

# PROGRESSIVE ARCHITECTURE

## newsletter

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February 1950

- Building and design business predictions for 1950 are almost uniformly optimistic. 1949 ended with volume of business activity just slightly under previous year's high rate. There is general realization, among architects as well as builders and manufacturers, that more selling must be done than in past few years. Called variously a buyers' market, or a marketing atmosphere, the situation is recognized as one where needs, money (in earnings and in savings), manpower, and productive capacity can combine to keep business good; but where values, worth of services, and efficiency of operation will be requisite to individual prosperity.
- Communities can now file reservation requests for capital grant funds for urban redevelopment projects under new housing bill. HHFA has set July 1st deadline for reservations from \$200 million which can be spent for direct grants in first two years of program. An additional \$300 million has been authorized for grants in later years, and \$1 billion is authorized for loans for land acquisition, clearing, and preparation for redevelopment.
- Reports indicate that at least 175 cities in 40 states plan to make applications. Almost a third of them are in small city class--25,000 to 40,000 population.
- Stopgap extension of FHA Titles I and VI expires March 1. There seems little doubt that Congress will again extend these two methods by which loans are made to private builders.
- U. of Michigan announces a new scholarship, made possible by a gift from Harley, Ellington & Day, Detroit architects. \$1000 will be awarded in the spring of 1950 and for four years thereafter, to an upper junior student who shows exceptional promise. Basis will be possible attainment rather than need or high grades.
- New York Chapter A.I.A. announces this year's Le Brun traveling scholarship competition, with the design problem a Suburban Railway Station. The \$2800 fund must be used for travel outside the U.S. Competitors may be nominated by A.I.A. members; applications must be in by February 10.
- Brooklyn Chapter A.I.A. announces its annual competition, open to all students legally resident in its territory (Brooklyn, Queens, Nassau, and Suffolk counties), no matter where they may be at school, and to draftsmen living or working in the area. Subject will be an Allied Arts Building; prizes are \$100, \$50, \$25; entries are due March 14. Chapter committee has programs.
- Connecticut is successfully engaged in its "low interest rate" approach to housing. State loans--to builders and to private buyers--at rates so low that they make home ownership possible to a middle-income group, are available from state funds. About 4000 private owners will qualify for 1½% loans, guaranteed by FHA.

(Continued on page 2)



- Meanwhile New York State's emphasis continues to be on the semi-subsidized (through tax exemption) private or co-operative development. Construction Co-ordinator for the City of New York, Robert Moses, has been tangling with State Housing Commissioner Stichman over advisability of this type of project within city.
- Recent flurry about FHA's "new policy" regarding color or race restrictions in projects for which it guarantees loans, which had many realtors and builders upset after a rather vague original announcement, turns out to have meant little if anything. Printed amendments now available appear to prohibit only restrictive covenants filed for record. Owners' personal prejudices are not impaired.
- European housing projects are apparently beginning to develop from Marshall Plan and counterpart funds released through ECA. Netherlands, France, and Greece are building housing with these funds; Norway is rebuilding some destroyed areas; Austria and Italy have plans, but as yet little in the way of accomplishment.
- Welwyn Garden City, British town which has been classic example in town planning, will be expanded to accommodate \$18,000 more residents--almost double its present size. Four residential units, with shopping and social centers, increased industrial zones and 1500 acres of open space will be added to the "new town."
- A.I.A. and Producers' Council announce 1950 Building Products Literature Competition, to reward exceptional merit in three classes: basic technical and design literature; product literature; promotional literature. Awards will be announced, explained, and exhibited at Convention in May. Members, Chapters, or manufacturers may submit entries (three copies) through either organization.
- New York State has established a Commission to draw up a State Building Code. Chairman is Engineer Edward J. McGrew; other two members are Architects William Lescaze and George Bain Cummings.
- Now it can be officially announced (P/A has been holding the news for some time) that William Wurster will go to U. of California at Berkeley as new Dean of the School of Architecture. M.I.T. has yet to announce his successor. Wurster will take post at Berkeley formerly held by Warren Perry, and will continue his practice with his partners, Bernardi and Emmons, in San Francisco.
- U. of Illinois announces appointments as follows: William S. Kinne, materials and methods; Gabriel Guevrekian, advanced design; Henry C. Edwards, history; James A. Prestridge, Jr., design. Visiting critics this year include Kamrath, Plevitsky, Yost, Priestly, Urbahn.
- U. of Colorado, at Boulder, announces a new architectural course: five years leading to B.S. in Architecture. Warren Raeder will be head of the department, which will enroll first freshman class in 1950.
- Next development in steel making (following last year's combination Bessemer and open-hearth development, known as turbo-hearth) is likely to be use of oxygen to speed operation in open-hearth furnace.



