Unique method of placing concrete saves time and money at Grand Rapids sewage plant

Using a special swivel pump rig to place concrete in six 100-ft. diameter settling tanks at the Grand Rapids, Mich. sewage treatment plant saved considerable time, labor and money.

As the photo shows, concrete was pumped through a rotating conduit and deposited continuously in the forms. Each tank required 180 cu. yd. of concrete and was completed in a seven-hour day by a seven-man crew.

This demonstrates concrete's adaptability to the special conditions of any job. Placed by this or another method, concrete is the ideal material for sewage treatment plants and facilities.

Concrete is moderate in first cost. It requires little or no maintenance. It has extremely long life. The result is low-annual-cost service.

For more information on concrete construction for sewage treatment plants write for a free illustrated booklet, "Sewage Treatment Works." Distribution limited to the U. S. and Canada.
Below these acres of complication, a corrugated, transparent, plastic material will give a result which rivals daylight itself in the Ford Office Building, designed by Skidmore-Owings & Merrill, Architects, Bryant & Detwiler, General Contractors. In this picture are the following Master Craftsmen from Local 58 IBEW. Left to right: R. Harrison, Fred Robins, Fred Hardy, Lonnie Salyers, Donald Saville, Richard Rowe, Thomas Piasecki.
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All pictures shown here are unretouched
Convention

Michigan Society of Architects 42nd annual convention, scheduled at Detroit's Hotel Statler, March 14-16, is expected to draw the largest attendance in the Society's history.

The convention will begin with a social program, complimentary refreshments and entertainment. Leo Perry, Wednesday evening, March 14. Music will be furnished by Russ Weaver's orchestra and the Detroit Bar Association Glee Club, and there will be an amateur skit by members of the Society.

Thursday morning the Society's board will meet at breakfast, and this will be followed by a business session of the membership. At a Thursday noon luncheon the convention will be welcomed by City officials. Thursday afternoon there will be a panel discussion on "School Design," participated in by Wilfred F. Clapp, Assistant Superintendent, School Organization and Plant, Department of Public Instruction of the State of Michigan, Lansing; Eberle M. Smith, A.I.A., and Roy Robinson, Superintendent of Schools, Farmington, Michigan.

Thursday evening Mr. J. Walter Severinghaus, A.I.A., of the New York office of Skidmore, Owings & Merrill, Architects, will speak on the design of Ford Motor Company's new Central Staff Office Building in Dearborn, and Friday morning delegates and guests will be conducted on a tour of the building, with Mr. Severinghaus discussing its features.

At a Friday noon luncheon, "Trends in Architectural Education" will be discussed, the participants being heads of the architectural schools in Michigan—University of Michigan, University of Detroit and Lawrence Institute of Technology.

Friday afternoon there will be a seminar on "Panel Construction," with Minoru Yamasaki, A.I.A., as moderator, and speakers from ALCOA, Reynolds Metals and the Kawneer Company. The Michigan Bullet-

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| Monthly Bulletin, Inc.: Adrian N. Langius, President; Sol King, Secretary-treasurer; Amedeo Leone, and Frederick E. Wigen, Directors; Talmage C. Hughes, Resident Agent. |
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COLOR IS THE KEYNOTE FOR 1956 BATHROOMS

The trend to color in today's bathrooms was particularly well illustrated in the outstanding Briggs Beautyware exhibit at the recent N. A. H. B. Show in Chicago. Designed by Howard Ketcham, noted New York color consultant, it featured five distinctive bathrooms—each one equipped with fixtures in a different Beautyware color. The result—five most interesting and unusual color arrangements and decorative color treatments that were the talk of the N.A.H.B. Show.

Briggs Beautyware features New Models, New Arrangements and New Decorative Color Treatments.

BRIGGS BEAUTYWARE
BRIGGS MANUFACTURING CO., 300 Buhl Bldg., Detroit 26, Michigan
LONDON ARCHITECT, FRANK A. WHITE, A.I.C., A.I.A., has been named Canadian Representative on the Michigan Society of Architects 42nd Annual Convention Committee, it is announced by James B. Hughes, A.I.A., of Detroit, General Chairman of the Committee.

White, a native of Minneapolis, Minn., received his professional education at the University of Michigan, College of Architecture, his experience in architects' offices in London and Detroit. After serving as Lieutenant in the U.S. Navy during World War II, he entered his own practice in 1947.

Registered as an architect in Ontario and Michigan, he has specialized in institutional work. He is a member of the Royal Architectural Institute of Canada. Ontario Association of Architects, The American Institute of Architects, its Detroit Chapter and the Michigan Society of Architects.

TUCSON ARCHITECT, R. J. PFEIFFER, A.I.A., has been named by the Michigan Society of Architects' president, Elmer J. Manson, as a member of the Society's 42nd annual convention committee, representing the Society's more than 100 non-resident members. The convention will be held at Detroit's Hotel Statler, March 4-6, 1956.

Pfeiffer, a native of Sheboygan Falls, Wis., received his bachelor of science in architecture from the University of Illinois, College of Architecture in 1924, following which he was a graduate student at Columbia University, class of 1925. His experience was gained in architects' offices in New York City, Illinois, Texas and Michigan.

He is a member of The American Institute of Architects, its Arizona Chapter, and a non-resident member of the Michigan Society of Architects.

ELMER J. MANSON, PRESIDENT OF THE MICHIGAN SOCIETY OF ARCHITECTS, announces the appointment of James B. Hughes, Talmage C. Hughes and Frederick J. Schroeck as MSA representatives on the Michigan Building Industry Banquet Committee.

The Banquet, concluding function of the Society's annual convention is conducted jointly by the Society, the Builders & Traders Exchange of Detroit and the Producers' Council, Michigan Chapter. Paul R. Marshall is general chairman.

This year's banquet will be held on the evening of Friday, March 16.
what is High-Pressure Steam Curing?

High-Pressure Steam is the best method of curing light-weight concrete masonry units known today, imparting valuable properties not resulting from any other method. Nearly $500,000 has been spent here within the last ten months to build our Autoclaving Plant to cure all of our products by this process (see illustration).

For high-pressure steam curing, light-weight block are placed after manufacture in large steel Autoclaves and sealed. Steam pressure is built up to approximately 150 p.s.i. at 350° with 100% humidity, maintained for a specified period, then rapidly released. Two changes are largely responsible for the improved physical properties, an acceleration of the hardening process and a reaction between the lime and silica to form a hydrated calcium silicate. Further, at the high temperatures and pressures used, a larger proportion of the dicalcium silicate hydrates are formed, and the silicates in the presence of aluminates form hydrogarnets, very stable compounds.

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To ensure the best for your construction jobs, specify "HORN-CLAVED" Light-Weight Concrete Masonry Units—cured with High-Pressure Steam. Descriptive folder, price and delivery information on request.
Many of Michigan's smaller architectural firms will be among the more than 30,000 concerns coming for the first time under provisions of the extended Michigan Employment Security Act in 1956, Max M. Horton, Commission Director, announced.

The Act has been extended to include all employers who have as many as four employees on their payrolls during any 20 calendar weeks of the year. Previously the minimum number was eight employees.

The extension was approved last spring by the State Legislature. The effective date is Jan. 1, 1956.

The Michigan Employment Security Commission is sending explanatory letters about Jan. 15 to all of the state's employers who might possibly come into the program in 1956 under the new extension. On the back of the letter is a form which the employer may use to pay the required payroll tax on a quarterly basis.

Otherwise the amount due for two or even three quarters may be payable at once, Horton explained.

The tax payment is due on the 25th of the month following the close of the quarter in which the employer's payroll records make him subject to the Act, Horton said. Any employer who becomes liable at any time of the year is liable for the entire year under the terms of the Act.

About May 15 each of the employers listed in Federal Social Security Records as having employed from three to seven persons during the second quarter of 1955 will receive from the MESC its "UC-9" form from which liability is determined.

As an aid to the employer in keeping his necessary records, the MESC has devised a small card listing each of the calendar weeks of 1956. Space is provided in which the employer can list at the end of each week the number of persons on his payroll that week.

At the end of the quarter he can briefly review his employment record and determine on how many weeks he employed as many as four persons.

