, Westinghouse Stratovision will help bring a better education to millions of students in both large and small communities—and at a minimum cost per student.

The Midwest Program on Airborne Television Instruction, the first full scale operational testing of Stratovision, will sponsor a period of demonstration telecasts this month. The second phase of the program, September, 1961 to May, 1962, will constitute the first academic year of Stratovision telecasts during which educational courses on video tape will be received on TV sets in classrooms of all participating schools throughout the testing area.

Two DC-6AB aircraft based at Purdue University Airport will be used for transmitting the taped study courses. The second plan will act as a "standby" to assure reliability of operation. Each plane, a complete TV studio specially equipped by Westinghouse with two TV transmitters and a 24 foot UHF transmitting antenna, will telecast two separate courses of instruction simultaneously. Flying over Montpelier, Indiana, in a 10 mile radius, at an altitude of 23,000 feet, the plane will transmit six hours of instruction a day, four days a week during the school year.

To insure maximum use of the telecast courses, schools will be provided with a listing of courses offered and be able to purchase needed texts and other written aids. All printed materials will be carefully prepared to supplement actual courses received on classroom TV sets.

In addition to the schools receiving TV courses directly, local television stations in several major cities in the area will be encouraged to re-telecast the programs to schools in other outlying areas. The success of the M.P.A.T.I. program could make it a forerunner for similar school programs in other parts of the country.

Still another handicap in educational television has been the disparity between broadcasting potential and the size of the average school curriculum. A single ground-based channel providing only 12 half-hour courses in each school day, could not begin to serve a significant portion of the curriculum. However, recent Westinghouse studies in airborne television suggest the possibility that eventually each aircraft would be able to transmit six simultaneous courses of instruction. Such a multi-channel system would be able to cover a large portion of a school's curriculum at all grade levels, by providing a total of 72 separate half-hour courses during a regular six-hour school day. A broad study program would then be made available to a great many students at a reasonable cost per student.

By expanding the reach and variety of educational television, Westinghouse Stratovision holds promise of making an enormous contribution to American education. In fact, Westinghouse engineers are already envisioning the day when a relatively small number of aircraft might provide Stratovision educational telecasts to schools all across the country.
Steel
Aluminum
Enamel
Building Products

Public School No. 98 — Indianapolis;
Architects — Daggett, Naegele & Daggett, Inc.;
General Contractor — A. B. Cochran & Son, Inc.

The following products furnished by Architectural Building Products Company, Insulated Curtain Wall Panels; Valley Metal Products Company.

Engineered to Meet Exacting Specifications

Serving Schools ... Public Buildings
Churches ... Commercial Buildings

ALUMINUM and STEEL
CURTAIN WALL and WINDOW WALL
ALUMINUM and PORCELAIN FACIAS
SKY DOMES, PLASTIC MATERIALS
PORCELAIN ENAMELED PANELS
ALUMINUM and STEEL CANOPIES
TOILET PARTITIONS
FORMED ALUMINUM and STAINLESS STEEL

Unit Erection and Installation Provided
By Factory Trained Erectors

Architectural Building Products Co.

Lou Carner, Pres.

1433 N. Meridian St., Indianapolis, Indiana
ME 4-8351

GLOSS
SATIN

VARMOR
CLEAR FINISH GLOSS
Interior • Exterior • Marine

TOTALLY NEW
In Wood Finish DURABILITY!

Hard, Clear, Beautiful Wood Finish

* Gives You Superlative Performance
INSIDE, OUTSIDE, All Around Your Home

SUPER DURABLE, Clear Finish Gloss and Satin VARMOR is up to 100% more durable than conventional finishes on floors, paneled walls, siding, furniture — any interior or exterior wood surface.

HARDER, more resistant to abrasion than shellac, lacquer or common varnish. Also resists food acids, cleaners and detergents.

SO MAR RESISTANT that you can dent the wood, yet VARMOR won't chip or crack. Flows on easily. Dries quickly to a glass-like finish. Try it!

HATFIELD PAINT COMPANY, INC.
29 East Maryland
1031 N. Arlington Ave.,
Indianapolis — ME 2-4303
Edward D. James Elevated To Fellowship

Fellowship in The American Institute of Architects, the highest honor conferred upon an architect by his profession, has been bestowed upon Architect Edward D. James of Indianapolis. As announced by the Jury of Fellows of The A.I.A., the citation has been made for Service to The Institute, recognizing Mr. James' many years of active and effective work to improve the profession.

One of Indiana's best-known architects, Mr. James is the founder and president of Edward D. James & Associates, of Indianapolis. He is a former Treasurer and Past President of the Indiana Society of Architects, and is currently serving a three-year term of appointment on the Indiana State Board of Registration for Architects.

Mr. James also is currently chairman of the A.I.A. Committee on Church Architecture, chairman of the I.S.A. Committee on the Preservation of Historic Buildings, and Preservation Officer for the preservation of historic buildings in Indiana.

He maintains an active membership and interest in the National Trust for Historic Buildings, the Indiana Historical Society, the Museum of Modern Art, the Construction League of Indianapolis, the Newcomen Society of North America, the Service Club of Indianapolis, the Society of Architectural Historians, the School Facilities Council, the Marion County Residential Builders, the National Association of Home Builders, the Gargoyle Architectural Scholastic Honorary, the Art Association of Indianapolis and the Brown County Art Association.


Born in Indianapolis on October 14, 1897, Mr. James recently moved his permanent home to Town Hill, Brown County, near Nashville. He and his wife, Catharine Lewis James, have two sons, David L. and Stephen E.

Mr. James attended Butler University, and received his Bachelor in Architecture from Cornell University in 1923. He served as a 1st Lieutenant in the Army during World War I, and as a Lt. Colonel during World War II. He has travelled extensively in Europe and in Mexico, and two years ago established a travel-study fund so that the associate members in his firm could also take advantage of European travel and study.

Mr. James and his firm have designed innumerable churches, schools, residences and commercial buildings throughout Indiana, but his best-known works include:

Indiana University Men's Residence Hall, Bloomington, which received a Merit Award from Institutions Magazine in 1952.

Student Union Building, Indiana University Medical Center, Indianapolis, which received a First Award from Institutions' Magazine in 1946.

Indiana University Memorial Union Building, Bloomington, which received a Merit Award from Institutions' Magazine in 1959.

Eastgate Christian Church, Indianapolis, winner of an ISA-AIA Citation of Merit in 1959.

Saint Mark’s Methodist Church, Bloomington, winner of an Honorable Mention Award from the Church Architectural Guild of America in its 1958 National Award Program.

All Residence Halls on the Indiana University campus at Bloomington since 1946, totalling approximately $60 million worth of construction.

Terminal Building Weir Cook Airport, Indianapolis.
New Miracle MICARTA PANEL for WALL

Vertical Surfaces — Truly Belongs Everywhere!

PANEL WALL
- 11 Stunning colors and patterns, 2 fine finishes
- 16" x 96" tongue-and-groove panels
- Eliminates plaster, paint, wallpaper
- Lower-than-ever erection costs...
- Staples directly to studding or furring strips...
- No dry wall
- Walls go up in minutes
- Won't crack, chip, craze or fade...
- Stronger than ceramic tile; no grouting necessary
- No maintenance...
- Ever!
- Resists scratches, stains, alcohol, alkalis, impact and heat up to 275°F.

WATER PROOF PANEL WALL
- 6 Colors — 1 finish
- 24" — 48" widths, 5' — 8' heights, butt joint
- No maintenance, completely water-proof
- Adheres directly to studding or furring strips
- Walls go up in minutes
- Won't crack, chip, craze or fade...
- Stronger than ceramic tile; no grouting necessary.

DISTRIBUTOR
SEWARD SALES CORPORATION
ELKHART, INDIANA
740 South Main Street
INDIANAPOLIS, INDIANA
1101 East 40th Street
CINCINNATI, OHIO
3660 Michigan Street

Ceramics Used in Building by the Ancients, Are Revived by Today's Architects

A building material developed 4,000 years ago is being used today to give a modern appearance to commercial establishments of many kinds.

Banks, stores and industrial concerns are decorating their premises with ceramics, which offer a freshness in style and can be designed to reflect the individual nature of a business.

Mrs. Lee Rosen, who supplies ceramic art for architects and designers, points out that ceramics may be molded in almost any manner. With her husband, she runs Design-Technics, New York City, an organization that creates ceramics for use on buildings.

For Information, Call or Write
BLAKLEY
Granite, Marble & Tile
3502 E. NEW YORK
INDIANAPOLIS, INDIANA
Writing this article and listening to the refrains of "Victory at Sea," I can't help but correlate the recording to one of the newest and perhaps most ambitious committees formed within the structure of The American Institute of Architects—The Lake Michigan Region Planning Committee. Here, within the closed door meetings of the group, unilateral action by members of the four states ringing the Southern end of Lake Michigan is not a hoped for—but rather an accomplished fact!

The recording starts slowly, like the young blush of soft waves caressing the sands of a quiet beach, and as the music grows through the passage of time, it becomes melodically strong; so it is with this committee. The basic stages of organization are virtually completed. The score has been set down on paper and the orchestra has taken its place; the conductor has raised his baton, and now, with a soft whisper of a strong voice to be, the committee is beginning to play the symphony of "Regional Planning—Objectives and Recommendations."

