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View of Main Dining Room, Capri Restaurant, Cleveland, O. Joseph Ceruti, Architect, Cleveland, O.
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ARCHITECT

November, 1949 3
How to conceal telephone wires in a new home...

A telephone outlet, built into the walls of a new house when it is constructed, conceals telephone wires. Without the telephone outlet, wires may have to be placed along bright new walls in order to connect the telephone where it is wanted.

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Walls
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Some Installations
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Architects—Miller & Voinovich, Cleveland, Ohio

KENT STATE UNIVERSITY, Kent, Ohio
Architects—Fulton, Krinsky, Delamotte, Cleveland, Ohio

WEISSENBERGER CHEVROLET SALES, Toledo, Ohio
Architects—Britsch & Munger, Toledo, Ohio

WOOD COUNTY HOSPITAL, Bowling Green, Ohio
Architects—Strong, Strong & Strong, Lima, Ohio

FREEDOM MANOR ALL GAS HOME, Columbus, Ohio
Architects—Petri, Oman, Meinhardt & Cleland, Columbus, Ohio

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Architecture and Public Relations

I am afraid I have come here under false pretences, for until I was invited by Mr. Voinovich it had not occurred to me that I could know anything about architecture and public relations. I still do not believe I do, and must confess that Mr. Voinovich’s persuasiveness has overcome my better judgment.

I can only imagine that some of you have seen a few pages in the architectural magazines where some of our company projects have been reported, and that you have therefore been led to believe that we make an effort to get that kind of attention.

But we have no public relations department and, in fact, never take the initiative in order to have our work shown. Of course, we don’t put any obstacles in the way when an opportunity presents itself.

I have come to see that public relations are little more than personal relations extended to a larger field. What is good between man and man is good between company and public. Everyone knows that if he reaches out and gives what he can of himself for the good of others it comes back with surprising swiftness, and multiplied many times. I distrust synthetic public relations which are like private relations based only on self-interest and which require a false front and constant shoring.

I think it is pertinent to ask if not all our relations are public relations; or to put it another way, are there any private relations? Certainly a man’s education, his marriage, the bringing up of his children and the work he does are public affairs which have a direct influence on society.

Industrial public relations are no different. They are good or bad depending on what a company and its executives and its employees do. I don’t know whether there is anything in the conduct of Container Corporation of America that can be applied to an architectural office, but I can tell you what we have done and do.

Years ago Mr. Paepcke, Chairman of the Board, realized that at CCA we have machinery, know-how, strategic location, sound finances, good administration, all of which are equalled by many large competitors. Also when times were tough we could meet a competitor’s prices and he, in turn, could underbid us. He believed there must be something beyond these common factors which would distinguish us in our field.

Obviously we might make better looking packages than anyone else, for most of the cartoons we printed in 1935, when the Department of Design was established, were admittedly ugly. But there was little we could do about it directly and quickly. We could not go to the customer and tell him how bad his design was, for that might well result in his being annoyed and unimpressed. He would be annoyed because he probably designed the package himself, or perhaps his grandfather did years before. He would be unimpressed because the package had, no doubt, been long accepted and successful. The only thing we could do was to persuade the customers of our own good judgment in matters of design by having everything well designed that represented us to them. If every stationery form, every piece of advertising literature, all our convention displays and our trucks and our institutional advertising were well done, then eventually people would realize that we understood design, and would come to us when they were prepared to redesign their packages. We began our campaign to improve our package production by redesigning the business cards of our salesmen.

The best known activity of the company is, of course, its magazine advertising, where the work of more than a hundred first-rate artists has been employed. They were not employed because we consider ourselves patrons of art, but because we believe that our story could best be illustrated by serious and disciplined designers and painters. Their work was so good that it has been shown by invitation in the museums of twenty-eight cities.

Other aspects of the Department’s work, though not so well known, have been part of the same pattern. Improved designs for stationery and office forms attracted the attention of stationers and printers and their trade publications. A new lettering design on trailers and trucks not only provided traveling billboards but won editorial comment in truck and traffic magazines. The careful concern with the interior architecture of studios, sample rooms, laboratories, locker rooms and cafeterias has demonstrated to plant visitors the importance of functional equipment and pleasant surroundings. So with the painting of mill rooms and factories, which also has brought the best experience of lighting engineers and color consultants into the everyday life of workers. The design and arrangement of furniture in offices has cut down tension for executives and has added to the efficiency of secretarial staffs. Thousands have come to see for themselves, and have taken away friendly impressions. Because all this was done under one direction, with emphasis on integration rather than on personal artistic expression, the company has acquired in the public mind a unique corporate identity.

(Continued on page 18)
The Two Horns of the Acoustic Dilemma:

PAINTABILITY vs. SOUND-REDUCTION ABILITY

By A. E. PAVLISH, Technical Director, The Kelley Island Lime & Transport Co.

Architects have, in recent years, given increasing attention to the subject of sound control. It is now a generally accepted necessity for all noisy areas. The choice of the material by the architect may vary depending on the specific objectives to be attained in the installation. At the present time, different types of treatment as well as numerous products of a given type are available. In addition to the acoustic properties of the material, other factors have an important bearing on the exact treatment employed. Redecorating of the material as well as numerous products of a given type are available. In addition to the acoustic properties of the material, other factors have an important bearing on the exact treatment employed. Redecorating of the material as well as its potential fire hazard in the structure are two important factors to be considered.

Paintability is one of the major factors which determine whether a given product will be specified for the sound control of noisy areas. In general, paintability of an acoustic material is synonymous with a perforated surface. Needless to say, large hole perforations will accomplish the desired objective of producing a product which is amenable to redecorating by painting without an appreciable loss in acoustic properties. This feature has been one of the major subjects studied in the laboratory development work which has been carried out by The Kelly Island Lime and Transport Company during the last ten years. A unique capillary structure, as a result of this extensive research, has been found to be an effective method of obtaining a product with the desired paintability as well as an attractive finish.

A structure composed of a multitude of small interconnected pores has been found to be effective from the standpoint of acoustic properties before and after painting. The size and number of these cells determine the properties of the tile. A controlled capillary structure will maintain the open continuity when a paint film is applied to the surface. The experimental data shown in Table 1 show the effect of this type of structure when oil or water paint was applied by brush or spray methods.