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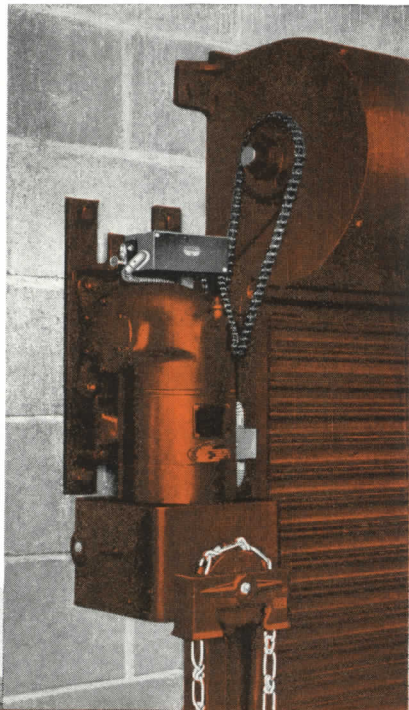
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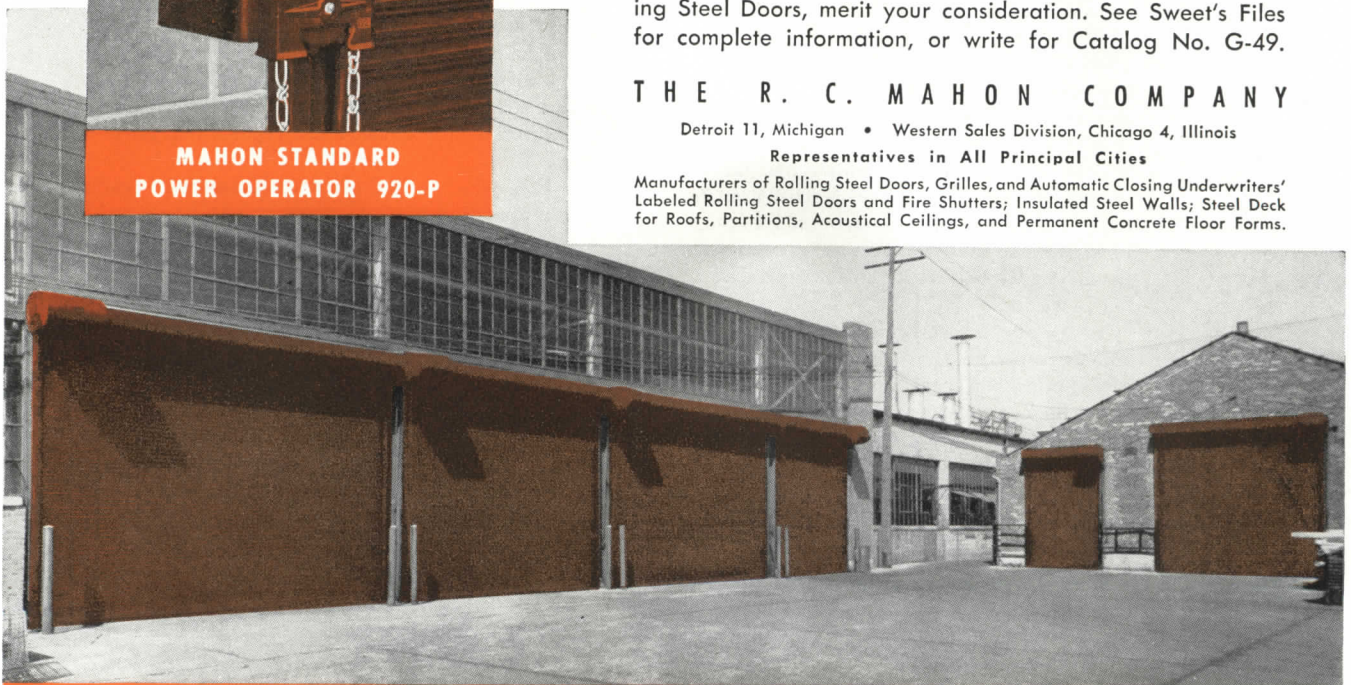
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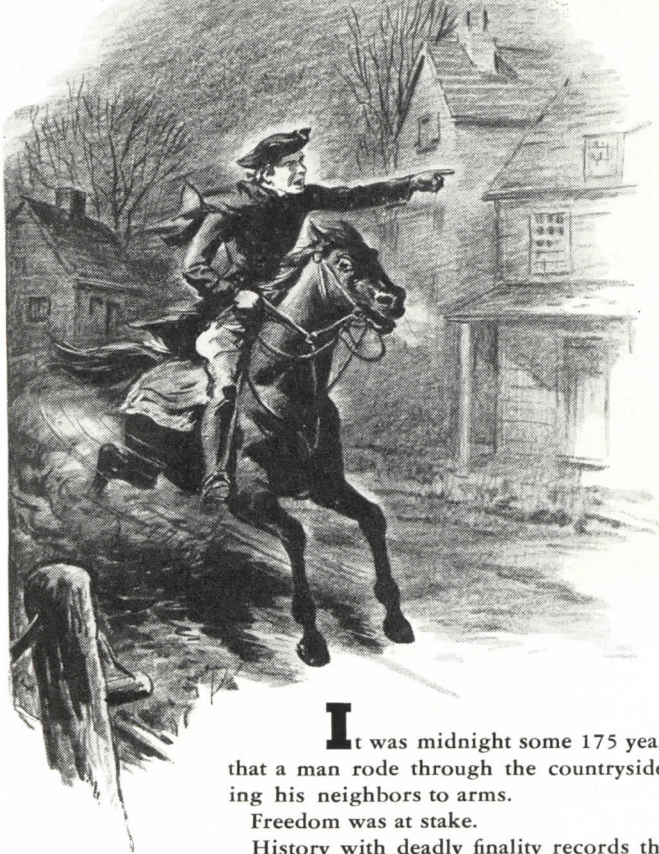
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# A Command Performance