The orchestra is implemented with some of the finest professionals in the field today; the composers are assisted in their scores by men who have given an entire professional lifetime to the study of the complex score being written for "Regional Planning (Area Development)." Men of the stature of Ira Bach, Commissioner of the Department of City Planning, City of Chicago; Paul Oppermann, Executive Director, Northeastern Illinois Metropolitan Area Planning Commission; these men are but only two, who assist in the composition within their given area of Regional Concern. Brigadier General Thomas De F. Rogers, C.E., District Engineer, representing General Itschner, Commandant of the United States Army Corps of Engineers presents to the score the concept of the Federal Government, for actually, much of what we do is influenced by Federal planning.

The notes are not all set down on paper—for only time and evolution will finalize what this committee puts onto its score. The opening refrain has been played; the unilateral formation of the committee. The overture has begun in the recommendations already made to a member state on the formation, by State Legislative Statute, of a regional planning commission to study and develop its particular area in a coherent, systematic program of integrated development. The overture is nearly complete; the conductor is thinking ahead toward the passages to come; the orchestra is already placing the instruments necessary for the playing of the score into position; now, now the theme. The body of this symphony of planning is about to be presented—presented to you—the Architect, you—the planner; you—the government official responsible to those who have placed you in a position of confidence and trust; you—the professional, who is so close a part of this committee's work (geographer, economist, administrator, engineer, sociologist). To you we direct our efforts for through you, by a combined effort and effort, it is the public to whom the Symphony of Regional Planning will be played.

Now, to drop the metaphors of the sea and music, let me present, as a member of the committee, some of the present objectives and areas of study of the Lake Michigan Region Planning Committee:

1. Transportation
   A. Arterial Routes—land
   B. Arterial Routes—sea
   C. Terminal Facilities and area relationship—air
2. Pollution
   A. Air
   B. Water
3. Regional Planning (General Aspects)
   A. Local influence
   B. County influence
   C. State influence
   D. Federal influence
4. Conservation
5. International considerations affecting regional planning
6. Transitional changes in Industry

The above represents some of the major areas now being studied. It is by no means a complete study list. For instance, in illustrating how the concern of the group functions, let me magnify item #1—Transportation.

Since our committee functions on the plane of a unilateral planning approach, our objectives must be toward the most economical, logical solution—in recommendation form—as regards overall regional concern. Each of the state delegations represented will report on their state's policy, or contemplated...
Introducing A New Concept in Decorating –

Durable PLEXTONE® for interior-exterior use!

Facts about amazing textured, solid color and color-flecked PLEXTONE®

- Decorator colors styled by leading color consultants.
- Sprayed from one container in one application at one time . . . with one gun.
- Makes no spray dust or fog.
- Available in the lacquer or the odorless-type resinous, grades.
- Can be applied to most common building materials.
- Many times thicker than ordinary paint. Resists wear, abrasion, chipping cracking.
- Cleans easily. Can be scrubbed and scoured thousands of times.
- Unique anti-static properties tend to repel dust and dirt.
- Odorless-type, resinous, grade is alkali resistant.

PERFECTION PAINT & COLOR CO.
715 EAST MARYLAND STREET
ME 2-4312
INDIANAPOLIS 2, INDIANA

QUALITY Recognizes QUALITY

Toy Tiger For State Builders

Albert Thompson (center), president of the Indiana Home Builders Association, is presented a toy tiger by John Rockwood, president of Tiger Brands, Cleveland materials firm at a comfort-conditioning program conducted by Don Cassidy (right), president of Cassidy & Son, at the Indianapolis Athletic Club.

L. C. Cassidy & Son, Inc.
'An old reliable company

1030 S. Holt Road
Indianapolis, Indiana
Fort Wayne office—315 E. Jefferson St.—Eastbrook 8636
A New Vista of Architects' Legal Responsibilities

Several years ago a two-year-old boy fell off the rear stoop of an apartment house in Binghamton, New York. Since he was seriously injured, his parents engaged a lawyer to determine who was responsible. Naturally, you would assume that this would be the owner of the apartment building who had a rental agreement with the boy's parents. Actually, a completely different person also was haled into court—the architect, who had designed the building six years before. It was alleged that he had prepared an unsafe design by failing to put a railing around the stoop or by failing to have the center step extend for the stoop's full length.

Fortunately, for the architect, the court released him from the suit because of a legal defect in the complaint against him. But the real significance of the ruling was the implication that if the court had concluded otherwise, the architect would have been liable. The court ruled:

"... We conclude that the 'principle inherent' in the MacPherson doctrine applies to determine the liability of architects or builders for their handiwork, ..." (MacPherson v. Buick Motor Co., supra, 217 N.Y. 382, 111 N.E. 1050, L.R.A. 1916F, 696)

In the Binghamton case, this rule was held to also apply to those who plan and put up structures on real property. To architects and engineers all over the country this opened up a whole new vista of legal responsibility.

The reason was that, historically, under what is known as "privity of contract," architects and engineers were considered to have a legal relationship only with the owner, who engaged them. Thus, they could be held liable only by the owner, not by others with whom they had no contractual relation. Today, however, this ancient concept of privity between two parties has been challenged and overthrown in the courts. The consequences in a number of cases have been very disturbing to all members of the architectural and engineering professions.

Take the case of an architectural firm in Louisiana that designed and supervised the construction of a hospital. There was nothing wrong with the design. There was something wrong with the plumbing sub-contractor's shop drawings—he failed to install a pressure relief valve that was called for in the architect's plans. It so happened that even before the architect was notified that the boiler had been installed, the sub-contractor ran a test, the boiler exploded and a workman was killed. His widow filed suit against many parties, including the architects who designed the building, the consulting engineers employed by the architects and the manufacturers of various items of equipment used on the domestic hot water system.

She obtained a judgment of $58,700.00, not from the contractor or sub-contractor or consulting engineer or manufacturer, but from the architects. One reason for this verdict, in the words of the lower court judge, was that architects are supposed to "snoop, pry and prod" and, if they had done so in this case, they would have discovered the omission of the safety valve.

The Court of Appeals upheld this ruling, stating that: "In view of the circumstances herein shown, we believe a duty existed on the part of the architect to use reasonable care toward the contractor and his employees as well as the various subcontractors and their employees whom the architects had every reason to anticipate would be involved in the construction of this particular project. An architect employed to prepare plans for and supervise construction of a building or facility ... must exercise reasonable diligence and care under the circumstances to protect against injury to those who may be reasonably foreseen to be imperiled by defective or improper construction or lack of adequate supervision."

The Circuit Court not only affirmed the decision of the lower court, but increased the judgment to $83,000.00. The engineer was released from the suit when his attorney showed:

1. The contract between the architect and the engineer provided a reduced fee for the engineer with the implied understanding that he would not have to supervise the construction and

2. The shop drawings which the plumbing contractor used were never approved by the engineer but were initialled by the architect. This is a startling case and has far-reaching implications for both architects and engineers.

The legal trend toward fixing liability on "third parties" began some years ago in cases involving manufactured products. Prior to this, the purchases of a defective or injurious product could claim damages only from the person from whom he had purchased.
A New Vista (Cont'd)

(from Page 17) these goods. It was generally accepted that the seller and the buyer had a legal relationship wherein one could be held responsible to the other.

The manufacturer or the designer, on the other hand, was considered a third party—remote and removed from the transaction. In recent years, however, the courts have tended to rule that the manufacturer and designer could be held liable. This type of third party liability case came into prominence in 1916, when the owner of a Buick automobile was thrown from his car by the collapse of one of the old wooden-spoked wheels. The Buick Motor Company insisted that responsibility lay on the retail dealer who sold the car. But Justice Cardozo, in a famous decision, held that the manufacturer of the automobile was liable directly to the buyer. This was the famous MacPherson v. Buick Motor Company case.

Although for many years third party liability cases involved only goods or, in legal language, “chattels,” it was inevitable that the day would come when the concept might be extended to apply to those who supplied professional services. Furthermore, all kinds of third party liability suits have been on the increase—suits for bodily injury, property damage, loss of income, loss of services, etc.—based on real or imagined damages. This inclination to attempt to collect for damages has spread and become a problem of great concern to all engaged in commerce, industry and the professions. Liability insurance seemed the obvious answer to this problem, but architects soon discovered that adequate policies were not generally available.

While professional liability insurance had been developed for the legal, medical, dental, accounting and other professions, most insurance companies, when asked to write a broad policy for architects and engineers, threw up their hands. The field was too wide and too unpredictable, covering, as it did, everything from a towering suspension bridge to the railing on a homeowner's porch.

As a result, approximately ten years ago, The American Institute of Architects appointed a Professional Liability Committee to study the trend toward third party liability and try to find a way to protect architects from suits for real or imagined damages. The Committee worked with various insurance agents and listened to anyone who wished to give advice or make a proposal. They learned that a few architects had been able to secure partial coverage from Lloyd's, mostly through one Lloyd's Underwriter, who set his own rates, terms and conditions. So few statistics were available that he was popularly supposed to keep them all in his ehad.

It was just about five years ago that the first real rays of hope appeared. The Committee discussed the problem with our firm. We were interested. To us, it was a challenge as well as an opportunity. From that time on, our firm made liability insurance for architects and engineers a kind of pet project. A number of conferences were held—and representatives of the National Society of Professional Engineers and the Founders Societies participated in the discussions with the A.I.A. Committee.

Our firm developed a questionnaire which was sent to all members of the A.I.A. and N.S.P.E. by their respective Committees to determine some of the basic data necessary to successfully underwrite the insurance. The response was tremendous and the replies, when studied and tabulated, gave us a picture of the kind of coverage architects and engineers felt they needed. Working with the Professional Liability Committee of A.I.A., we developed a truly “Broad Coverage” Policy.