![Sound equipment used to test acoustic properties of paint tile.](image)

**EFFECT OF PAINTING ON ACOUSTIC PROPERTIES OF TILE WITH CAPILLARY STRUCTURE**

<table>
<thead>
<tr>
<th>Type of Application</th>
<th>Weight of Paint per Square Foot</th>
<th>S.R. Coefficient @ 512 Cycles/sec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paint Method</td>
<td>Number of Coats of Paint</td>
<td></td>
</tr>
<tr>
<td>Water Brush</td>
<td>0</td>
<td>66</td>
</tr>
<tr>
<td>Water Spray</td>
<td>1</td>
<td>59</td>
</tr>
<tr>
<td>Water Spray</td>
<td>2</td>
<td>58</td>
</tr>
<tr>
<td>Oil Brush</td>
<td>3</td>
<td>54</td>
</tr>
<tr>
<td>Oil Spray</td>
<td>4</td>
<td>51</td>
</tr>
<tr>
<td>Oil Spray</td>
<td>5</td>
<td>51</td>
</tr>
<tr>
<td>Oil Spray</td>
<td>6</td>
<td>51</td>
</tr>
</tbody>
</table>

The data show that the acoustic properties of tiles having an open capillary structure were not altered to any significant extent by the application of as high as 6 coats of either oil or water paint. This is of special interest from the technical standpoint because the method of paint application had no marked effect on the acoustic properties of the painted tile. The effectiveness of the structure is most adequately demonstrated by the following experimental data:

**S.R. COEFFICIENT @ 512 CYCLES/SEC.**

| Dense-structured tile, no perforations | .54 | .58 |
| Open capillary structure*             | .48 | .52 |

*Water paint applied by spraying using same paint formulation and weight of application described previously.

**KILNOISE ACOUSTICAL TILE**

The results of the experimental work have led the development of a new tile with good acoustic properties before and after painting, without sacrificing many other desirable features. Probably the most significant factor of this unique structure is its distinct decorative effect, which is completely paintable.

*Wisdom: A French doctor once said it: “Humans need only one-third of what they actually consume in order to exist. The other two-thirds enables the doctors to exist.”*
HOW TO MAKE RADIANT HEATING

By L. JOHN LEE
General Manager, Lumiland Distributing Co.
Rocky River, Ohio

It may be wondered how administering an aluminum building products supply business equips us to authoritatively discuss radiant heating?

The writer has a comprehensive knowledge of heating and air conditioning acquired over a period of 15 years. Since Lumiland is consulted almost daily with respect to insulation and humidity problems ranging all the way from a heater or deep freeze unit, retort ovens and refrigerated trailers, to major buildings of all types and many uses, we have acquired a first-hand knowledge based on actual experience with scores of actual problems.

We have repeatedly been called into consultation with respect to radiant panel heating for installations as large as 280,000 square feet, as in the new Ohio State University Hospital and Dental Buildings, to areas as small as a home. Lumiland is in the fortunate position of having gained a cross-sectional knowledge of the good and the bad, the successes and the failures with respect to radiant heating, and what makes 'em good or bad. Since Lumiland does not sell heating it believes itself objective and unbiased.

To cover the entire subject of Radiant Panel heating would take this entire issue. But certain "musts" can be suggested within the space allotted, musts that make the difference between successful installations, mediocre ones, or failures.

Let's consider the advantages of a successful radiant panel heating system. We will not bore you with the repetition of "fuel savings" and other aspects so often repeated. Instead, we will discuss the subject from the standpoint of human values. Since people must live and work in the buildings these are really the greater considerations.

First, let's clarify a bit. Two types of "radiant heating" are available. One consists of hot water lines in or under floors, walls, or ceilings; the other is by means of metal baseboard through which pipe is run, or containing fin-type radiators. The second type (baseboard) is not "radiant heating" as we mean it, since most such products provide means of air intake, the warming of the air and its recirculation. Such heating is convection heating in a newer, more compact form. It is "radiant" only to the extent that any radiator might be "radiant." It has some advantages over old style radiators, but, since it primarily functions to heat and recirculate air, it really is not "radiant heating." Radiant Panel Heating, is heating that does not depend upon the recirculation of warmed air for results. It is a system of heating that depends almost entirely (the rest is incidental) on the principle of INFRA-RED heating of MASS... a system that is not designed to warm and recirculate air, (convection) or to heat air by contact with warm surfaces, (conduction). This is what is meant by "radiant heating" in this discussion.

You many times, have experienced this:

In a heated room being occupied by several persons, there was considerable difference in the degree of comfort of each one! One was "too hot," another "too cold," for a third, "just right"; one wrapped in a shawl; another begging for air! Another complaining of draft; another feeling none; a third asking for still lower air

(Continued on page 21)
The Building Material Exhibit at the Cleveland Convention

I propose to discuss briefly the Slum Clearance and Urban Redevelopment Program provided by the Housing Act of 1949 and suggest what its meaning may be to communities and others concerned with the development of our urban areas.

The Slum Clearance and Urban Redevelopment Program was enacted by the Congress as part of a comprehensive housing program. This fact underlies the emphasis placed by the Congress on the close relationship of the program to the improvement of the living conditions of the American people.

We realize that there has been some difference of opinion as to the wisdom and desirability of including Federal aid for urban redevelopment in a comprehensive housing program. But I believe it is a fair statement that the removal of the impact of slums on the lives of those living in them was the primary justification for the expenditure of Federal funds by Congress to assist local redevelopment undertakings. This thought has been expressed by Administrator Foley and others in our Agency who were closely associated with the consideration of the Housing Act of 1949 by the various Committees of the Congress and on the floors of the two Houses. These men also believe that the Congress will judge the success or failure of local programs assisted under Title I by the degree to which they have improved living conditions in the community and particularly of the families now living in an environment of slums, blight and congestion.

Although set in a context of housing, a brief description of the provisions of Title I will indicate that the opportunities it creates relate to all phases of city development and to every type of urban land use.

Title I authorizes the Administrator of the Housing and Home Finance Agency to make loans and grants to local public agencies to undertake slum clearance and urban redevelopment projects.

The loans may be made for planning projects—that is for buying, clearing, improving and making available cleared areas for reuse; for financing sites which are leased to redevelopers; and, finally, to assist local public bodies to construct schools and other facilities to support new uses in projects on land which is now predominantly open.

The grants are intended to assist communities in bearing any financial loss which may be necessary in undertaking redevelopment projects. The cost of buying, clearing and preparing slum and blighted areas for reuse is expected in most cases to exceed by a considerable amount the price for which the area can be sold or leased for sound redevelopment. Federal capital grants may be used to defray up to 2/3 of this difference.