**I**t was midnight some 175 years ago that a man rode through the countryside calling his neighbors to arms.

Freedom was at stake.

History with deadly finality records the outcome of the struggle set off by that ride—a struggle that ended in freedom for all the people of this country—a freedom we take too lightly today.

Maybe it's because 175 years is a long time and none of us can remember that far back—maybe it's because we have gotten used to this thing called freedom—maybe it's because we have had it so long we can't imagine life without it—maybe we believe we just cannot lose it.

But we can!

Today, the threat against the freedom of the American people is as great as it was that memorable night 175 years ago. In some sense greater. Guns do not threaten us—not yet at least—but an idea, a plan, artfully disguised, promises us the “secure” life.

What will it cost? Not much—just our freedom.

Now, let's forego all the high sounding language and get down to cases. What threatens our freedom?

The threat is two-fold . . . from the outside and from within. It isn't hard to identify the danger from the outside. Some twenty years ago, the leaders of Communism and Socialism brought their threats into sharp focus when they declared their operating policies for the future. Both contained a simple philosophy. Bore from within—take a little at a time. Usurp high office—guide the evolution until it becomes complete.

Has any of that happened?

The Communist trials in our country have been most revealing. Every day the press and radio tell us of new infiltration into high places. Nor have the ranks of labor escaped.

What about the inside?

That can easily be answered by another question. Do the American people have as much freedom of use of the money they earn as they did ten years ago? They do not! More people surrender a larger part of their money for tax use than ever before in history. More restrictions curb more people than ever before. More compulsion over the entire populace is advocated. It is a mounting trend becoming more inclusive every year. All of this is offered under the glib promise of liberating man from economic servitude—of a planned life—a total welfare.

So, we have the two threats . . . one from the outside and one from within.

It is doubtful that the American people are fearful that Communism will take over our country in the foreseeable future. It is doubtful too that they are unduly alarmed that Socialism as a method of government will replace our government.

But, what they do not understand is that a creeping Socialistic pattern is spreading itself from within—that it can advance to a point from which there can be no retreat. Because this Socialistic pattern moves forward a little at a time, it is not spectacular enough to be recognized for the dangerous thing it is. It is so easy to accept glittering promises—broad generalities, that mask the eventual result.

So, what is to be done about it?

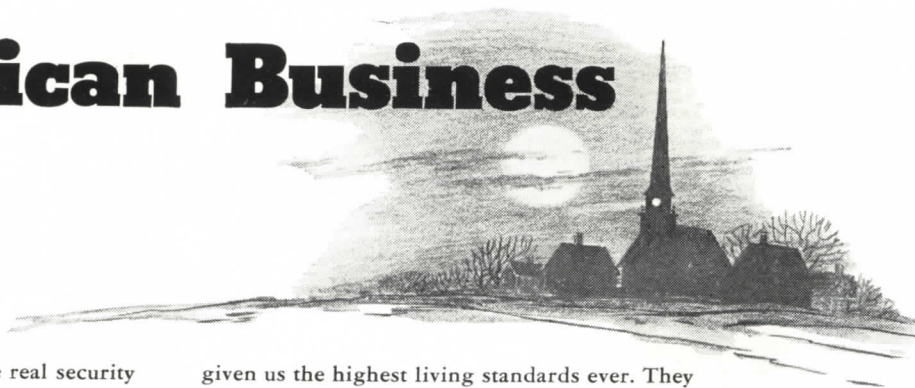
We believe the state of the nation calls for a Command Performance from Business—a performance to stop this creeping Socialistic pattern which threatens the freedom of all.

