

AMERICAN INSTITUTE OF ARCHITECTS DEC 1 8 1957 LIBRARY

ndiana architect

DECEMBER, 1957

new thin wall stone panel construction REDUCES WALL WEIGHT, INSULATES AND SPEEDS ERECTION

Only 4" in total thickness, a new thin wall panel recently perfected by the Indiana Limestone Institute which provides a very high insulating value, is composed of 2" of limestone facing mechanically fastened to 2" of Tectum, a rigidtype insulating board.

Several pieces of stone applied to a single piece of Tectum are set as one unit, or a large panel. Masons working with this new material for the first time on the Meadows Shopping Center in Indianapolis, achieved the rate of approximately 1,200 square feet per day.

Panels are anchored into the backup, or structural steel, with strap anchors and dowels. This type construction is very practical and can be adapted to various designs. For further information and details, write today.

INDIANA LIMESTONE INSTITUTE BEDFORD, INDIANA

Founded 1932 as a service organization for the architect and contractor



WALL DETAIL Meadows Shopping Center Indianapolis, Indiana

the indiana architect

December, 1957 Vol. 1 No. 8

OFFICIAL JOURNAL OF THE INDIANA SOCIETY OF ARCHITECTS A CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS

FRANK MONTANA President 1015 Hudson St. South Bend





WESLEY P. MARTIN Vice-President 6100 Millersville Road INDIANAPOLIS

THOMAS C. DORSTE Vice President 6532 E. Westfield Blvd. INDIANAPOLIS



ARTHUR R. BROECKER Secretary 3229 N. New Jersey St. Indianapolis



EDWARD D. JAMES Treasurer 122 E. Michigan St. Indianapolis



AMES McCLURE TURNER, Past President 5945 Hohman Ave., Hammond
TLLIAM J. STRAIN, Director, 1956-1958 102 First National Bank Bldg., Bloomington
ALPH O. YEAGER, JR., Director, 1956-1958 822 E. Ohio St., Terre Haute
HARLES BETTS, Director, 1957-1958 222 S. Downey Ave., Indianapolis
DWARD PIERRE, Director, 1957-1959 926 Architects Bldg., Indianapolis

CONTENTS

	PAGE
"Tight Money" Market, by Dwight W. Casey	4
I.S.A. Calendar of Events	5
Atomic Scientists to Address Winter Meeting	5
State Architects and Engineers to Cope With Mutual Problems	6
Executive Board Meeting	10
Architectural Services Listed	11
Sustaining Firm Members	11
Producers Council Gets Data on Curtainwall Construction	12
Recommended Reading	14
Architect's Oath	15

The Indiana Architect is the official publication of the Indiana Society of Architects, a chapter of the American Institute of Architects. It is published monthly in Indianapolis. Editorial and advertising offices are located at 5930 Gladden Drive, Indianapolis 20, Ind. Editorial and advertising policy for the Indiana Architect is governed by the Publications Committee, Indiana Society of Architects, whose members are Trace Christenson, Jr., 230 W. Washington St., South Bend; Ray Thompson, 2211 E. 52nd St., Indianapolis; Robert Schultz, 1015 Hudson Ave., South Bend; Henry Meier, 5636 Marilyn Rd., Indianapolis; Ray Ogle, 10824 Ruckle, Indianapolis; Herb Thompson, 3105 Ashland Ave., Indianapolis, and Herman Rall, 762 DeQuincy St., Indianapolis. The Indiana Architect is edited by Joe Ledlie, 5930 Gladden Drive, Indianapolis 20, Ind.

The opinions expressed in the Indiana Architect written by various members of the Indiana Society of Architects or persons who are not members of the I.S.A. do not necessarily reflect the opinion of the Society un'ess specifically stated.—The Publication Committee.

Cover Design by RONALD M. STRANDJORD, Indianapolis

Bank Executive Explains "Tight Money" Market

But the paper we pass

around today is only

backed up by a small

percentage of gold.

You can't demand to

have your dollar bills

redeemed in gold for

the same dollar

So we come back to

By DWIGHT W. CASEY Vice-President, Fidelity Bank & Trust Company, Indianapolis, Ind.

Why call it "tight" money? Why not "scarce" or hard money? Cash in circulation is not particularly scarce, but you never seem to get your hands on enough of it. And money in large quantities is still being handed out in payroll envelopes every week.

Hard money is something else. Gold is hard money, and paper money redeemable in gold is hard money.



MR. CASEY MR. CASEY witight" money. Actually it refers to credit and the way it is being granted and denied all over the country by the various lenders. If credit is denied more often than it is granted nationally, the use of goods and services will slow down to the credit level. And if restrictions are continued long enough, expansion of industry will stop and the production of consumer goods will be geared to the public demand

amount.

for necessities. Credit is not being denied voluntarily. The amount now available is low and it seeks the highest bidder, the consumer who continues to demand more and better homes, autos, furniture, appliances and a long list of luxury items. As his wages increase each year, he demands more and better goods to be repaid out of future earnings. His unusual demands have increased the costs of food, clothing and all of the goods he wants. Since credit is necessary to finance a large percentage of consumer purchases and at the same time provide funds for the manufacture and distribution of goods, the cost of credit increases as the supply decreases.

Two principles should be kept in mind if you are debating the present trend of inflation and tight money.

1. The unprecedented demand for credit.

2. The Federal Reserve policy to halt inflation.

Ten years ago credit was easy but goods were tight. Do you remember how long you had to wait for the car you wanted? You could buy a floor model but it was loaded with accessories, some of them almost useless, like the back window wipers. The cost

sounded fantastic then, but you could usually resell the new car for 10 per cent to 30 per cent more than you paid for it. The demand seemed to be unlimited.

A new housing boom was evident. People were tired of living in cramped quarters where they had doubled up to meet the necessities of a war economy. They had money in the bank and War Bonds in the safe clamoring to get out and be spent.

Service men were mustered out with extra pay in their pockets and many of them had sent money home during the war to prepare for peace. Every G.I. was handed a pamphlet telling about his benefits under the Servicemen's Act. Lenders felt that they were obligated to assist returning G.I.'s by making loans to them for small business purposes and for home mortgages. These loans were partially guaranteed by the Veterans Administration. Banks and other lenders responded by making thousands of G.I. loans under credit conditions and qualifications that are termed ridiculous today. An automobile could be financed under the guarantee of the V.A. if the veteran certified that he needed the car in his own business. Many of the borrowers had some trade experience but no knowledge of business management or salesmanship. Consequently there were several small business failures and loan defaults.