The title places some restrictions on the types of projects which may be assisted. There are four general types which come within the purview of the Act. First, there are projects for the clearance of areas which are now predominantly residential in character. These areas may be redeveloped for their highest and best use as determined by the community, whether that use be residential or otherwise. Second, Federal assistance may be made available for projects on sites which are not now predominantly residential in character, but are to be redeveloped for predominantly residential use. Third, projects on land which is predominantly open and which, because of obsolete platting, diversity of ownership, deteriorated site improvements or for some other reason arrests or impairs community development, may be assisted if the land is to be redeveloped for predominantly residential use. Redevelopment of defunct subdivisions would be typical of projects of this type. Fourth, projects on open land which would not meet the conditions in the third category may be assisted if they are to be redeveloped for predominantly residential use, but here the Federal assistance is limited to loans.

Projects in the other three categories would be eligible for both loan and grant assistance.

I believe it is fair to state that few projects now contemplated by communities would not fall into one or another of these categories. The handful of projects now being considered by cities in which non-residential land is being redeveloped for non-residential purposes are generally expected to result in some profit to the local redevelopment agencies, and, therefore, would, in fact, not require Federal assistance to make them possible.

This is the skeleton framework of the program. The Congress intended, however, that it be directed toward the accomplishment of the objectives laid down in the statement of National Housing Policy in the Housing Act of 1949. I think it might be worthwhile to quote from the opening language of the Act:

"The Congress hereby declares that the general welfare and security of the Nation and the health and living standards of its people require housing production and related community development sufficient to remedy the serious housing shortage, the elimination of substandard and other inadequate housing through the clearance of slums and blighted areas, and the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family, thus contributing to the development and reestablishment of communities and to the advancement of the growth, wealth, and security of the Nation."

It will be toward the attainment of these objectives that the Act will be administered. Also, in furtherance of these objectives, the Title contains certain specific conditions. Among these are conditions relating to community planning, to participation by private enterprise, and to the rehousing of families displaced from cleared areas.

The Act directs the Administrator to give consideration, in extending financial assistance to communities, to the extent to which programs for the prevention of the spread and recurrence of blight have been undertaken through the adoption and improvement of codes related to land use and for other purposes. Among these codes would be zoning ordinances and subdivision regulations. The Administrator is directed also to encourage local redevelopment agencies established on a unified metropolitan basis. The Act requires as a precedent to financial assistance for projects that there be an official local finding that redevelopment plans must conform to a general plan for the development of the community as a whole.

(Continued on page 12)
A.S.O. EXECUTIVE COMMITTEE MEETS

The Executive Committee of the Architects' Society of Ohio will meet at the Hotel Allerton in Cleveland at 10:00 A.M., Tuesday, November 22nd to formulate plans of action for the coming year.

George Voinovich, president, newly elected at the State Convention held in Cleveland in October, will be certain to spark the Society with his usual initiative and enthusiasm. After the general duties of the Executive Committee are taken care of, such as: the appointment of new Committee members for the ensuing year and the discussion of the future legislative program to be followed, the planned agenda will include discussion of: The Ohio State Code; the possibility of standardizing the Architectural Schools in the State; future editorial policies of the A.S.O. Journal, "The Ohio Architect;" the important public relations policy of "getting the public to know what an architect is and does," a statewide publicity program to go to all high schools; and a statewide Speakers Bureau.

One of the features of this meeting will be the invitation of all past presidents to participate. The relation of their problems and experiences in the past will help this year's bosses to hurdle the barriers faster—thereby allowing more time for progress during the year.

After their day session, the Committee will meet with the Cleveland Chapter at their regular monthly dinner meeting at the Allerton (which, by the way, has been changed from November 16 as previously planned to November 22).

U. S. Planning and Housing Act of 1949
(Continued from page 11)

A further condition of Federal assistance is that the redevelopment plans of a community afford the maximum opportunity, consistent with the sound needs of the community, for redevelopment by private enterprise. Finally, the Act contains specific safeguards to assure that the lot of families displaced from slum areas may be bettered and not made worse by redevelopment undertakings.

Title I places the responsibility for carrying out the Federal Slum Clearance and Urban Redevelopment Program on Mr. Raymond Foley, the Housing and Home Finance Administrator. Mr. Foley has, in turn delegated Mr. Keith as his Director of Slum Clearance and Urban Redevelopment. Just this week have funds been appropriated to establish the new Division under Mr. Keith. A first task of the new staff will be to make policy decisions and to establish rules and regulations to guide local applications for financial assistance.

A fact of fundamental importance which must be stressed is that the slum clearance and urban redevelopment, which will be undertaken as part of this program, will be locally planned and locally carried through. Basically, the role of the Federal Government is that of providing financial assistance to local public agencies so that these agencies may create an opportunity for architects, investors, builders, and all others concerned with the building of cities to reconstruct those areas in our communities which have deteriorated into slums and blight. Unless there is local initiative to undertake redevelopment and unless developers, both public and private, appear on the scene to take advantage of the opportunities offered, our new Division will not be in business. However, the accelerated rate at which interest and the opportunities provided in the Title I program are increasing, gives more than reasonable assurance that this eventually will not occur.
In attempting a legal definition, it is well to first consider what we ordinarily understand the word or term to mean in everyday usage, without regard to legal aspects.

A Circular of Information, recently issued by the New Jersey Society of Architects, states: "Full architectural service includes preliminary conferences, site inspection, preliminary sketches, working drawings, specifications, detail drawings, taking construction bids, letting contracts, interim consultations, supervising construction, approving payments, final acceptance of job.

"The architect does not draw blue prints," as is too commonly believed.

"The architect is the owner's agent. He safeguards the owner's interests throughout the entire period of design and construction of the building. His financial interest in the job is limited to the fee paid him by the owner.

"The architect's fee is paid for the service he furnishes, based on years of highly specialized training and experience, on his integrity and on his ability. It is not measured by the hours of physical labor spent making drawings, writing specifications, supervising construction or in consultation. It pays for knowledge, wisdom and judgment furnished in behalf of his client. The amount of his fee is in direct proportion to the quality and extent of the service he furnishes.

"The best architectural service can be secured only when the architect enjoys the full confidence of his client, who retains him on a comparable basis with his doctor or lawyer."

This would seem to be a pretty good definition of architect and of architectural practice but, of course, it would not qualify as a legal definition. It was not intended to do so.

Legal definitions, as used by the state boards of registration, vary widely. In many cases there are joint acts for architects and engineers, in which case definitions of both are necessary. Even where there are separate acts for the two professions, some clarification as to the duties and limitations of each is generally included.