Why does business get the call? There are two reasons.

First, business should do this job because of its obligation to people. That is not a new contention at Ceco. For three years, Ceco has been advancing the thought that the prosperity and security of our nation are tied unremittingly to a four letter word W-O-R-K. Ceco has said and still says management must work *more* at managing. We believe this job is the most important task in the over-all concept of management. It is



# for American Business



up to alert management to provide real security in the present, as well as the future, to prove that responsibility for economic welfare belongs in private, not in public hands.

The second reason is that business—business men—are the best qualified for the job because American business knows most about selling. Businesses grow because business men sell their product. Is merchandise more important than the system which produced it? Isn't the system worthy of our best selling talents too? Yes... Business must and should sell the idea that real security and freedom for all are possible only under a virile free enterprise system.



Business must expose the alluring misrepresentations that spawn the myth "you can get something for nothing." It must boldly proclaim the simple truism that welfare projects cost money—cost the people their own money. For government has no money except that which is given it by the people through taxes. It must show that excessive taxation is creating a competition to industry which is challenging its right to lead—its right to guarantee economic freedom to people. It must question the cost which could be more than money. Unchecked, taxes can bankrupt the people, bankrupt business, thus making it impossible for individuals acting in private capacities—for business, through free enterprise management—to provide jobs, improve working conditions, assure real security.

It was protest against excessive taxation that occasioned the midnight ride 175 years ago. Now, as then, the same danger threatens.

Yes, freedom *is* at stake!

Business must create a crusading attitude toward free enterprise. Here the problem is not simple. For lately, the people are taking lightly our system of private endeavor which has had a moving influence on life around the world and

given us the highest living standards ever. They are "going along" thinking little of where it leads. They are not yet alarmed. Therefore, *unreserved* belief in that which we so casually call the American Way of Life must practically be revived. New vigor must fire *appreciation* of the system of individual effort and reward. There must be *reaffirmation* of faith in the dignity of man, in the real security to be found only in the individual acting in self-interest guided by conscience and a sense of fair play. All the people must be awakened. There must be *150 million individual* crusades in this country, acting in concert, to keep the American Way of Life vital.

Business men must light the fire of a passionate belief within all the people—a belief in our way of life that burns brighter than any fanatical faith in the destiny of any other system.



Once the people know the danger, once their enthusiasm for incentive living reaches crusading fervor, they will know how to act. They will see through the will-o'-the-wisp promises of an inexhaustible public purse. They will recognize the fallacy of "something for nothing." Their "horse-sense" will renounce it. But to bring all this about, business men must become vocal. Each business must inform its own people. From little companies employing only a few, to big corporations employing many thousands. This program can succeed. The drift toward public dependency can be stopped but business men must be articulate and act decisively.

Mr. Chairman of the Board, Mr. President of Industry, Vice Presidents, Managers, yes—all of us—must get off of our pants and into the plants. We must meet with the people... talk with the people... work with the people. This isn't something that can be done by writing a check!

Let's accept this call for a Command Performance now! Today!! This very minute!!!



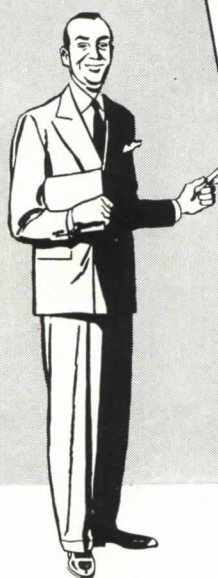
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# Use these handy GUIDE CHARTS for SPECIFYING RESILIENT FLOORS

With these three Kennedy Floors you can satisfy every flooring need—carry out your own or your clients' wishes. Information below gives you a quick picture of the general characteristics of each floor. The charts show its suitability for specific areas and its approximate cost range.

**Kentile Asphalt Tile**—colorful, long-wearing, inexpensive to install and maintain. Has been called “the nearest approach to a universal, all-purpose flooring.” The only type of flooring which can be successfully installed over concrete in direct contact with the earth.

**Rubber Tile** *by the makers of Kentile*—a leading choice for its brighter colors...offers many exclusive colors created by CARL FOSS. Highly resilient, it cushions footsteps...is

resistant to chipping, cracking, marring.