Home mortgages under the G.I. Bill, provided a more lasting benefit. There were occasional abuses. Some borrowers did not intend to pay, but lived in their homes until all legal means were exhausted to oust them. Others obtained loans legally but for the benefit of people who were not entitled to the veterans privileges.

All of this was done with "easy money," and at the low rate of four per cent per annum simple interest. Credit was abundant for mortgages at 4½ per cent and for commercial or industrial short term loans at corresponding low interest rates. Large sums of cash were available for investment in reasonably safe, higher yield obligations. The supply of cash and credit appeared to be inexhaustible.

The period 1947-49 has been designated as the par or 100 base for statistical comparisons in subsequent years. For example, the consumer price index for 1954-55 was 114 to 115 and is now 121. In those three years, 1947-49, the consumers' cash was spent freely and the need for credit was restricted to the limited production of consumer needs. Sellers of goods and services were in command. They were merely order takers and could only accomodate the highest bidders. Money was still pouring into the G.I.'s

pockets from Federal and State service bonuses. Credit was "easy."

As war contracts were terminated and government surplus materials were released through auctions, industry slowly converted production to civilian goods. Inventory accumulations and stockpiling of materials in anticipation of labor strikes caused manufacturers to request a larger volume of bank credit. Average monthly new mortgage loans in 1947 were almost \$300 million, then climbed to \$400 million in 1950, and reached a peak of \$1175 million in August, 1955.

Installment credit expanded rapidly as new consumer products became available. At the end of 1946, installment loans in commercial banks totaled \$1567 milion but increased to \$4439 million at the end of 1949. In the period 1946 to 1953, commercial banks extended more than 20 billion in installment credit to the American public.

The rising demand for credit evidenced a decrease in the actual cash held by the pub lic. Wages were increasing, but the cost o living rose proportionately. Each year U. S steel workers demanded and received hourly wage boosts and fringe benefits that set the pattern for similar benefits throughout the nation. All of these increases were paid by the consumers in the retail prices of goods For example, a new car selling for \$1800-in 1947 now costs about \$2500. The hourly earn ings average rate for industrial plant work ers in 1947 was about \$1.25, but is now abou \$2.08. During the same period the cost of living has risen from 100 to 121, accordin to the Bureau of Labor. Construction cost are at the all time high of 137.

The conversion of industry to peacetim production has not been completed. Many in dustrial plants still depend on armed serv ices contracts to absorb their output and t maintain full employment. The Korean wa and the international arms race during th cold war forced government to spend ur precedented amounts for new missles, ain craft and nuclear weapons. Consequentl Federal credit requirement through the sal of government bonds have further decrease the supply of available credit.

Commercial and industrial loans have in creased far beyond normal peacetime re quirements as a result of government spend ing. Banks in 94 major cities reported \$2 billion in commercial and industrial loan outstanding at the end of 1955, \$29 billion a the end of 1956 and \$32 billion in June 1957.

Demand for credit is too great for supp which is limited by statutory and econom laws. Consequently, the coast of credit ha continued to rise.

The prime rate is now 4½ per cent availab only on large loans to the highest rated cred risks. Small and average loans pay high rates ranging from five per cent to eight p cent per annum.

In an effort to halt inflation and to co trol the tight money situation, the Feder (Continued on Page 13)

Atomic Scientist to Address I.S.A. Winter Meeting at Marott

Architecture and Science will combine forces Saturday, December 14, when Dr. Milton Burton, atomic scientist at Notre Dame University, addresses the regular Winter Meeting of the Indiana Society of Architecture in the Marott Hotel.

The meeting, an all-day affair, will be for the general membership as well as the Women's Architectural League.

Activities will get underway with an Executive Board Meeting at 9:30 a.m. in the hotel's Parlor A.

Luncheon is scheduled for 12:15 p. m. in Parlor B, and the general membership meeting is scheduled in the same room at 2:00 p. m.

Cocktails will be served at 6:00 p. m., preceding the dinner meeting at 6:45 p.m.

A musical note will be added to the dinner meeting with a performance by the Shortridge High School Madrigal Singers. Climaxing the evening's festivities will be the address by Dr. Burton.

Dr. Burton has been Professor of Chemisry at the University of Notre Dame since 1945, and director of the Radiation Project since 1947. Currently, he serves as consulant to the Oak Ridge National Laboratory and to the Argeane National Laboratory. His principle fields of specialization at present are radiation, chemistry, photochemistry, and he chemistry of electric discharge.

He won the Noyes Prize of the Indiana Academy of Science in 1952, and is now presdent-elect of the Radiation Research Society. He is a member of a number of cientific societies both here and abroad. In 1955-56 he was a Guggenheim Fellow, Fulpright Lecturer, and Guest Professor at Goettingen, Germany.

Dr. Burton was born in Stapleton, N. Y., n 1902 and is married and the father of two ons. He took his Ph.D. at New York Univerity before returning to academic life in 1935.

Plan for Riley's Home Interests Architects

The November meeting of the Indianapolis Section, Indiana Society of Architects, served to give the 35 members present a keener insight into future plans of the city's Metropolitan plan Commission.

After a short business meeting conducted by President Don Clark, and the introduction of Calvin Hamilton, Executive Director, and Wendell Phillips, of the Commission, the group adjourned to the Commission's offices where they were shown aerial photos, maps, charts, and plans.

Of special interest was a report on intended plans for the rehabilitation and reconstruction of the area surrounding James Whitcomb Riley's home on Locherbie St. The plans include a children's museum and playgroound, a street of shops, firehouse, school, livery stable, and other buildings designed to create an area depicting the 1900 era.

Phillips pointed out that organizational meetings would be held to select permanent officers and set in motion events necessary to see the plan consumated. Clubs, firms, and individuals will be asked to sponsor the project.

The Indianapolis Section appointed a committee to work in conjunction with the plan. Members include Edward D. Pierre, Ray Thompson, Dave Meeker, and Richard Zimmerly.

I.S.A.	Calendar	of	Events	for	1957-58
DATE	TYPE	OF N	IEETING	L	OCATION
1957—December	14 Second Ger	neral	Meeting	India	napolis
February 1 March 13		Board Board eral M eeting	d d Ieeting	India Evan South	
June 7	Regional M Executive Annual Me A.I.A. Con	Board		India India	napolis

architects engineers contractors

• Let Holliday's Engineering Sales Division help solve your construction problems.

