# HIORITE Vol. XI



outstanding example of Greek revival architecture

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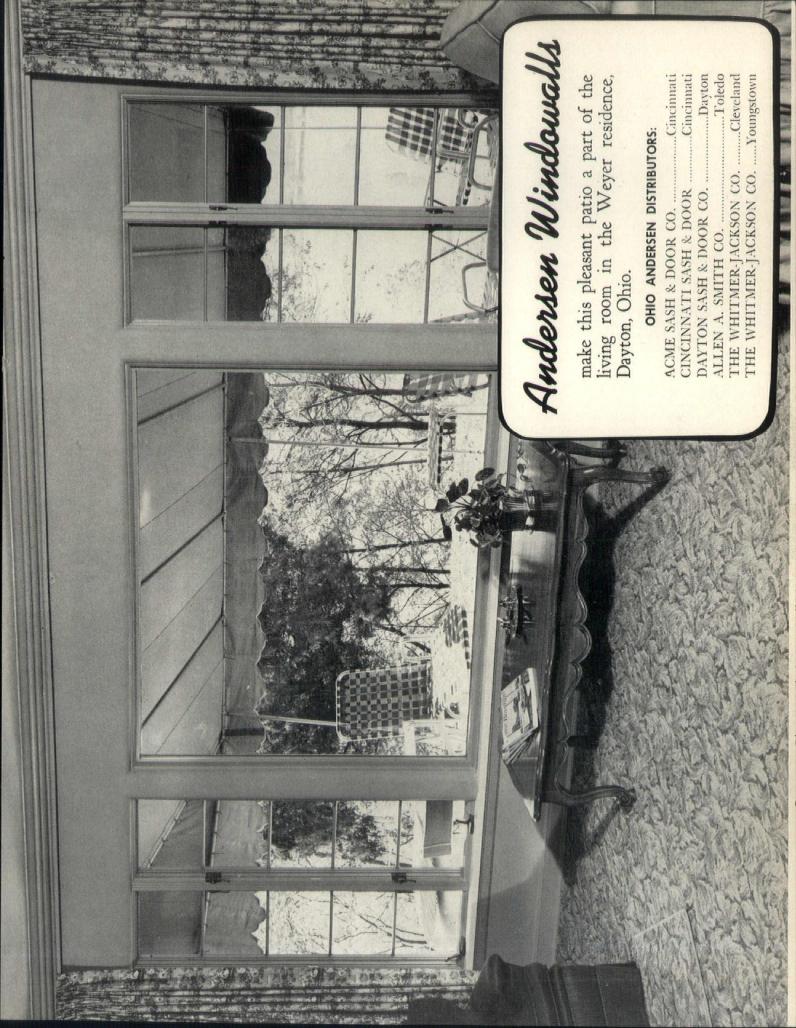
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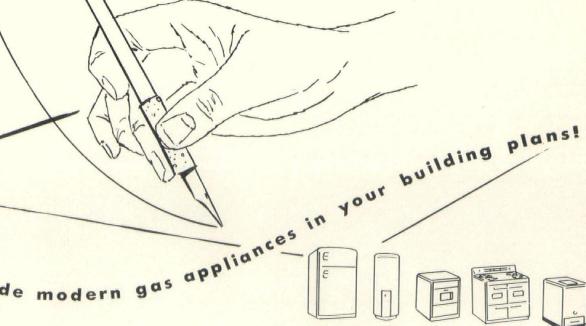
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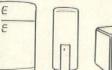
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The Gothic was built sometime before 1850 by Jacob Egbert. Gothic details inside and out proclaim this one of the best of its type. A stairway detached from the wall with one of the unique newel posts for which Lebanon is noted, is an exceptionally interesting feature. Finely designed gothic arches are used in the halls. Much of the furniture remains from an earlier period and adds an old time dignity to



The Old Court House at Dayton was designed by a Cincinnati architect, Howard Daniels. Replacing a brick building erected in 1806, foundations were laid in 1847. One of the finest examples of Greek revival architecture in the state, the old court house is in constant danger of being sold to commercial enterprise.



### EARLY ARCHITECTURE IN OHIO

IN THE DAYTON CHAPTER AREA AN OHIO SESQUICENTENNIAL FEATURE

"GLENDOWER" (See Front Cover)

Glendower, built in 1836, is an outstanding example of Greek Revival Architecture. Glendower (front cover) was presented to the State of Ohio in 1945 by the Warren County Historical Society. It has had three owners, namely, J. Milton Williams, who sold the house to Durbin Ward just after the Civil War; the last owner was Mrs. Ladora Scoville Owens. (See pages 6 and 7.)

When Glendower was built, Greek revival architecture was near the height of its popularity. The house represents the same classic style for residence as is found in such public buildings as the Montgomery County Courthouse at Dayton and the State Capitol at Columbus. It was built by Amos Bennett, listed as a carpenter and joiner in an early Lebanon directory, and its details reveal that he was probably familiar with the handbook of Asher Benjamin.

Photos of Glendower and Gothic by L. J. Gray.



Rubicon — See story on opposite page

The design of Antioch Hall, focal point of the campus of Antioch College, Yellow Spring, below and left, was adapted by builder A. M. Merrifield of Worcester, Massachusetts, from Davis Hall at Worcester Academy. New England architect Elbridge Boyden probably based his design for Davis Hall on James Renwick's Smithsonian Institute, built in 1847. Twostory colonnades were planned to connect Antioch Hall with the two dormitories. The main facade was simplified early in the life of the building.



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Number Eleven

### EARLY ARCHITECTURE IN OHIO

### A Sesquicentennial Review

(See Front Cover and Page Opposite)

This year Ohio celebrates the sesquicentennial of its statehood. As these 150 historic years draw to a close, Ohioans are looking back to recall the beginnings from which this great state has evolved. Time has brought many changes to the Ohio scene, changes in the land and changes in the people, but still with us today, and eloquently speaking to us of the life and times of these bygone years, are the few remaining examples of the fine old architecture our forefathers built. It is therefor fitting that as architects we now turn back to recall these worthy architectural achievements of the early days of our statehood.

The "Ohio Architect," as its part in the Sesquicentennial Celebration, is therefore presenting in six monthly installments a pictorial review of noteworthy examples of early Ohio architecture. One installment will be prepared and presented by each of the six Ohio chapters of the American Institute of Architects, and will cover the area represented by that chapter.

The wealth of early Ohio architecture can only be outlined here. We hope that it may serve as an incentive to each chapter to continue further in the collecting and recording of the historic architecture of its area.

### Part V — The Dayton Chapter Area

At the end of the Eighteen and beginning of the Nineteenth Century settlers were moving into the Northwest Territory from the eastern seaboard. Some came from New England across New York and settled in the northern part of our state around the Lake Erie area. Others came across the mountains from Virginia into Kentucky. Still others came down the Ohio on flat boats, settling along the river on both sides of the Ohio. Colonel Robert Patterson was one of those who migrated from Pennsylvania into Kentucky and helped to found the city of Lexington in 1775. Like so many others, he stayed there for a time and then moved on across the Ohio and as far north as Dayton, Troy, and Piqua.

Colonel Patterson left Lexington in 1803 and came to Dayton. In 1816 he built a large brick house known as "Rubicon." It is this house that was recently given to the City of Dayton by Mr. Jefferson Patterson. It is one of the oldest houses in the Dayton area. In 1938 the house was completely renovated, so that inside very little of the original house remains. It has been refurnished and on November 20, 1953, a dedicatory exercise will be held, at which time the house will be officially turned over to the City of Dayton.

The house is not outstanding architecturally. However, it is so intimately connected with the history of Dayton that its preservation will in a very real sensehelp to connect the past with the present and the future.

Unquestionably the outstanding building of historical and architectural interest in Dayton is the Old Montgomery County Court House. The building was started in 1847 and completed in 1848 at a cost of \$100,000. The building was inspired by the Theseum, one of the best preserved of all the Greek Temples in the city of Athens. Howard Daniels of Cincinnati was the architect who prepared the drawings and specifications. Local white limestone was used, with walls of masonry through-

#### By JOHN SULLIVAN, JR., A.I.A.

out. It is an excellent example of the Greek Revival type and a building of national as well as local reputation. The late Ralph Adams Cram is quoted as saying "The Old Courthouse at Dayton is one of the finest things in America." Periodically its existence is threatened because it is located in the center of the city on extremely valuable ground. So far, those who are intent on maintaining it have prevented its demolition, and its passing would in a real sense be a great loss to both Dayton and the whole United States. It is a tangible link between the past and the present and future.

Between Cincinnati and Dayton, on Route 48, is the town of Lebanon, an extremely interesting and old (Continued on page 27)

An old picture of Antioch Hall, taken shortly after it was built in 1847.



### An Engineering Puzzle — The Leaning Tower of Pisa

By CHARLES B. SPENCER

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### Why Is it Still Standing?