**NOTE:** This rubber tile contains no oils—no ingredients to dry out and leave the tile brittle.

**Kencork Cork Tile** (*Floors and Walls*)—When a truly distinctive floor is desired, Kencork is a first choice. Its natural cork tones are unsurpassed for beauty...bring elegance to any interior. Cork floors made by Kennedy are unusually durable—Kencork floors laid over 35 years ago are still in A-1 condition.

## APPROXIMATE COST RANGE CHART

Where two or more groups appear in a price bracket, the least expensive is on top.  
Cost based on installing a minimum area of 1000 square feet over cement underfloor.

Cents Per Square Foot	KENTILE	KENCORK	RUBBER TILE
20¢	1/8" GROUP A		
25¢	1/8" GROUP B 3/16" GROUP A		
30¢	1/8" GROUP C 3/16" GROUP B		
35¢	1/8" GROUP D		
40¢	1/8" SPECIAL* 3/16" GROUP C 3/16" GROUP D		
45¢	3/16" SPECIAL*		
55¢			1/8" THICKNESS
65¢		5/16" NATURAL FINISH	
70¢		5/16" FACTORY FINISH	
75¢			3/16" THICKNESS

\*Special Kentile for Industry (Greaseproof)



## RESIDENTIAL INSTALLATIONS

	KITCHENS	BATHROOMS	BEDROOMS	NURSERIES	LIVING ROOMS	FOYERS	BASEMENT PLAYROOMS UTILITY ROOMS
<b>KENTILE</b> Asphalt Tile	✓	✓	✓	✓	✓	✓	✓
<b>KENCORK</b> Cork Tile	NO	✓	✓	✓	✓	NO	NO
<b>RUBBER TILE</b> by the makers of Kentile	✓	✓	✓	✓	✓	✓	NO

## COMMERCIAL INSTALLATIONS

	RECEPTION ROOMS AND OFFICE WORKING AREAS	PRIVATE OFFICES	HOSPITAL WARDS AND CORRIDORS	SCHOOLS PUBLIC BUILDINGS	LIBRARIES	STORES GROCERIES ... DRUG CHAINS... DEPT. STORES	RESTAURANTS	FACTORY AREAS
<b>KENTILE</b> Asphalt Tile	✓	✓	✓	✓	✓	✓	USE SPECIAL KENTILE FOR INDUSTRY (GREASEPROOF)	USE SPECIAL KENTILE FOR INDUSTRY (GREASEPROOF)
<b>KENCORK</b> Cork Tile	✓*	✓	✓	✓*	✓	NO	NO	NO
<b>RUBBER TILE</b> by the makers of Kentile	✓	✓	✓	✓	✓	✓	✓ BUT NOT IN OR NEAR KITCHEN AREAS	NO

*\*When properly maintained*

If you would like to have additional copies of these guide charts, please write the office nearest to you

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# *An Announcement*

## Concerning the Progressive Architecture Annual Awards

PROGRESSIVE ARCHITECTURE has decided to discontinue its Annual Awards Judgment, in order that the Honor Awards Program of the American Institute of Architects may be developed exclusively as the medium for rewarding executed work, to the benefit of all architects in the United States and the furtherance of progress in architecture. We urge all our readers who would have submitted work in this year's P/A Awards Judgment to submit it instead to the A.I.A. Program.

At the time the P/A Awards were instituted, no other national honors were available for the designers of completed work. Our annual programs have been highly successful; each year they have discovered and assisted new talent and as well have recognized the work of established architects.

When the A.I.A. announced its program of Honor Awards last year, we realized that such an endeavor, conducted by the only representative professional society in our field, could ultimately have great value. P/A was not ready to relinquish its own enterprise, however, until we had seen the results of the A.I.A. Awards, and had some indication of how they would be conducted. The results were good, but we felt that some improvements could be made in the procedure, bringing the judgment closer to realization of the same aims that we had in mind.