Holliday offers a highly trained engineering staff, complete lines of construction materials, unexcelled warehousing facilities, plus a cen-tury of metal distribution "know-how." To meet your needs for steel-quickly, efficiently, and dependably-let Holliday work for you.

CONSTRUCTION MATERIALS DEPARTMENT

Fabricated Concrete Reinforcing Bars Welded Wire Mesh for Buildings and Roads Concrete Accessories and Spacing Devices **Expansion and Contraction** Joint Materials Metal Roof Deck Form Accessories Gary Welded and Riveted Grating Corrugated Galvanized Culvert Pipe Pipe Columns **Bituminous Coated Culvert Pipe Highway Guard Railings** Bridge Drain Tubes Flower Bed and Driveway Curbing **Corktite Perimeter Insulation** Wire Bar Ties Premoulded Membrane Vapor Barrier Gripstrut Aluminum Roofing and Siding WAREHOUSE SPECIAL WORK DEPARTMENT

Formed Bent Plates Formed Rolled Plates Precision Shearing Shape Burning Threading Drilling Formed Stair-treads Ladder Rungs Anchor Bolts IN STEEL WAREHOD

The Department Store of Steel ENGINEERING SALES DIVISION

Holliday Steel Warehouse **J&L Steel Warehouse Division** INDIANAPOLIS, INDIANA

State's Architects and Engineers To Cope With Mutual Problems

A highlight of last month's Indiana Society of Architects Executive Board Meeting in Terre Haute concerned direct action taken to form an organized relationship between the I.S.A. and the Indiana Society of Professional Engineers.

Past President James M. Turner, Hammond, reported to the Executive Board results of previous meetings with the Engineers, and submitted for approval a plan for future relationship between architects and engineers in Indiana. The plan was passed unanimously.

Turner, who heads the project for the I.S.A., has been working with the following I.S.P.E. members: Robert L. Meek, Indianapolis; L. Eugene Easley, Indianapolis; Dana L. Hanna, Indianapolis; Ward M. Harlan, Muncie; and Donald H. Lessig, Warsaw.

At a meeting November 9 in the Washington Hotel, Indianapolis, the following recommendations were agreed upon by the joint group.

1. That the basic organization of the committee be made permanent.

2. That the name of the permanent committee be: Architects-Engineers Joint Committee of Indiana.

3. That the organization be for the first year:

Robert L. Meek, P.E., Chairman

James M. Turner, A.I.A., Vice-Chairman Danna L. Hannan, P.E., Secretary

4. That the tentative objectives be:

a. Clarification of the proper scope of practice of the Architect and Engineer in the building field.

b. Clarification of the proper areas of professional and public credit to both the Architect and Engineer in their work.

c. Recommended mutual Society procedure for control of ethical practices between members of the two professions.

d. Recommended procedure to minimize the unethical "sealing of plans."

e. Recommended joint Society procedures towards the enforcement of existing laws prohibiting the practice of building design by unregistered persons or firms.

f. State Legislative action.

g. Public relations with public officials and the general public.

h. Unified agreements for State work.

i. Airing of complaints.

j. Joint and separate free schedules for public and private work.

5. That the committee employ a stenographer for the recording of comment and discussions at each meeting, payment of services divided equally between the two groups.

6. That each member of the committee be furnished with regular copies of State A.I.A. and the State I.S.P.E. publications.

The joint group further recommended the

following principles for adoption by both groups:

INTERPROFESSIONAL PRINCIPLES OF PRACTICE for

ARCHITECTS AND ENGINEERS

I. Preamble

Architecture and Engineering are learned professions legally recognized in each state to promote the public welfare and safeguard life, health and property.

It is a matter of public interest that these professions discharge their professional responsibilities with such fidelity to their clients and the public as to warrant the utmost confidence.

Furthermore, it is incumbent upon these professions to prevent confusion in the layman's mind in these similar or overlapping fields of professional practice.

II. The Practice of Architecture and Engineering:

An architect or engineer may ethically accept commissions for projects embracing both architectural and engineering work, provided he is competent to do the type of work involved, or provided he will employ other registered architects or engineers who are competent in those phases of the project in which he lacks proficiency.

The client's interests normally are served best when the principal retained is proficient in the predominant work involved in the project. Recognition for their responsibility shall be granted to the architects or engineers executing separate phases of the project as associates of the principal.

III. Mutual Relations:

Architects and engineers shall undertake to design only those phases of a project in which they are proficient and shall retain professional associates for those parts in which they lack proficiency.

The professions shall maintain effective and dignified cooperation in their public statements, exchange of information, and assistance to students of the professions.

Joint Committees of Architects and Engineers shall be encouraged at state and local levels to promote greater understanding and co-operation on the many common problems for the mutual benefit of both professions and in the welfare of the public.

IV. Public Responsibility:

Both professions shall interest themselves in public improvements and shall utilize their special talents (in bringing them about). They shall, however, require that profes-

Associated Architects Get Security Bldg. Bid

Associated Architects of Indiana have been awarded the contract to build the \$3,500,000 State Employment Security Building in Indianapolis. The decision came following a five to two vote by the State Office Building Commission.

Associated Architects, a group, of prominent architects from throughout the state, was formed to bid on large state office structures. They include the following offices: Martin and Jelliffe, Indianapolis; Montana and Schultz, South Bend; Schaff and Terzino, LaPorte; Walker, Applegate, Oaks and Ritz, New Albany; Yeager Architects, of Terre Haute; and James M. Turner, Hammond.

Other firms edged out in the bidding include Fleck, Quebe, and Reid, of Indianapolis, and a combination of the offices of Mc-Guire and Shook and Edward D. Pierre, of Indianapolis.

The new Employment Security structure will be built on a track west of the Statehouse, with its architecture similar to the \$20,000,000 state office building to be constructed in the center.

Cantwell Elected Prexy Of Home Show Managers

Frank J. Cantwell, managing director of the Indianapolis Home Show, has been elected president of the National Association of Public Exposition Managers.

The groups membership represents some 40 of the larger cities in the United States and Canada which hold home shows.

The 1958 Indianapolis Home Show will be held April 11 through April 20 in the Cattle Pavilion, Indiana State Fairgrounds, Indian apolis.

sional services for public improvements be obtained at equitable fees.

V. Relations With Manufacturers:

The professions may freely use the special ized services of manufacturers for integra tion into their designs, but shall oppose gen eral architectural or engineering design by manufacturers or their sales representativ as being inherently biased and, therefore, no in the best interest of the client.