Horton pointed out that the Act is based on the calendar week and not on the fiscal week which so many architectural firms and other businessmen use as their payroll basis.

On the reverse side of the card is a brief listing of the various categories of workers who must be included in figuring liability as well as those who may be excluded from consideration.

Horton said that many architectural firms would be among the more than 30,000 state firms coming under the terms of the Act with the beginning of the year. This will extend the benefits and protection of the Act to more than 200,000 additional workers, he said, bringing to a total of more than 2,000,000 the number of Michigan employees in the program—more than four out of every five persons in the state who are gainfully employed.

Michigan Society of Architects
A proposed new class of membership in the Michigan Society of Architects to finance its public relations program was the chief topic of discussion at the Society’s Board of Directors meeting at Botsford Inn on the afternoon and evening of Wednesday, January 18.

It was agreed that dues of such new members would not be based on social security payments, but rather on the size of the office in a manner yet to be determined. The designation will be Sustaining Membership, rather than firm membership as first considered. Other organizations have this class of membership—notably The Engineering Society of Detroit. In the case of ESD, dues for sustaining members are $100 per year, regardless of the size of the firm, but there are examples of large firms in which several principals are sustaining members.

A flat $100 per firm would not bring in enough to support the Society’s public relations program, so it is proposed that there be some sliding scale, depending upon the number of architectural personnel, which might amount to approximately $12 per person. This would include principals, architects, architectural draftsmen, designers, detailers, checkers, specification writers, outside superintendents, etc. It would not include engineering personnel such as structural, mechanical, electrical, nor would it include clerical, secretarial or other general office employees.

The Board approved the publication of proposed changes to the Society’s by-laws to provide for such membership, to be voted upon at the Society’s 42nd annual convention at Hotel Statler, Detroit, March 16, 1956. The proposed changes are as follows:

ARTICLE 11. MEMBERSHIP

Section 6. Sustaining Membership

The Board may elect to Sustaining Membership, individuals, individual practitioners, co-partnerships, corporations, or joint stock associations legally entitled to practice architecture in the State of Michigan, who by their contributions and conduct have upheld the standards of professional practice of The American Institute of Architects and have furthered the principles and purposes of the Michigan Society of Architects.

A Sustaining Member shall be elected for a period of one year and he or his duly authorized representative shall have the same rights and privileges as Active Members in the Society’s activities and its publications, except he may not (1) vote at meetings of the Society, or (2) hold any office therein.

A Sustaining Member shall not be subject to dues or assessments levied by a local chapter of The American Institute of Architects.

Section 7. List of Members — formerly numbered Section 6.

Section 8. Rights of Members — formerly numbered Section 7.

ARTICLE IV. DUES, FEES AND ASSESSMENTS

Section 2. Annual Dues. Delete Paragraph 2 in its entirety and substitute the following:

The Board shall also set the amount of annual dues to be paid to the Society by each Non-resident, Employee Member, and Sustaining Member. Non-resident, Employee, and Sustaining Members are to be billed for dues annually by the Treasurer of the Society and a receipt acknowledges payment of such dues is to be issued by him.

As to the purposes of these proposed changes, members are referred to the Monthly Bulletin for November, 1956, pages 7 and 9; December, page 35, and January, pages 7 and 9.

For instance, a public relations director would have the duties of visiting architects’ offices throughout the State and rendering them service in any way possible, to assist in matters before the legislature, on TV programs, the MSA movie, the Biddle House Restoration, State Fair Exhibit, the Conventions and Midsummer Conference, etc. He could further our good relations with other groups, conduct a general public relations program, items for State newspapers, and take fuller advantage of the assistance offered by The A.I.A. in Washington.

The January Monthly Bulletin carried a comprehensive report on our suggested public relations program by Charles H. MacMahon, Jr., Chairman of the Society’s special Publicity Committee. The Report listed many activities the Society might enter into if funds were available.

There is the question of whether or not the Society should engage a public relations firm, and this possibility will be explored.

Just now, Kay Eyde who conducts a women’s program on TV station WKAR of East Lansing, is beginning a series of 13 architectural programs, in which Society members will appear. They are being sponsored by Producers, and kinescopes will be made and furnished to other stations throughout the State. The MSA movie has been well received, and there are increasing requests for it. Several copies of the film have been worn out and new copies are needed.

LEO M. BAUER, A.I.A. (left) of Detroit, past President of the Michigan Society of Architects, receives Christmas greetings from some members of his staff: Carl J. Freiwald, A.I.A., William P. Lindhout, A.I.A., and Edna C. Holleran. Joe Reavez who drew the cartoon did not include himself. The MSA PR program grew out of recommendations of a Committee headed by Mr. Bauer.

A special Committee on by-laws changes for the new class of membership is composed of Leo I. Perry, Chairman, Sol King, Adrian N. Longius, James B. Morison and Linn Smith.

The Board of the Society will welcome suggestions from members.

President’s Letter

Among my enjoyable experiences recently have been visits to various architects’ offices and talking about the proposed Sustaining Membership in the Society. I wish that I could continue and talk with every member.

Invariably such conversations evolve into a discussion of new materials, methods of planning, or comparative structural systems. Again and again I was reminded that our profession is constantly striving to produce a better service for our clients, and better buildings in which people may live or work.

This is the great strength of our profession. This is a major factor in why the great volume of present building is designed by architects. Truly, the architects are changing the face of America.

As the impetus of the present boom passes, the architect and the building industry will be faced with a more intense competitive situation. We are a small professional group and we need to inform the general public of our accomplishments, in order to maintain our respected position.

The great burden of public relations will always be on the individual architect to generate personal good will. However, most of the architects we talked with agreed that the Society should continue and expand a program of spreading the story of architectural accomplishments through the public communications channels. Now is the time.—ELMER J. MANSON

February '56 Monthly Bulletin
you are invited

MSA

THE MICHIGAN SOCIETY OF ARCHITECTS

BROCHURE DESIGNED: Edward Anhalt, Dearborn High School, Dearborn

Michigan Society of Architects
a 16mm sound motion picture in brilliant full-color; running time: twenty-two minutes.

this film dramatically tells the story of an architect's development of plans for a high school. it shows what must be done for a successful building from the first meetings with community leaders to the last examination of the completed high school. you will see on-the-job construction and the creation of a building by the building team. the film answers the question: "what is an architect and what can he do for me?"

appropriate for:

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(address) (title)
"architectural problem" is explained as from the prize-winning designs. The to be built on the arboretum grounds, chosen from the prize-winning designs. The "architectural problem" is explained as "small two- and three-bedroom suburban and country houses for occupancy of the arboretum staff."

The jury that will select the prize winners consists of Douglas Haskell, New York; James T. Lendrum, Urbana, Ill.; John Norrille, Des Moines, Iowa; Philip Will Jr., Chicago, and L. Morgan Yost, Kenilworth, Ill. All are members of the A.I.A. Technical Consultant is Edward G. Gavin of Chicago.

The awards will include a grand prize of $1000, six first prizes of $500 each, 10 second prizes of $100 each and 20 honorable mentions of $50 each. In addition to the prizes, six contracts for architectural services are planned, three for $1800 each and three for $1200 each. The competition is open to architects, architectural draftsmen and students, and "all others interested in small house design."

Competitors must register (without charge) with the architectural adviser, Howard T. Fisher, 322 W. Washington St., Chicago 6, Ill. The closing date of the competition is May 7, 1956, and judgment of entries will be completed by June 4, with announcement of winners to be made by June 11.

To aid competitors, a special "package library" of selected material on small house design and construction has been assembled with the assistance of the A.I.A.

UNIVERSITY OF ILLINOIS announces the Francis J. Plym Fellowships in Architecture and Architectural Engineering for 1956, yielding $1,700 toward the expenses of study in Europe. Only graduates of the University's Department of Architecture are eligible. Several half-time assistantships, paying $1,500 plus tuition exemption, will be available to graduates of accredited schools of architecture for 1956-57. Requests for application forms should be addressed to Alan K. Laing, Chairman, Department of Architecture, University of Illinois, Urbana, Illinois.