PROGRESSIVE ARCHITECTURE and the A.I.A. officials and committee concerned have jointly discussed the whole matter, and as a result we now are convinced that the A.I.A. Program will meet our own original aims so closely that it would be pointless to have two separate judgments. We are able to announce to our readers that the Honor Awards Program of the American Institute of Architects will now meet three conditions that we consider of prime importance:

*They will be open to all registered architects practicing in the United States, regardless of A.I.A. membership.*

*Submissions will be made direct to the national judgment without the necessity of local preliminary judgments, which might be of uneven quality or questionable efficiency.*

*The juries will be selected as objectively as the P/A juries have been, and will include those who are qualified to judge technical, functional, and social, as well as esthetic qualities.*

*It is essential that advances made in architecture in the United States be recognized by the general public, and be widely understood and discussed. This the A.I.A. Program can accomplish, but it can succeed in full exploitation of the possibilities only if it has the support and co-operation of all the architects in the United States.*

*The program and the requirements are simple: submissions should be made to the Department of Education and Research, A.I.A., 1741 New York Ave., N.W., Washington, D.C.; entry fee is \$10.00; buildings may have been erected anywhere, but architects must be practicing in the United States; photos must show interiors and exteriors of buildings; plans must be clear and indicate scale; mounts are to be 30" x 40".*

*Judgment this year will be in three categories: residential, commercial, ecclesiastical. Submissions must be in by April 26. A printed copy of the program and the requirements can be obtained from the Department of Education and Research, A.I.A. Juries will be announced shortly.*

*We urge the participation of all architects. And thank you for your support of P/A Awards Judgments, which made them the success they were.*

**Submit**

**Your Work**

**to the A. I. A.**

**for**

**Judgment**

**This Year.**



**APPRAISAL NEEDED**

*Dear Editor:* Congratulations to you and P/A on getting Carl Feiss to write a series of articles OUT OF SCHOOL. A frank and honest appraisal of what the profession is and what is being done has long been needed and I believe that you have picked an excellent man to make the diagnosis.

I enjoyed your article on obtaining work for the office, but believe that you glazed over the pure, unadulterated politics of job-getting. Also, we wonder about some organizations which have become architectural brokers where the principals are strictly contact men for job-getting and the actual architecture is a production routine of the back room. All in all, it's a very interesting subject. We have no gripes—simply thinking out loud on some of the questions that run thru our minds from time to time.

CHARLES GRANGER  
Fehr & Granger  
Austin, Tex.

**E. SHRDLU, ARCHITECT**

*Dear Editor:* May an humble secretary make a small comment on one of the lesser facets of architectural practice, to wit: The letterheads so cleverly designed for the various architectural firms.

For a secretary, a letterhead is the source from which she expects to get:

1. The name of the person to whom a reply should be addressed.
2. The name of the firm.
3. The street address.
4. The town, postal zone, and state.

There is an increasing trend toward making the letterhead *not* a source of information, but an abstract design, cleverly balanced between top and bottom and with colored inks to add further interest to the pattern.

This anonymous secretary has become used to letterheads with the names at the top, the address tastefully distributed at the bottom, sometimes in tan for harder reading. She accepts the fact that the state is often omitted, though Uncle Sam would like to have it for delivering the letter. She has learned to go to the A.I.A. Membership Directory to interpret the mysterious series of loops which pass for a signature (when the handwriting is illegible the name is *never* typed below).

But—the limit has been passed. A gem has been received with three last names, one over the other, superimposed on a yellow triangle which is apparently the firm's initials. Below the triangle, the explanatory word "ARCHITECTS."

No street number, no street, no city, no state, no nothing!

Where is that well-known functionalism???

A SECRETARY  
Desperation

**TOMSON PRAISED**

*Dear Editor:* I am continually thrilled with Bernard Tomson's column. The one on his investigation of insurance is the finest by any attorney that I have ever read. Lawyers, as a group, throw up their hands when confronted with the fine print of a lease or an insurance policy.

I believe all policies connected with the Building Industry could well be scrutinized. Whether A.I.A. or PROGRESSIVE ARCHITECTURE pays the fee, Tomson is the man to do the job.

Some day, if your magazine sees proper, I would recommend a legal opinion on the condition of cemeteries within urban communities, both exterior- and interior-wise. Most of them bear searching investigation and what legally can be done to improve their appearance would be of interest to me.

I cannot get too much of IT'S THE LAW.

BERYL PRICE  
Philadelphia, Pa.

**IMPARTIAL SERVICE**

*Dear Editor:* I offer the following paraphrase to your December editorial:

With knowledge of, lay interest in, and ability to purchase building materials, real estate, and modern furniture and furnishings, it seems to me that the architect has the responsibility of rendering impartial service to his client which goes beyond any financial interests he might have that would prejudice his professional integrity.

JOHN C. BONEBRAKE  
Shaker Heights, Ohio

**SPOTS LOOPHOLES**

*Dear Editor:* Anent A.P.A.—rebutter Bostonian William W. Lyman, Jr.'s not inarticulate argument (November P/A) falls fallow, punctured besides by at least three loopholes he'll have difficulty plugging up:

First: Forgetting the Maestri Wright, Saarinen, and a score of others, he assumes that age alone makes architects appear "fusty" to "the men coming out of the schools." (Let Architect Lyman, if he will, give his own prognosis "25 years from now"—not ours!)