VI. Individual Obligations of the Architec and Engineer:

Professional service, performed singly of in collaboration entails exhaustive study an research in preparation for the solution of the problem, the careful application of taler to sound planning and design and the highes integrity in guarding the client's interes By its very nature the rendering of professional services by the Design Professional must be on a highly ethical and professional basis.



460 MELWOOD STREET, PITTSBURGH 13, PENNSYLVANIA





Gary school t the strutwo kine nurses o structure the vari

D. A. Bohlen & Son, Indianapolis architects, in association with Lot Green, of Eli Lilly & Co. staff, are designers for this imposing office building now under construction at the corner of McCarthy and Alabama Sts., Indianapolis. Designed for an eventual 12 floors, the building will consist of three stories at first. It will also be the home of an IBM 705 Electronic Brain, which will be the nucleus of Lilly's accounting system.



Lakeville Elementary School, located 12 miles south of South Bend on U. S. Highway 31, is the work of Architect Joseph L. Mathews, of South Bend. The primary school, which consists of 12 classrooms and an administration wing, was designed on the "campus plan" principle with four separate units. Total cost was \$251,365.00. The various units are connected by a series of heated walkways with one complete side of the walkway a window wall. There are no windows facing the highway, thus completely eliminating the possibility of noise and other distractions.



David J. Katz is the designer of this 42,900 square foot elementary d at 46th Street and Pierce in Gary. Anticipated completion date of known as Junedale School, is April 1, 1958. The school will feature ooms, 22 classrooms, multi-purpose room and kitchen, gymnasium, y, and special rooms for the principal, teachers, and conferences. The res a total absence of corridors which is accomplished by designing n units served by a central core. Estimated cost is \$483,621.00.



This four-story student dormitory presently is under construction at Evansville College. Designed by Indianapolis architects McGuire & Shook and Associates, the structure will house 64 double student rooms for a total capacity of 128 students. It also contains areas for storage, utility, recreation, lounges, guest rooms and offices. The exterior is gray brick, highlighted with aluminum projected windows.



a new kind of beauty a new kind of door

- Save valuable space . . . make every room more livable
- "Snap-on" covers permit ready change of color scheme
- Trim, textured beauty for home and commercial interiors
- Laminated panel covers provide greater sound reduction, assure full privacy
- Choice of harmonizing colors in full range of sizes

Call or Write for Free Brochure





Officers, directors, and committee chairmen of the Indiana Society of Architects gathered in Brazil last month for their regular Executive Board meeting and were luncheon guests of the Arketex-Ceramic Corporation. Included on the agenda was a tour of Arketex's Brazil plant. Among those in attendance were, seated, left to right: Edward D. James, I.S.A. treasurer; Frank Montana, I.S.A. president; Art Broecker, I.S.A. secretary, and Tom Dorste, I.S.A. vice president. Standing, left to right, are: Ray Thompson; Charles Betts, I.S.A. director; William Strain, I.S.A. director; James Turner, I.S.A. past president; Ralph O. Yeager, Jr., I.S.A. director; Ray Cradick, and Al Vrydagh.

Structural Timbers Named Hufcor Dealer

Structural Timbers, Inc., 1340 Madison Ave., Indianapolis, has been named architectural distributor for Hufcor laminated and Fashionfold wood-slat folding doors, it has been announced by the Hough Manufacturing Corp. of Janesville, Wis. Structural Timbers, Inc., will represent Hough in the Indianapolis market.

The Hufcor Door features a five-ply laminated cover. Inner construction features a vertical pantograph which enables the door to operate smoothly and uniformly while preventing sag and stretch.

Structural Timbers, Inc., is headed by C. H. Gibbs, president.

Ball State Readies 4th Annual Art Show

Over 1,500 artists from California to the eastern seaboard are expected to exhibit their work in the fourth annual drawing and small sculpture show at Ball State Teachers College in March.

Dwight Kirsch, director of the Des Moines (Ia.) Art Center, will judge the show. More than \$1,000 provided by organizations, business firms, and individuals will be given as prizes.

The average winter temperature in the state of Indiana is 31 degrees, summer averaged 76 degrees, mean 53 degrees.

Conditions Available For Toronto Competition

Conditions for an international competition for a new city hall and square in Toronto, Canada, are now available, it has been announced by Professor Eric Arthur, of Toronto, in charge of the competition.

The competition will be in two stages, with eight winners to be selected for the first stage. They will share \$7,500. Winner of the second stage will be the architect for building, who will receive \$25,000 in advance of fees.

Further details may be had by writing Professor Eric Arthur, in care of City Hall, Toronto, Canada. There is a five dollar application fee, which will be returned to those who actually submit drawings.

PERHAPS YOU'VE NOTICED

This month the Indiana Architect has increased in size to 16 pages. The Publication Committee is indeed grateful for the enthusiastic reception the magazine has received, and is proud that such progress can be realized in only eight issues. Credit, of course, belongs to our steadily increasing number of advertisers who are finding the Indiana Architect an excellent showcase.

> Publication Committee, Indiana Society of Architects

Architectural Services Listed; Wise Investment Assured

Architecture is that wise building investment which results in an efficient plan, sound structure, proper mechanical equipment, good design and an addition to its neighborhood. In the production of architecture, architects' professional services are as follows:

The necessary conferences with Owners. The research, preparation of preliminary design studies and preliminary estimates necessary to crystallize and establish the requirements into a well balanced building program.

The preparation of the basic design drawings. These are small scale plan and elevation drawings sufficient to fix the general plan arrangement, design characteristics, size of the building, and its location on the site.

The preparation of the working drawings. These are the detailed drawings (blueprints if you please) which are used by the estimators in figuring exact costs and by the builder in constructing the building.

The preparation of the specifications. Specifications are the written documents describing in detail qualities of materials and methods of workmanship.

The drafting of the forms of proposals and contracts, i. e., the forms for the submission of proposals or bids by the various contractors, and the contracts or agreements between Owner and Contractor. This includes the securing of competitive bids on all parts of the work, the proper analysis of the proposals received, and recommendations to the Owner in letting the contracts.

The preparation of such large scale and full size details as are necessary for the proper execution of the architect's designs, and the checking and correction of shop drawings. Full size details are not as a rule necessary in securing bids on the work, but are produced by the architect after the contract is let, in order to supply to the contractor full information with regard to the actual execution of the work. Shop drawings are required to be prepared and submitted to the architect by the various manufacturers and material men concerned, in order to insure proper installation of all material and equipment fabricated especially for the buildng.