The Fisher organization, which will continue its research activities on building services, pays $1,500 plus tuition exemption, will be available to graduates of accredited schools of architecture for 1956-57. Requests for application forms should be addressed to Alan K. Laing, Chairman, Department of Architecture, University of Illinois, Urbana, Illinois.
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materials and methods, specializes in institutional and industrial projects. The firm of Bryant & Walchli specializes in school, hospital and institutional architecture. Mr. Bryant & Mr. Walchli are co-authors of a book, Architectural Blocks in School Buildings.

**Michigan Society of Architects**

Michigan Society of Architects will be held at the Washington Duke Hotel for the regional conference of the South the A.I.A. will be one of the speakers.

GEORGE BAIN CUMMINGS, president of University; Henry P. Glass, Executive Housekeeper of Michigan State architecture, Univ. of Illinois, Jay Doblin. Ambrose M. Richardson, A.I.A., professor of bridge Armory in New York. City; Raymond Loewy Corp., Nev/York City; Robert J. Dirstein, S.I.D O., Dana Florence Knoll, Knoll Planning Unit, New York City; Miss Winfield Hills, Mich; Mrs. Florence Knoll, Angeles; Eero Saarinen and Assoc., Bloomfield Michigan; Mr. Bryant & Mr. Walchli are co-owners of the firm of Bryant & Walchli specializing in institutional and industrial projects.

**New York**

Fourteen well known interior designers and architects were presented awards recently for outstanding interior design accomplishment in institutions interiors. Occasion for the presentations was the 2nd Annual Interior Awards Program in New York City. Prime purpose of the Interior Awards Program is to foster, promote and officially recognize outstanding interior design achievements in institutions, hotels, hospitals, schools, clubs, restaurants, colleges, etc., throughout the western hemisphere.


Sponsored by Institutions Magazine, these awards were presented in conjunction with the National Hotel Exposition at the Kinshbridge Armory in New York.

Judging of the entries was done by the following panel of interior design experts: Ambrose M. Richardson, A.I.A., professor of architecture, Univ. of Illinois, Jay Dobkin, Director of Illinois Inst. of Technology's Institute of Design; Mrs. Harriet Ansley, Executive Housekeeper of Michigan State University; Henry P. Glass, Glass-Huecker Assoc.; Miss Melanie Kahan, A.I.D.

**Ohio**

A. F. TYNAN, has been elected president of the Columbus Chapter, A.I.A. Other officers elected are: Gerald Emeric, secretary; R. J. Holroyd, vice president; Loren J. Staker, treasurer.

EDWARD KROMER has been presented the Columbus Chapter's certificate of award, for "outstanding public service." Mr. Kromer will soon retire after 34 years association with the Columbus Board of Education. Since 1930, he has held the title of architect for the school board. Prior to that he was an assistant to the school board architect.

**Tennessee**

VICTOR H. STROMQUIST, has been elected president of the Middle Tennessee Chapter. A.I.A. Other officers named were: Robert B. Rodgers, vice president; George N. Barkhalter, secretary-treasurer. Director elected were: John E. Harwood and W. Terry Hall.

**Texas**

WOOLFIE F. BROWN of Abilene was elected president of the West Texas Chapter, A.I.A. Others named were: Hank Avery of Midland, vice president; John R. Luther of Abilene, secretary; J. J. Black of Midland, re-elected treasurer, and Royal Dana of San Angelo, director for a three year term.

**In Memoriam**

JOSEPH Z. BURGEE, A.I.A., 58, while on a business trip in New York City, on Jan. 5th. Mr. Burgee was a member of the firm of Holabird, Root & Burgee of Chicago, Ill. Mr. Burgee was responsible for many notable architectural projects, including various Illinois Bell Telephone Company Buildings, the Dunbar Vocational School, The American Bar Assoc. headquarters, and the National Congress of Parents & Teachers headquarters in Chicago. Other projects were the City-County Bldg. at Madison, Wisc., buildings at Notre Dame and Northwestern universities.

WILLIAM CRUTCHFIELD, 66, at his home on Lookout Mountain, Tenn., on Jan. 1st. Mr. Crutchfield had been president of the firm of Holabird, Root & Burgee of Chicago, Ill. Mr. Burgee was responsible for many notable architectural projects, including various Illinois Bell Telephone Company Buildings, the Dunbar Vocational School, The American Bar Assoc. headquarters, and the National Congress of Parents & Teachers headquarters in Chicago. Other projects were the City-County Bldg. at Madison, Wisc., buildings at Notre Dame and Northwestern universities.

WILLIAM CRUTCHFIELD, 66, at his home on Lookout Mountain, Tenn., on Jan. 1st. Churches designed by Mr. Crutchfield include the First and Betha Ochs Memorial Temple, the B'nai Zion Synagogue and Our Lady of Perpetual Help Catholic Church in Braintree. Commercial buildings include the Coca-Cola Bottling Co., the First National Bank, the Summers-Whitehead American Legion Hall, Minneka Groves, Stuart Manor Apts., General Dextrin Electric System Corp. plant, and the Cleveland Electric System Bldg.

MARION F. FOOSHEE, A.I.A., 67, at his home in Oak Park, Ill. on Jan. 4th. Mr. Fooshee was a partner of the firm of Fooshee & Cheek. The firm drew plans for buildings on the State Fair Park grounds, including the Texas State Bldg., Aquarium Bldg., and United States Federal Government Bldg.

BEN KRINSKY, A.I.A., 52, at his home in Shaker Heights, Ohio, on Dec. 7th. Mr. Krinsky was a partner in the firm of Fulton, Krinsky & DelaMotte. He was the architect for the new Medina High School in Medina, Ohio. Mr. Krinsky was a non-resident member of the Michigan Society of Architects.

CHRISTOPHER LA FARGE, 58, in his home city of Providence, R. I., on Jan. 1st. Mr. La Farge was outstanding in three major fields, as an architect, a painter, and poet and novelist.

He began his architectural career with the firm of McKim, Mead & White, then as a partner in the firm of La Farge, Warren & Clark and later La Farge & Son. One of his most successful books was The Sudden Guest which dealt with the 1938 hurricane which struck in his home section of Rhode Island. His book Each To The Other was awarded the A. C. Benson Silver Medal of the Royal Society of Literature in England in 1942.

JOHN A. LARKIN, 85, a veteran New York City architect who pioneered in Skyscraper Design, on Nov. 26th, in New Rochelle, N. Y.

FRED J. MANLEY, 76, at his home in Lindberg Forest, Tenn., on Jan. 2nd. Mr. Manley was head of the firm of Fred Manley & Assoc. One of his last significant projects was the remodeling of City Hall Park Buildings. Over a half century, he drew the plans for many area schools and churches, and for the Fort Sanders Hospital, Medical Arts Bldg., Bus Terminal Bldg., and other upper structures.

GEORGE D. PFEIFFENBERGER, 82, in his home city of Alton, Ill., on Jan. 5th. Mr. Pfeifferenberger was the dean of Alton architects, the last remaining member of the L. Pfeifferenberger Sons firm, founded in 1856. He was instrumental in planning the construction of many major buildings in Alton, and in the files of the firm had plans for as many as those of Lincoln School. He designed many school buildings in the Southern Illinois area.

Harvey A. Schwab, A.A.A., 68, prominent Pittsburgh architect, at his home in Wilkinsburg, Pa., on Jan. 12th. Mr. Schwab designed Longley High School, The Gulf Research Lab, the Arsenal High School, the Infirmary at Falk State School, the Western Pennsylvania School for the deaf, and the Birmingham Evangelical Church.

C. SEDGWICK MOSS, A.I.A., 64, at his home in Washington, D. C., on Nov. 13th. Mr. Moss was an architect with the United States housing agencies. He was first with the U. S. Housing Administration and later with the Federal Public Housing Administration and was development co-ordinator for various Federal housing programs.

WILLIAM F. WEEKS, Sr., 63, in his home city of Sheboygan, Wis., on Jan. 1st. Mr. Weeks was president of the firm of W. C. Weeks, Inc. He was responsible for designing some of the finest church buildings in the area. His most recent projects were St. John's Evangelical and Reformed Church, Our Savior's Lutheran and Bethany Lutheran at Kohler. In the field of public buildings, Mr. Weeks specialized in the erection of the Commodore Hill, Court House and highway garage at Green Lake, and the Kewaunee County Courthouse and highway buildings at Kewaunee.
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February '56 Monthly Bulletin
One of the hardest working, most criticized—and most appreciated—groups in America is that made up of trade association executives.