The next problem was to find a suitable insurance company to underwrite it. A company had to be found which would meet the rigid requirements of the Committee for financial strength, stability and service facilities, and, at the same time, a company that would be willing to embark upon this new and untried field of professional liability insurance. After discussions with the executives of many insurance concerns, mutually satisfactory arrangements were worked out with the Continental Casualty Company, a $400 million company and one of the largest and most respected in the industry.

Because the policy was tailor made to the requirements of the A.I.A. and N.S.P.E. Committees, it was natural for both groups to commend it to their members. This was done by the Board of Directors of The American Institute of Architects on November 28th, 1956, and by the Board of Directors of the National Society of Professional Engineers on February 16th, 1957.

From the beginning, we have worked closely with the A.I.A. and N.S.P.E. Committees, not only to disseminate information on this important subject to all members of the professions, but also to keep the policy in line with current requirements. This cooperative effort has resulted in a series of improvements in the basic policy—plus two rate reductions in the past three years. In this era of constantly increasing prices, I suppose we might point to this with pride.

At the same time, in cooperation with the Committees of both A.I.A. and N.S.P.E., studies are being made of claims, law suits and legal trends to identify and disclose danger areas and alerts that can be passed on to members of both professions. Informed counsel and advice on how to prevent and minimize claims can be one of the most valuable aspects of the program.

This knowledge and experience is also being utilized by the BJC-AIA Joint Committee, which is currently studying the overall responsibilities and liabilities of architects and engineers. It has been my privilege and pleasure to serve as insurance consultant for this Committee.

The unusual success of the program to date and the quick acceptance of the policy by the members of the professions have attracted the interest and attention of other insurance companies. One or two have adopted policies containing some of the provisions of the Continental Casualty policy. However, of the policies submitted to the Committees to date, none has been found which contains all of the provisions of the A.I.A. commended policy.

Here are some of the provisions that the A.I.A. Committee wanted written into its ideal Professional Liability Policy. They are what make it a truly “Broad Coverage” policy. All of the items mentioned below are included in
the A.I.A. commended policy:

- The policy covers professional acts, errors or omissions regardless of whether an accident results or whether any negligence is proven.
- The policy covers every employee of the firm, not just partners or officers.
- The policy covers the architect for any person or firm for whose acts he is liable—such as consultants, other architects, his own employees and others.
- The policy extends to cover the legal representatives of the architect in the event of death, lunacy, bankruptcy or insolvency.
- The policy pays for legal defense in full even though this would bring total payments above the limit set in the policy. Neither the limit nor the deductible applies to this cost of legal defense.
- The expense of arbitration is covered in like manner. Neither deductible nor limit applies.
- Immediate medical and surgical relief expenses are covered without regard to liability and in addition to the policy limit.
- The insurance company must obtain the architect’s consent before settling or compromising a claim.
- Coverage may be obtained on a worldwide basis.
- The policy can be written to cover the insured retroactively back to the beginning of his practice. In the case of a partnership, this applies to each partner separately. The significance of this provision cannot be overemphasized. It was one of the main requirements set up by the A.I.A. Committee.
- The insurance company is not permitted to subrogate against employees of the insured architect.
- The policy may be assigned with consent of the insurance company.
- The policy may not be cancelled by the company except by registered mail or certified mail and with ten days’ prior notice. (As a matter of practice, the Insurance Company has agreed not to cancel without prior consultation with A.I.A.)
- If the company does cancel or refuse to renew a policy, the architect continues to be covered for an additional twelve months on all work done while the policy was in force.

As a practical matter, the A.I.A. commended policy has other advantages. It is supervised by the A.I.A. Committee and our office as consultants to the Committee. It can be bought in any one of the fifty states either from our firm or through your own insurance broker or Continental agent. The policy is flexible and may be bought with deductibles of $500.00, $1,000.00, $2,500.00, etc., and limits of $25,000.00, $50,000.00, $100,000.00 and up. The cost of the insurance is reasonable—particularly when the broad scope of coverage is considered. Each architect or firm is treated individually and rated in accordance with his or its own type of work, size of firm, past experience and qualifications, etc. To keep the rate level as low as possible, the standard policy excludes direct work in specialized areas such as ground testing, boundary surveys, subsurface surveys, bridges and tunnels over 150 feet in length and dams. Firms which do this kind of work can secure coverage at appropriate rates. All of this is, of course, subject to the policy amount, terms and conditions.

As an actual example of the settlement of a claim, let’s take the case of an architectural firm that prepared plans for a bowling alley. A typist in the office made a typographical error that showed the building as 58 feet long instead of 68 feet. This disastrous mistake was never caught until the bowling people arrived to install the alleys. By that time, the fat was in the fire. An additional ten feet of land, that could have been bought originally, was no longer available. Thus, it came about that the machinery to operate the pin-setters had to be located at the side of the alleys instead of at the end, the lighting had to be rearranged and there was a delay in opening the alleys which caused loss of income to the owner. In this case the owner collected $19,850.00 in damages of which Continental paid $19,350.00 and the architect paid only the deductible amount, $500.00.

As an example of the type of expense and trouble an architect can encounter even though he ultimately is proven free of liability, take the case involving the construction of a gymnasium. The sub-contractor doing the steel erection set up two of the three rigid frames and connected them with temporary construction bolts until they could be welded. The bolts sheared, the frames crashed to the ground and two workers were injured. One hired a lawyer and sued both the contractor and the steel erector. At the trial, the field superintendent for the steel erector tried to pass the blame to the architects on the grounds that the drawings provided no workable way for holding the frames until they could be welded. This testimony caused the plaintiff’s lawyer to extend the suit to include the architects who, up until this point, had considered themselves innocent bystanders. By hiring an attorney, spending three weeks of their time and $2,000.00 in actual money, the architects cleared themselves of blame. But the experience was expensive and the situation uneasy up until the moment the decision of the court was rendered. The A.I.A. commended Professional Liability Policy would have covered this.

Or, take the case of the firm which designed a three story reinforced concrete building for use as a laboratory. The design called for a six inch roof slab of concrete and a roof fill of light weight aggregate to protect the concrete slab and provide a draining slope. One side was tied into an existing building; the other three sides were parapeted. A one inch expansion joint was provided between the slab and the parapet on three sides. On the fourth side the slab was flush against the adjoining building. No expansion joints were provided and there was no insulating material between the slab and the fill.

In adopting this design, the architect had been assured that the light weight aggregate would have the same expansion characteristics. This proved not to be the case and the expansion of the light weight aggregate caused three of the parapeted walls to be displaced, resulting in damages in the amount of $22,400.00. Even though the owner had approved the plans, the court awarded judgment against the architect ruling that the owner was entitled to rely on the architects for structural and architectural design and that the architect should

(to next page)
A New Vista

(from Page 19) have obtained more accurate information about the characteristics of the material before specifying its use. In handing down this decision, the court said:

"An architect implicitly warrants not only that he has the skill, knowledge, and judgment required to produce a result that will meet the needs of his employer, but that in the preparation of plans and specifications and in the supervision of the work he will employ that skill, knowledge and judgment, without negligence . . . he is liable to his employer if damage results."

Unfortunately as it may seem, that is the way things are going. In years gone by, architects and engineers actually were bystanders in many suits because of the rule of privity. Today, however, the courts are throwing out privity as a defense. Also, modern architectural and engineering practice is more complex than ever with new materials coming into use, etc. No longer can the architect do all the work himself—he must rely on and use the services of others—yet he may be held legally responsible for their work. Adding to the seriousness of the situation is the modern trend for aggrieved persons to seek legal redress for real or fancied injuries. Whether we like it or not, we must recognize that these conditions exist and be prepared to defend ourselves. Common ordinary prudence calls for a professional liability policy, in sufficient amount and tailored to meet the needs of the profession in today's fast changing world.

Fortunately, such a policy is available.

Lake Michigan Planning

(from Page 15) plans; after each of the concerned states have reported—and the policies or plans of each matriculated into place in the individual delegates minds—a general forum is held of all delegates as individuals. Under committee agenda, for instance, is the study (at this writing) of the connecting link between the Indiana tollway and the Michigan expressway toward a complete expressway system from Wisconsin, through Illinois, on into Indiana, and terminating within the state borders of Michigan. (At present there is a "gap" between Indiana and Michigan expressways).

Also coming into discussion stage is recommendation for location of port facilities in Indiana. This, of course, leads into not only areas of an individual State's concern, but even as importantly, areas under Federal jurisdiction and in no small degree, much concerned study of International aspects of the Lake Michigan Region and its waterways as regards foreign shipping.

The most important single item to those responsible for development, and this applies to industry, government, scholastic, and professional bodies, is the fact that cognizant action has been taken in the area of unilateral action by a body of one of the leading institutes in this country—The American Institute of Architects. Now for, we believe, the first time problems may be submitted by a specific community or group for study by a non-biased, unpaid, totally professional committee where the community or group feels action of regional influence is involved. Business and public; government and private planners; all now have a forum which can recommend strictly on the basis of considered presentation; recommend toward the end with the knowledge that the aspects that make up a well balanced Regional Plan have been integrated into the presented recommendations for a specific or given local.

The refrains of "Victory at Sea" have long since been stilled; all is now quiet. So shall this pen be set down; all is now quiet—save for the food for thought in the above written words.