The keeping of accounts on the work. The architect has charge of the general checking amounts for extras or deductions and issuing certificates for payment. He checks the monthly requests for payments, presented by the various contractors, and recommends to the Owner the proper amounts to be paid from time to time. He checks the amounts required for any necessary extra work, or the credits due for omission of certain items. He approves final certificates for payment only after making certain that the work has peen fully completed and that all guarantees required of the Contractors have been properly executed.

Supervision. As supervisor, the architect becomes the co-ordinator of all the various parts of the work, whether done by one or several contractors. He supervises the construction at the building site, to the end that all plans and specifications are properly interpreted and that all contracts are faithfully and fully performed.

Superintendence. In some cases, the peculiar nature of the work, or the Owner's preference, may indicate the need for fulltime superintendence by a competent construction superintendent, in addition to the architect's supervision. In such event, the architect should employ and direct such supplementary service at the owner's expense, and in addition to his regular fee.

The Indiana Society of Architects

Sustaining Firm Members

Raymond S. Kastendieck, Architect Joseph L. Mathews, Architect Thomas G. Medland, Architect Juliet Peddle, Architect William J. Strain, Architect James M. Turner, Architect Walker, Applegate, Oaks & Ritz, Architects Edward D. James, Architect, Inc. Burns and Burns, Architects Garns and Moore and Associates, Inc. Hill and Wupper, Inc. Kenneth W. Williams, Architect Daggett, Naegle & Doggett, Inc. Board of Church Extension of Disciples of Christ James J. McCarron, Architect Edward D. James and Associates, Inc. Dorste & Pantazi, Architects Montana & Schultz, Architects Fleck, Quebe & Reid Associates, Inc. Arthur B. Henning, Architect Max Pohlmeyer & Associates, Architects C. Wilbur Foster and Associates Martin & Jelliffe, Architects Bradley & Bradley, Architects Joseph B. Martin and Associates Vonnegut, Wright and Porteous, Inc. Lennox, Mathews, Simmons & Ford, Inc.

specify

1147 Mishawaka Ave.

HARDWOOD FLOORS

- ★ Ironbound* Continuous Strip*
- ★ Hard Maple, Edge Grain, Flat Grain
- ★ PermaCushion* free-floating Floor System
- ★ Maple, Beech, Birch, Oak strip flooring and unit blocks
- Available Dri-Vac vacuum-impregnated with WOODLIFE to resist moisture, termites, decay
- ★ For public, commercial and industrial buildings
- * Every installation fully guaranteed

G. E. WEAVER CO., INC.

South Bend 15, Indiana

*T.M. Reg. U.S. Pat. Off.

Ph. ATlantic 8-1458



Producers Council Gets Data On Curtainwall Construction

(Editor's Note: The following are excerpts from a recent address before the Indianapolis Producers Council on Curtainwall Construction by E. L. Rohrbach, assistant manager, architectural sales, Ceco Steel Products Corporation.)

Until recently I think most of us who build curtainwalls have been running off in different directions, each with our own basic ideas of design. Strangely enough there have been no tragic failures but, of course, there have been unsatisfactory results.

I don't like to take a negative view on any subject but here we must acknowledge the mistakes of the last few years and learn from them. To get down to cases, Curtainwall,

like any other construction, starts with an architect's idea. Here is our first hurdle. Many an architect has heard and read that Curtainwall is cheaper than conventional construction so asks someone in the business, "How much is it a square foot?" We must educate him to the fact that there is no direct comparison between the two methods, and the saving is in the design of the structural frame of the building, taking into consideration that the Curtainwall is non-load bearing. Further saving is in increased floor space and faster enclosing of the building.

Results to be obtained and cost varies by the multiplicity of features available. Emphasis can be on appearance or utility; money available, geography, time of completion enter into the consideration. On the subject of time, I might remark that most companies active in this field are finding a need for considerably more engineering time than in their pre-Curtainwall days.

Design must consider such things as vertical or horizontal line emphasis, ventilation, air conditioning, window washing, kind of insulated panels, anchors and their location, sealing of joints and erection.

Our best advice to an architect contemplating a Curtainwall is to call in one or two fabricators whose literature seems to offer something like what he wants and let them offer suggestions based on their company's experience. There really are no standards established in this business but each manufacturer has developed features that have worked successfully on actual jobs and can be suggested with assurance of satisfactory results.

There are various systems, equally effective, but perhaps the most prevalent, at least among window manufacturers, is the one using the vertical mullion supports running continuously from floor to floor, securely anchored at advantageous locations. The frame work of a window unit containing a panel or panels is then hung on the mullions, at or near each floor level.

In this system the mullion provides the structural strength of the wall. It is therefore vitally important that the mullion be designed not only to carry the other framing, but to withstand deflection which could loosen joints. Usually mullions designed for a wind

load of not more than 20 pounds per foot with a maximum deflection of 1/175 of the span is considered safe. No credit is taken for strength of window sections adjacent to the mullions because these are assembled with slip joints to permit movement. Each Curtainwall builder has his own ideas on this subject but here is one place it is advisable to play safe. One or more mullions are available for each span design.

An alternate system known as "Gridwall" has been used successfully but is generally considered best suited for 1, 2 or 3-story buildings. This consists of vertical and horizontal framing using channel or tube shapes. Insulated panels and/or glass and/or ventilators are inserted in any spaces of the grid. The architectural effect is deep shadow lines.

When possible, the design should permit window cleaning from the inside. Glazing beads are almost a must. The number of windows or insulated panels to be included in one unit depends on size that can conveniently be handled and that can be installed in the opening by men working from the floor rather than scaffolding. Anchor locations should be easily accessible. The wall should be at least 2", and preferably 3" from slabs or beams so anchors can be reached.

Of course, anchors must be adjustable and slip joints must be provided in the vertical mullions. Likewise the fastening of window framing to the vertical mullions must permit movement. In my comments, I am assuming the use of aluminum which is most prevalent for Curtainwall.

Perhaps most of our troubles, up to this time, have been from movement. As a rule of thumb we say aluminum will expand 1/s ' in 10 feet in a temperature range of 100 de grees. No longer can we depend on the old mastics and I'm glad to say that new compositions are being made available that will help immeasureably to solve this problem.