As a member of the staff of Printers' Ink for a great many years, I have met a lot of association people. And I learned long ago that there is no such thing as a typical trade association executive. I have known fat ones and thin ones, tall ones and short ones. I have known some who were fashion plates, others who looked as though they slept in their clothes. I have listened to some executives who were polished orators, to others whose platform manner just got them by.

There are, however, several qualities most of them have in common. One of these is a willingness to do a lot of hard work. But I think more marked among them is an intense, unreasonable and sometimes unreasonable loyalty to the group for which they work. Perhaps without this almost religious zeal many of them wouldn't put up with the hardships and discouragements that are the lot of far too many association people.

Before you get the idea that I look somewhat naively at these people as a kind of breed of superman, let me hasten to add that they are human beings. Some of them lose their tempers too often. Others can at times be a little trying in their relations with their members. Others, I am bound to say, can be very irritating in dealing with the press. Now and then along comes one who just isn't fitted for the business. But he doesn't last, so you don't consider him in the general run of association executives.

In our time we at Printers' Ink have tangled with trade association executives. At times our disputes have been long and bitter. With the policies of some of them we have disagreed in the past and will disagree in the future. But I don't think that ever, even in the midst of the most violent differences of opinion, have we failed to recognize that the association man was fighting primarily because he was loyal to the group he represented. We might question the wisdom of his course but never the depth of his loyalty.

It isn't easy working for a lot of different bosses. Yet that is what the trade association executive is doing all the time. It isn't easy to steer a wise course among the shoals of business politics. Yet one of the main jobs of some association executives is to reconcile warring factions among their own people and to do it so that there are as few scars as possible left.

No, as I said, they are not supermen. They can be cantankerous, rambunctious and downright disagreeable. And they can also be pleasant, friendly, helpful, cooperative, charming, decent, smiling, efficient, etc., etc.

In other words, although sometimes we fight with them, more often we agree with them. And we like them.

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Holes Are Also Found in Doughnuts

Not being bakers, we cannot converse with authority about the merits of empty spaces surrounded by delectable dough. We can however say some interesting things about those "cylindrical longitudinal voids" found in Flexicore.

The hollow cores in Flexicore were originally designed to make our precast slabs lighter without sacrificing their strength, and as hoped for, the economies and excellence of the Flexicore structural system became widely recognized. But we discovered that we had something more than a superlative long-span concrete roof and floor system. We had HOLES.

Architects and engineers have long been using these holes as raceways for plumbing and wiring and as air ducts for heating and cooling.

In more recent years Canadians have been successfully utilizing Flexicore’s hollow cores as the basis for extensive electric floors. The first installations of this nature are presently under way in the United States.

It is conceivable that the future may find us selling holes—and the fine structural system offered by Flexicore becoming an "added bonus".
Shells are inherently strong, rigid structures in which the minimum thicknesses needed for the installation of the parts often automatically satisfy the strength requirements. Furthermore, design techniques have developed to a point where it is possible to approximate mathematically the behavior of even complex shells. By suitable design it is possible to take advantage of the natural compressive strength of concrete, and of the comparative ease with which it can be cast in curved slabs, to produce roofs capable of covering large areas without intermediate support and with a low steel consumption. As a result, shell construction is becoming lighter, cheaper, and more adaptable to a wide variety of uses. Experience has now been accumulated over a large number of years to show that this construction is completely reliable and able to accommodate severe overload and toughness after heavy damage from bombing and severe exposure to fire.

Up to the present time the majority of shell roofs used for industrial buildings, auditoriums, halls, hangars, and other large floor areas are of single curvature, consisting of either long or short cylindrical barrels. Shells of double curvature have been built in many forms such as domes of circular, elliptical, rectangular, or polygonal plan, hyperbolic paraboloids, conoidal forms providing north lights and other special shapes. Although most shell construction is of ordinary reinforced concrete, prestressing and precasting techniques have also been used. Folded, hipped or corrugated plates may also be considered to be in the realm of shell structures.

In long barrels, the cylinder itself forms the supporting member between column lines. The length of the cylinder is usually greater than its radius of curvature and chord width. The cylinders may be used singly or in series as in Fig. 1 and 2. The forms shown in Fig's 1 and 2 are representative of those most widely used in England. The dimensions are not intended to be restrictive and may be varied widely from those listed. The necessary thickness of reinforced concrete shell usually depends on buckling strength and the practical minimum for properly encasing the reinforcing steel rather than on the unit stresses. The majority of shells now being built in England are 2\(\frac{1}{2}\) inches thick. The cylinders have stiffeners at the column lines and may or may not have edge beams. Recent designs are usually of circular cross section.

In the case of short barrels, the cylindrical shell has a long radius, usually variable because the shell is supported on long span arch ribs having parabolic or catenary shaped axes. The span of the shell between arch ribs is small compared with the span of the supporting ribs. Among the first of this type built were several hangars of 197 ft. span at Avord and Istres, France in 1916 and 1917. The longest span of this type to date is the 340 ft. hangar at Rapid City, South Dakota. Spans of 400 to 500 ft. have been calculated and are entirely feasible.
The 270 ft. twin span TWA Hangar at Chicago, Illinois, Fig. 3, is an example of a typical short barrel shell arched roof structure used as an airplane hangar. The arched roof consists of a thin concrete skin generally 3 to 3½ inches in thickness arched over the floor area and maintained at the desired curvature by means of light stiffening ribs. The stiffening ribs are usually spaced about 30 ft. on center. For the hangar shown in the figure the ribs are 2 feet wide and vary in depth from 3'-2" at the crown to 4'-6" at the springing. This construction is exceptionally efficient and furnishes a light graceful structure, keeping the enclosed building volume to a minimum, and reducing the heating and lighting requirements. The interior presents a clean appearance free of obstructions and lodging places for dirt and accumulations of debris. The ceiling acts as an excellent reflector for the lighting system.

Hipped plate structures are closely related to curved shells, the curved surfaces being approximated by a series of flat plates rigidly connected at their intersections. These plates may all be parallel to one axis or may be assembled in various configurations to form pyramids, modified domes, etc.

Hipped plate construction is particularly suited to smaller structures as the formwork is usually simple and inexpensive and the spans of the flat portions of the plate are small enough not to require heavy thicknesses. Singly folded hipped plates of this type are similar, on a larger scale, to the corrugated and V-beam sections commonly used in metal as roof deck and curtain walls for industrial structures. Hipped plates are also being used now for the design of airplane hangars with cantilevered roofs, a type which is becoming increasingly popular among plane and airport operators because of the freedom it allows in providing long unobstructed spaces. Though the use of concrete for cantilever construction is not new, major design experimentation and subsequent improvement in these designs has taken place during the last few years. It is apparent that the main obstacle to using concrete for cantilever roof construction is the excessive weight which would normally be expected to increase rapidly with the span of the cantilever. For conventional cantilever spans of 135 to 150 ft., the required average thickness of concrete in the roof including subframing and ribs, might exceed 12 to 14 inches. This would result not only in high roof costs but also add considerably to the substructure costs. Such concrete designs could not conceivably compete with light unfireproofed steel construction.

A study by our office of the component parts of the structural system suggested another solution to the problem. The cantilever ribs shown in Fig. 7a can be modified to retain only the effective working parts of the member, i.e., the tension steel and enough of the rib to (1) react the horizontal component of the tension steel and (2) to resist the shears and bending moments caused by the load of roof slab. If the roof slab is made an integral part of the rib, it will then assist in carrying the...
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compression forces caused by the cables. This system is illustrated in Fig. 7b. Although this system is considerably lighter than the original, the deck slab is still a fairly heavy member and the stiffening rib still requires as much or more concrete and steel as the deck. To further reduce the weight of the deck slab and at the same time eliminate the stiffening ribs, the roof deck may be hipped as shown in Fig. 7c. The deck slab now has such a short span between folds or supports that a 3 or 4 inch slab is completely adequate as a local structural member while the corrugated section has sufficient overall stiffness to entirely replace the rib. Furthermore, the horizontal component of the cable pull is utilized to prestress the corrugated shell in compression thus eliminating most of the longitudinal reinforcing steel that would be otherwise required. By suspending the office-shop floors and roof from the horizontal member of the center transverse anchorage wall, the strength requirements of this member can be reduced while incidentally providing ground floor area free of columns.