The Alabama act requires separate registration for architects and engineers but permits each to perform the services of the other, provided they are purely incidental to their practice. The act defines an architect as "any person who shall be engaged in the planning or design for the erection, enlargement or alteration of any building or buildings for others, or furnishing architectural supervision of the construction thereof." Alabama continues by defining a "building" as "a structure consisting of foundations, walls and roof with or without the other parts." We find this in several other state acts, but would not a manhole qualify under this?

A better definition is contained in the Ohio act, which states: "the term 'building' as used in this act shall mean a structure intended for use as a shelter for man and/or his possessions."

Arizona states that the word "Architect shall mean a person other than an engineer who prepares drawings or specifications or supervises but does not superintend the construction of buildings and structures, as an authorized agent of the owner thereof." How about one who is both an architect and engineer? Or why should an architect be disqualified if he chooses to superintend his project?

Here are two of the shortest definitions:

Arkansas: "Architect means a person who is technically and legally qualified to practice architecture."

California: "Architect refers to a person who holds a certificate to practice architecture in this state under authority of this chapter."

What more could be desired than to limit the title and practice to those who are duly registered?

Obviously, in defining a word, the word itself should not be used, nor should a derivative of the word unless that derivative has been defined previously.

For the purpose of registration acts, there are two definitions to consider: architect, and the practice of architecture. When one is defined, definition of the other follows naturally. Given a good definition of architectural practice, then an architect can be defined as one qualified to practice architecture.

For instance, a proposed amendment to the Washington, D. C. Acts states:

"The practice of architecture within the meaning of this Act consists of rendering or offering to render services by consultations, preliminary studies, drawings, specifications, contract documents, supervision of construction, or any other services in connection with the design or supervision of construction of any buildings or addition or alteration thereto, whether one or all of these services are performed either in person or as the directing head of an organization."

"An architect within the meaning of this Act is an individual technically and legally qualified to practice architecture and who is authorized under this Act to practice architecture."

In early days the word architect meant master builder, but in later years the architect gave up some of his duties to others. Certainly, since the architect is a professional man, his behavior toward his clients should be taken into account—ethics. This is suggested in the Michigan law, which states that, among other things, an architect "has no prejudicial interest in the project." It is interesting to speculate on what would happen if one were brought into court, charged with practicing architecture without a license and his attorney made the plea that, since his client did have a prejudicial interest, he could not, by our own definition, be held as practicing architecture.

Of course, the purpose of this provision is to prevent one from undertaking to serve as both architect and contractor on a project, which, obviously, could not be properly done, any more than one attorney could represent both sides in a court action.

As stated in previous articles in this series, the primary reason for a registration act is the safeguarding of the public. The fact that certain benefits accrue to the architectural profession is incidental. It is a reasonable
assumption that the avoidance of eyesores is in the public interest. Hence, in the Maryland Act, "The practice of architecture as used in this Act shall consist of giving or offering to give for a consideration by any person unbiased advice to clients concerning the selection of site, the aesthetic or structural design of buildings, or any other service in connection with the planning or supervision of construction of buildings where the consultant charges for knowledge and skill and has no prejudicial interest in the project either as owner, contractor or producer of material. Architect, as used in this Act, is defined to mean any person who holds himself out as able to perform or who does perform any professional service, such as consultation, investigation, planning, including aesthetic and structural design, or responsible supervision of construction, in connection with any public or private buildings, structures or projects, or the equipment thereof, or the accessories thereof wherein the safeguarding of life, health or property is concerned or involved, when such professional services requires the application of the art and science of construction based upon the principles of mathematics, aesthetics and the physical sciences. Nothing in this subtitle shall be construed to apply to the principles of real estate practices, such as appraising, evaluating or estimating the values of real estate property in any form."

Significant are the inclusion of the word "aesthetics," "for a consideration... where the consultant charges for such knowledge," and "wherein the safeguarding of life, health or property is concerned." It would seem that if one were guilty of performing or offering to perform services for which he is not qualified the offense would be just as serious whether or not he made a charge for it.

The Florida Act has a negative approach; it first lists certain exemptions, such as farm buildings, one and two-family dwellings, work by registered engineers, etc. Then it states:

"Otherwise, any person who shall be engaged in the planning or design for the erection, enlargement or alteration of buildings for others or furnishing architectural supervision of the construction thereof shall be deemed to be practicing architecture and be required to secure a certificate and all annual renewals thereof required by the laws of this state as a condition precedent to his so doing."

Says Mr. Russell T. Pancoast, President of the Florida State Board of Architecture, "to discover what is in the law, you have to use the back door. The time does not seem right, even after these years, to rewrite this section in order to approach the subject in a positive manner. The Board has been able to function with fairly satisfactory results under the law we now have."

In the Kentucky Act, architect and the practice of architecture are defined only in the Rules of the Board.

Illinois was the first state to enact a law regulating the practice of architecture. Nevada was the last. Nevada borrowed from Illinois, and to a considerable extent other states have done so during the intervening years.

We gratefully acknowledge the assistance of the various state boards in furnishing the source material for this article.

One dowager to another at concert: "This is my favorite. Let's not even talk!"

Meet your Gas advisor!

Here's a man you'll want to know. He's an expert in the field of gas heating and air conditioning. Your Gas Advisor will be happy to go over building plans with you. Now that the Gas Supply is greater, our expert Advisor is a very busy man—but not too busy to see you by appointment.

Instant Cooling—Instant Heating
Ask about Servel All-Year Gas Air Conditioning.
COLUMBUS REPORT ON WEST VIRGINIA
CHAPTER MEETING

"They Are Acting Mighty Frisky,
On Seven Dollar Whisky,
Instead of Drink Moonshine from the Stills."—this
couplet from a song composed especially for the occa­sion by Bob Schmertz of Pittsburgh set the theme for
the meeting of the West Virginia Chapter held Novem­ber 4th and 5th at the Greenbrier.
The Columbus Chapter was well represented by Archi­tects W. C. Ronan, T. E. Benham, E. A. Ramsey, F. H.
Hobbs, Jr., R. L. Tully and their charming wives. Sadly
missing was our "Man about Conventions," R. C.
Kempson.