Insulated panels are likewise a subject in themselves. These also seem to be made in as many different designs as there are producers. Experience seems to indicate an agreement that weep or breather holes are desirable to drain condensation and preven buildup of air in the panel. There have been (Continued on Next Page)

THE INDIANA ARCHITEC'

PAGE 12

Five Approved for Corporate Membership

Five new names have been approved by the Executive Board for Corporate Membership in the Indiana Society of Architects. They now are subject to final approval by the American Institute of Architects. The new applicants include:

> James O. Johnson, Anderson Morris C. Tarrants, Evansville Herman J. Terzino, LaPorte Evans Woolen III, Indianapolis John C. Pecsok, Noblesvile

Corporate Member Noble Miller, of Hudson, has been eected by the A.I.A. to Member Emeritus.

Robert Earl Campbell, of Indianapolis, has been named an Associate Member, and Don Perry, of Indianapolis, has been transferred from Associate to Junior Associate membership.

Producers Council

(Continued from Page 12)

failures of laminations. There seems to be a trend to larger panels. Panels should be replaceable from the outside and should be help in place by beads or retainer strips.

Curtainwall has brought with it the responsibility for the manufacturer to fabricate and furnish a long list of miscellaneous metal accessories. Closures at heads, sills and columns, column covers, convector covers, fascias, coping, flashing condensation gutters and other items appear on plans and are sometimes not too clearly designated to be part of the Curtainwall or another sub-contractor's work. I, personally, have attempted to clarify this by a rule that anything that must be erected with the Curtainwall should be part of the Curtainwall contract. Architects could help by labelling these items on the plans.

Fabrication of Curtainwalls is a job shop proposition and cannot be done on a production basis. Even so, the best run shop must have allowable size tolerances. These seem to have the perverse habit of all running under or all running over rather than balancing. When the product gets to the job it is confronted with steel or concrete, also fabricated and put in place with allowable tolerances. These seem to have grown with the years and all to often the Curtainwall erector finds the work so far off established dimensions he can not make proper connections. Architects should establish the minimum attainable tolerances, then see to it that the framing conforms to those dimensions.

Did you know that Indiana leads its neighboring states in new plant value per capita by 8 per cent, 12 per cent, 38 per cent, 110 per cent, and 127 per cent?

"Tight Money"

(Continued from Page 4)

Reserve Bank has gradually increased its discount of 31/2 per cent. Member banks with excess demands have necessarily borrowed from Fed and have established lending rates according to cost. The effect has been slow but it is now apparent that demand for credit is leveling off. Loan requests for inventory and for work in process are decreasing. Consumers have adopted a "wait and see" attitude. Armed forces contracts have been cut back under a more conservative spending program forced upon the Federal Administration by Congress when the defense budget appeared excessive. Without contracts the aircraft and missle plants have been forced to lay-off thousands of workers who must seek other jobs perhaps for lower wages. While these lay-offs will not immediately affect the national economy, the impact will be felt by many suppliers. A prolonged cut back of government contracts could be serious, and the demand for credit would certainly fall.

Federal Reserve Bank officials apparently feel that inflation is not yet controlled. They point out that the cost of living is sill rising but very slowly, and until consumer prices level off or decline, a tight money policy should be continued. The timing of their decision to ease money rates or to lower bank reserve requirements is very important since the effects of monetary policies do not always provide immediate relief.

Until Fed reduces the discount rate and until the demand for credit decreases, we shall continue doing business in a tight money market.



There are a total of 10,500 industries operating today in the state of Indiana.



The Functions Of An Executive

As nearly everyone knows, an executive has practically nothing to do except to decide what is to be done; to tell somebody to do it; to listen to reasons why it should not be done, why it should be done by someone else, or why it should be done in a different way; to follow up to see that the thing has been done; to discover that it has not been done; to listen to excuses from the person who should have done it; to follow up again to see if the things has been done, only to discover that it has been done incorrectly; to point out how it should have been done, it might just as well be left where it is; to wonder if it is not time to get rid of a person who cannot do a thing right; to reflect that he probably has a wife and a large family, worse, to consider how much simpler and better the thing would have been done if one had done it oneself in the first place; to reflect sadly that one could have done it right in 20 minutes, whereas now one has had to spend two days to find out why it has taken three weeks for somebody else to do it wrong.-Anonymous.

Indiana has the third lowest unemployment tax in the nation. It averaged .7 of one per cent—only half the U. S. Average of 1.4 per cent.



WM. E. JOBES, Sales Rep. 1242 E. 90th St. Indianapolis, Ind. Phone Victor 6-1110

Louisville Lamp Co., Inc. 724 W. Breckinridge St. LOUISVILLE 3, KENTUCKY

Recommended Reading . . .

SOLAR CONTROL AND SHADING DE-VICES—By Olgyay & Olgyay. Published by Princeton, University Press, Princeton, N. J. 201 pp. Illus. 9" x 11". \$12.50.

ORIGINS OF FUNCTIONALIST THEORY —By Edward Robert De Zurko. Published by Columbia University Press, 2960 Broadway, New York 27, N. Y. 265 pp. 634" x 9½". \$5.

LE CORBUSIER: OEUVRE COMPLETE, 1952-1957—Published by W. Boesiger, available through Wittenborn & Co., 1018 Madison Ave., New York 21, N. Y. 223 pp. Illus. 9" x 11". \$13.50.

TECHNICAL PUBLICATIONS

ELECTRONIC CONTROL CENTERS—Published by Barber-Colman Co., 1101 Rock St., Rockford, Ill. 8 pp. Illus.

HEATING VENTILATING AIR CONDI-TIONING GUIDE: 1957—Published by the American Society of Heating and Air-Conditioning Engineers, Inc., 62 Worth St., New York 13, N. Y. 520 pp. Illus. \$12.

ALUMINUM IN SCHOOL CONSTRUCTION —Published by Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago 11, Ill. 64 pp. Illus.

MASONITE PRODUCTS—Published by Masonite Corp., 111 W. Washington St., Chicago 2, Ill. 19 pp. Illus.

KAWNEER METAL WALL—For curtainwall construction. Published by the Kawneer Co., Niles, Mich. 14 pp. Illus.

RCA SOUND IN INDUSTRY—Published by the Radio Corp. of America., Camden, N. J. 12 pp. Illus.

RELIGIOUS BUILDINGS FOR TODAY— Edited by John Knox Shear. Published by F. W. Dodge Corp., 119 W. 40th St., New York, N. Y. 193 pp. 9" x 12". Illus. \$7.50.

RALPH WALKER, ARCHITECT—An autobiography published by Henahan House, 461 Eighth Ave., New York, N. Y. 259 pp. 10" x 12". Illus. \$25.