Hangars of this type are scheduled for construction at Kansas City and New York International Airports. A rendering of the TWA Kansas City Hangar is shown in Fig. 8. Burns and McDonnell of Kansas City are the architects.

In the field of auditorium design the general purpose Onondaga County War Memorial Auditorium constructed in Syracuse, New York, in 1950 provided a new arrangement of concrete shell construction. To keep the roof of the auditorium as low as possible and at the same time provide the desired clearances over the balconies, the arched shell is supported on cantilevers. This arrangement is economical because it lowers the thrust line of the arches and reduces the bending at the base of the piers. The clear span of the roof is 204 ft. The crown of the arch is 64 feet above the arena floor. Horizontal thrust on the footings, which are supported on piles in deep soft clay, is eliminated by using the first floor construction to tie the opposite columns at this level. The shell is of the cylindrical short barrel type with a thickness of 3 inches except at the edges where it is increased to 5 inches. The cantilever frame has a maximum size of 7’x28” at the haunch. The arch varies from 24’x22’ at the crown to 32’x22’ at the springing. Edgerton & Edgerton of Syracuse, New York are the architects.

A similar arrangement of cantilever frames has been used for the structural design of the Dallas Memorial Auditorium now being built in Dallas, Texas shown in Fig. 12. In this case, 32 cantilever frames are arranged along the circumference of a 287 foot diameter circle and support a 204 foot diameter modified dome. The dome is formed by 16 spherical segments separated by expansion joints and meeting at a 22 foot diameter compression plate at the crown 92 feet above the arena floor. George Dahl of Dallas, Texas is the architect.

Amman and Whitney, Consulting Engineers, 111 Eighth Avenue, New York City, were engaged on all of the structures shown in the figures: except for the hangar at Rio de Janeiro (Fig. 6).
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A unique auditorium building, the MIT Auditorium, Fig. 13 and 13a recently completed in Cambridge, Massachusetts is covered by a roof formed by a spherical triangle, $\frac{1}{6}$ of a sphere. The chord length of each side in plan is 158 feet. The typical thickness of the dome is $3\frac{1}{2}$ inches and the average thickness including haunches and stiffening edgebeams is 4.8". The dome is supported at the three corners on steel struts 4\(rac{1}{2}\) inches thick by 10 inches wide. Those in turn are carried on spherical bearings of high strength steel which transmit the reactions to reinforced concrete buttresses. Eero Saarinen & Associates are the architects.

The Temple Beth Sholom, Fig. 14, now under construction in Miami Beach, Florida has several interesting features. The main structure is one half of a circular dome whose directrix is an inverted catenary and which forms the end of a 45 foot long conical shell with a maximum rise of 45' which also has as its directrix an inverted catenary. The formwork is shown in Fig. 16.

The rise of the dome is 40' and the radius at the base is 45 feet. The entire structure has a typical thickness of 4 inches of lightweight concrete except adjacent to the doorway cut-outs. The thickness is somewhat more than required for structural purposes and was used to provide the desired thermal properties without separate insulation. It is anticipated that the roofing will consist of either a vinyl or acrylic plastic compound having suitable texture, color and durability.

Fig. 15 is a rear elevation showing the assembly hall and lobby which are roofed by corrugated lightweight concrete slabs spanning 80 and 40 feet respectively. The 40 foot span is 4 inches thick throughout. The thickness of the 80 foot span varies from 3\(\frac{1}{2}\) to 5\(\frac{1}{2}\) inches. The architect on this project is Percival Goodman, New York City.

Having briefly reviewed a few examples of shell construction, the next question is, "What is a reinforced concrete shell structure likely to cost?".

Except in the case of an "ideal" client who is primarily interested in the functional and aesthetic merits of the design and is willing to bear any construction costs required to achieve an outstanding project, comparative costs are always a very important factor in the design analysis.

In this respect it is reassuring to note that present day shell structures were developed largely for engineering projects as a means of enclosing large clear spans at minimum cost. Shell structures have demonstrated their economy time and time again both by comparative estimates against other materials and types of construction and by actual alternate bid proposals.

To properly evaluate the factors which have the greatest influence on shell cost, it should be noted that concrete, the material usually used in shell construction, is essentially a cheap material to buy and handle. The greatest parts of the cost are involved in the formwork needed to support the skin and the equipment needed to handle the concrete from the point of supply to the place of use in the building.
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This distribution of cost is opposite to that for wood and steel construction where the delivered material costs are high and the erection costs are low. In order to take advantage of both low material costs and low placement costs, it is necessary to reduce form and equipment cost. Formwork costs can be reduced by roof shapes permitting the use of small sectors of formwork which can be used a number of times. Decreasing the size of each pour not only reduces the initial formwork cost but also permits greater reuse of this form. Equipment unit costs can be similarly reduced by scheduling the operations so as to keep the equipment in continuous use.

Fig. 17 indicates the rather obvious advantage gained by reuse of the formwork.

Major shell structures composed of single units such as domes, hyperbolic-paraboloids, conoids, etc., which must be formed in their entirety lose the economies gained by reuse. However, even for these shapes the surfaces of revolution can often be broken into sectors such that each sector can be poured separately and the total costs consequently greatly reduced.

For example, in the case of the dome for the Dallas Auditorium shown in Fig. 12, comparative estimates for a full prestressed dome and the modified ribbed dome which was selected give the following results:

The average cost of the modified dome is $2.90/sq. ft whereas the full prestressed dome would have cost approximately $6.20/sq. ft. Since the cost of materials is approximately $1.90 in both cases the difference of $3.30 in the sq. ft. cost is due entirely to the lower average cost of formwork resulting from the 8 reuses for the dome and 16 reuses for the cantilever frames.

Cylindrical short barrel arch shell construction as shown in the earlier slides becomes very inexpensive when poured one or two bays at a time in buildings of reasonable length. In general, depending on size and span, present day prices for shells may be expected to run from $5.00 to $8.00 psf where the formwork can be used only once to from less than $2.00 to $3.00 where formwork can be used six or more times.

Where formwork can be reused several times, shell construction can provide clear spans at a very nominal cost. The span can increase greatly without adding materially to the total cost of the building. Fig. 18 indicates the approximate increase in cost with span for cylindrical vaulted hangar shells. It might be pointed out that this modest increase in cost with span is caused largely by the effect the arch reactions on the relatively supporting buttresses and the foundations and not by the increase in roof costs.

Shell construction can also be used for small building roofs, canopies, etc. In this application shells require only a few inches of skin thickness and relatively minor convolutions in shape. However, unless the special architectural effects desired are particularly suited to such forms, similar results can be achieved at equal or lower cost by use of flat plates, hipped plates or other more conventional construction. Concrete materials are so cheap that on short spans added thickness can be provided for the cost of molding special surfaces and handling drainage and associated problems.

The next step is that of providing the structural design at a cost within the
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sign budget. For small structures in which the stresses are obviously far less than the inherent strength of a shell of minimum thickness, design costs will be approximately the same as for conventional construction. However, in the case of unusual shells large enough to require reasonably accurate analyses to determine strength requirements, the engineering work necessary to provide a safe and economical structure is more difficult and time consuming than for many other types of construction. This condition is necessarily reflected in the engineering design costs and subsequently in the architectural design costs. While the structural design cost may not actually increase in proportion to the construction cost of structure it may increase with respect to the total project.

The exact point with respect to the size of project at which shell design costs can be absorbed in normal design fees will vary with the complexity of the solution. For simple shells and straightforward framing, shell design may not be more expensive than conventional designs regardless of the size of the project. This is particularly true of hipped plate designs. As in other types of construction, if the structure is highly integrated and composed of a number of complicated parts, the design costs will be accordingly higher. For unusual projects it will usually be advisable to consult with engineers familiar with shell design before fixing the design budget.