After the usual confusion of registration, the conven­tion
was called to order by Harry Ney, President of the
West Virginia Chapter. Greetings and introductions
were followed by an inspiring talk by Pietro Belluschi,
F; A.I.A. illustrated with some beautiful slides and
sparked by little side remarks of the difficulties of the
Architect. The speech was entertaining as well as edu­cational and the assembly showed their appreciation by
generous applause. Lunch was a free-lance affair with
the choice of the dining room or Casino to enjoy.
In the afternoon we were taken on a tour of the Hotel
by Mrs. Wilson, a member of the staff. A brief history of
the Greenbrier was given and the account of the trans­fer to the Government during the war years and subse­quent renovation was explained.

After the tour an old-fashioned sing was led by Bob
Schmertz and Emory Mick. The song mentioned at the
beginning of this article as well as others composed by
Schmertz were the highlights of this event which termi­nated just in time for the Cocktail Party given by the
West Virginia Chapter.
Saturday morning's session was devoted to a lecture
by Serge Chermynelf. His subject, 'Painting toward
Architecture' correlated the collection of the Miller
Lighting Company which was the featured display at the
Convention. It was one of the finest expositions on
contemporary art that this writer has been privileged
to hear.
Saturday afternoon Mr. Small conducted a tour "Back
of the House," for those Architects who were interested.
The design problems presented by this Hotel, set apart
from any major center of population were intelligently
explained by Mr. Small and by members of the staff.
Saturday evening another Cocktail Party was given
by the West Virginia Chapter followed by the formal
banquet. Honored guests were the Institute's Board of
Directors and President Walker, who was the featured
speaker for the evening. After the banquet, the tables
were cleared and most of the guests remained to con­tinue the sing, so successfully begun the previous after­noon.
The entire program under the able direction of Cy
Silling and his fellow members of the West Virginia
Chapter was beautifully handled. Certainly this meet­ing
will go down in the annals of the A.I.A. as one of
the best of many delightful gatherings.

Our reporter R.L.T. apologizes for the tardiness of
his dissertation on the White Sulphur Springs meeting
with the alibi that they had a farewell party for their
minister ON TAP which he thought took precedent over
this report. (Continued on page 20)

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CLEVELAND CHAPTER COMMITTEE NEWS

Education seems to be the keynote of discussion and action this month. All the Cleveland Chapter Committees report concentration on not only actual collegiate training, but education of the public as well.

The Public Relations Committee (Mankki, Voinovich, Willits, Gattozzi, Riddle, Fenton, Finkel) naturally centered its activity on the latter. Education of the public is a primary factor toward the recognition of the high status of the architectural profession. In recent years the architect is thought more and more to be nothing to a building project but an unnecessary appendage. We all know this is far from the truth, but the sad fact is that the public is the buyer and what John Q. thinks is our bread and butter. The Architects must crawl out of their holes to attack this falacy. The only weapon is truth. But the truth must be spread. This shall be called for lack of a better word "publicity."

Publicity for the A. I. A. as the institution representing the architects as a whole, and publicity for the individual architect mentioning specifically what, how and why he has master-minded his latest project, publicity on important events and programs concerning the vital work which architects render, are matters of the community interest, and PUBLICITY AND MORE PUBLICITY. This, in general, was the consensus of opinion of the Public Relations Committee. As fine as their intentions may be, however, they are handcuffed until the individual architect realizes that he must devote a little of his time now, today, to educating the client in order that there may be clients tomorrow. The Committee has, among other policies, set up a service to publicize the individual's work to minimize the time involved. When you are approached to be a Speaker on the Speakers' Bureau, or when you are asked to give out a little information on that last job of yours, cooperate; it won't hurt—as a matter of fact it will do good for not only the profession as a whole, but for you as an individual.

The Builders' Exchange has set aside two booths for the architects' use in their Permanent Exhibit Hall at 18th and Euclid. Two months have gone by and only three architects have sent in any material. This is only one of the many excellent chances for publicity that is being overlooked by the Architects of Cleveland.

The Student Advisory Committee (Certiti) Robert Little, Story, Canute, Schaefer, and Rickert) had a session concerning the Student Chapter at Western Reserve University. High School publicity taking the form of student speakers and poster ads, a school employment file listing students available for part-time and full-time work, and a job placement file were the topics under the heaviest discussion. This month's Committee meeting ended up with a resolution to ask the Chapter to have a joint meeting with the WRU Student Chapter. It was suggested that a judgment of a local problem precede the formal part of the meeting. The Student Members will take the initiative in formulating the program around such topics as: "should school prepare men as designers or draftsmen" and "how much are they worth in the office upon graduation?" Seeing as how Bob Little is chairman for the Program Committee as well as being a member of the Student Advisory Committee, the Program Committee consented on the spot and tentatively set this joint meeting for March—it's easy when you know the right people and go through the right channels, n'est-ce pas?

The Education Committee (Holdstein, Ciresi, Patterson) received the approval of the Executive Committee to revive a night school for the study of architecture. Questionnaires have been sent out to all those

(Continued on page 24)
NOVEMBER MEETING OF CLEVELAND CHAPTER A.I.A.

After last month's Big Week with the A.S.O. and A.S.P.O. and prexy Walker, and bouquet-tossing at the banquet, it would be difficult for this meeting to avoid anti-climax. This we hope to achieve, however, by presenting as our speaker, an outstanding, international architect and teacher, Matthew Nowicki.

Mr. Nowicki's work includes the practice and teaching of Architecture and the Graphic Arts. His posters, exhibitions, and buildings have won numerous prizes in Poland and Europe; his current duties include acting as head of the School of Design (Architecture) at North Carolina State College, and as design consultant to Harrison on the UN Headquarters.

From previous comments of Wallace Harrison and of Tom Creighton, and from our own experience, we are confident of a stimulating talk in which Advanced Architectural Design and Creative Teaching will combine.

NEWS OF THE DAYTON CHAPTER

A regular meeting of the Dayton Chapter was held in the Italian Room of the Engineers Club, Dayton, Ohio, on Nov. 5, 1949. Twenty (20) members were present.

A short business session was held immediately after dinner. The President, Mr. John Sullivan, Jr., introduced to the Chapter two new Associate Members, Miss Nancy Hess and Mr. Ned Stein.

Ways and means were discussed to enlarge the Walter G. Schaeffer Memorial. The membership was invited to submit suggestions at the next Chapter Meeting.

A description of the highlights of the ASO Convention in Cleveland was given by Emory Ohler and Max Mercer.

The guest speaker of the evening, Mr. John M. Schweiger, was introduced to the Chapter by Max Mercer. Mr. Schweiger is a member of the Mechanical Engineering firm of Schweiger, Heapy and Associates, Winters Bank Building, Dayton, Ohio. Mr. Schweiger's talk on Insulation and Condensation was both interesting and instructive.