THE AVERAGE PERSON has never seen a building more than a foot or so out of plumb. Actually, not one in a hundred has ever seen any structure out of plumb by an amount that he could see with his naked eye. The Leaning Tower of Pisa may be compared to a building 180 feet high whose base is at the building line, and whose top leans over the sidewalk and projects out beyond the curb. No wonder the tourist neglects

the beautiful cathedral nearby and gazes in wonder at the Bell Tower which, his experience tells him, should not be

standing at all.

Let us begin, therefore, by trying to find out why the Tower whose height is three times its diameter and which is more than 14 feet out of plumb, did not topple over hundreds of years ago. Actually, it stands virtually intact, the only visible damage being a slight cracking in a few of the outside columns which have been reinforced with steel bands. In the meantime, the cathedral has undergone similar settlements. By 1825, the high altar, a late Renaissance structure, had settled so much at one end. it had to be taken down and rebuilt.

The construction of the Tower was commenced in 1174 under the supervision of a Florentinean named Bonanno. The foundation consisted of an annular ring of masonry about 20 feet wide and about 60 feet in exterior diameter, bearing on the soil, it is believed, only a few feet below ground level. The soil

I believe, consisted of a wet volcanic silt in some accounts fine sand and clay, and if anything had been known at the time about the bearing values of soils, the Tower would never have been built. No modern building code would assign to such a soil a presumptive value of more than about one-half ton per square foot as compared to the actual load of about 8 tons per square foot under the Tower foundations. It is stated in some accounts that "many logs" were placed in the soil below the masonry. Whether these were placed as a mat or driven as piles is not known, but in any case they apparently added nothing to the foundations. By the time the equivalent of three stories had been erected, settlement had occurred and the Tower was tilting at an alarming rate. The cities of Florence and Pisa were not too friendly at the time and ugly rumors of deliberate

### What Might Be Done to Save It?

sabotage began to float around Pisa. Bonanno thought it was about time to leave town — construction was abandoned and the Tower remained three stories high for 60 years. By that time the Tower had settled into the ground sufficiently to consolidate the soil and temporarily arrest the settlement.

It was with confidence therefore that Giovanni de Simone decided to finish the Tower. As the work pro-

gressed, an attempt was made to straighten the structure by adding additional courses of masonry on the low side. Giovanni added another story and it is believed that the settlement and tilting increased alarmingly. In any case, the work was stopped and Giovanni disappeared.

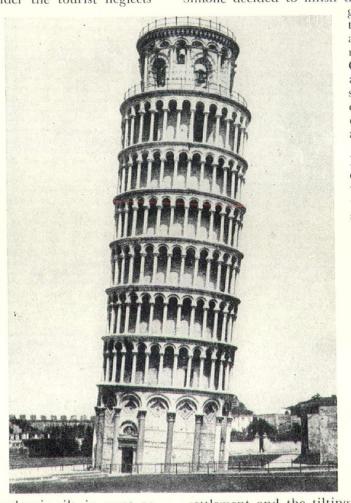
Nothing was done for nearly 100 years, by which time continued settlement had developed new consolidation in the soil sufficient to cause the structure to apparently again come to rest. An architect named Tomasso de Pisa, deciding that it was safe to finish the structure, designed a narrow belfry, made other minor changes in the plans, and proceeded with the construction. As to further settlement and tilting during construction, we know nothing except that the practice of attempting to straighten the Tower by adding masonry courses on the low side was continued until, on completion, the low side is nearly 3 feet longer than the high side.

The structure was finished in 1350, and we have every reason to believe that the

settlement and the tilting, accompanied by the consolidation process, has continued over the 600 years to date. The structure is now more than 14 feet out of plumb, and while there is no record of its original elevation, it is my opinion that it had settled about 12 feet on the low side and about 8 feet on the high side. I believe that this amount of settlement proceeding at a slow rate over the centuries is what saved the structure from complete collapse. It is my opinion that the Tower is actually supported on a truncated cone of consolidated soil, extending from the underside of the Tower down to the clay layer about 35 feet below the surface and about 90 feet in diameter at the latter level.

If this assumption be correct, the unit load on the lower clay is less than 2 tons per square foot, a unit load

(Continued on page 10)





## Community-Builder Goudreau to Invest \$1,200,000 in Construction of Mutual Ownership Homes

### Homes Feature Electric Laundries, Attract 15,000 People in Two Weeks

C. J. Goudreau & Company is "building a city" in southeast Cleveland.

With structural steel already in place for Goudreau's giant Meadowbrook shopping center, the company plans to start construction of 76 mutual ownership (cooperative-type) homes in the immediate future. The entire commercial and residential development will cover 171 acres just south of Route 17 near Bedford.

Four of Goudreau's Meadowbrook homes have already been built and sold. "They were sold almost as soon as we opened the doors," says Bert S. Taylor, assistant to Mr. Goudreau.

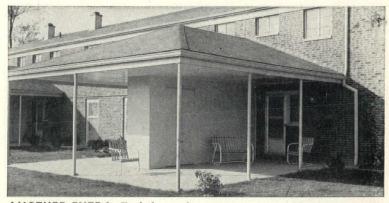
The three-bedroom two-story homes offer a wealth of features (including an allelectric laundry) for a total price in the \$12,000 range. More than 15,000 people inspected the homes during a two-week period last May.

"We found the electric dryer and washer were definite sales attractions," Taylor says. "Most people associate electrical appliances with the latest in modern living. That's why we'll equip all our residential units with electric laundries."

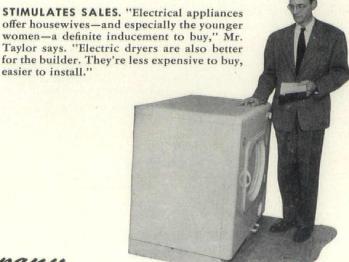
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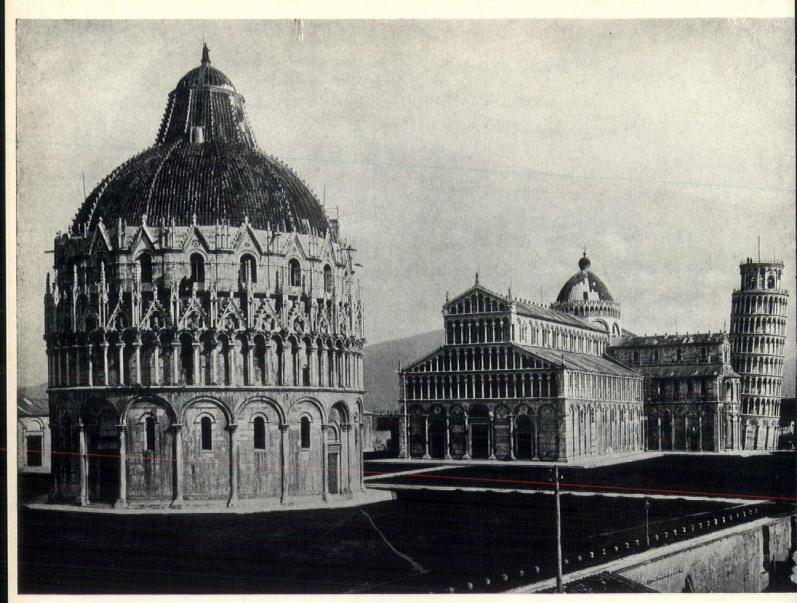
SOLD during the first four days homes were on display, these Goudreau residential units at 424 Warrensville Center Road have natural finish colonial kitchens, built-in TV antennas, perimeter heating and many other features. Goudreau will start construction of 76 additional units in immediate future.



ANOTHER EXTRA. Each home has own carport with storage wall. Taylor says homes attract large number of young professional families. Homes are financed over 40-year period. Monthly payments are under \$100, which includes all maintenance and service facilities.



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CATHEDRAL, 1063 by Busketus and Rainaldus

CAMPANILE, 1174-1350 Begun by Bonanno Completed by T. dePisa

Vacationers in Italy seldom fail to go sightseeing. Pisa, well known for "The Leaning Tower," is a must on tours from Florence (about 54 miles).

which such material should be capable of supporting, Unfortunately, the loading is eccentric and tends to become more so as the lean of the Tower increases. The consolidated soil beneath the Tower attempts to compensate by "bridging out" further on the weak side. However, increased consolidation involves further settlement and further tilting, and the process will continue until the center of gravity of the Tower moves beyond

the danger point.

Within the Tower, the Italian authorities have constructed a special room with a level floor about 30 feet above the ground. In this room they have placed a plumb line extending to the roof, an accurate level and seismographs to check on any earth movements which might be immediately disastrous. Continuous readings on these instruments show that the Tower is increasing its lean at the rate of .04 inches per year. On this basis Italian engineers estimate that collapse will not occur for about 200 years. However, as the Tower leans, its center of gravity moves towards the low side so I believe that the rate of lean will increase and the Tower will be declared unsafe within the next 100 years.