However, there are many situations particularly on projects of intermediate size where shell construction can provide the specific solution sought by the architect. In this case the owner should be willing to accept added design costs, either to obtain a unique solution to his problem or to obtain lower overall construction costs or both. It seems reasonable that if the owner is willing to accept costs that might be inherent in a certain veneer, a certain panel, a certain flashing, etc., he should be equally willing to pay the modest added design costs necessary to achieve similar or more important effects.

The above is not intended to discourage use of shell designs. We believe that the use of shell construction will continue to expand rapidly. Rather it is intended to point out that design costs on small shell projects may sometimes be higher than design costs for normal construction. While this added design cost is important in relation to design fees, it is insignificant compared to total construction costs. As the owner stands to gain as much from the added design work as he would by any activity by the contractor, it is in his interest to give favorable consideration to the added fee required to supply a better plan from which the contractor will work.

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February '56 Monthly Bulletin
Charles A. Blessing, A.I.A., Detroit's City Planner, will be the speaker at a meeting of the Detroit Chapter, American Institute of Architects in the Rackham building on the evening of Thursday, February 16. His subject will be "Redevelopment Planning in European Cities."

Blessing's address will be illustrated with color slides taken on his tour of European countries last year. An exponent of the policy of urban redevelopment, the revitalizing of our central business district, he visited key cities abroad to get new ideas and learn how foreign countries are progressing. In 25 cities scattered across Europe, he says, he saw the same war that Detroit is waging—war against the blight, traffic congestion and parking shortages that are strangling our downtown sections.

Before Mr. Blessing's talk there will be an additional feature—the showing of the film, "Architecture—U.S.A.," a film slide report on today's architecture. It is a sound color film made up of 140 slides of representative examples of the best of today's homes, schools, office buildings, factories, churches, etc., with a preview of what the future holds architecturally. The report is the result of 50,000 miles of travel and the editing of 10,000 color photographs by Ralph E. Myers, A.I.A., of the architectural firm of Kivett & Myers, Kansas City, Mo. Initial impetus was given the project by a grant from the Arnold W. Brunner Scholarship of the New York Chapter, A.I.A. Ketchum, Inc., public relations counsel for The A.I.A. produced the script.

The film illustrates the work of some 67 leading architects from throughout the country, including several from Michigan.

THE AMERICAN INSTITUTE OF ARCHITECTS announces the election to corporate membership and assignment to the Detroit Chapter of Eino O. Kainulai and Daniel L. Treacy, both of Ann Arbor; Edward P. Elliott, Mark T. Jaroszewicz and Louis F. Schneider, all of Birmingham, and Alfred Ernest Brown, Nathan Levine, Seymour I. Levine, Maxwell Lewis, Jay S. Pettitt, Jr., Robert G. Showler and Charles E. Sleeper, all of Detroit.
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MIDDLE RIGHT:
Mr. & Mrs. Earl G. Meyer and Mr. & Mrs. Frederick J. Schoettley

LOWER RIGHT:
Mr. & Mrs. John Noble Richards of Toledo, Ohio. Mr. Richards is Second Vice President of the American Institute of Architects

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February '56 Monthly Bulletin
Western Michigan Chapter

Western Michigan Chapter, A.I.A. met at Inman's Restaurant, Galesburg, Michigan on the evening of January 16. Forty-seven members and twelve guests attended the dinner, following which Chapter President Ian C. Ironside of Lansing presided at the meeting.

The President congratulated Elmer J. Manson, of Lansing, on having been reelected President of the Michigan Society of Architects, and he called upon Elmer to give a brief report on the Society's activities, particularly its TV programs and proposed plan for financing a public relations program.

Program Chairman Howard DeWoll stated that Chase Block deserved much credit for his work as Program Chairman last year. He also thanked Jim Fox Chairman of the program for this meeting, and after introductory remarks he presented the speaker of the evening, Mr. Thomas H. Hewlett, A.I.A., of the firm of O'Dell, Hewlett & Luckenbach, Architects, of Birmingham, Michigan.

Mr. Hewlett showed slides of the growth and development of Detroit's Civic Center, and he also gave an informal talk, illustrated by color slides, of architectural examples in the United States, France, Stockholm, Denmark, London and Mexico City.

This was a thoroughly enjoyable program, and Tom was thanked for his contribution.

Saginaw Valley Chapter

Saginaw Valley Chapter, A.I.A. held its first meeting under its new administration at the Elk's Club in Saginaw on the evening of January 25. The new President Samuel C. Allen presided and heard reports from the other new officers—Glenn M. Beach, Vice-President, Harvey C. Allenson, Secretary, and Donald R. Humphrey, Treasurer. The reports were all good, indicating that the Chapter is sound, financially and otherwise.

Peter Frantz, A.I.A. had been named chairman of the program committee for the event, and he rendered good service, as evidenced by an attendance of 35.

ELMER J. MANSON, A.I.A. senior member of the Lansing firm of Manson & Carver, Architects, announces the reorganization of that firm to include Edward Jackson and Dixon S. Wilson as associates. The new firm name is Manson-Carver-Associates, Architects.

Jackson, who was born in Lithuania, was educated there at the University of Kaunas, and at Technical University in Stuttgart, Germany. On coming to this country, he was engaged in the offices of Lansing architects, and he joined Manson & Carver in 1950. He became registered as an architect in Michigan in 1955. He is a member of the Western Michigan Chapter, American Institute of Architects.

Wilson is a native of Columbus, Ohio and a graduate of Ohio State University, where he received the A.I.A. College Honor Award for design. He was experienced in offices of architects in Ohio before joining Manson & Carver. He is registered in Ohio and Michigan, and is a member of the Western Michigan Chapter, A.I.A.

Elmer Manson, now president of the Michigan Society of Architects, opened his architectural offices in Lansing in 1948, and William W. Carver, A.I.A., joined him in 1950. The two had practiced together in Massena, N. Y. before coming to Lansing.

IAN C. IRONSIDE, A.I.A., of East Lansing, has been made a partner in the Lansing firm of Warren Holmes Company, Architects. Ironside, a graduate of the College of Architecture and Design, University of Michigan, has been an associate of the Holmes firm since 1953. He is registered in Michigan, Wisconsin, New York, and by the National Council of Architectural Registration Boards. In 1955 he was elected president of the Western Michigan Chapter, American Institute of Architects, after having served two terms as vice-president.

James A. Spence, A.I.A. was appointed Chapter representative to cooperate with the Department of Education and Research of the Institute in Washington, D.C. Willard Fraser, of the Dow office, was appointed Chapter representative on the State A.I.A.-A.G.C. Committee.

Five new corporate members were approved: David Oeming, Clarence Waters and Dale Pooske, all of Saginaw; T. Elidine Crampton and Jackson B. Hallett, both of Midland. Waters was transferred from the Detroit Chapter.

Mr. David S. Geer, of Geer Associates, City Planning consultants, of Birmingham, was the speaker of the evening. He spoke on city planning in general and showed slides of examples, some of which were his own firm's in the Detroit area and throughout the State. Guests at the meeting were Messrs. Russell O. Koenig, of Saginaw's City Planning Commission, and Franklin Smith, of Bay City. Following Mr. Geer's talk there was a question-and-answer period.

The next Chapter meeting will be held in Flint in March.
Michigan Items

ELMER J. MANSON, president of the Michigan Society of Architects, announces the Society’s Board approval of committee appointment for 1956 as follows, the first named being chairman:

EXECUTIVE — Manson, Eberle M. Smith, Peter Vander Loan, Willard E. Fraser, Linn Smith.


PUBLIC AND PROFESSIONAL RELATIONS—Vander Loan, Amedeo Leone, Raymond I. Olson, Frederick I. Schoettley, Frederick E. Wigen.

EDUCATION AND REGISTRATION—Fraser, Samuel C. Allen, Ernest J. Dellar, C. A. Obryan, King, Sub-committee on State Elevator Code—Allen, Dellar, John Baker.

MONTHLY BULLETIN, INC.—Langius, King, Leone, Perry, Wigen.


BIDDLE HOUSE RESTORATION—Langius, Roger Allen, Clark E. Harris, Louis C. Kingscott, Warren L. Rindge.

1956 CONVENTION—James B. Hughes, Paul B. Brown.

INTER-PROFESSIONAL COUNCIL—Leone, Talmage C. Hughes, Leo M. Bauer.