CHURCH ARCHITECTURE CONFERENCE


Exhibition of Church Architecture for which any member of the Ohio Society of Architects may submit 22 x 28 exhibit mounts, plans, photographs, and renderings of work completed or in progress in the last ten years. Further information on the exhibit can be obtained from, chairman of committee on exhibits, T. Norman Mansell, 266 S. 17th Street, Philadelphia, Pa. This conference should prove valuable to any architect who is working on Protestant Church Architecture.

Outline program and further information about the meeting will be forthcoming in the next few weeks. We should have some good information for the "Ohio Architect" on Protestant Church Architecture in the near future. The discussion on church lighting glass for fenestration, and color at this convention, and perhaps some of the exhibits should be interesting to Ohio Architects.
As we put our own house in order we came upon several ideas which were interesting to others, also: the color of tile in laboratories and mill rooms, the painting of machinery, the lighting of offices and factories, the design of furniture, the development of color standards for ink and paint. We eventually met with manufacturers in these various fields, exchanged experiences with them at their annual conventions and made new friends and customers for the company.

Although we could not criticize our customers' designs, we could require a high standard of design in the things we had made for ourselves, for we believe that quality in design and production can make a book, a chair or a building as much a work of art as a painting. And because a work of art adds depth and meaning to life, it has universal interest—it is newsworthy.

An architectural office, it seems to me, is loaded with opportunities for good public relations, because architects are in the best sense servants and builders of society.

When I was asked to speak on Architecture and Public Relations I assumed, and I hope I am right, that you were interested in ideas for promoting the public appreciation of good design in building. The first question that occurred to me is why doesn't the public appreciate it, and the answer seems to be that generally the public does not the difference between good and bad design. But why does it not know?

The public does not know because it has not been taught. Who is better able to teach it than the architect? Are there any classes in architecture in the public schools? Does anyone lecture on its origins and the history of its developments? On its immediate importance in everyday life? On influences which change its form?

There are courses in music; there are school orchestras and choral societies; there are courses in art history and classes in drawing and painting; there are courses in graphic design and typography and classes in journalism and philosophy; but no one teaches architecture to anybody but architectural students at the university level. The public is left to get its information from suppliers and contractors who have something to sell.

The professional musician has an audience of educated amateurs, and the professional painter appeals to people who have heard about artists and seen their work in museums, but the architectural practitioner finds sympathetic understanding only among a small and cultivated elite. What to do?

Now you can't make fools and influence people by forever telling them that their houses are ugly and that their slums must go, any more than we can tell our customers how bad their packages are.

If good public relations begin with good private relations, the architect can do more than almost any other citizen. He can talk about art; he can explain standards of quality, of craftsmanship. He can demonstrate them in his house and in his office. The architects who have the greatest reputation are those who have shared their discoveries and convictions with the world. Their chief love has been all art and culture. Frank Lloyd Wright, Gropius and LeCorbusier have influenced their time because they held convictions which concerned the improvement of society in general.

There would seem to be an infinite number of subjects that architects can discuss with public groups in the public interest: highways, bridges, housing, masonry, furniture, glass, light, color, vision, acoustics, ventilation and so on. Any architectural office that would furnish a speaker on these subjects to citizen organizations would
find its public relations improving by leaps and bounds. Any architect who writes well on them can count on interested publishers for his articles. This is the kind of publicity that money cannot buy.

The public does not expect to be accepted into an exclusive society of technological experts but it needs to learn the rather new gospel that good architecture means better health, less delinquency, improved traffic conditions and the better use of land for business and living; in short, that good architecture can help to bring about the good society. That requires teaching and teachers.

Finally, of course, an architect can improve his public relations by designing buildings that win the approval and praise of the public as well as of his peers. Then very little special effort need be made to get attention. The magazine and newspaper publishers will send interviewers, photographers and biographers. His private relations will become public overnight.

In one respect architects are like box manufacturers. You all have the same basic training, just as we all have the same kind of machinery. The difference between architects, to put it very broadly, is the same as between manufacturers. It is a difference in ideas and attitudes.

These differences show up in the solution of design and construction problems, and help make reputations. You will remember the glass Bauhaus School of Gropius, the use of marble walls and space organization by Mies van der Rohe, the wonderful wood constructions of Aalto, the beautiful forms in the concrete bridges of Maillart.

Now every building presents new opportunities for the use of materials. If the architect uses glass in original ways, the glass magazines will welcome him to their pages and the manufacturers will invite him to their conventions. If he does something new with tile or terra-cotta or granite, the clay and stone associations will applaud. If he devises new forms for concrete, the cement companies will bless him; and they also have their trade magazines and associations. If he invents new garages or warehouses or auditoriums or what not, there will be special groups glad to honor him and sing his praises. It is not difficult to get attention if you are creative, if you design because you must invent and develop, and because you hope to leave things better than you found them.

Walter Gropius has said: “Creative imagination seems to gain strength from moral devotion. The artist anticipating the future finds inspiration from new social ideas for the betterment of human environment and for a more highly integrated community. Understanding the social necessities of civilized life is evidently the most desirable condition for good design. If a designer is not imbued with a passion to search for better solutions, if

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[November, 1949] 19
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They stood in front of the jeweler's shop. Said she, coaxingly: "Darling, look at that lovely diamond ring."
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Two Scotchmen entered a train and sat behind a very pretty girl.
"That's a bonnie lassie in f'ron," remarked one of them. "Shall we speak to her?"
"Nay mon. Wait till she pays her fare."

Architecture and Public Relations

(Continued from page 19)

he thinks in terms of how to earn his livelihood only, he is sunk as an artist. Only if he desires to create a relevant contribution, born of his own thinking and imagining, can he gather strength to act as the unifying coordinator of the many who build up a new environment." In my opinion, his kind of moral devotion is the best guide to public relations; moreover there can be no great difference between our private and our public relations.

Columbus Report on West Virginia Meeting

(Continued from page 15)

The above report was made by Past President Dick Tully and from such a fine report it can easily be assumed that everyone had a very fine time.

The missing "MAC" was in New York, where he thought there might be a chance for some work—as he knew that President Walker and the other important New York Architects would be in White Sulphur Springs.

Also from this report it would seem that we might expect to see Bob Schmerz and Emory Mick on the television screen almost anytime now.

The Columbus Chapter was recently honored by a visit from Mr. Lawrence B. Anderson, Chairman of the Dept. of Architecture at M.I.T. Following the dinner Mr. Anderson gave a very excellent talk about "Architectural Education," which it can be truthfully said that he more than earned his transportation and keep, though the dinner was a little on the high side.