DATA BOOK FOR CIVIL ENGINEERS, Vol. II, Specifications and Costs. By Elwyn E. Seelye. Published by John Wiley & Sons, Inc., New York, N. Y. Revised Third Ed. 550 pp. 9% "x 11% ". \$20.

STICKS & STONES — By Lewis Mumford. THE BROWN DECADES—By Lewis Mumford. THE AUTOBIOGRAPHY OF AN IDEA —By Louis H. Sullivan, Published by Dover Publications, Inc., 920 Broadway, New York 10, N. Y. 238, 266, and 330 pp., respectfully. Illus. 8" x 5 ½", \$1.60, \$1.65 and \$1.85.

FORM AND FUNCTION—(Remarks on Art, Design and Architecture.) By Horatio Greenough. Published by University of California Press, Berkeley 4, Calif. 136 pp. 4" x 7". Paper bound. \$1.25.

Indianapolis Architects Lampoon Sales Reps

A group of architects, all members of the Indianapolis Section of the Indiana Society of Architects, made dramatic (?) history recently when they presented a farcical rebuttal skit lampooning sales representatives at this year's annual Fellowship Dinner sponsored by the Producers Council in the Indianapolis Athletic Club.

It was the "answer" to a similar production (?) staged at last year's dinner in which the sales reps panned the architects.

Although local drama critics were not in attendance, all present agreed that the skit was apropos, well executed, and definitely a highlight of the evening's festivities. All agreed that "the architects got even." Just one criticism was overheard: "They should have staged it immediately after the cocktail hour rather than following dinner."

Still receiving bouquets and bravos is the all-star all-architect cast including: Don Clark, Ray Ogle, Crawley Cooper, John Fleck, Lou Penninston, Dave Meeker, Bob Kennedy, Bill Schubert, Max Boots, Jim Burkart, Bill Logan, and Herb Thompson.

OUR ADVERTISERS

Anning-Johnson Co., Inc.	13
Blumcraft of Pittsburgh	7
F. E. Gates Marble & Tile Co.	12
General Dredging Co., Inc.	13
Indiana Limestone Institute	2
Jones & Laughlin Steel	5
Louisville Lamp Co., Inc.	14
Prescolite Mfg. Corp.	12
Structural Timbers, Inc.	10
G. E. Weaver Co., Inc.	11

ANNUAL PUBLICATION OF THE NA-TIONAL ASSOCIATION OF STUDENTS OF ARCHITECTURE, 1956-1957—Edited by Donald R. Roark. Published by the National Association of Students of Architecture in cooperation with the American Institute of Architects, 665 Quebec St., Denver 20, Colo. $8\frac{1}{2}$ " x 11". Illus. \$1.50.

EARTH PRESSURES AND RETAINING WALLS—By Whitney Clark Huntington. Published by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 534 pp. 6" x 9¼". Illus. \$11.50.

CENTURY OF BALTIMORE ARCHITEC-TURE—By Wilbur H. Hunter Jr., and Charles H. Elam. Introduction by Eleanor Patterson Spencer. Published by the Peale Museum 225 N. Holliday St., Baltimore 2, Md. 48 pp 8¹/₂ " x 11". Illus. \$1.

FINANCING OF HOUSING AND COMMU-NITY IMPROVEMENT PROGRAMS — Com piled and edited by the Department of Eco nomics and Social Affiairs, United Nations 61 pp. 8¹/₂" x 11".

THE ARCHITECT'S OATH

By GEORGE BAIN CUMMINGS, F.A.I.A. (Past President of the American Institute of Architects)

Humbly and proudly I profess my competence under the discipline of architecture.

Upon my honor I promise unending devotion to the task of continually studying, learning, seeking, experimenting, that I may become ever better educated and trained for my work.

Upon my honor I promise to my community undeviating adherence to the ideal service to my fellow men as the goal of my effort, that I may honestly and fully earn my living—my right to live among them.

Upon my honor I promise to maintain that integrity in practice which will insure to each client the finest possible stewardship of his interest.

Upon my honor I promise in the execution of every commission to strive to create beauty as well as order, character as well as safety, spiritual value as well as convenience.

Upon my honor I promise to join with my fellow architects to make our profession of greatest possible usefulness and benefit to our society, to share and disseminate all valuable professional knowledge, and to pass on to the succeeding generation the full and fine discipline of our profession, enriched because of my dedication.

39 C. F. R. 34.66 **U. S. Postage** PAID Indianapolis, Ind. Permit No. 1497

Form 3547 Requested

The Indiana Society of Architects A Chapter of the American Institute of Architects

Corporate Members INDIANAPOLIS

INDIANAPOLIS J. Lloyd Allen Charles J. Betts Richard E. Bishop August C. Bohlen Robert L. Bohlen Robert L. Bohlen Arthur R. Brown Everett I. Brown Eugene Louis Brown Arthur Lee Burns Joseph O. Cezar Edward J. Clark Donald E. Compton Harry E. Cooler Jr. Marion Lucius Cramer Robert Frost Daggett, Jr. Donald David Dick Thomas Charles Dorste Oscar Walter Erikson John C. Fleck Wilson L. Ford C. Wilbur Foster Howard Scott Garns Lot Green Merritt Harrison Wilson L. Ford C. Wilbur Foster Howard Scott Garns Lot Green Merritt Harrison Norman Haden Hill Donald H. Hinshaw Harry E. Hunter Edward D. James John Hare Jelliffe John R. Kelley Robert E. Lakin Richard C. Lennox Richard P. Madigan Wesley Porter Martin Paul Van Deren Matkin William C. McGuire Henry McKinley David O. Meeker, Jr. C. Alden Meranda Rollin Vernon Mosher Clarence T. Myers Frederick Harold Naegele Spiros George Pantazi John P. Parrish Charles L. Palmer Louis Edward Penniston Edward D. Pierre Oscar J. Pool Alfred John Porteous Gilbert T. Richey Lloyd W. Scholl Fran E. Schroeder William Carl Schubert William Carl Schubert William S. Shook Edward E. Simmons Robert C. Smith David Frank Snyder John G. C. Sohn Theodore L. Steele Raymond S. Thompson Oswald A. Tislow Phillip A. Weisenburgh George Russell West Howard Lee White Marion Alvin Williams Orvel E. Williamson Howard Lee White Marion Alvin Williams Orvel E. Williamson George Caleb Wright William C. Wright Arthur Wupper Richard K. Zimmerly D. Daniel J. Zimmerman