The authorities appreciate the value of the Tower as a tourist attraction, and are appreciative of any suggestions that may be made to preserve an important source of revenue to the country. In 1932 they were advised to try cement grouting below the foundations. About 1,000 tons of grout was injected into the soil through holes drilled in the foundation. It was thought for a time that the process was successful and that the subsequent increase in lean could be attributed to bombs dropped in the vicinity in World War II. I do not believe, however, that the grouting had any beneficial effect. I am informed that recently an Italian contractor offered to demolish the Tower, preserving the materials. The structure would be rebuilt with its present lean but carried on a firm foundation. I do not believe that this proposition was taken seriously since with its loss of antiquity and with the lean produced by man instead of nature, the tourist value of the Tower would be lost.

Can anything be done to save the Tower and preserve

(Continued on page 21)

### Rely On and Specify with Confidence...



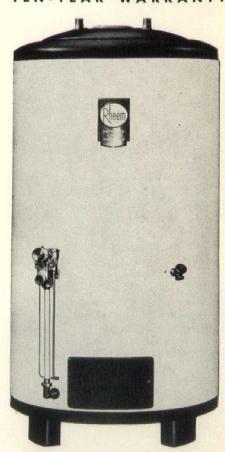
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## The Cleveland Chapter's Exhibit "Architects Help People" Is An Outstanding Success

"Architects Help People" was the theme of the comprehensive exhibition featured at the Cleveland Museum of Art from Saturday, October 3 through November 4.

In preparation for two years, the show presented to the Cleveland public the best buildings, past, present and future, to come from the drawing boards of Cleveland architects, ranging all the way from multi-million dollar airports and factories to modest residences and furniture design.

First event of its kind here since 1948, the show is given every five years by the Cleveland A.I.A. Chapter, to document architectural advance and to show people impartially selected examples of outstanding architecture

in the Cleveland community.

Sixty-five projects were selected by Thomas Creighton, outstanding architectural critic and editor of "Progressive Architecture" from hundreds of recent and projected works submitted by members of the Cleveland Chapter, A.J.A.

In addition to these 65, 11 noteworthy "all-time favorites" chosen by a poll of Cleveland A.I.A. members were

also featured at the show.

Indicative of the broad, creative scope of this year's show, the 65 projects included drawings of Cleveland's new airport; a huge model, five by 12 feet, of the complete Cleveland Zoo, including the Elephant building, scheduled next for construction; 12 outstanding examples of residential architecture, and some of the outstanding religious buildings which have been built in the past five years.

Two principal galleries of the Art Museum were transformed into a brilliantly colored backdrop for the specially prepared photographs, drawings, and scale models. The displays showed the ways in which architects help people have a better life through better houses,

better schools, better places to work.

The exhibit itself opened with a vividly colored mobile announcing the theme, and followed with the section "Architects Help People Stay Safe and Well." Here were displayed new hospitals and doctors' offices, to protect people's health, as well as public buildings designed to protect their welfare. A lighthouse whose shape was inspired by the dynamics of wind and wave was seen near a structure designed to allow hospital patients the maximum of healing sunlight.

Exhibits in the classification "Stay Safe & Well" and the Architects were: Coast Guard, J. Milton Dyer; Project for a Medical Office Building, Bascom Little; Polyclinic Hospital Addition, Dalton-Dalton Associates; Union County Hospital, Mellenbrook, Foley & Scott; Highland View Cuyahoga County Hospital, Horn & Rhinehart; Medical Building, Akron, Ohio; Tuchman & Canute; Doctor's Office, Leavitt & Spieth; South Euclid Municipal Center, Hays & Ruth.

"Work and Save," the next category, showed offices which were designed for comfortable efficiency and factories which were designed for economy in production. Forms and materials used included the old and familiar but also introduced such new ideas as a factory of ribbed stainless steel, and a building group roofed with huge transparent domes.

The banks exhibited showed the new trend for a friendly atmosphere to conduct the business of saving, with light and cheerfulness supplanting an earlier era

where Greek porticos attempted to connote security.

Exhibits in the classification "Work & Save" and the Architects were: Rockefeller Building, Knox & Elliott; National City Branch, University Circle Branch, Garfield, Harris, Robinson & Schafer; Office—Wheeling & Lake Eric R. R., Ward & Conrad; National Malleable & Steel Castings, Dalton-Dalton Associates; White Motor Co.,

J. Trevor Guy; Motch & Merriweather, Garfield, Harris, Robinton & Schafer; Chair-Michigan Seating Company, Douglas P. Maier; Securit Door Hardware — Blue Ridge Glass Corporation. Onnie Mankki; Central National Bank, Alfred W. Harris; International Corporation Headquarters, Richard Hawley Cutting & Associates, Inc.; Office Building for John Lambert, Ward & Conrad; Office for Preslan, Damon, Worley, Samuels & Associates; International Union Headquarters, Joseph Ceruti.

An alcove had projects which demonstrate how "Architects Help People Live Well," — top examples of houses and housing. Residences shown indicated the present trend toward design around the way people want to live, rather than the "Colonial" or "Cape Cod" approach of

former years.

These houses make the most of the landscape, opening up to sun and view, while reflecting the owners' personal

needs and desires.

Exhibits in the classification "Live Well-Houses" and the Architects were: Pepper Ridge Community, Robt. A. Little & Associates; G1oss Residence, Jack Alan Bialosky; Grandillo Residence, Michael M. Kane & Associates; Krieger Residence, Ernst Payer; Lloyd Residence, Ernst Payer; Stambaugh Residence, Robert A. Little & Associates; Griesinger Residence, Robert A. Little & Associates; Schulman Residence, Tuchman & Canute; Sugar Residence, Tuchman & Canute; Residence, Anthony S. Ciresi; Cull Residence, Alfred W. Harris & Anthony Nosek, Jr.

Apartments and housing projects follow the same trend of intelligent present-day planning, with consideration for good living for the tenant, and economic plan-

ning and engineering for the management.

Exhibits in the classification "Live Well—Housing" and the Architects were: Lakeview Terrace, Joseph Weinberg, Wm. H. Conrad & Wallace G. Teare; Walban Apartments, Michael M. Kane & Associates; Mayfield Garden Apt. & Homes, Michael M. Kane & Associates; Lakeland Homes, Dalton-Dalton Associates; Apartments—360 Whitmore Road (Detroit), Weinberg & Teare; Cedar Apartments Extension, Project Architects and Engineers.

Next was a series of wall panels illustrating how "Architects Help People Relax and Travel," where, among other projects, the visitor saw the new Cleveland municipal airport, a good example of how today's architect must combine complex technical and planning prob-

lems in an artistically pleasing composition.

The form, with its long fingers reaching out to airplane runways, collects the passengers in a terminal with provisions for lounging, eating, or observing the planes, while above rises the clean-cut efficient administration

tower of metal and glass.

Exhibits in the classification "Relax & Travel" and the Architects were: Dunham Tavern, Jane & Rufus Dunham; Skillet-Drive-In Restaurant, Tuchman & Canute; Inter-Continental Airport, Richard Hawley Cutting & Associates, Inc.; Cleveland Hopkins Airport, Outcalt, Guenther & Associates; Akron Public Library, Tuchman & Canute, & Robert A. Little & Associates.

A huge blue panel introduced the next section of the exhibit, "Buy and Sell." Here were examples of the architect's work to help a merchant display and sell his wares—ranging from the small specialized shop to the

ambitious large-scale shopping center.

Exhibits in the classification "Buy & Sell" and the Architects were:
E. 222 Shopping Center, Ernst Payer; Halle Bros, Dept. Store,
Shaker Square Branch, Robert A. Little; Sandusky Shopping Center, Damon, Worley, Samuels & Associates; Meadowbrook Merchandise Mart, George Voinovich; The Glass Mile, Toledo, Ohio, Garfield, Harris, Robinson & Schafer; Kane Company, Michael M. Kane & Associates; Lyndhurst Shopping Center, Weinberg & Teare; Camera Craft, Shaker Square, Robert A. Little & Associates; I. J. Fox, Inc., Milo S. Holdstein; Burnham Stopel Co., Office & Warehouse, Leavitt & Spieth.

The final area of the show was called "Architects Help People Worship and Learn," where visitors found the newest architectural thinking on religious and educational buildings. The trend was clear, toward churches

(Continued on page 26)

### YOUR GROUP PLAN OF INSURANCE

For A.S.O. Members Only No Pro-Rating of Benefits

When you buy income protection through an Accident and Sickness disability policy, you don't want the weekly payments stated in the policy to be reduced in any way. What you want is full benefit protection. As a matter of fact, many individual policies contain two different provisions by which weekly benefits to policyholders can be reduced. neither of these provisions is found in the Group Plan, sponsored by Architects Society of Ohio, they are described here so a fuller comparison may be made.

One of these provisions states that if the policyholder were disabled while temporarily engaged in a more hazardous occupation than the one for which he was insured, the disability benefits would be reduced by pro-rating. Premiums are always higher for more hazardous occupations, and consequently he would receive only as much weekly benefit as his regular premium would buy at the

higher rate.

The other provision often found in such policies provides that unless the policyholder notifies the company of any other disability coverage he may have, the company has the right to pro-rate the weekly benefits which are stated in his policy. In other words, if he has neglected to give this notice, he might receive only one-half or one-third of the payment that is stated in his policy.