PRESERVATION OF HISTORIC BUILDINGS—Emil Lorch, S. Howell Taylor.


EDWARD A. EICHESTEDT, Detroit landscape architect has received the “Plant America Award” for 1956, presented by the American Association of Nurserymen, “in recognition of achievement in industrial landscape and beautification contributing to employee and civic pride in our American heritage.”

The citation, presented at the Association’s annual meeting at Purdue University on January 2, reads:

“The American Association of Nurserymen is deeply pleased to express recognition of the achievement you have made in industrial landscaping. In nation-wide competition with others in this field, your work has been selected as among the very best landscaping in American Industry. We are proud, therefore, to present to you this ‘Plant America Award’ for industrial landscaping and beautification.”

Eichstedt, a member of the American Society of Landscape Architects recently became an associate member of the Detroit Chapter of The American Institute of Architects.

A graduate of Syracuse University, he began his professional career in 1922 with Jens Jensen, landscape architect, of Chicago. Following a period of employment with the Detroit City Plan Commission and the Department of Parks and Boulevards in Detroit, he entered his own practice as a landscape architect in 1947.

FREDERIC A. FAIRBROTHER, A.I.A., after rounding out 40 years of faithful and illustrious service with Albert Kahn Associated Architects and Engineers of Detroit, has retired, effective December 31, 1955, from the firm where he rose from assistant chief draftsman to Vice President and Chief Architect. A “Down Easter” by birth, Mr. Fairbrother followed the Horace Greeley advice to “Go West” with considerable success.

Born in Providence, R. I. on November 10, 1878, he received his elementary and high school education in the Providence schools and studied at the Rhode Island School of Design. Following graduation in 1900 from the R. I. Design School, he entered the University of Pennsylvania’s School of Architecture, Philadelphia, where he received his Certificate of Proficiency in Architecture in 1903.

His first working experience was gained in the office of Cass Gilbert, a prominent New York architect, after which he studied and traveled in Europe for a year. In 1913, following association with a number of architectural offices, he left the East and headed for the bustling city of Detroit and employment in the supervising architect’s office of the Ford Motor Company. When
Henry Ford again turned to Albert Kahn for architectural service in 1915. Mr. Fairbrother was persuaded to join the Kahn organization where he remained until his recent retirement.

In 1940, together with 24 other key employees, Mr. Fairbrother was made an Associate at the time Albert Kahn changed the corporate structure of the firm he founded in an effort to assure its perpetuity. Early in 1945 Mr. Fairbrother was appointed Chief Architect and shortly thereafter was made a Vice President. Always highly regarded by his associates, it is hoped by all who know him that his retirement will be replete with happiness in the pursuit of those interests which his busy and productive career in the architectural field left little time for exploring.

Mr. Fairbrother is a member emeritus of the American Institute of Architects and of the Michigan Society of Architects. He is registered in 14 states and holds the Certificate of the National Council of Architectural Registration Boards.

SOL KING, A.I.A., veteran of more than 20 years with Albert Kahn Associated Architects and Engineers of Detroit, has been appointed Director of Architecture for the firm. In this position, with full status as Associate, Mr. King will exercise supervision of all phases of architectural development of all projects from their inception.

An architectural graduate of the University of Michigan, Mr. King joined the Albert Kahn organization in 1935. In 1948, when membership in the firm was first opened to key employees other than those admitted to partnership as Associates by Albert Kahn, the founder, Mr. King was made a member. Seven years later, having demonstrated administrative as well as technical ability, he was elected, early in 1955, a member of the Board of Directors and was made a Vice President of the firm.

His long and diversified experience in industrial and commercial building design, site planning, community buildings, hospital planning and design eminently qualifies Mr. King for his elevation, effective January 1, 1956, to the post of Director of Architecture.

Mr. King is a registered architect in Michigan and holds the Certificate of the National Council of Architectural Registration Boards. He is a member of the American Institute of Architects and a member of the Board of Directors of the Michigan Society of Architects.

AMEDEO LEONE, A.I.A., vice-president of Smith, Hinchman & Grylls, Inc., Architects and Engineers, has had a leading part in the design of many important projects, including such buildings as the Penobscot, Union Guardian, Buhl, Michigan Bell, J. L. Hudson, Jeffries Housing, State Capitol group, General Motors Technical Center and many others. A past president of the Detroit Chapter, A.I.A., he is now a director of both the Chapter and the Michigan Society of Architects.

THE MONTHLY BUILDING COST REPORT

issued by Smith, Hinchman & Grylls, Inc., Architects and Engineers states that the cost index has risen but slightly over the past month.

Pointing out that there is great demand for architects, professional engineers, technical and skilled labor in the building industry because of the record amount of construction, the Report adds:

"This is delaying completion of plans and fabrication of materials. Architect-engineer offices, as well as the connected trades, are working long hours in order to get the work out. There is a small portion of unemployed but these, unfortunately, do not have the skills required for building work."

The Report concludes:

"It is important that building work be put into the blue print stage as rapidly as possible in order that the delays due to shortages of materials be kept to a minimum."

HARLEY, ELLINGTON & DAY, INC., ARCHITECTS AND ENGINEERS, of Detroit, have been commissioned to design the government's second largest building, the $50-million State Department building in Washington. To cover four square blocks, and have 2,600,000 sq. ft. of floor space, the new structure will be topped only by the Pentagon. Collaborating with HE&D will be the Chicago firm of Graham, Anderson,

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Michigan Society of Architects
Annually since 1915, the Detroit Real Estate Board has published a schedule of unit costs or employing cubical contents of buildings as the basis for determination of prices. The schedule, revised as of Jan. 1, 1956, is presented herewith.

The schedule of costs was produced primarily as a service to members of the Detroit Real Estate Board, as a guide in estimating construction or reproduction costs and as a possible guide to appraisers. Within recent years, in light of requests for copies have come from all parts of the United States and numerous trade publications have asked permission to publish the schedule. It has been and continues to be the policy of the Detroit Real Estate Board to authorize reproduction of the schedule by recognized trade publications and by banks, trust companies, insurance companies, building and loan associations, mortgage companies, appraisals organizations, etc., for the personal use of members of those organizations but no permission is given for reproduction of the schedule for sale. Additional copies may be purchased from the Detroit Real Estate Board at 50 cents each.

The willingly and painstaking cooperation of the Department of Buildings and Safety Engineering in the preparation of this schedule is appreciated; the measurements shall be taken from the ground line, and in the case of large buildings having deep foundations, the extent shall be measured from a point below the basement floor by an amount equal to the depth of the foundation. In the case of open shelter sheds and other open sheds, the volume shall be determined by measuring from the projection of the edge of the foundation to the mean height of the roof.

The costs figures presented are assumed to represent the minimum cost at which a fairly good building of economic design, may be constructed under most favorable circumstances within the Detroit district. The costs contain architects' fees, contractors' profits and all general items of construction and equipment including plumbing and heating systems, elevators, incinerators, refrigerating systems, etc. Financing costs, however, are not included.

As bids of individual contractors may vary from 20% to 30% above or below the figures herein, a wide range of variance in the costs of similar buildings erected in the area. The quality of construction must be taken into account. The schedule presented is based upon the cost of average construction. The costs might be lessened by inferior construction or substantially increased by superior construction.

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Mr. Snyder will remain in charge of designing and planning, while his new associate, Louis F. Schneider, A.I.A., will be in charge of production. Snyder, a graduate in architecture from the University of Detroit, was formerly engaged in the architectural offices of Wallace Frost of Birmingham, Paul Moffet of Detroit, and J. Robert F. Swanson of Bloomfield Hills.

EERO SAARINEN, F.A.I.A., distinguished architect of Bloomfield Hills, has been named one of four jurors in a world-wide architectural competition for the design of a National Opera House for the City of Sydney, New South Wales, Australia.

Saarinen and three other judges — two Australians and an Englishman — will award prizes amounting to approximately $18,000 to the three winning designs. Site of the Opera House is on the shores of Sydney Harbour.

Architects desiring to enter the competition should register with the Secretary, Opera House Committee, Bridge and Phillip street, Sydney, Australia.