Second: He states, "throughout history significant progress invariably came about slowly." Rebutter Lyman should brush up on his history—for instance the Gothic climax. And where, one is tempted to ask, has he been during the past few years? Not, certainly, following the events of his era; e.g. the discoveries of more than a few Doctor Flemings; the work that lead up to a certain occurrence at White Sands, New Mexico, in 1945; or the birth and development of air transportation.

Third: He ignores or is ignorant of the fact that, whatever changes in taste and outlook occur from generation to generation, any great technological and sociological revolution, or renaissance, is something which happens but once, indeed, in many generations. (I shall be glad to wager Mr. Lyman a handsome sum that it will take a few more years than 25 before either the Kaufman house at Bear Run, Pa., or the latest type jet bomber can be passed off as "fusty," no matter what such achievements are pointing toward.)

In view of the above, I question whether Bostonian Lyman might not have been a happier man had he lived in the days when everything from courtship to architecture was set out by rules, and one could safely ignore those daring few who pushed past the balen and buckram.

Again anent A.P.A., and taking leave for a moment of Friend Lyman, since my letter in VIEWS of August 1949 P/A, I've had occasion to verify what are the activities of the architectural societies here in Connecticut to ascertain whether the work of a newly organized group such as A.P.A. would duplicate anything done by them. I am now certain it would not. The A.I.A. in Connecticut, for instance, does not attempt, or claim to attempt, to "help architects . . . become established in their communities." Whatever the functions of A.I.A., be they ever so worthy, that is not one of them, any more than that of "advertising fully the meaning of good contemporary architecture." Now it may be proposed that A.I.A., in addition to its present work, assume and promulgate these functions which are deemed so necessary; and if this were done few would withhold from A.I.A. its well-deserved acclamation. Nor would this change or transition be so difficult were A.I.A. to launch, for example, a campaign to immediately double its membership within the next few years. (It should at the same time be possible to reduce fees in proportion and also establish a lower or minimum fee for those less than five years out of college.) Hundreds of able men are

(Continued on page 10)



(Continued from page 9)

becoming architects each year, but A.I.A.'s policies take little cognizance of them or of their merit.

Just recently, I had the opportunity to talk with the Secretary of Connecticut chapter and to receive from him first hand the views of this chapter. One of the organization's chief jobs, as I understand him, is to try to main-

tain the standards of the profession, (they have tried, he said, to get stricter licensing laws passed in this state) and to police all miscreant would-be architects who call themselves "designers," "artists," etc. Now this work may all be well and good in normal times and when architects are more and enough to go around. But at this present time

when a pox (and, believe me, it is a pox), a rash, of jerry-building and unplanned cheese-box architecture is spreading out in every direction (and never before have our cities been so beplagued and our woodlands so desecrated) for America's chief society of architects to be concerned mainly with "policing" the profession, with keeping designers from designing, is to say the least, inadequate. All that is being done by organized architecture today might be compared to smoothing cement on the top of a concrete dam while below great holes appear, unbelievably, in the masonry.

If, then, we are to keep moving ahead and in one direction it is suggested that the services of every freshman be enlisted *right now* in the task of improving and producing better architecture. If a man can bring to the building industry any up-to-date knowledge of planning and design—whether he be a member of a society or not, whether or not he has his degree from a university—that man, it seems to me, should be encouraged to the fullest. Even so only if he and the rest of this small army has the persistence and will to "put out" will the proposed A.P.A. (or the revised A.I.A.) become the effective tool that is needed—a beginning, a base of departure.

At least all the doors should be wide open.

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### **CONTRACTOR'S CREDIT**

*Dear Editor:* In the October 1949 issue of *PROGRESSIVE ARCHITECTURE*, the article on pages 76-79 states:

"Most of the construction was done by local farmers who, according to the designer, were 'careful and sympathetic workers and produced just as satisfactory results as professional labor.'"

Please study the building plan and see if you think this could possibly be true. As the contractor building the house, I hired local men to do the excavating and the stone work, but the carpenters, painters, plumbers, electricians, plasterers, and paperhangers, were *all* professional men, some of whom have worked with me for years. They live in the town of Berea, 10 miles from the place where the house was built.

The pictures and the write-up of the house are excellent and true, with the exception of the above statement.