The Columbus Chapter also met with the local Gas Company on November 4th to find out more about some new Gas Heating Equipment. Tom Long has always been an excellent host.

For Wednesday noon, November 16th, the Chapter expects to meet for lunch in the Cavalier Room, Virginia Hotel. The speaker will be J. Parker Garwick, General Manager, Haig M. Boyajian & Associates, General Contractors. Mr. Garwick graduated in Architecture from Ohio State University and will endeavor to point out some of the bad habits of the Architects in all phases of architectural practices. Parker knows his onions and is not afraid to speak his mind so this should be a very interesting and profitable meeting for all concerned.

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"Yes, dear," he replied, "if ever I have to refuse you a diamond ring, it will be one like that."

Two Scotchmen entered a train and sat behind a very pretty girl.
"That's a bonnie lassie in f'ron," remarked one of them. "Shall we speak to her?"
"Nay mon. Wait till she pays her fare."
temperatures! Wives and husbands have fought with each other since time immemorial about this (among other) differences in their comfort, and both were right!

Go into any large office, multiply this problem of individual comfort by the 20-30-50 or more persons in it, and some concept of the problem, humanwise, can be had. The problem goes much deeper in its effects than human comfort, too. It has a direct bearing on the efficiency of the individual, illness and absenteeism.

Amazing as it may seem prior to an explanation, all persons (other than hypochondriacs) will be comfortable in a properly radiant heated area! This was once again dramatically proven last winter by a Cleveland firm.

For many years, this firm occupied an upper floor of a well heated, tight, steam heated office building. The staff numbered about 40 persons. Last fall, upon completion of its own one story building (10,000 sq. ft.) with radiant heating, in the concrete floor on the ground, the staff moved in.

Previously, in the office building, the management had constantly endeavored to keep each worker happy during the winter. Some were numb with cold; some could not work near glass window areas; some were wrapped in coats, sweaters or wraps. Others had electric heaters for their individual use,—on the floor, on desks, on chairs; still others were sweltering, always complaining of the heat—wanting windows open and radiators shut off. Colds and absenteeism were common. One faithful worker averaged weeks absenteeism each winter. Arguments between personnel were common. But in the new place?

With air temperatures an average of 10 degrees cooler not one complaint of discomfort was heard (or fought about) all winter. Absenteeism even from the 'chronic' one, was only 1½ days.

Why?
Because radiant panel heating, properly installed, gives each one exactly what he needs, no more, no less!

How?
This requires several explanatory answers.

Being comfortable is primarily a matter of the rate at which each person loses BTU's from his own body, the replacing of those BTU's by one's own manufacture and the absorption of BTU's into one's own body at the exact rate necessary, neither more nor less, to make up the deficiency between total loss and total manufactured by the body itself.

Keeping personally comfortable is exactly the same process as keeping a building at a predetermined temperature, . . . replacing the heat loss!

For a building, however, heat losses can be accurately determined and heat replacement engineered accordingly. Obviously it is impossible to do this with humans since each person loses BTU's at a different rate . . . and the rate changes with the time, the place, the emotions, one's thoughts and physical condition from minute-to-minute, to say nothing of what one is doing at any given moment.

And herein lies the fallacy of "constant temperature" air, as a provider of comfort for humans.

The answer to the problem of human comfort then, is not to strike an average air temperature at which they ought to be comfortable. That is expecting each person to be as stable as the building itself. The answer lies in making available the heat each person needs AS IT IS NEEDED.

Radiant panel heating, engineered successfully, sup-
How to Make Radiant Heat Work

plies the answer to an amazing "degree"—it actually makes BTU's available as and at the rate needed, per person, no matter how many are present nor how much they differ in their individual requirements.

Another human value in radiant heating is the lack of draught and air stratification. With a properly constructed, sealed and insulated building, radiant heated draughts do NOT occur, since warm air circulation is not being depended upon, nor created to any noticeable extent. Also stratification does not occur to any feelable extent in terms of human comfort. Nor are there dead areas, "pockets,"—hard-to-heat areas and other disadvantages of the other types of heating systems. Not even persons close to window glass are uncomfortable.

And... because the air is kept at temperatures below that which dries out human membranes and bronchial tracts, the results in the reduction of respiratory illness and irritations are dramatic indeed.

To achieve a successful installation is relatively simple. Since three places for radiant heating occur in any building—floors, walls, and ceilings, we confine ourselves in this to the the discussion of the installation in floors of basementless buildings only. (Subsequent articles will take up the other locations and in multistoried buildings, if you desire it.)

1. Specify proper drainage. This can be either rolled and tamped gravel, slag or limestone, but NO CINDERS. If the floor of the building is to be above grade around the building no drainage bed is necessary. Hard, compacted, non-spongy soil (or sand) is enough.

2. Specify a 1 ½" to 2" poured insulating slab of expanded VERMICULITE and Portland cement, rough surfaced. This creates trapped, low conductance air beneath the water lines that reverses the percentage of heat by conductance into the ground where it is "stored" in large measure, so that about 70% of the heat goes to the floor and 30% into the ground. Without the insulating slab, about 48% to 60% goes into the ground.

3. Specify 3/4" double-thick all copper pipe and soldered fittings, 14" to 18" O. C. and with bends, not sharp angles, wherever possible, in the lines. All to be tested for 100 lb. "hold" for 24 hours, before being covered by concrete. No allowance for pitch and drainage of lines is required.

4. Depending upon the size of the job, specify each panel is to have its own feeder and return lines, the size of the pipe to be properly calculated for distance—friction ratio. Each panel should not serve more than 1,000 sq. ft. of area. Each feeder and return line is to be from a header at the circulating pump (one or more depending upon the size of the job) and each panel individually equipped with a manually operated valve (shut off) properly indentified as to the area it controls.

5. Specify recirculating, modulating control of boiler water, controlled by outside compensating liquid control, water to enter heating panels and be evenly distributed to give a floor temperature of (approximately) 85 degrees. Specify that the modulation of boiler water temperature to the panels is not to be by introduction of new, cold water from the service line, but that the system is to be a sealed system and modulation is to be with the water in the panels mixed with boiler water only.

6. Specify burner operations to be by boiler water temperature control only, (not by a room thermostat); that boiler water temperature is to be kept constant at a predetermined temperature (usually 180 degrees) required for proper reserve capacity at all times.
7. Specify entire panel system is to operate on a continuously circulating, basis, with the outside-controlled, modulating water valve determining the admixture of boiler-water and panel water entering the panels.