However, through our Association's Group Plan, which does not contain either of these provisions, members will receive full payments regardless of any other insurance and regardless of any temporary change to a more

hazardous occupation.

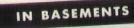
Our Plan is underwritten by the Continental Casualty Company, one of the oldest and largest stock companies. Their original Group case was written twenty-seven years ago and is still in excellent performance. Thousands of satisfied policyholders receiving prompt and courteous settlements testify to the service and stability of this company.

Comparison proves that disability insurance purchased outside of our Association would cost much more and still would not give this excellent coverage. This policy stands for full protection; it will never pro-rate or decrease weekly benefits in any way.

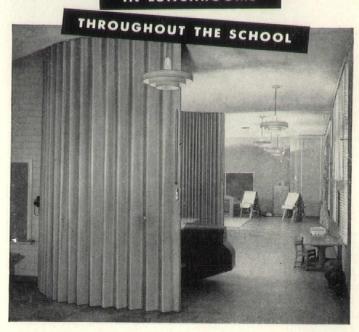
If you are interested in further particulars, call or write Sam White, 810 The Arcade, Cleveland 14, phone Superior 1-1540.

### "MOVABLE WALLS"

change wasted space into Schoolrooms



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Do high building costs rule out much needed schoolrooms? Then, why not do as many school authorities do? Use "Modernfold" accordion-type doors to create schoolrooms out of little used space in basements, lunchrooms and other large areas at very little cost. These "movable walls" divide these areas into classrooms. Yet, if the area is required for the original use, "Modernfold" doors are quickly folded back.

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MODERNFOLD DOOR CO. 655 N. Cassidy Ave., FE. 5505, COLUMBUS 3

MODERNFOLD DOOR CO. OF TOLEDO
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MODERNFOLD DOOR SALES CO.
134 Salem Ave., FU. 5711, DAYTON 6

**DUBROW-OTTE ASSOCIATES** 1426 Clay St., PA. 0068, CINCINNATI

### 10 WAYS TO SAVE MONEY ON SCHOOL BUILDINGS

Faced with the problem of providing classrooms for the seven million new children who will start their education in the next five years, a panel of 24 nationally recognized experts in education, architecture, engineering and civic officials have agreed on ten major ways to stretch the schoolhouse dollar.

Members of the panel declare that the total need for new classrooms by 1960 is 770,000. At an average cost of \$44,000, including land, this means that new schoolhouse construction, properly carried out in the right places will

cost about 34 billion dollars.

In order to meet this need, the utmost economy must be practiced, panel members declare. Although more than 50 specific economy suggestions were advanced, ten major areas were unanimously agreed upon as being most productive of substantial savings.

Here are the experts' recommendations:

1. Larger administrative districts are needed to spread the tax base. Major economies result through balancing out taxes, through putting together enough people, enough space, enough personnel and available funds to engage upon correlated instead of chaotic building programs. This avoids unnecessary duplication of school buildings, each of which may be inadequate. This trend needs encouragement. Although North Carolina has just reduced 1,600 districts to 103 larger ones and other states are studying the problem much is yet to be accomplished along these basic lines. It was estimated that Michigan, for instance, could do better with 250 to 300 districts than with the 4,500 she has inherited from earlier days.

2. Long range planning will reduce the high cost of land acquisition. No school board can dodge its responsibility for acquiring land at the earliest possible moment, but this requires long-range planning and a district large enough to have a range of choice. Land prices are always higher as population becomes more dense.

3. Better programming is needed to make classrooms do a full day's work. The great waste in many schools is represented by classrooms that are not fully utilized all day. A classroom that is unoccupied 50% of the school day represents a building dollar spent for only 50% of obtained value. The panel also mentioned the wasteful practice of building schools that can be used only by day and never for night classes or adult education. Although tradition of schools completely closed from mid-May to mid-September may be hard to break, such non-use of school buildings is wasteful.

4. There are two ways school building plans can be reviewed to insure maximum economy. recommends that authorities start at 100% and then see what can be subtracted without harm. Then start at zero and add only what is absolutely essential. For best results, try both approaches to the same problem. Some of the things found unnecessary were cupolas, parapets, fancy roofs and other gaudy trimmings. Many schools found that it was cheaper to build on a single floor, thus eliminating firesafe stairs, more costly fire-resistant construction. Last year 76% of all schools built were onestory and the proportion is rising. Basement elimination was also deemed worthy of study.

5. Intensive use of non-classroom facilities can save square footage. Not only parents but also experienced school men may be shocked to learn that not over onefourth or one-third of the total school area of many a school is devoted to "classrooms." The rest is used for administration, gymnasiums, auditoriums, cafeterias and their adjuncts. A second look is worthwhile to deter-

(Continued on page 25)

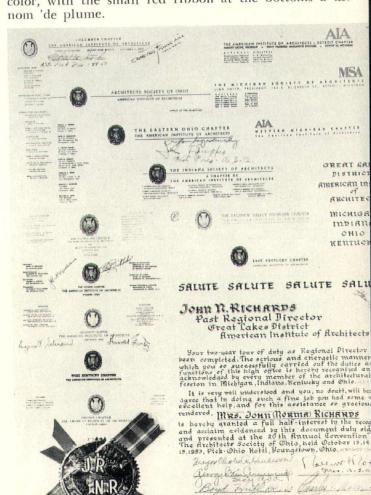
#### SALUTE - SALUTE - SALUTE - SALUTE

Thus the greeting to Past Regional Director John N. Richards by the Architects of the Great Lakes Region of the A.I.A. They hailed "Chief" John and his gracious wife Norma at the 20th Annual Convention of the Architects Society of Ohio.



The certificate is made up of the printed letterheads of each of the units comprising the Great Lakes Region, covering the states of Michigan, Indiana, Ohio and Kentucky. It was signed by the Mayor of Youngstown, the President and Secretary of the Institute, the President and Secretary of the A.S.O. and the new Regional Director and many other equally important individuals so that certainly makes it official plus.

The two similar ribbons are quite appropriately blue. The large Scotch plaid was included for a wee-bit-acolor, with the small red ribbon at the bottoms a the



Say Com Ditaly & Many

### OUR PRESIDENT'S MESSAGE

Being asked to write "A President's Message" puts me in somewhat the same position that preachers must occupy on certain Saturday nights. There is so much to be said, yet to put one's thoughts in an acceptable, orderly fashion is a job which cannot be done lightly. First, let me say "Thank You" to the architects of Ohio

for their willingness to elect me president of the Architects Society of Ohio. All I can hope to accomplish is to get each of you to do a little on behalf of our profession, and some of you to work dilligently toward the correction of things which are wrong. If this is accomplished, then our profession will have made great strides, and this administration will get the credit..

Second, it is not too late to repeat the "Thank yous" to the 1953 Youngstown



JOHN W. HARGRAVE, A.I.A.

Convention Committee and to our retiring president, Rollin Rosser, for an exceptionally fine year of activity. climaxed by a convention which had exhibits and programs equal to any offered on a national level, and social activities which brought all of us together in closer friendships. While not all of the objectives which we sought were accomplished in the way of new state legislation, the need for a revised building code was presented, our willingness to cooperate with legislative committees in the study of proposed laws was clearly demonstrated, and our professional ethics of putting public interest ahead of personal profit were a bulwark to our position.

The objectives of our Society remain unchanged: "To foster, promote and perpetuate the best interests of architects in the State of Ohio. . . . To encourage wise and needful legislation. . . . To promote educational and public relations programs for the advancement of the architectural profession, and to collect and disseminate information among members."

Since the convention it has been my pleasure to attend three meetings of Ohio architects, one a chapter meeting in Cincinnati where prizes for architectural design at Miami University and University of Cincinnati were authorized, and another in which the Cincinnati Chapter joined with the Producers' Council to see a demonstration of a new lighting system developed by an Ohio manufacturer. The third meeting was a delightful program presented by the Area Players of Antioch College, Yellow Springs, for the Dayton Chapter at the Dayton Art Institute. Before the holidays all of the six Ohio chapters will have been visited, in order that we may renew friendships and tell all architects the story of what we are striving to accomplish this year for our profession.

One objective which we seek is a larger membership in our Society and in The American Institute of Architects, of which we are a unit. Our is not an exclusive fraternity, although the obligations of membership embrace a rigid code of professional ethics and mandatory rules for practice which some architects may be unwilling to accept. Our society recognizes the ability of others trained in the arts, and of architects who use their talents in crafts, manufacturing, and selling, but it is basi-

(Continued on page 19)

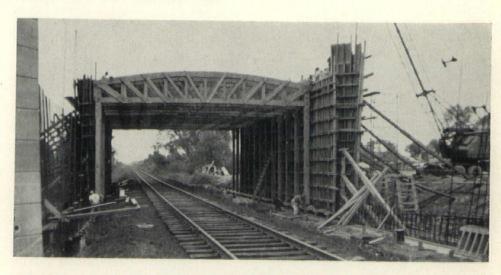
### ROOF TRUSSES

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Falsework trusses, for New York State Throughway bridge over Railroad line north of Syracuse, New York. Nineteen trusses, of 43 ft. span, on 20 ft. columns, supported 3000 lbs. of concrete per linear foot of truss during continuous pour. After one half of concrete bridge was poured, false work was moved as a unit to second position. Trusses designed, fabricated and assembled by Cartwright & Morrison, Inc.