AIA Honor Awards Announced

Seven recently completed buildings, including one in Indiana, have been selected for the annual Honor Awards of The American Institute of Architects. These buildings, the jury said, "went far beyond mere competence and achieved true significance."

Among the seven winners was the Philip Johnson designed Shrine in New Harmony, Indiana, and the Nuclear Reactor in Rehovot, Israel, also by New York architect Johnson. Other winners were the United States Embassy in New Delhi, India, by architect Edward D. Stone of New York; a summer house in Northville, Michigan, by Birkerts and Straub of Birmingham, Michigan; the Reynolds Metals Regional Sales Office Building in Detroit, by Minoru Yamasaki of Birmingham, Michigan; the Fernando Rivera Elementary School, Daly City, California, by Mario J. Ciampi and Paul Reiter, both of San Francisco; and the Pepsi-Cola World Headquarters, New York City, by Skidmore Owings & Merrill of New York.

In addition to the seven Honor Awards, the Jury selected eleven Awards of Merit. These included a variety of projects, such as a display pavilion in San Rafael, California; two religious buildings in Moline, Illinois, and Concord, New Hampshire; a restaurant in Santa Monica, California; office buildings in Miami, Florida, and in Long Beach and San Francisco, California; a group of luxury apartments in Palo Alto, California; a college building in Painesville, Ohio; a residence in New Orleans, Louisiana; and an urban hotel in Denver, Colorado.

Chairman of the all-architect Jury was Morris Ketchum, Jr., FAIA, of New York City. Serving with him were Fred Bassetti of Seattle; Richard D. Butterfield, West Hartford, Connecticut; Arthur Q. Davis, FAIA, of New Orleans, and William L. Pereira, FAIA, of Los Angeles.
Gemset lets you create the color.

Gemset, the precision-controlled exposed special aggregate concrete, puts you in control of color. Take a color like red quartzite. Suppose you like this basic color, but want something with a different hue or shade. Here’s how Gemset artisans respond to your wishes:

1. By the addition of basalt, the basic color has been deepened.
2. Pink granite and pink granite sand are added to achieve a warmer, more reddish cast.
3. Crystal quartz has been added to produce a lighter, more translucent effect.

Such precise selection and control of aggregate is just one of the means by which Gemset extends the architect’s freedom of design. Units are cast in highest-tolerance, non-warping machined limestone forms, the facing mix is manually agitated for better aggregate distribution, and the concrete is vacuum-dried for more even curing. In size, shape, color and finish, Gemset is precision made to meet your requirements. See for yourself, write for a sample.

Gemset is another quality-controlled product of Indiana Limestone Company, Inc., Bedford, Ind.

Wall or spandrel panels • Column covers • Mullions • Copings • Window surrounds • Specialty shapes
Capitol Medical Building

1825 North Capitol Ave.
Indianapolis, Indiana

Architect
Fleek, Quebe and Reid, Inc.
Indianapolis, Indiana

General Contractor
GLENROY CONSTRUCTION CO., INC.
Commercial and Industrial Construction
450 S. Ritter, Indianapolis, Ind.
Fleetwood 7-8331
Capitol Medical Building

Pictured on this month's cover is the Capitol Medical Building, designed by Fleck, Quebe & Reid, Inc., and constructed at 1925 North Capitol Avenue, Indianapolis, by Glenroy Construction Company.

The six-story structure contains approximately 8,600 square feet of usable floor space on each floor, in addition to the service core. Designed specifically for doctors' offices, the entire building is air conditioned for year-round comfort, with individual room controls, and contains all utilities necessary for modern medical equipment and facilities.

The west facade of the building, which faces on Capitol Avenue, is a solid "black" brick wall to eliminate undesirable street noises. The south facade (overlooking the adjacent parking area) utilizes masonry and fixed glass, with the concrete floor slabs extended approximately five feet beyond the exterior wall to form overhead sunshields. In addition...

Hydraulic jacks atop prestressed columns are ready to lift the reinforce concrete floor slabs into position. Note additional column sections lying on top of the roof slabs.

Second floor slab is shown in its permanent location (first floor slab was poured directly on ground). Third through sixth floor slabs are now positioned at third floor level.

Overall lift-slab view shows sixth floor slab in position on back half of building, while the front half of the building has five slabs permanently located. Masonry work on the structure also has started.

The lifting operation is now complete, with the roof slabs placed in position atop the six-story structure. Masonry work is now well underway, with the building enclosed up to the fourth floor.
READY MIXED CONCRETE CORPORATION
Established In 1931
5 Modern Plants In Marion County
Radio Dispatched Trucks

SERVING THE GENERAL CONTRACTOR ON THE NEW CAPITOL MEDICAL BUILDING

Main Office – WALnut 5-5341
Dispatcher’s Office
WALnut 3-2411

PLUMBING HEATING AIR CONDITIONING
SUPPLIED FOR THE CAPITOL MEDICAL BUILDING BY

FRANK E. IRISH
2909 East 10th
Indianapolis, Ind.
ME 6-2337

Electrical Contractor for the New Capitol Medical Building

B & G Electric Company, Inc.
518 N. Beville Ave.
Indianapolis, Ind.
ME 4-8541

... Electrical Contractors

Masonry Contractor for The Capitol Medical Building

HERSCHEL W. HUNT
Mason Contractor
3860 Central Ave.,
Indianapolis, Indiana
CL 1-9507
tion, screens of expanded metal located between the windows serve both as sunscreens and decorative features.

The Capitol Medical Building was selected for the cover of this issue on "Technology in Architecture" because of its introduction of lift-slab design and construction to the central Indiana area. This new concept in construction originally was conceived by New York Architect Philip Youtz and San Antonio oil man Tom Slick, and currently the process is being used in many areas of the United States.

The process of lift-slab construction basically calls for the foundations and footings of the building to be installed in the usual manner. Columns are then set on the footings to form the framework of the building.

A reinforced concrete slab is poured around the columns to form the ground floor; the top of this slab is then coated with wax, and another slab is poured directly on top of the first. The process is repeated, forming as many additional slabs as there are floors in the building, plus the concrete roof slab.

The wax coating prevents the slabs from sticking to each other, and after the concrete has cured for several weeks, the lifting operation can begin. Hydraulic jacks are placed atop each column and connected to the slabs via lifting rods and steel collars embedded into each slab.

These jacks, which are capable of lifting fifty tons each, lift the slabs about three inches per stroke, taking about a day to raise each slab to its proper height. At each floor level, the bottom slab is wedged into place and released from the lifting operation. The steel collars are then welded to the columns, and the lifting operation continues until the roof slab has been hoisted and welded into place.

An additional feature of this particular design was the use of precast, prestressed and spliced concrete columns. The design for this structural system was created by Jack Bugher, Indianapolis engineer, in cooperation with the Great Lakes Lift Slab Corporation of Chicago, sub-contractor for the lifting process.

The supporting columns were actually put together as the building rose; before the lifting operation started, the columns extended only to the second floor level, with the hydraulic lifting jacks on top of them. When the slabs had been raised to this level, the jacks were removed and additional sections of the columns were placed atop the existing sections, thereby extending the height of the columns. The jacks were then placed atop the new tops and the remaining slabs raised. The column sections were carried on the roof slab as the lifting operation progressed, to eliminate needless handling.

All hydraulic jacks were connected to a master console which directed the entire lifting operation; in case of a failure of any one jack to perform its lifting operation correctly, warning lights on the console notified the operator of the danger.

The advantages of lift-slab construction are many. First of all, it eliminates the elaborate forming and bracing required for poured-in-place...
“A Study in Steel” is one of the first projects in United States Steel’s campaign to capture the attention of the design world. It is intended to unlock steel’s personality and present it as a dynamic design material.

First public announcement of the new design ideas was made last fall. At that time, manufacturers of office furniture, designers, and producers of equipment for the mass retailing, home furnishings, institutional, and public service industries will be invited to a special showing in New York City. In the near future the exhibit will be taken to selected U.S. Steel sales districts for similar showings.

Initial development of the new approach to steel as a design material is in the form of office furniture developed for U.S. Steel by Peter Muller-Munk and Associates. Principles of construction used in the furniture are expected to have widespread application in many other areas.

In working out the problem, the designer first made a thorough study of steel at work—in buildings, bridges, crane booms, even in bicycle wheels and fire escapes. Structural efficiency depends on three major mechanical principles—tension, compression and cantilever action. All three principles are dependent on the inherent strength of the structural material. They are predicated on making full use of steel’s ability to provide weldability, formability and a wide range of characteristics which can be adapted to all types of fabrication requirements.

Applying these principles to office furniture design resulted in a modular group of component parts which can be combined to produce an entirely new kind of furniture. The furniture is structurally strong, attractively styled and compatible with the design trend of tomorrow.

The designer achieved in the office furniture strength without bulk, beauty without frills. It is a practical design, entirely in keeping with the requirements for economical fabrication and durability in service.

From this point it was a logical step to consider applications of the basic design elements—steel under tension and compression and combined with cantilever action—to other fields.

Three additional areas were explored: the institutional field, the mass retailing facilities, and applications for the home.

In the institutional field, the designer produced suggestions for seating, case cabinets for record storage, and library study and storage units.

For mass retailing situations, restaurant table and bench combinations, counter seating, display cases, and modular, self-contained interior equipment were developed.

All case goods are designed around modular boxes developed for use as drawer units in the office furniture. These are a box within a box. The inner and outer boxes are separated by a urethane foam filler under pressure. They are 25 per cent lighter than the same size box of equal wall thickness made of plywood.