8. Specify (if extended and complete shutdowns during winter are anticipated or if outside snow and ice control under walks and driveways is also to be installed) that a proper, permanent and non-corrosive anti-freeze be added to the system water. (Provide separate, manual shut off for outside system.)

9. Specify that no metals other than copper and brass are to be in contact with each other throughout the system.

10. Specify the required mix and thickness of flooring to be poured onto, and around the pipes. If concrete, specify Portland Cement, with (preferably) waterproofing (NOT calcium chloride which is HYGROSCOPIC) added.

NOTE. The common practice of pouring the floor in two pours—first a rough coat, then laying the pipe, then a finish coat, is not recommended. (This is to get the pipe panels closer to the top of the floor.) It weakens the slab and makes the attaching of furniture, fixtures, etc., to the slab risky, as pipes can be punctured. The "lag" in heating about 2 more concrete once a season is slight and need not be considered. Also, electrical and plumbing service lines to go beneath the floor should be laid in and completed on the fill or ground, then covered with the insulating Vermiculite slab. Pipe risers in all cases, must not touch heating lines.

11. And now comes another all important specification. In ANY kind of heating, the losses are 60%, to 80% RADIATION loss. In radiant panel heating, about 90% of all heat loss is by RADIATION. To be really successful, a radiant panel heating system must confine the radiant heat energy rays it gives off to within the building. Most structural materials, except one, and most insulation, except one type, accept and pass radiant heat to the outside. They pass from 90% to 99% of all that is generated. To prevent this, to secure maximum efficiency and to insure a successful performance, insulation must be used that will reject radiant heat and keep it bouncing back into the area of use.

Radiant heated buildings have little convection and conduction loss through walls, ceilings and roofs. A proper and inexpensive specification to prevent, confine, and to continue to make useable, the radiant heat energy, is aluminum foil. Properly specified and installed, aluminum foil insulation will accept and pass only 3% of the radiant heat generated by the system, thus holding the radiation loss to a negligible amount.

12. Radiant heat loss is NOT directional. A building will lose as much in ANY DIRECTION, as the square-foot-ratio-of-any-plane-of-a-building is to the whole. Therefore, unlike considerations involving loss by convection (warm air) both walls and ceilings (or under roofs) should be specified for insulation with aluminum foil.

At this point you may be wondering why the floor under the panels has not been included for insulation with aluminum foil. Primarily because (a)—aluminum, not backed up by air, is of little value against conducted heat and (b)—because the "storage" of heat in the ground is of value in this type of system. It works similarly to the storage battery in your car. When your motor is running you draw current from the generator, not the battery. You draw from the battery only when your motor is not running. Your battery is your reserve supply.

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Cleveland Chapter Committee News
(Continued from page 16)

who showed interest in an article written by Milo Holdstein and placed in the newspapers. These men who want to study design and other courses are men in the back drafting rooms (are there any other kind?) who haven’t had the chance to attend a regular college course, men in the allied fields who would like to understand the architect and why he does what. These men deserve the chance to learn; please notify all the men in your office that such a course is being sponsored and if at all possible, the course will be established by this coming February. Guenther, Ceruti, and Holdstein met recently with Ed Conrad, who prepared a questionnaire form which was sent to all those known to be interested—but there are as yet many who have not “gotten the word.” So far there have been 26 replies to the questionnaires; which is sufficient to start. This Committee is convinced that the more knowledge available for the men in the field, the more value these men will be to the profession and to themselves.

This heavy concentration on education is a beginning in renewing the architect-client relationship that is so vital to Society as a whole.

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MARK B. STOPHLET

Architects throughout Ohio and Michigan will mourn the passing of Mark B. Stophlet, associate of the architectural firm of Britsch and Munger of Toledo, Ohio.

Mr. Stophlet attended the recent Cleveland Convention of the A.S.O. and as Director from the Toledo Chapter signed the new Charter of the Architects Society of Ohio of the A.I.A., Inc.

He died at Mercy Hospital, Toledo on Monday evening, Oct. 31st from a heart attack after leaving his office at 5 P. M. Mr. Stophlet was 68 years of age and was born in Fort Wayne, Indiana, moving to Toledo at the age of six and graduating from the old Central High School in that city.

For 55 years he was associated in architecture with his brother, the late M. M. Stophlet and for the last eight years with Britsch and Munger. He designed the Maumee Valley Hospital and many school buildings throughout the country. He was a past president of the Toledo Chapter A.I.A. A member of Epworth Methodist Church, Maumee River Yacht Club, Knights of the Round Table and Y’s Men’s Club.

CRITICISM FROM STUDENTS

Architecture students in the University of Pennsylvania’s School of Fine Arts have a lot of complaints the way their school is run, it was learned recently. A letter listing their criticisms, with supporting statements by members of the Architecture Society, an honorary student group, was sent to Harold E. Stassen, new president of the University, last spring.

It resulted in his calling in an investigating committee composed of ar-

(Continued on page 27)
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HEADQUARTERS FOR MECHANICAL COOLING
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Criticism from Students
(Continued from page 25)

Architectural faculty members from other colleges. Their inquiry resulted in a formal report which was said to have supported the students’ charges. These charges included: students taking the five-year architectural course weren’t qualified on graduation to get jobs as draftsmen; some of the problems assigned were ridiculous, such as designing dairy farm buildings for 300 cows with 42 silos.

The School of Fine Arts offers three courses, architecture, fine arts and music. The majority of its undergraduate students are enrolled in the architecture course. This past year there were 289 architectural students, 102 studying fine arts and 74, music.

The specific complaints presented to President Stassen were drawn up by a group of architectural students who graduated last June. They made them, they said, for the benefit of the undergraduates following them and for the welfare of the university.

Making Radiant Heat Work
(Continued from page 23)

Similarly, with a radiant heating system, you “store” heat into about a 30" depth under the floor. At those times when the interior of the building is comfortable for all with a mild spell outside, the stored heat becomes available as required to the inside, and without drawing on the boiler. Then, upon a direct call for heat by the control, warm water circulation occurs to supply the heat and replenish the “storage battery.”

This “storage” factor also compensates for “lag” while the boiler is supplying water upon demand of the control. It will be found there is little difference in floor temperatures as between “on” and “off” cycles.

“What does milk come in?” asked the teacher in arithmetic.

“In pints,” ventured Betty.

“And what else?”

“I know!” shouted Freddy, who had spent a vacation on a farm. “It comes in squirts, too.”

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ARCHITECT

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