### TOLEDO CHAPTER ARCHITECTURAL SHOW AT ART MUSEUM

The story of architecture in northwestern Ohio during the past eight years was told through miniature models, color drawings, floor plans and photographs in an exhibition held during November at the Toledo Museum of Art.

Sponsored by the Toledo Chapter, American Institute



This model of Clay High School, located about 20 miles east of Toledo, was one of six miniature buildings shown. Showing the display to Thaddeus B. Hurd, designer for the Toledo firm of Britsch & Munger and chairman of the show's arrangements committee, are John N. Richards (left) and Orville H. Bauer (right) of Bellman, Gillett & Richards, also of Toledo.

of Architects, the exhibition was designed to show the modern trends, styles and planning in Toledo area building since 1945.

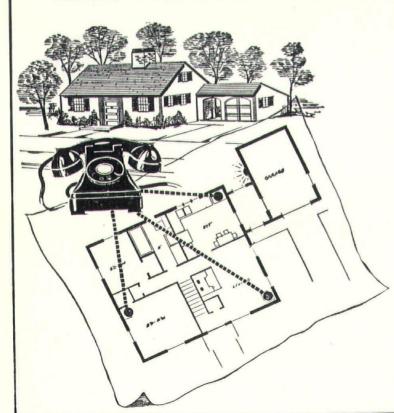
This was the third such exhibition in the local A.I.A. chapter's 39-year history and included 40 examples of homes, public buildings, churches, schools, hospitals and other structures in Toledo, Perrysburg, Maumee, Rossford, Montpelier, Bowling Green and Findlay.

This model of Epiphany Lutheran Church of Toledo was one of six miniature buildings shown. W. E. Tolford (right), who designed the church, is shown with the pastor, the Rev. Ernest Kempfer. Forty examples of northwestern Ohio construction of the past eight years were included in the show, sponsored by the Toledo Chapter, American Institute of Architects



Architects with displays were Karl H. Becker, president of the local A.I.A. chapter; Bellman, Gillett & Richards; Britsch & Munger; Herman H. Feldstein; T. Y. Hewlett; Karl B. Hoke; Peterson, Hoffman & Associates; Sanzen(Continued on page 18)

### MR. ARCHITECT . . . MR. BUILDER



### Concealed Wiring is a MUST in Modern Homes

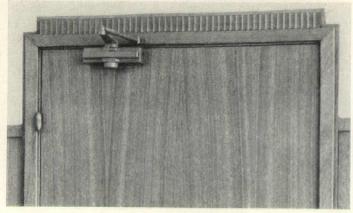
• Concealed telephone wiring is an important feature that adds an extra selling point to new homes. Many home buyers ask for this nationally advertised feature in new home construction.

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### NEW, SMALLER DOOR CLOSER



A door closer smaller than a carton of cigarettes and without the usual big hips and belly found in most of the other makes of door closers, is the latest contribution of San Francisco's Schlage Lock Company to building hardware.

It is acclaimed with enthusiasm by architects who have seen samples of this compact door closing device. The new Schlage door closer appears slated to do a revolutionary job in the methods of closing doors in both residential and commercial buildings. Operated by means of a compression spring in conjunction with a hydraulic piston and two adjusting valves, the Schlage closer provides any speed of door closing that is desired. By merely making two or three turns on the adjusting screw the door can be closed as fast as two seconds or as slow as two minutes and still prevent slamming. No engineer is necessary to make the adjustment - any individual with an ordinary screw driver or even the edge of a dime can turn the valve to regulate the speed.

The method of installation is also far ahead of other types of hydraulic closers that are presently on the market. Using the same principle as is found in many modern kitchen devices, a bracket is screwed on the door and the closer and arm are quickly slipped into place. A smaller bracket holds the other end of the arm to the door frame. It is also completely reversible to fit right and left hand doors and is adaptable to an almost unlimited variety of doors and frames.

#### SORRY MR. EPPES

In our story on the Building Materials Exhibit last month we neglected to mention that one of the hosts at the Foldoor exhibit was J. O. Eppes of the Uvalde Rock Asphalt Co. of San Antonio, Texas.

We acknowledge the courtesy of "Michigan Architect and Engineer" for the Tower of Pisa article.

#### MEETING OF DAYTON CHAPTER AT DAYTON ART INSTITUTE

In planning the annual meeting for Dayton Chapter architects and their wives, Craig Cowden and Max Mercer made a special effort to avoid anything remotely connected with the practice of architecture.

The result was a most enjoyable evening in the Italian Room of the Dayton Art Institute, featuring the reading of a one act play by G. B. Shaw: "The Man of Destiny." This picture of young General Bonaparte, with its caustic comments on the English, on war, ambition, and female cleverness, was presented by Arthur Lithgow, Meredith Dallas, Dorothy Laming, and Charles Vicimus, members of the Antioch Area Theatre.

Among the 40 members and guests present on Oct. 30th were Ernest Jones of the Dayton Builders Exchange and John W. Hargrave, president of the A.S.O.

### Glidden Appreciates the Invitation to Join The Producers' Council (Which Was Accepted)

The Glidden Co. appreciates the opportunity of becoming a member of The Producers' Council. We realize the tremendous market as influenced by the architect and, therefore, intend to become active in local chapters of The Producers' Council throughout the country. The Glidden Co. shall remain useful to architects at every opportunity, realizing the tremendous responsibility they have not only to their own communities, but to the country as a whole.

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#### 1954 LOOKS GOOD

Strong reassurance as to the business outlook for 1954 is the prevailing tone of reports by 138 leading economists recently polled by Thomas S. Holden, vice chairman of F. W. Dodge Corporation, construction news and marketing specialists.

Next year will likely be the nation's second biggest business year, according to majority opinion. Holden, writing in the November issue of Architectural Record, says that the economists think "the anticipated drop from the boom levels of 1953 will be quite mild."

Of the economists polled 49 are in business organizations, 41 in colleges, 28 in financial organizations, four in government and 16 are business consultants. Each year Mr. Holden uses their opinions as one basis for making his own estimates of construction volume for the following year. His 1954 estimates have not yet been

Moderately declining construction activity is expected by a majority, as measured in 1954 by estimates to be made by the government. They forecast that next year's government totals will be down 8 per cent from 1953 in dollar volume. The majority expect this decline will be partly due to moderate price declines, and to lessening of overtime altho higher hourly wage scales are expected.

There is general expectation of a decline in residential building, but nevertheless of a big year of more than 1,000,000 non-farm dwelling units, which would be a decline of about 7 per cent from what is expected to be this year's total in dollars.

The summary observes that "generally speaking the year 1953 has been somewhat better than the majority of the economists anticipated" a year ago when the survey result was summarized in these words: "High level

stability is expected to characterize general business conditions through most of the year with the possibility of a quite mild setback in the second half.'

But the gross national product this year is expected to total about seven per cent above last year, as against an expected gain of a little more than one percent as reported in last year's survey.

#### TOLEDO CHAPTER MUSEUM EXHIBIT

(Continued from page 16)

bacher, Morris & Taylor; Nelson E. Thal; W. E. Tolford, and Horace W. Wachter.

Thaddeus B. Hurd of Britsch & Munger was chairman of the committee which worked with Toledo Museum officials in arranging the exhibition. He was assisted by Wachter, Charles D. Scott and Lavern A. Farnham.

#### NEWS FROM CINCINNATI

The A.I.A. Group Insurance Plan has recently proved its value in our own community. In September \$15,000 was paid two beneficiaries of Cincinnati policy holders. Altogether, \$91,000 has been paid in claims from architectural member firms from all parts of the country since the Plan became effective on February 1st.

We believe it is an excellent program. Application blanks can be obtained by writing the A.I.A. Insurance Trust, 1735 New York Avenue, Washington 6, D. C., or from Wesley A. Watling, Carew Tower, Cincinnati or Samuel White, 810 The Arcade, Cleveland, O.

Check with your local A.I.A. Chapter Secretary who undoubtedly can advise what your local group is doing in this very important activity.

"The main trouble with child psychology is that children don't understand it." —Country Gentlemen -Country Gentlemen



#### SIGHTSEERS

This is a portion of the sightseers through the steel mill, a feature of the A.S.O. Convention, on Wednesday afternoon. Front row: Chas. J. Marr. Secretary, A.S.O.;



Miss Lottie Helwick, Secretary, Cleveland Chapter; Joe Ceruti, Joe L. Weinberg. Back row: John W. Hargrave, C. Melvin Frank, George B. Mayer, Chas. E. Firestone and Rollin L. Rosser. (Four Past A.S.O. Presidents).