While the physical results of the study are embodied in the office furniture, the designer is confident that the additional product ideas developed are sound possibilities and can be worked to an ultimately successful conclusion.

It is expected that this project will open the door to an unprecedented interest in steel as a design material. The philosophy behind it can be summed up by the statement: “Steel is a familiar material, as old as yesterday and as new as the horizons of our imagination.”
Plastic Compartments
By Weis

One of the country's oldest manufacturers of metal toilet compartments, the Henry Weis Manufacturing Co., of Elk-hart, Indiana, recently added the production of plastic laminated compartments to their line. According to the company, the development is the result of an intensive three year program of research and testing under severe field conditions.

Installations in schools, night clubs and in public buildings all located in hot, humid, oceanside atmosphere showed no deterioration or rust during this period. The rapid and extensive increase in the use of plastic materials in recent years suggested the firm's investigating its possibilities in toilet compartment manufacture. These materials are highly resistant to the acids, alkalis, detergents and solvents, as well as to the scratching, abrasion and marking which are prevalent in public toilet rooms.

In addition to the construction advantages offered by the use of laminated plastic in toilet compartment manufacture, the decorative advantages inherent in the material itself are important. There is a wide choice of colors and patterns available, making it possible to coordinate color planning with other decorative features in the design plan.

The plastic laminated line has been named "Weisfeld" and will be manufactured in Ceiling Hung, Overhead Braced and Floor Braced models similar to the Weisart and Weisteel compartments currently manufactured by Weis and will also feature identical hardware and accessories.

Thermal-pin Boilers Introduced

"Thermal-pin" construction, a new concept in cast iron boilers, was introduced recently when Bryant Manufacturing Company of Indianapolis, Indiana, unveiled its new line of 2" gas fired boilers at its annual sales conference in Miami, Florida.

Built to utilize the heat from flue gases, matching external and internal projections thermal pins are cast into the boiler sections to transfer heat quickly and efficiently into the boiler water.

By capturing what would ordinarily be waste heat, the new boiler responds to the thermostat quicker, shortens the operating cycle, and consumes less fuel.

The 21 contoured internal vanes in each boiler section are designed to divert the normal upward flow of water, resulting in more efficient heat transfer as well as strengthening the boiler structure itself. Together, these two improvements add up to a 50% higher rating in heat absorption properties.

In development since 1958, the boiler was field tested for a year with the cooperation of many gas utilities before it was introduced to the consumer market.

In its new Model 230, Bryant offers dealers and distributors a completely factory assembled, factor wired unit ready for installation.

The unit also boasts a quiet, vibrationless water pump which is lubricated by the water and never needs oiling or servicing.

Designed for low gas consumption, the pilot remains lighted during periods of both low pressure and peak gas usage. If gas pressure is too low for safe operation, the gravity diaphragm closes automatically. In most cases, however, the pilot will recycle when pressure is low, avoiding nuisance shut-offs that require manual resetting.

New Decorator Screen Available

Something new in interior decoration is now available in the FiliGrille Monterey Screen, a framed panel divider which can be installed without tools. Concealed springs in the end posts anchor the floor-to-ceiling screen in place.

A product of Holcomb & Hoke Mfg. Co., Inc., the Monterey Screen is one example of the many adaptations of FiliGrille, the ornamental grillework made of %" polystyrene, framed in anodized aluminum.

The Monterey Screen comes completely assembled and ready to install. Its overall width is 26" and the height is adjustable from 7-ft.-10" to 9-ft.-3" to fit most ceiling heights.

The FiliGrille Monterey Screen has many uses in both contemporary and traditional homes. It makes an excellent divider to screen an entrance way or hall, to separate living and dining areas or any place where a divider is needed with little space requirements of its own. It also serves well in offices and professional waiting rooms.

The gold-brass framing is made of extruded aluminum, with an anodized satin finish that blends softly with any decor. Frame is easy to clean; will not tarnish.

U.L. Labels for Prestressed Concrete

A two-hour fire resistance label will now be provided by Underwriters Laboratories for prestressed concrete double-tee floor and roof members, based on the results of fire tests sponsored by the Prestressed Concrete Institute.

Minimum bottom cover specified for UL label approval is 1\(\frac{1}{2}\) inches and minimum side cover is 1\(\frac{1}{2}\) inches. These specifications cover virtually all prestressed double-tee and channel sections now available in the U.S. and Canada.

Up to five strands per stem may be used in UL-labeled members. All commonly used strand sizes are permitted (\(\frac{3}{4}\) in. to \(\frac{1}{2}\) in.). Maximum width of members is established at 60 inches, and the depth and length are unrestricted.
All-Electric Schools

Throughout Indiana, and in several other states, school authorities are beginning to notice the many advantages offered by the use of electricity for heating schools. At present, there are in Indiana, at least 21 electrically-heated schools either operating or undergoing construction, and a number of others are in the design stage. Since the time the first of these electrically-heated schools was completed in Hartford City several years ago, interest has grown tremendously.

It has always been recognized that electric heat is cleaner—no dust, no ashes, no soot, no minute particles of by-products of combustion to pollute the buildings or the surrounding air. In fact, the electrically-heated Penn Township High School, in St. Joseph County, has better utilized personnel in eliminating two of the janitors normally required in conventionally-heated schools of the same size. At Hartford City, there was also a reduction in custodial services required.

Because electric school heating is accomplished through unit ventilators, which also admit fresh air directly through the respective outside walls of each classroom as required, windows for ventilation are not needed. The State of Indiana, through the Administrative Building Council, has recognized this by reducing the minimum window requirements substantially. Large expanses of windows contribute nothing to a building but a “different look,” while introducing larger heating requirements. In return for “free” daylight they bring glare that must be eliminated by costly blinds or draperies which, in turn, necessitate using artificial lighting anyhow.

There are many advantages to electric heat. Design and construction is accomplished more rapidly through elimination of conventional stacks, boiler room, piping and tunnels. Future expansion is simplified. Maintenance expense is reduced by doing away with problems resulting from action of water and steam on valves, pipes and boilers. Use of the electric system becomes very flexible. A faulty heater might cause a problem in only one room but not a complete shut-down as is the case with a boiler failure. Electric heating elements are inexpensive and easy to replace.

With electric heat, instantaneous, individual room temperature control is accomplished without the heat shut-off lag found in central systems. During mild weather, discomfort due to this lag is eliminated, along with body odors and perspiration odors so prevalent in overheated, poorly-ventilated rooms.

The totally-electric modern school, with non-explosive, non-combustible electric heating and cooking, is a much safer place for our children than schools using fossil fuels for various purposes.

Electric school heating is the modern way to do the job. While costs of combustible fuels continue their upward trend, the cost of electricity continues to remain relatively stable, thus assuring future economies in operating costs.
Electric Filler Block

A specially constructed Electrical Filler Block has been developed and put on the market this month for use with the Tee-Joist Floor and Roof System manufactured by the Cinder Block & Material Company, Indianapolis.

This Electrical Filler Block replaces a regular filler block at the location where a ceiling outlet is desired, and is designed to aid the electrician in the installation of ceiling outlets by eliminating the necessity of on-the-job drilling or cutting holes in filler block, and by minimizing the amount of conduit bending required to make connections.

Cinder Block's precast Tee-Joist System is a simple, economical and fire-safe method of constructing floors and roofs with ceilings of acoustical precision-ground light-weight flush or recessed filler block.

A standard type OCR outlet box is cast into the Electrical Filler Block at the plant. Standard box extensions and covers fit the type OCR box. When extensions are used and the proper filler blocks are placed on each side of the Electrical Filler Block, the electrician can connect the conduit and eliminate bends normally required to make top connections.

The Electrical Filler Block is available for use with either the flush or recessed type of Tee-Joist System. It is manufactured of the same lightweight aggregate and has the same surface texture and face size as a regular filler block.

Complete information on the new Electrical Filler Block is available from Cinder Block & Material Company, 2200 N. Montcalm St., Indianapolis.

Premium Pennvernon

Revolutionary advances in manufacturing techniques in drawing molten glass have enabled Pittsburgh Plate Glass Company to develop a super sheet glass far superior to any other sheet glass currently manufactured in the United States, according to standard distortion measuring devices.

In addition to the established advantages of regular Pennvernon sheet glass, the super glass has a remarkable freedom from distortion. To be known as Premium Pennvernon, the new glass is manufactured on the world-famous Pennvernon machine, developed by PPG. The process employs a straight vertical draw by which molten glass is formed into sheets without being touched by any mechanical device to mar its surface.

All four Pittsburgh Plate Glass Company's sheet glass manufacturing plants are equipped to produce Premium Pennvernon, which is now offered in all standard thicknesses of window glass and heavy sheet glass. The product is expected to find a high degree of acceptance among architects, sash manufacturers, automobile manufacturers, and manufacturers of flat glass specialty products.

Premium Pennvernon is competitively priced in most thicknesses with regular "A" quality sheet glass, and is available immediately through PPG branches and independent glass distributors.
Dynamic Architecture
In Concrete Panels

Art and technology in architecture are returning as the most exciting architectural story since medieval man built the lofty Gothic cathedrals in Europe. This is a new age of moving dynamic shapes and forms colorfully expressing the delight of man's achievement.