TERRE HAUTE John A. Curry Ewing H. Miller II Warren D. Miller Miss Juliet A. Peddle Allison L. Vrydagh Wayne M. Weber Murray Philin Vaagar Mayne M. Weber Murray Philip Yeager Ralph O. Yeager Sr. Rolph O. Yeager Sr. Rolph O. Yeager Jr. GARY Frederic Wilder Collins Charles T. Hagerstrom George Naylor Hall Douglas F. Haley Raymond S. Kastendieck David J. Katz Joseph B. Martin Richard Lee Wildermuth Joe H. Wildermuth Robert Premil SOUTH BEND SOUTH BEND SOUTH BEND Trace Christenson Jr. Vito Anthony Girone Paul B. Godollei Everett A. Jewell Harold V. Maurer Lloyd William Mass Joseph L. Matthews Maurice J. McGraw Callix E. Miller Sr. Frank Montana Anthony Joseph Panzica Robert Joseph Panzica Robert Joseph Schultz Alfred Skaret Andrew A. Toth Patrick Joseph Weishapl Forrest R. West Roy A. Worden Ernest W. Young HAMMOND SOUTH BEND HAMMOND Les'ie C. Bernard Jr. Joseph K. Bertram Harry J. McComb James McClure Turner Kenneth R. Vaughn MUNCIE Frederich H. Graham C. Eugene Hamilton EVANSVILLE Edwin C. Berendes Ralph Robert Knapp Charles A. Saletta E. Jack Wesley William J. Zimmerman FT. WAYNE Jackson R. Bickford LeRoy Bradley Ivan Raymond Dahlgren Ivan Raymond Dahlgren Albert Heeter Joseph J. Hulfeld Harry J. Humbrecht Charles J. Malott John Davis Martindale James J. McCarron Martin William Pohlmeyer William Gregory Rammell Courtney Eugene Robinson John L. Sosenheimer Alvin M. Strauss LAFAYETTE George Phillip Beihl Warren D. Marshall Lloyd V. Moser Ernest L. Schaible Jr.

Walter Scholer Sr. Walter Scholer Jr. MISHAWAKA—Paul F. Jernegan and Joseph L. Mathews. VINCENNES—Lester W. Routt. BLOOMINGTON—Wm. J. Strain. WINTINGTON—Wm. J. Strain.

NEW ALBANY-James L. Walk-er Jr.

er Jr. NEWBURGH—Earl O. Warweg. KOKOMO—Kenneth W. Williams. CONNERSVILLE — William Erb

Hanson. ANDERSON—Arthur B. Henning. LEBANON—Robert F. Hutchinson. LOGANSPORT—Thomas G. Med-

land. KENDALLVILLE-Noble W.

Miller. RICHMOND—George W. Courtney and John Raymond Monaghen. CRAWFORDSVILLE — Carroll O.

Beeson. ELKHART—Gerald C. Brubaker. NEW CASTLE—John P. Guyer. EVANSTON, ILL. — Callix E. Miller, Jr. MICHIGAN CITY-Norbert John

Schaaf ROCKVILLE — Wm. Eugene Davis

Associate Members INDIANAPOLIS

INDIANAPOLIS Wm. C. Beard Jr. Rosemary Best James W. Burkhart Lionel E. Byfield Kenneth B. Curtis Julius F. Ehlert Arthur W. Fleck Elmer R. Frey Calvin Sargent Hamilton Donald G. Hawke Robert N. Kennedy Orlando B. Little Clain Sargent Hamilton Donald G. Hawke Robert N. Kennedy Orlando B. Little Clain George Peirce Richard George Peirce Richard George Peirce Richard E. Pryor Herman G. Rall Clyde O. Rice Thomas S. Shimer Jr. M. Carlton Smith Bernard A. Snyder Wm. C. Beard Jr. M. Carlton Smith Bernard A. Snyder Norman F. Traub Herbert Henry Thompson Charles Frederick Wamsle David H. Watt James D. Woods Don B. Perry David S. Scheele James E. Rennard SOUTH BEND Wamsley SOUTH BEND David Louis Ardito N. Roy Shambleau NEW ALBANY Robert Lee Applegate Robert Wilbur Eby Robert Tyler Oakes Robert Lloyd Ritz FORT WAYNE Robert Edward Kain Lloyd W. Larimore T. Richard Shoaff

- James J. Schenkel Carl Le-Roy Bradley **TERRE HAUTE**—Gladys J.
- Miller MISHAWAKA Thomas Brooks
- Brademas. Brademas. MUNCIE—James Bainbridge Campbell. BRAZIL—R. W. Cutshall. LINTON—John T. Fritz. HAMMOND—William S. Hutton. ZIONSVILLE—Clarence B. Ker-barg.

- berg. GARY-Uno L. Larson. FRANKFORT-Rodney W.
- Leonard. GOSHEN-Milton M. Latta. COLUMBUS-H. Wilson Peterson. LOGANSPORT-William Vance
- LAFAYETTE-George H. Spring-

CROWN POINT—Albert E. Turner. GLENVIEY, ILL. — Bert T. Anderson.

Honorary Associate Members

Fermor S. Cannon and Anton Scherrer of Indianapolis; F. W. Kervick of South Bend and C. Julian Oberwarth of Frankfort, Ky.

Wilbur D. Peat, John Herron Art Institute, Indianapolis.

Junior Associate Members

INDIANAPOLIS

INDIANAPOLIS Roy F. Andrews Milton W. Butts Charles H. Byfield Eugene C. Cooper James R. Dunn Maurice Robert Geisendorff Gilbert Koman Jacobs Norman H. Jeffries Harold G. Kelley Rollin V. Mosher Robert Louis Plumley James Edward Rennard David L. Richardson Clyde C. Shropshire Paul Marshall Wilson Ronald M. Strandjord Ronald M. Strandjord

Ronald M. Strandjord Also: George U. Abbinett of Terre Haute; Ogden Walter McMahon of Lafayette; Edward Joseph Malo of South Bend; John Walter Car-mack and Harry Roll McLaughlin of Carmel; James F. Chapman Jr. of New Haven; David Brewer Hill of Whiteland: Albert E. Van Namee of Bristol, and Angelo Gus Thrapsimis of Marion.

Members Emeritus

Leslie C. Bernard, Hammond. Samuel P. Boonstra, Michigan City. A. Frank Wickes, Indianapolis.

Ernest W. Young, South Bend.