Every boy in his heart would rather steal second base than an automobile. -Justice Tom Clark

#### OUR PRESIDENT'S MESSAGE

(Continued from page 15)

cally the organization of those who practice architecture purely as a profession, either as principals or as associates of other architects in private practice. It is to this group of architects which we look for new members, and whom we invite to join us in a mutual effort of improving the living environment of our fellow citizens in Ohio, and of studying working out solutions to our common prob-

Through the pages of The Ohio Architect, we plan to keep each architect informed of new laws, regulations, legal actions and other news which affects our work. We hope to bring to these pages examples of your work and a discussion of the problems and costs of those jobs. The news of your family and office associates is of interest to all other architects in Ohio. Differences of opinion regarding our problems can be aired and printed in our magazine for our consideration. But each of these calls for personal effort by each architect, and for that effort we are calling upon you.

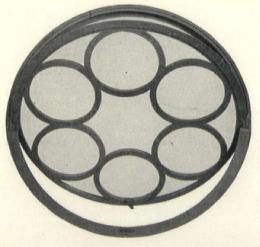
Finally, as we approach our national festival of the Thanksgiving season, we bow our heads in acknowledgment of the Divine care over us, and of the personal vigilance and sacrifice of those who have made our personal liberties and safety secure. . We wish you continued good health and the opportunity to serve others as an Architect, a privilege for which we can all give Sincerely yours,

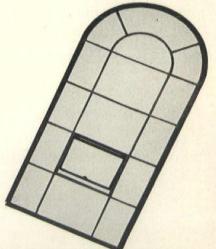
JOHN W. HARGRAVE

Such time as he can spare from the adornment of his person he devotes to the neglect of his profession.

-Brief appraisal by Bennett Cerf







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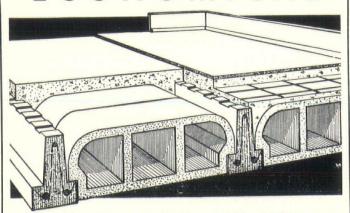
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#### OHIO SHOWS 106% BUILDING INCREASE

Ohio, with 106 per cent increase in construction contracts awarded for nine months 1953, was running far ahead of the 1 per cent increase for the same span set at the 37 eastern states level, it was stated by Carl S. Bennett of F. W. Dodge Corp. September total construction awards were 147 per cent above August and 418 per cent above September, 1952.

If the totals of Dodge Reports for Ohio continue at the present rate, the state should end 1953 greatly ahead of 1952.

Heavy engineering was climbing 175 per cent at the nine month mark, and both nonresidential and residential awards were ahead of 1952, the former up 197 per cent and the latter up 16 per cent. Dollar volume showed nonresidential at \$842,348,000 for nine months; residential, \$446,495,000 and heavy engineering, \$351,535,000.

September nonresidential awards were \$273,039,000 or 450 per cent more than August and over 1100 per cent more than September, 1952; residential, \$39,873,000 or 19 per cent below August and 15 per cent below September, 1952, heavy engineering, \$119,137,000 or 56 per cent above August and 759 per cent above September, 1952.

Metropolitan Cleveland gained 29 per cent in Construction contracts awarded for nine months 1953 compared with nine months 1952.

Cleveland was up 31 per cent in September compared with August, and was 57 per cent above September, 1952. The metropolitan area includes Cuyahoga and Lake counties.

Individual nine month awards were; nonresidential, \$110,347,000, up 102 per cent over 1952; residential, \$107,662,000, down 16 per cent; heavy engineering, \$39,130,000, up 138 per cent.

Individual September totals: nonresidential, \$10,464,000, up 13 per cent over August and up 106 per cent over September, 1952; residential, \$13,178,000, up 19 per cent over August but down 2 per cent from September, 1952; heavy engineering, \$7,603,000, up 111 per cent over August and up 427 per cent from September, 1952.

### **Congress and Pensions for Professional People**

With the cooperation of Senator John W. Bricker of Columbus and his Washington office staff we are being kept in close touch with the activities relative to what Congress may try to do about Pension Funds for Professional People.

Bud Chaney of the Washington office advises that there has been extensive hearings before the Ways and Means Committee which will result in the inclusion in the general tax-revision bill some provisions to eliminate a number of the inequalities that now exist and perhaps to exempt earnings ear-marked for retirement pensions by self employed persons.

The Senators office has provided the Editor with a copy of the voluminous testimony presented at the many hearings on this subject.

If you are interested write your Congressman for a reprint "Voluntary Pension Funds for Professional People" from Congressional Record of the 83rd Congress.

What this country needs is to have the price of a fivecent cigar dropped to twelve cents.

"So dumb that when he won his letter at college someone had to read it to him."

—Earl Wilson

20

### An Engineering Puzzle—The Leaning Tower

for future generations what is rightfully regarded as one of the wonders of the world? As stated above, the center of the consolidated soil or sub-foundation is always slightly eccentric to the center of gravity of the Tower. The result is an overturning couple whose intensity is the weight of the Tower multiplied by the eccentricity; the latter must indeed be very small, or the rate of lean increase would be much greater than it is.

The simplest way to resist this couple is to supply a force tending to produce rotation in the opposite direction. Four methods of supplying such a force immediately approach to the couple of the co

diately suggest themselves.

(1) Produce an horizontal push against the Tower away from the low side.

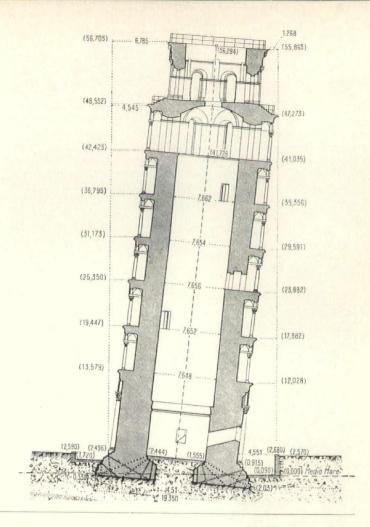
(2) Produce an horizontal pull against the Tower away from the low side.

(3) Produce additional vertical support under the foundations on the low side.

(4) Remove a portion of the foundation support on the high side.

Let us consider each of these methods in detail.

(1) There can be no questioning of the fact that a series of diagonal shores extending from the ground surface about 100 feet away from the Tower to a point on the Tower a similar distance above ground will provide an horizontal component beneficial to the Tower. Such shores would have to engage vertical beams spreading the load over a considerable area of the Tower, so as to avoid damage to the masonry. The "heels" would be in unstable ground so that hydraulic jacks between the shores and the heels would be required to maintain uniform pressures. Obviously, the shores would be unsightly and since they would have to remain in place many





G. Anthony Johnston, Registered Architectural Engineer, Paducah, Ky. J. R. Barley, General Contractor, Mayfield, Ky.

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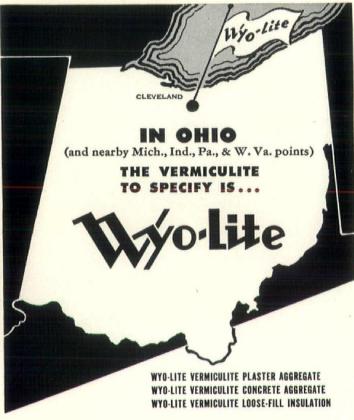


years, the "tourist" value of the Tower would be reduced

over a long period.

(2) Similar results would be obtained by supplying a pull about two-thirds of the way up the Tower. This might consist of cables about 300 feet long, engaging vertical beams on the Tower, and attached to "dead men" buried in the ground. A tension of known intensity could be maintained in the cables, and continuous observation of the cables and the Tower itself would determine how great a tensional force could be applied without danger to the structure. The procedure, as in the case of (1) would have to be continued over many years, and while less unsightly than (1), might reduce the tourist value of the Tower.

(3) Additional support could be added on the low side by jacking hollow cylinders to the clay stratum, using the Tower as a reaction, filling them with concrete, and hydraulically transferring to them some of the



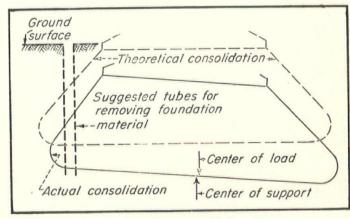
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Tower load. This is the normal way of doing underpinning, a procedure which has been successful in hundreds of inadequate foundations. However, as already stated, the upper stratum is in all probability fully consolidated and the additional supports would be carried to the lower clay at a point where the Tower load is already nearly at its maximum. If such supports could be installed without disturbance, the structure would certainly be benefited. However, the risks involved are such that I think other methods should be tried first. There must also be considered the possibility of the underpinning cylinders encountering lumps of the cement grout installed in 1932.

(4) The procedure which would seem most practical, everything considered, is to take away some of the present support on the high side. This method has little precedent (but for that matter neither has the Leaning Tower) and might be considered too radical. It is my opinion, however, that if carefully planned and executed, it is certain to be successful. A method of reducing the soil consolidation on the high side is, in reality, cutting away a part of the sub-foundation on this side, and mov-



Is it possible to save the Tower?

ing the center of the remaining support towards the low side. Any settlement on the high side resulting from the procedure would still further improve the situation. Carried to a point where the center of the foundation coincides with the center of gravity of the Tower, the overturning couple would be eliminated.