A marvel of this new age is the concrete curtain wall—a milestone in the evolution of surface esthetics in American architecture. These versatile and plastic surfaces, which combine form and color with structural appearance, offer exciting visual experiences that are lacking in other less plastic and durable surface materials. Concrete, the Cinderella material of the times, offers to architecture a dynamic new dimension in the multicolored, patterned and textured curtain wall. Sculptural wall and panel surfaces, by integration of form, function and material, impart new and economical trends to surface esthetics.

Walls still must provide insulation and low-cost protection from the elements. However, it is now expected that walls will fulfill these requirements with a cross-section and weight reduced to new lows, commensurate with proper performance. These new "curtain walls" also have to be quickly and easily erected. Developing a curtain wall that combines these qualities has been a challenge for architects, engineers and wall panel producers.

This booklet is intended to show how concrete curtain walls combine the diverse advantages desired in this type of construction. Your local precast concrete wall panel producer will be happy to give you full particulars on such matters as available colors and textures, handling and attachment details, and costs.

The range in shapes, sizes, designs, textures and colors offered by concrete wall panels is unparalleled in this work. Not only are the geometric, straightline shapes and designs possible, but practically any free form can also be realized. Colors range from white and delicate pastels to dramatic deep hues sure to dramatize any structure. Textures vary from glassy smooth to rough and bold.

Concrete curtain walls ensure staunch protection from the elements. Many perfected airtight and watertight joint details have been developed. Panels are securely attached to the structure. Fenestration can be designed in many ways. Excellent insulating properties minimize uncomfortable radiation of cold along with perimeter of the building and prevent expensive summer heat gain in modern air-conditioned towers.

The use of lightweight concrete and perfected connection details makes concrete wall panels easy to transport, handle and erect. Lifting inserts and attachment devices can be cast into the panels to minimize erection time and effect greatest stability to the connection.

Cross-sections of concrete curtain walls are often narrower than those of other materials because they require little, if any, backup. In many cases, the inside face of the panels can be left as furnished or merely painted. If a plaster face is desired, it can be applied to the inside panel surface.

All of these factors figure in the question of cost. When comprehensive studies are undertaken of everything that affects the cost of several types of curtain walls, concrete emerges as the one truly economical material. For the architect, it means that concrete is a newer, lower-cost curtain wall material offering an unprecedented freedom in design.

 Celotex Introduces
3 New Woodgrains

Three new Cherry woodgrain hardboard finishes, reproducing one of the world's finest cabinet woods, are available from The Celotex Corporation. The new finishes are manufactured in 16" x 8-ft. and 2-ft. x 8-ft. panels for application by modern Handi-Clip or Handi-Wall systems respectively.

Imperial, Blond and Bleached Cherry woodgrain paneling provides distinctive decorative qualities at an economical cost. The three new finishes are especially appropriate for living rooms, dens, studies and family rooms, and add prestige to an office, lobby or exclusive shop.

Installation of the random-planked 16" x 8-ft. panels is fast and easy with special metal clips (provided in package). Celotex HandiWall system for installing 2-ft. x 8-ft. panels combines function with decoration by providing hidden steel mounting strips for hanging a variety of racks, shelves and cabinets.

For further information, contact The Celotex Corporation, 120 S. LaSalle Street, Chicago 3, Illinois, or David Wells, Celotex Indianapolis representative.
Laminated Wood Beams Widely Used

More than eight hundred buildings using open beam construction have been built in the past eight years in Indiana, a tribute to the architectural truth and beauty of exposed beam construction.

Even more important is the recognition of this system of construction to overcome inflationary building costs without reducing quality or performance in buildings.

The basic idea is to simplify; with open beam construction, there are three components in roof construction — framing, deck and roofing. In more conventional construction, as many as seven layers of labor and material make up the roof structure — roofing, insulation, deck, joists, plus either a suspended or a plastered ceiling composed of several components of layers of materials.

Two hundred of these open beam structures have been schools, many of which were built for a total cost of $8.50 per square foot. The average cost was about $10.00 per square foot, with a top of $13.00. With basketball so popular in Indiana, laminated wood arches perform an exceptional job. Laminated flat beams up to 100' span are available and economical, and laminated rigid frames up to 150' span are easily fabricated without excessive fabricating cost. Gymnasiums 100' x 100' or larger can now be built for $10.00 to $12.00 per square foot, ready to move into. Incorporated into most gyms is a laminated wood framework with purlins, plus an acoustical, incombustible cement deck which gives the light reflection and acoustics so desirable. One of the latest concepts in gymnasiums is to run the arches or rigid frames lengthwise of the gym, thereby eliminating the arch legs coming down between bleacher sections. End walls are completely clear of obstructions, and either permanent or portable bleachers can be run to within 7' of the roof.

Over the past few years, the various manufacturers in the wood industry have been bringing their material up-to-date. They have re-engineered wood into many new products, all of which can be manufactured to exacting quality and specification requirements. These re-engineered products have become new tools of the architect in establishing new systems of construction with design freedom and creative interpretation subject only to the limits of the most creative imaginations.

Indiana Limestone Produces "Gemset"

Gemset, a high-quality exposed special aggregate concrete for precast architectural panels and shapes, is now being manufactured by Indiana Limestone Company, Inc., at Bedford, Indiana. Produced under license of the Earle Studio, of Rosslyn, Virginia, Gemset is carefully controlled to provide a number of important advantages: precise regulation of aggregate size, color and texture; exact conformation to specified shape and dimension; absolute truefulness of surface; and accurate, uniform curing.

These results are achieved by a unique combination of production techniques, which include employment of highest-tolerance, non-warping machined limestone forms, manual agitation of facing mix, and vacuum drying. Because of its rigidly controlled manufacture, Gemset helps extend the architect's range and freedom of design with exposed aggregate concrete.

The material is available in various thicknesses and sizes, and can also be cast as column covers or Mullions, window surrounds, copings, specialty shapes, and custom wall or spandrel panels. Virtually any size or shape the architect requires can be provided. Aggregates are imbedded a full ¾ in., and units are reinforced with galvanized steel wire or bars, as engineering requirements dictate.

A wide variety of aggregate types, mixtures, sizes and colors is available, and still others can be developed to meet particular requirements. Engineering assistance is available on request, together with detailed specifications for specialized applications.

To further assist the architect, a new file folder of Gemset Technical Data Sheets is now available. A series of transparent vellum tracing sheets provide scaled details for a number of applications, including panels, spandrel panels, window surrounds, copings, soffits, lintels, steps and stringers.

Other similar sheets illustrate details relevant to hoisting, erection, anchoring, joining, and paving. In addition, a complete set of specifications is included, providing comprehensive information about materials, quality, extent of work, manufacture, handling and erection.

For a copy of the new publication, AIA File No. 4-K-1, or for further information or samples, contact Indiana Limestone Company, Inc., Bedford, Indiana.

Gemset panels form one wall of Indiana Limestone's new sample room-quality control center. Visiting architects can experiment with various samples, which can then be processed in a few minutes.
Aluminum Homes With "Sweating" Skins Predicted

Homes held together by glue, whose aluminum walls "like the human skin, sweat a little to cool the building in summer," are part of the vision of the future unveiled by Philip Will, Jr., President of the American Institute of Architects, at aluminum's 75th anniversary, celebrated February 16th in Oberlin, Ohio.

Mr. Will, one of three panelists at a "Round-table of Tomorrow" said this to members of The Aluminum Association in an address prepared for delivery at their celebration on the Oberlin College campus:

"We must think in unconventional terms . . . a successful aluminum wall system will require that every part do double or triple duty, mechanical or electrical as well as structural. I can imagine for example an exterior skin which would be stressed in tension, serve as the appearance surface and also, like the human skin, sweat a little to cool the building in summer. Interior surfaces can have permanent vinyl coatings, incorporate radiant heating and cooling and convenience wiring plus luminescent panels for lighting. The structure would be assembled with glue, factory applied along panel edges and temporarily protected against premature setting by removable strips of tape."

Another speaker, Philip Sporn, President of the American Electric Power Company, largest privately owned utility company in the nation in terms of energy generated, predicted that use of aluminum by electric-power generators might increase in the neighborhood of 140 per cent in the next 19 years.

"The electric power industry is already very heavily aluminized . . . (but) a growth in electric use from about 250 thousand tons in 1960 to some 525 thousand tons in 1975 can be visualized. This figure might grow to a figure well in excess of 650 thousand tons by the year 1980," he said.

Still another panelist, Dr. William A. Pennington, President of the American Society for Metals, and Professor of Metallurgy at the University of Maryland, discussed metallurgical characteristics of aluminum.

The celebration was sponsored by The Aluminum Association, whose members produce all the nation's primary aluminum and four-fifths of such semi-fabricated products as aluminum sheet, tube, etc. It marks the anniversary of Charles Martin Hall's discovery, in 1886, of the electrolytic process for separating aluminum from its ore—a process still in use today. Before his invention, aluminum was so scarce that jewelry was made from it. Last year's production, by contrast, totalled more than two million tons.

Another feature of the ceremony was presentation of an aluminum plaque to the College, in token of a permanent aluminum museum display which The Aluminum Association will donate to the College as soon as construction is finished on a new Hall of Science in which the museum is to be housed. The plaque was presented by Everett G. Fahlman, a past president of The Aluminum Association and Chairman of the Board of The Permold Company, Medina, Ohio.

Oberlin's President, Dr. Robert Carr, welcomed the group to the campus, and M. M. Anderson, President of The Association and Executive Vice President of the Aluminum Company of America, presided.