ROBERT SNYDER, A.I.A., who heads the Department of Architecture at Cranbrook Academy of Art, has reorganized his Birmingham office and renamed the firm Robert Snyder Associates, Architects.
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February '56 Monthly Bulletin
a planning board to advise the District of Columbia Auditorium Commission in planning a cultural center for the nation's capital.

At a recent meeting of the Commission in Washington, representing GV-R, were R. F. Giffels and Louis Rossetti.

MONTHLY BULLETIN, INC., a subsidiary of the Michigan Society of Architects, has reelected Adrian N. Langius president; Sol King, vice-president; Leo I. Perry, secretary-treasurer, and Amedeo Leone, Director. Frederick E. Wigen, of Saginaw, succeeds Paul A. Brysselbout, of Bay City, whose term as director expired.

F. ORLA VARNEY and JOHN B. JEWELL announce the opening of their office for the general practice of architecture at 4829 Woodward Avenue, Detroit 1. The new phone number is TEMple 1-4436.

WANTED — Architects and architectural draftsmen.—George D. Mason Company, 409 Griswold St., Detroit 26, WOODward 2-7850.

FORD MOTOR COMPANY has openings for graduate architects with eight or more years of practical experience to plan and coordinate all functions relative to the design, construction and occupancy of new buildings. A number of new buildings are being planned for the expansion of the Ford Research and Engineering Center, requiring services of such men as soon as possible.

Salaries will depend upon experience of the men who apply. There are a number of excellent fringe benefits available to salaried employees of the Company.—Francis J. Budde, Section Supervisor, Salaried Personnel, Training and Employee Services Department, Ford Motor Company, Engineering Staff, 21500 Oakman Blvd., Dearborn, Mich., or Post Office Box No. 2053, Dearborn.

HARLEY, ELLINGTON & DAY, INC. has positions for experienced architectural designers and draftsmen: structural, mechanical and electrical engineers and specification writers, in their Detroit office. Architects may also be employed for work in the Washington, D. C. area. Air conditioned offices; paid vacation, holidays and sick leave.—Harley, Ellington & Day, Inc., Architects and Engineers, 153 E. Elizabeth St., Detroit 1, Mich.

ARCHITECTURAL DEVELOPMENT ENGINEERS—Primary producer of aluminum offers positions in Chicago and coastal California for architects and architectural engineers to conceive and develop new uses for aluminum products in the building industry.

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Engineering & Construction
The Board of Directors of Motor City Electric Company, electrical contractors, has named Fred J. Somes, Jr. President of the company. Somes, formerly vice-president, succeeds A. G. Olenstein who will remain as chairman of the board. Other officers named are Herman Rutherford, vice-president and Miss Virve Soderblom, treasurer. Rutherford will be in charge of labor relations and field operations where he has had extensive experience with the company. Miss Soderblom will continue as office manager. The new treasurer has been with the company three years prior to which she was associated with Kales Kramer Investment Company.

In line with these appointments the company reports a record year for 1955 in the volume of electrical construction work. Offices of the company are located in Detroit, Flint and Ann Arbor.

WILLIAM A. CROWE, for 25 years a partner in the firm of Heineman-Lovett Company, announces the opening of the William A. Crowe Company, specializing in waterproofing, concrete restoration and pointing, at 12725 Puritan Avenue, Detroit 27, Mich. The new telephone number is 4-5556. Mr. G. R. Mucké is associated with the new firm.

THE NAME'S THE FAME—Looking over the new name—JEFCO—imprinted both on the brick and the crating labels, are Chet Jaros (left), sales manager of the Detroit Brick and Block Company, and Al Bouffard, president of the firm.
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February '56 Monthly Bulletin
New Light Weight Concrete

Architects and contractors are displaying increasing interest in a new light weight concrete of unusual properties made possible by a chemical and process developed in post war West Germany. This new concrete is reported to be not only strong, but self-insulating and highly moisture-resistant.

The chemical, called Elastizell after its widely-used German prototype, is now being introduced in the United States and Canada by Elastizell Corporation of America of Alpena, Michigan.

Cited by the corporation are these attributes of Elastizell-type light weight concrete:

- It can be made with universally available materials, like ordinary sand and cement, by simply mixing with wet concrete, in a special soluble plastic agent. These are mechanically mixed with wet concrete, in a special mixer, resulting in a homogeneous cellular or bubble structure, light in weight because of the introduction of a high volume of air.
- The plastic agent gives the cells or bubbles a coating of high tensile strength, while the structure's homogeneous nature reduces possibility of cracking due to varying densities or strengths.
- The exceptional moisture-resistance of this new concrete is due to the close control that can be exercised over the size of the bubbles in the cellular structure and to the moisture-resistance of the Elastizell agents.
- Use of this type concrete in multi-storied buildings permits a floor fill with a density of 70 to 80 pounds per cubic foot, as contrasted to 150 pounds per cubic foot for ordinary concrete.
- At the usual fill depth of 2½ inches, this saves 8 pounds per square foot of floor over ordinary light weight aggregate concrete and 15 pounds over ordinary concrete.

Further, Rosenthaler points out, exceptional results have been obtained through use of this new light weight concrete as floor slab on grade and foundations in a colony of concrete and steel homes built at Alpena in the last 18 months.

Elastizell is compounded of two basic ingredients—a foaming agent and a water-soluble plastic agent. These are mechanically mixed with wet concrete, in a special mixer, resulting in a homogeneous cellular or bubble structure, light in weight because of the introduction of a high volume of air.

The plastic agent gives the cells or bubbles a coating of high tensile strength, while the structure's homogeneous nature reduces possibility of cracking due to varying densities or strengths.

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Further, it is possible to provide a floor that can be finished with only one pour—to a true plane surface.

These factors can be translated directly into terms of important savings in multi-storied construction, both in structural steel and in labor costs, points out the announcement of the new product.

Light in weight, self-insulating and dry, with a "warm-to-the-touch" feel, is Elastizell-type concrete—the new kind of concrete which, it is claimed, makes for extra living comfort in ground level homes and exceptional savings in commercial construction.

Further, it is said, Elastizell-type concrete can be used easily in conjunction with all of the many types of flooring installa-
tions available today.

The corporation believes the material goes a long way toward solving the building industry's on-grade flooring problem. Root of this problem is moisture in the original concrete mix and also moisture transmitted from subsoil to surface of the slab.

"Because of its low moisture-absorption factor—as low as 2 per cent by weight—the new concrete is dry," says the announcement. "Properly applied, any type of floor covering can be used successfully—cork and rubber tile, linoleum, parquet-type wood flooring and wall-to-wall carpeting."

The "warm-to-the-touch" Elastizell-type slab allows maximum performance of the heating system, whether the conventional warm air perimeter type or the hot water radiant tube type, providing true floor-to-ceiling room comfort.
The NATURAL HOUSE
by Frank Lloyd Wright

the magnificent new book on small houses by the great architect

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February '56 Monthly Bulletin
DETROIT ARCHITECTURAL BOWLING LEAGUE NEW YEARS PARTY


6. Harry Bassett, Alan Ameel, Bob Larsen and Dave Muller.

ALUMINUM COMPANY OF AMERICA has announced a $25,000 contest to bring forth new design and construction ideas for aluminum curtain wall buildings.

Co-sponsored by Alcoa and the National Association of Architectural Metal Manufacturers, the competition will award prizes ranging from $10,000 to $500 on the basis of "excellence of design" and "ingenious and practical construction methods" for a hypothetical building. Open to architects, designers, architectural draftsmen and students of architecture residing in the continental United States or Canada, the contest awards call for a first prize of $10,000; second prize of $5,000; third prize of $2,500, and 15 honorable mention awards of $500 each.

Programs were mailed to all contestants January 15, 1956. The contest closes at midnight March 26. The first three prize winners will be guests of the sponsors on April 16 at the annual convention of the NAAMM at Belleair, Fla. to receive their awards.

Professional advisor for the competition is Paul Schell, AIA, Pittsburgh, Pa. The jury will consist of Max Abramovitz, FAIA, New York; Kenneth Franzheim, FAIA, Houston, Texas; and Sigurd Edor Noess, AIA, Chicago. The program may be obtained by writing Mr. Paul Schell, AIA, c/o National Association of Architectural Metal Manufacturers, 228 North LaSalle Street, Chicago 1, Ill.

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