The technique of "bleeding" the high side of the subfoundation will have to be carefully developed. Actual excavation below the masonry foundation would certainly be effective, but might produce results impossible to control. The desired result must be produced over a

(Continued on page 25)

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Officials of the Toledo Sports Arena have conquered a problem which has plagued them for six years.

Poor hearing conditions, a pain in the ear of the huge indoor entertainment spot since it was built in 1947, have been corrected with the installation of 3,000 Fiberglas Noise-Stop Baffles in the ceiling area and on some wall surfaces, Andy Mulligan, arena general manager, announced.

The baffles absorb sound waves and reduce echoes which have been bothersome to spectators, performers and arena officials.

The arena noise problem, typical in most buildings of its type, was aggravated by the concrete and steel construction. These hard surfaces provide sounding boards



Installation of more than 3,000 Fiberglas Noise-Stop Acoustical Baffles in the Toledo Sports Arena was completed by the arena's own maintenance crew. Workmen are shown as they raise the "packages" of baffles to the top of a scaffold, where they were hooked over wires strung under the ceiling. Each baffle weighs only six pounds.

for sound waves which, when "bouncing" around in an area, garbled speech and music for arena audiences.

The ceiling of the building is metal; floor and stands, concrete. The cinder block walls have glass block windows, and the permanent seats are of plywood.

"Whenever we had a full house," said Mr. Mulligan, "much of the noise and sounds were absorbed by spectators' clothing. But when a performance was attended by 4,000 or less, acoustics were poor."

The arena seating capacity ranges from 6,200 for events such as ice shows and hockey games, at

which floor space cannot be utilized, to 8,200 for a wrestling match or band stand performance.

Mr. Muligan pointed out that he and his fellow workers tried "about everything" to beat poor acoustics, even attempting to arrange microphones to fit the entertainment event. Nothing seemed to work until baffles were tried, he added.

"Now, with audiences as small as 1,000 persons, the acoustics are excellent," Mr. Mulligan reported.

"We can book anything now from symphony orchestras to hillbilly shows and be assured of good listening conditions throughout the seating area. The hearing has been improved 100 per cent, and crowd noise has been lessened considerably. We are finding that people need not talk as loud as before to be heard by others around them. That situation helps the overall quiet, too."

The baffles work this way: As the sound waves travel

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away from their source, they strike the baffles before being reflected back toward the audience. Each baffle has a plastic film facing which transmits the sound energy into the Fiberglas board by diaphragmatic action. Sound then is absorbed in the millions of tiny air spaces formed by the fibers of glass. Thus, the sound energy is dissipated to a considerable extent before it has a chance to irritate the audience.

Because the fibers of glass in the baffles will not burn the installation fits the fire safe pattern of the arena con-

struction.

The baffles were installed by the arena's own maintenance crew. The lightweight baffle (six pounds each) were raised in "packages" to the top of a scaffold where a workman hooked them over wires strung under the ceiling. The wires were installed first with turnbuckles to prevent sagging after the baffles were hung.

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Cost of the installation at the Toledo arena was about one-third of what it would have been if standard acoustical treatment had been made.



After installation of more than 3,000 Fiberglas Noise-Stop Acoustical Baffles in the Toledo Sports Arena, noise was reduced almost 100 per cent, Andy Mulligan, arena manager, reported. Performers of "The Biggest Show," first musical attraction to appear in the arena after the installation, are shown here. Each baffle consists of Fiberglas board, faced with a plastic film. As sound strikes the film, it is transmitted into the board by diaphragmatic action, thus preventing the waves from striking unyielding surfaces.

With the improved acoustical situation, Mr. Mulligan said, the arena hopes to book more speakers, conventions, concerts and musical attractions. Most of these require good acoustics. Fred Waring's Pennsylvanians have been booked for an appearance here on Dec. 4, and the Boston Pops Orchestra for March 7.

Since the arena was opened, nearly 4,000,000 persons have attended attractions there, including ice shows, hockey, lacrosse, boxing, wrestling, basketball, bands and variety shows, concerts, circuses, rodeos and even a rained-out picnic. Dinners, conventions, builders' shows

and meetings also are held in the arena.

The arena is owned and operated by Sports Arena, Inc. Virgil A. Gladieux is president. Officers, directors and most of the stockholders are Toledoans who conceived and financed the original arena idea about 10

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### An Engineering Puzzle—The Leaning Tower

(Continued from page 22)

long period, say 10 to 15 years, since any quick change in conditions might result in disaster to the Tower.

My suggestion is that operations be started at a point about 18 feet from the Tower, which I believe to be within the limits of the consolidated area on the high side. A series of steel pipes should be sunk open-ended to the clay stratum, the material within removed, and the shell withdrawn. The sinking should be accomplished hydraulically against a dead weight reaction and the material removed by augers since hammering and jetting could have an adverse effect on the structure. As shown on the sketch, these holes will actually cut into the consolidated area and as the consolidation relieves itself, the center of the sub-foundation will move towards the low side. If no change is noted after a considerable period (not less than a year) additional holes may be installed a little closer to the Tower. It is my opinion that no permanent beneficial results should be expected for at least ten years. No accurate computation can be made of the stresses involved so that the procedure will be largely one of trial and error. At first we must do too little in the fear of doing too much. Time must be allowed for the sub-foundation and the Tower to adjust themselves to the new conditions.

Any procedure used will have to include a means of checking the movement should the Tower come back more than a very small amount. It might also be necessary to repeat the process should the Tower resume its increase of lean.

Time would seem to be no object. The Tower with the little help suggested herein should stand another thousand years. As it now stands, it is a monument to the resourcefulness of nature. Let the next thousand years be a monument to the resourcefulness of man.

### 10 Ways to Save on School Building

(Continued from page 14)

mine whether a cafeteria might do double duty as a classroom or a gymnasium could be used also as an auditorium.

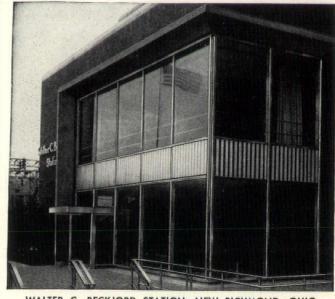
6. Careful study is necessary to bring mechanical equipment in line with need. Nearly 35% of today's schoolhouse is composed of mechanical equipment. Much money can be wasted by "overdesign" of heating plants capable of producing comfort on the coldest night of the year-when nobody is in school.

7. The panel called attention to the fact that school boards and their architects must today climb a veritable mountain of codes before they can start digging a foundation. They believe all states must depart from the "statutory" form of school code, as a great many already have. They recommend that legislatures not only delegate the details to administrative officers under broad definitions of policy but also that such administrators be instructed to set standards of performance and not dictate the expedients so long as performance is ob-

8. There is much room for standardization without loss of individuality. A great many opportunities to economize are being missed by failure to capitalize on standardization already possible or available.

9. Professional know-how can solve each school's differing problems. No two schools or school sites are genuinely identical in every respect. However, there exist countless schools that can use identical parts: all the way from identical windows, doors, chalkboard panels,

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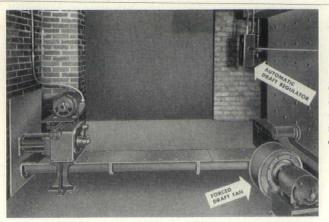
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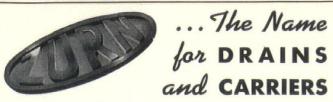
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lights, heating elements, to identical or nearly identical plans for at least the structure of individual rooms such as classrooms and gymnasiums.

10. Imaginative financing can gain the easiest and biggest saving of all. The tiny figure of 1% sounds so small that an inexperienced board may miss its enormous importance in school bond financing. Yet a community that pays 3% instead of 2% on its bonds must realize that this is equal to paying about 20% more for land and construction.

#### **Cleveland Chapter Museum Exhibit**

(Continued from page 12)

that are up-to-date, reasonable structures, with the budget in mind, and with good design springing from simplicity and proportion rather than relying on the application of pseudo-Gothic decoration (cast in cement) or some other device borrowed inappropriately from another era

Also evident was the direction in which school design is moving, by these Cleveland architects' work, concentrated on good planning, well-lighted classrooms, economy in construction and service to the community.

In the Educational exhibit, the visitor saw drawings and a large model of the Cleveland Zoo, where buildings and terrain will eventually merge into an outstanding

civic project.

Exhibits in the classification "Learn" and the Architects were: Bird Building, J. Byers Hays; Cleveland Museum of Art, Hubbell & Benes; Maplewood Elementary, Ward & Conrad; School Social Science, W.R.U., Garfield, Harris, Robinson & Schafer; Franklin School, Massillon, Ohio, Dalton-Dalton Associates; Mt. Union Campus Plan, Mellenbrook, Foley & Scott; North Central High School, Spahn & Barnes; Zanesville High School, Outcalt, Guenther & Associates, Grier Riemer, Landscape Architect; Eastern Heights School, Elyria, Ohio, Outcalt, Guenther & Associates, Grier Riemer, Landscape Architect; Cleveland Boys School, Hudson, Ohio, Horn & Rhinehart; Western Reserve Academy Dormitory, Robert A. Little & Associates; Lakewood Auditorium, Hays & Ruth; South Fuclid Elementary School, Carr & Cunningham; Highland Drive School, Alfred W. Harris & Anthony Nosek, Jr; Cleveland Zoo, Pachyderm, Hays & Ruth.