Capitol Medical Building
(from Page 25)

Concrete construction. Second, it eliminates the necessity of hoisting reinforcing steel, wet concrete and other building materials to the various floor heights of a multi-storied building; all concrete work is done within a few feet of ground level. Third, it speeds up construction on the building by permitting the building to become enclosed at an earlier date, with floor areas free from form-work.

And finally, the reinforced concrete floor spans permit almost complete freedom in space utilization throughout the completed building, permitting any arrangement of offices or suites on any floor as required by the tenants.

Sub-contractors on the project include the Adams Clay Products Company; B & G Electric Company; Frank E. Irish, mechanical contractor; Hershel W. Hunt, mason contractor; and Vehling Brothers, plastering contractors.

Conveniently located near both St. Vincent's and Methodist Hospital, the Capitol Medical Building when completed will truly be one of Indianapolis' most modern medical facilities.
The All-Gas School: New Concept in Economy

A $2-billion bonanza for the nation's taxpayers is possible in the next 10 years, the American Gas Association states in announcing a revolutionary plan for producing low-cost energy in the modern school.

This tax savings can be realized, according to A.G.A., by installing natural gas turbines in new-type compact schools built to accommodate increased school enrollment during the coming decade.

Speaking January 26th in New York, at a seminar on changing curricula, school construction, and operating costs, A.G.A. Managing Director C. S. Stackpole said substantial economies in owning and operating schools are promised in a new gas industry research study just completed by Goleman & Rolfe, Houston, Texas, architectural firm.

The report discloses that a 2300-student air-conditioned compact school with natural gas as its only source of power can be built for approximately $2.3 million—about 16 percent less than the present conventional type of the same size without air-conditioning.

An estimated $9½ billion would be needed in the next 10 years to build sufficient schools of present design and standards, he said, referring to U.S. Office of Education predictions that secondary school enrollment will increase by some 8½ million in the next 10 years.

A 16 percent cost reduction under the new plan adds up to $1.5 billion. Lower first costs in construction will result in savings of $45 million in insurance and $32 million in reduced interest on bonded indebtedness.

From the standpoint of maintenance and operation, an estimated $670 million can be saved with gas-powered schools when compared to schools using conventional energy.

One of the nation's major taxpayers itself ($844 million in federal, state and local taxes in 1959), the natural gas industry initiated the research study for several reasons, including (a) the desire to help build better schools in the thousands of communities it serves, (b) to help provide substantial relief from mounting tax burdens and (c) to demonstrate the merits of using natural gas as the sole source of low-cost energy in school buildings.

Conclusions of the report were presented by D. Dana Price, chief engineer for Goleman & Rolfe on the seminar program which also featured two prominent educators taking "A New Look at New Schools."

J. Lloyd Trump, associate secretary, National Association of Secondary-School Principals, Washington, D. C., called for careful long-range planning for tomorrow's schools. Many uneconomic procedures must be eliminated to offset some of the added costs of future education, he said. Among these he cited: using the time and energies of professional teachers for sub-professional, clerical and policing activities; organizing all instruction, regardless of type and purpose, in the same-sized classes; using teacher and student time more than desirable to produce community entertainment beyond that required by reasonable educational goals; and keeping school buildings closed in late afternoon, evening and Saturday hours, and for several weeks in the summer.

Acceptance of the new-type compact school to help meet the demands of a fast-growing student enrollment was described by Joseph J. Vincent, superintendent of South Park Independent School District, Beaumont, Texas. Such a school is being built in his district, Mr. Vincent said, as a means of getting more and more better classrooms for less money. This approach has been hailed by taxpayers, he said, because five bond issues totalling $11½ million were needed between 1947 and 1959—each time winning by a progressively closer vote as indication of growing concern over mounting taxes.

Mr. Price described the gas turbine as a "stationary cousin of the aircraft jet engine" and declared it is "a far more efficient and dependable power source than any other commonly available." Among advantages of the gas turbine to meet all energy requirements of the modern school, he cited:

—It drives an electrical generator to provide high frequency power for better lighting and 60-cycle power for motors and convenience outlets.

—Its exhaust heat can be saved, running it through a waste heat boiler to make steam or heat water. The steam can be used to run an absorption air conditioning system, to heat water for showers and kitchens, and for steam cooking.

—It provides direct heating for various purposes.

The all-gas air conditioned school of compact design is estimated to cost $468,000 less to build than the conventional non-air conditioned school—and $6,362 a year less to operate, the research reports points out.

Compared with a compact school using purchased electrical power, the all-gas school will operate for about $14,600 less annually, he estimated.

Curtain Wall Index Available

Michaels' Curtain Wall Index, a new booklet available from Michaels Art Bronze Co., has been designed as a working guide for helping the architect determine which of the manufacturer's varied wall systems is most applicable to a particular building.

Based on extensive actual job experience, the Index provides help both in design and detailing of metal curtain walls. It includes scaled details for nine different aluminum and stainless steel systems, many of which accommodate alternate components. Details are also included for standard doors, louvers, and vertically pivoted windows.

Direct tracing and further development of details are facilitated by lift-out sheets of transparent vellum, printed in duplicate. These sheets also help simplify substitution of alternate details. Copies of the Index may be obtained on request from Michaels Art Bronze Co., Box 668, Covington, Ky.
Curtainscreen Designed
By Julius Blum

Curtainscreen, a new screening development by Julius Blum & Company, is a highly versatile system for creating custom designs with stock aluminum and plastic components. These components can be arranged to form screens and railings of all types and sizes, exterior or interior, massive or delicate in scale. The versatility of the system enables it to be used not only to solve individual screening problems, but also to provide design continuity throughout a building, inside and outside. Since the components can be arranged in countless ways, the system, in effect, permits the architect to provide his own individual design for each particular application.

The basic components of the Curtainscreen system form a coordinated group of interlocking, slip-fit extrusions—mullions, panels, spacers and glass stops. The aluminum components are furnished in a variety of finishes, including plain (for anodizing or enameling), anodized, etched with decorative designs, or laminated with wood veneers. Plastic components are black, and will be made available in colors later. These standard components can be used either alone or in combination with other materials, such as panels of wood, glass, sheet plastic, or laminated glass fiber sheet. A special feature of the system is that its components can be used to form single or dual plane screens, for three-dimensional effects or for free-standing screens which must be finished on both sides.

The aluminum panels are available in four, six and eight inch widths, and lengths up to twenty feet. But panels can be placed side by side, for appearance of even greater width, and can also be placed end to end for greater length, thus permitting great range in scale. The panels may be painted in any color or combination of colors and can also be cut to a variety of angle shapes, providing further versatility in design. The architect controls the design of any Curtainscreen application in several ways: by adjusting panel width, length, shape, color, finish and arrangement; by regulating overall dimensions and mullion spacing; and by providing for incorporation of materials other than the standard components when desired.

In exterior applications, Curtainscreen can be used to form solar screens, facing screens for concealment of existing facades, vision barriers, identification panels, protective screens for walkways and arcades, and concealment screens for elevator penthouses, cooling towers, or mechanical equipment. Typical interior applications include divider partitions, vision screens, decorative accent screens, facing screens for walls and ceilings, identification panels, and display partitions.

The system can also be used to form railings, both indoors and out. Besides the applications cited, it can also be easily adapted to any other screening problem.

A booklet describing and illustrating the complete Curtainscreen system in greater detail is available on request.

Spickelmier Produces 'Glazex' and 'Autocrete'

Spickelmier Industries, 1100 East 52nd Street, Indianapolis, has announced the manufacture of two new concrete masonry products, "Glazex" and "Autocrete."

Glazex units are made by heat-bonding a resin-silica-aggregate fact to an autoclaved light-weight block. This provides a structural masonry unit with a dense, smooth, practically impervious "glazed" face about one-eighth inch thick, to perform the functions of glazed tile or block with a ceramic tile facing.

A Glazex wall should be about midway in cost between painted block and glazed tile, according to the manufacturer, thereby meeting the need for a medium-priced, quality product for corridor, shop, gymnasium, laboratory and other walls subject to severe abuse.

Autocrete (for Autoclaved Concrete) refers to Spickelmier's new line of concrete veneer products. Produced in a wide variety of colors and in white, Autocrete is made in a modular brick-sized units and in various heights and lengths from which split-face veneers are made.

The manufacture of Autocrete resulted from Spickelmier's experience in significantly modifying ordinary concrete to produce the quality necessary for exterior veneer purposes. First is the use of limestone aggregate, instead of sand and gravel, to permit consistent and definite colors, and to eliminate impurities which can cause stains; second, the replacement of part of the Portland cement binder with silica flour, which considerably reduces post-curing volume change; and, third, high-pressure steam curing which "pre-shrinks" the units and "sets" the colors.

Autocrete units are manufactured under completely automatic mixing and casting controls, and random samples of each daily production run are thoroughly laboratory-tested.
TO SERVE YOU BETTER
AND FASTER WITH A WIDER LINE
OF STRUCTURAL STEEL, MISCEL-
LANEOUS IRON PRODUCTS, RESI-
DENTIAL AND INDUSTRIAL FENCE

... we have expanded our plant
capacity and production facilities in
a new and fully equipped plant.

Write or phone for full information
and estimates on your next job.

ENTERPRISE
IRON & FENCE COMPANY
1523 OLIVER AVE. • INDIANAPOLIS
ME 6-2551

Quality Products at a
Fair Price—Since 1883

You can...
SAVE TIME
BUILD CONFIDENCE
with...

This book (containing 2191 EASY, workable color
schemes—for paint decoration) will do more for
you and your client.
Finish the job ... with pleasing color in quality
paints by Smith-Alsop.
Instant color tinting and this book are available at
all S-A distributors throughout Mid-America.

WHAT IS T. E. O. ?

BUSINESS FURNITURE CORPORATION
101 SOUTH PENNSYLVANIA STREET, INDIANAPOLIS 4, INDIANA
TELEPHONE • MELROSE 2-1474

F. E. GATES
MARBLE & TILE CO.
&
Desco Vitro Glaze of Indiana

Contractors In
Marble, Ceramic Tile,
Slate and Desco Vitro
Glaze Wall and Floor
Finishes

KENNETH D. EARL, General Manager
CLifford 5-2434
5345 Wintchop Ave.
Indianapolis 20, Indiana

QUALITY
FLUORESCENT LIGHTING
FIXTURES
FOR
SCHOOLS
OFFICES
STORES
FACTORIES

LOUISVILLE
LAMP CO., INC.
LOUISVILLE 3, KENTUCKY
FOR QUICK SERVICE
CALL JU 7-6094

INDIANA REPRESENTATIVE
THE H. H. HOMAN CO.
JOHN G. LEWE
H. H. (SANDY) HOMAN
MARIEMONT CENTER BLDG.
ROOM 102
CINCINNATI, 27, OHIO
The Moving Wall

In the hands of an imaginative architect, the upward-acting garage door becomes a highly flexible "moving wall," with many diverse applications in industry and home. The architect can get maximum function within minimum space with this sectional moving wall; not only to cover simple openings in garages or warehouses, but also to provide gateways to smart store fronts, to fill door openings to fit special forms and shapes, or for such prestige appearances as bank drive-ins, parking centers, and so forth.

The "Convertible Garage" is the happy marriage of both the youthful carport and the old style garage, with the advantages of both. The "convertible garage" simply substitutes a second upward-acting door for the dull back-wall of the ordinary garage, to create a cool breeze way, a drive-thru, a protected patio or a play pavillion.

Carrying this usable space idea a little further, it is easy to create a "Convertible Garage Room" by adding a few simple ideas to the basic convertible. By tiling the floor, repeating the kitchen cabinet for high-wall storage use, by repeating lighting (perhaps pull-down fixtures), by adding a fold-up table and benches, we begin to convert this area to room-use when the car is removed during the day or for longer periods in the summertime.

E-R Cofar Introduced

A new 1, 2, or 3 cell unit which provides complete electrification facilities for reinforced concrete floor slabs has been introduced by Granco Steel Products Company. Developed to meet the requirements for electrification demands in modern office buildings, type E/R Cofar cellular units carry the various power, telephone or signal circuits and provide a network of cells to assume complete electrical flexibility for the life of the building.

E/R Cofar units blend with regular Cofar units to provide a low cost, high strength reinforced concrete slab floor which is always Electrically Ready.

Advantages of the new system include:
1. High-strength floors: Type E/R Cofar is equally suited to steel or concrete frame construction. E/R floor slabs retain the inherent advantages of reinforced concrete to take overload when needed. The advantages of Cofar construction still apply.
2. Complete electrical flexibility: Wiring for typewriters, calculators, inter-oms, telephones, etc., can be pulled through the large raceways at any time throughout the life of the building. Spacing between the 1, 2, or 3 cell E/R units may be varied as required.
3. Large cells: The large cross-sectional area (5.2 sq. in.) of the E/R Cofar cells provide the optimum in wiring space.
4. Economical: Longer spans possible with E/R Cofar units reduce structural framing, and fewer intermediate beams mean savings in structural steel weight and fireproofing materials. In addition, no wasted fill is necessary; lighter dead loads mean additional savings in footings and foundations as well as framing. The economies of combined floor forming and reinforcing and electrification in one quick construction step give maximum flexibility with minimum investment.
5. Header duct adaptability: Any of the U.L. listed header duct systems can be used.

Type E/R Cofar construction is listed by Underwriters' Laboratories, Inc., and are available in Indiana through Hugh J. Baker and Company, Indianapolis.

Acoustiroc Receives 2-Hour Fire Rating

Fire-Shield Acoustiroc was assigned a two-hour fire retardant rating by Underwriters' Laboratories. U. L. tests were successfully passed in November of last year. National's first fire-rated product was introduced in 1960 with a two and three hour rating, and is now marketed under the trade name Fire-Shield Solitude. In February of this year a third product, Fire-Shield Solitude Grid Panel, was tested at Underwriters' Laboratories successfully for a two hour fire retardant rating.

All three products evolved from the Company's existing selection of class "A" non-combustible acoustical tile and panels, largest in the industry.

The Company explains that the individual characteristics of these class "A" products, Solitude and Acoustiroc, are retained in the fire-rated tile. As a result, more design alternatives are now possible in the time-design rated group.

Each product is made with fissured and needle-perforated surfaces, plus random drilled in Fire-Shield Solitude Tile and textured and striated in Fire-Shield Acoustiroc.

Both tiles are sized 12" x 12", the Fire-Shield Acoustiroc with kerfed and rabbeted edges, the Fire-Shield Solitude with tongue-and-groove edges. Th regular "J" concealed suspension system supports both types. Fire-Shield Solitude is also made in panel sizes 24" x 24" and 24" x 48" for grid suspension.

National intends to continue expansion of the fire-rated products, so that this group will eventually include most of the characteristics of their present class "A" materials.

National Gypsum Company is represented in Indiana by Hugh J. Baker and Company of Indianapolis.
New Storage Unit

A new AMCO Wire Products Corp. wire shelving unit has been introduced by National China Equipment Corp. The unit has been constructed with the use of channel reinforcement adapted from architectural design to give a weight capacity of 1,000 pounds per shelf. It has been engineered with instant assembly without the use of bolts, nuts or hand tools. Each shelf is adjustable to 5⅛" increments.

The versatility of arrangement permits quicker access to merchandise, better air circulation, easier inventory and a much lower cost of installation and relocation.

The units are available in zinc-plated finish for dry storage in temperatures above 55 Degrees, and chrome-plated finish for wet and refrigerated storage.

National China distributes AMCO shelving through its outlets in Indianapolis, Marion, Fort Wayne and South Bend.

New Roof-Wall System

Loadbearing Fenmark III, a pre-engineered roof-wall system for one-story buildings, combines steel curtainwall and steel cellular roof panels, transforming them into one structural element. Structural steel is eliminated. With shear partition walls or end walls to take the lateral load, the new Fenestra system provides new economies: design time is reduced and on-the-job labor costs are cut.

Curtainwall units come in standard and custom sizes using insulated or uninsulated porcelain panels. Mullions can be capped with aluminum, porcelain enamel, or stainless steel. Cellular roof panels provide finished or unfinished ceilings, plain or acoustically corrected. They are designed to span up to 32-ft. with shear wall spacings to 120-ft., accept a large variety of electrical fixtures, and furnish a low-maintenance, structural ceiling material.

With Loadbearing Fenmark III, the entire building shell can be engineered fabricated, and erected rapidly and efficiently by one responsible source—Fenestra. Results are fewer on-the-job delays and problems, fewer trades with subsequent cost savings. Buildings can be occupied sooner.

Kemp Soundlock Available

Kemp Soundlock, the result of Kemp Corporation's research and engineering to develop a "Lay-in" metal acoustical ceiling panel, is designed to insure optimum sound absorption within partitioned areas and to arrest annoying room-to-room sound transmission, particularly in spaces with ceiling high movable partitions which do not extend above the suspended ceilings.

Structural rigidity is built into each Soundlock panel unit by overall bonding of the honeycomb core with pressure applied permanent adhesive to the perforated face sheet and the solid back barrier panels. Each honeycomb cell is packed with a fibrous glass sound-absorbing element. The face of each panel is coated with exclusive "Silicone," a flat, non-gloss, textured backed-white enamel finish which provides high light reflection as well as excellent maintenance characteristics.

The non-breathing quality of Soundlock makes an excellent plenum space above the ceiling, useable for ductless return air chambers for heating and air-conditioning systems.

Kemp Soundlock is available from Anning-Johnson Company, 1720 Alvord Street, Indianapolis.
November 30th, test traffic ended in $27,000,000 pavement test sponsored by the American Association of State Highway Officials (AASHO). More than 1,100,000 load applications and millions of scientific readings were recorded before the last truck rolled off the track near Ottawa, Illinois. The fleet of trucks included farm-size pickups to 54-ton semi-trailers.

On the test loops, 836 separate sections repeated nearly 200 different pavement combinations to provide a wide range of measurements.

Behind this pavement test are the most scientific methods ever used. Automatic electronic instrumentation and recording equipment assure unbiased, reliable findings.

Administered by the Highway Research Board of the National Academy of Sciences—National Research Council, the National Road Test will answer the big questions in today's highway construction. Engineers, officials and legislators will have invaluable help in designing pavements for the Interstate System—and all roads and streets.

Scientific readings by the millions have been analyzed by AASHO computers. "Statistically unassailable" facts on modern pavement design will result.
masonry
the imaginative material...

LOBBY — FENN COLLEGE

Architect — Ceruti & Associates
Photo — J. Sterling

Economical, maintenance free, S-W series structural glazed facing tile in stack bond, blends permanent harmonious coloring — with modern furnishings — a dramatic way to say "welcome."

UNIT MASONRY ASSOCIATION, Inc.
5420 North College    Clifford 5-3114    Indianapolis, Indiana

Buildings with a Future...Through Masonry