Exhibits in the classification "Worship" and the Architects were: Park Synagogue, Eric Mendelsohn, Charles C. Colman, Supervising Architect; St. Leo's Church & School, John E. Miller; West Side Christian Reform Church, Ward & Conrad; Our Savior Lutheran Church, George S. Voinovich; Our Savior Lutheran Church, Braverman & Halperin; West Shore Unitarian Church, Weinberg & Teare; Church, Anthony S. Ciresi; Euclid Congregational Church, Carr &

Cunningham.

"Architects Help People" was an exhibition which reviewed the building of this area, and gave an indication of what future building may be expected. The projects shown indicated the forward-looking approach of today's architect, with examples of the many different building problems he is called on to solve.

The exhibit touched on the creative force that produces the structures in which people are born, work,

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play and pass their lives. This force, and the men who direct it, were the real subject matter of "Architects

Help People."

As a result of the great amount of planning that went into this year's show, the design was very colorful and unusual. A false ceiling, consisting of a lattice work of wood members supported on wood beams was installed in galleries nine and ten at the Cleveland Museum to reduce the high ceiling and to provide the intimacy desired for a show of this type.

Layout of the show itself is based on the architectural concept of good planning, simplifying the movement of a large number of people through the exhibit area.

Mrs. Cole, of the Museum staff estimated that more than 25,000 people attended the Cleveland Chapter's

President of the Cleveland Chapter, A.I.A., is Joseph Ceruti. The committee of architects who designed and organized the exhibition consists of Robert A. Little, chairman, George Dalton, J. Byers Hays, and Andy

Congratulations on an excellent job, very well done, is due the committee and the architects who participated in this exhibition. It was something which the members of the Cleveland Chapter may well be proud.

### Early Architecture in Ohio—Dayton Chapter

(Continued from page 7)

settlement. Lebanon was surveyed in the Northwest Territory and is older than the state of Ohio. It was incorporated as a village in January 1810 and the business of the town began to increase. As the Eighteenth Century advanced and Lebanon prospered and grew, the leading citizens built beautiful houses in the town and environs, and many of these houses have been maintained through the years gracing the city at the present time. Just south of the town is a particularly interesting group of houses, all in an excellent state of preservation. Situated on a gently sloping hill above the road which, since olden days, has been the main route between Dayton and Cincinnati, and set among towering trees and green lawns, which in truth is a park, the group includes Glendower, (See front cover) the Mathias Corwin house, the Pomroy Stoddard residence, and the Gothic.

Glendower, the most outstanding of the group, was presented to the State of Ohio by the Warren County Historical Society in 1945. It has been restored as a state memorial by the Ohio State Archaeological and

Historical Society.

Glendower was built in 1836 by J. Milton Williams and there he took his bride. Since that day it has had only two other owners, Brigadier General Durbin Ward and Mrs. Ladora Scoville Owens. The house is an outstanding example of Greek Revival architecture representing the same classic style for residences as if found in such public buildings as the Montgomery County Court House at Dayton and the State Capital in Columbus. It was built by Amos Bennett, listed as a carpenter and joiner in an early Lebanon directory. Many of its details show that he was familiar with the handbook of Asher Benjamin.

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The materials were probably produced locally. Lebanon was one time a famous wrought iron center and there are many examples of wrought iron work in the city. Particularly noteworthy is the recessed front entrance with the beautifully designed columns. The architectural details are treated with great reserve throughout. The interior has many interesting features. There is a beautiful three-storied staircase with a skylight at the top. In the main drawing room are twin fireplaces over which are elaborate gold framed mirrors. A steep, sneak stairway built beside the library chimney is extremely interesting. The wrought iron grilles or frets in the second floor windows of the two wings are considered among the finest of their kind.

The Mathias Corwin house is said to be the first one in Lebanon designed by an architect. Built in 1848, it is high ceilinged and spacious, being designed in the Gothic Revival Style. It contains some iron work, undoubtedly from one of Lebanon's famous foundries.

The Gothic is another fine example of the Gothic Revival Style as seen in the details inside and out. It was built sometime before 1850. A detached stairway and finely designed Gothic arches are interesting features.

The Pomroy Stoddard house is another of this group. It was built somewhat later than Glendower and is not as pure or restrained. An example of Greek Revival architecture built in the 1840's, the details are those of a style that had reached its peak and had begun to decline. The cornice brackets and ballustrades show the first influences of Victorian Gothic.

Returning to Dayton and traveling east and just north of Xenia is the town of Yellow Springs, the home of Antioch College. Among the many interesting buildings of architectural and historical interest in Yellow Springs, and perhaps the most notable is Antioch Hall. Completed in 1853 it has been termed Gothic, Byzantine, Levantine, Romansque, and even Mongrel in style. A. M. Merriman, who was chairman of the building committee, was responsible for the design. A native of Worcester, Mass., he was familiar with Davis Hall, built by his father or brother in that city for the now Worcester Academy . The similarity between this building and Antioch Hall is very striking. The Smithsonian Institute in Washington, D.C. was the prototype for both buildings. The original plans called for two-story colonades to connect the dormitories to the north and south of the building. Fortunately this was never realized because the interesting vista between the buildings would have been shut off. The building is constructed of brick and the details might best be described as Victorian Gothic. The interior is notable for its lofty ceilings and the bareness of its walls. Considering the era in which it was erected and the method of heating available in those days, creating such tremendous spaces was a marvel indeed.

The Dayton area has many notable examples of historical and archtectural merit of which these are only a few. Each one is deserving of mention and description were the space available. Singly and as a group they are part of the great heritage of our state and country and every effort must be made to preserve them.

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Joseph L. Boyer

York City, vicepresident of the company. Address of the new office is P. O. Box 3567, Columbus, Ohio. Territory served includes all of Ohio except Toledo and immediate environs which is served by the Detroit office of the

company. Purpose of the new office is to provide personal service to architects, engineers and contractors of the

For the past six years Boyer has been service engineer for Timber Structures, Inc., with headquarters in their New York and Portland, Ore., offices.

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### CHANGES

Charles W. Cloud, architect announces the removal of his office from 630 E. Broad St. to 931 West Third Avenue, Columbus, O.

The Columbus architectural firm of Ramsey (Edward A.) and Croci (Chester) is now located at 490 S. Park, Columbus, with a new name added, Ramsey, Croci and Abbot (Henry M.)

The firm of Tuttle (Howard W.) and Holroyd (Harry James) of 3201 W. Broad St., Columbus has been dissolved. The office at 3201 will be continued by James Holroyd while Mr. Tuttle will open his own office at 2781 W. Broad St., Columbus 4, O.

Henry B. Trautwein and Don D. Milosevich announce the opening of the office of Milosevich & Trautwein Architects at 3391 N. High St., Columbus 2, Ohio.

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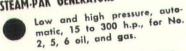
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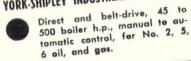
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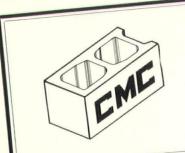
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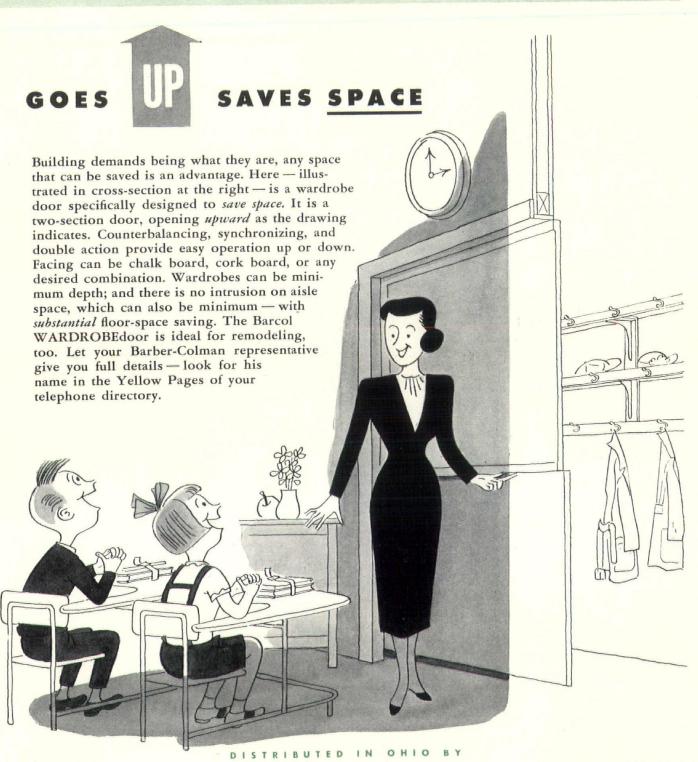
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