WILLIAM S. SWINFORD  
Building Contractor

### **ARCHITECT GRATEFUL**

*Dear Editor:* Too bad about the slight

(Continued on page 12)

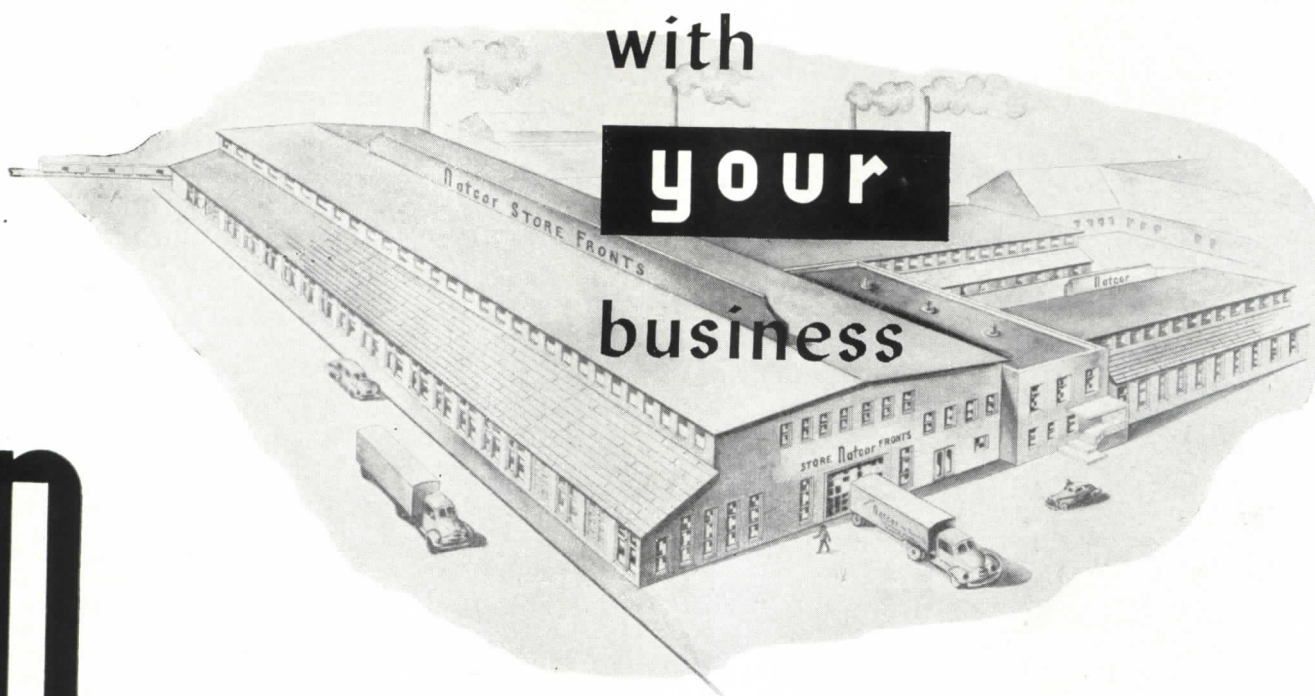


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## VIEWS

(Continued from page 10)

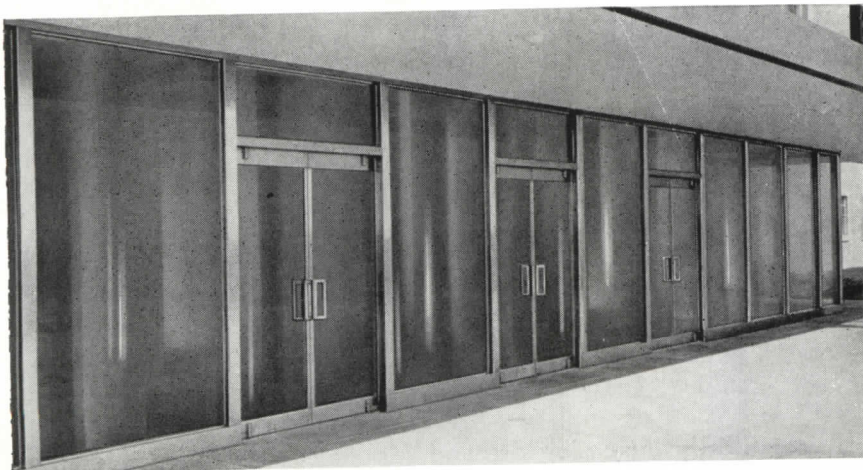
to the Berea builder, W.S. Swinford. He certainly deserves credit for organizing the job, all the more so for having to get local men to work with electricians, etc., from town. I'd like to see him get the proper credit. Without his careful supervision and diplomatic handling of local and professional men,

the house would not have been possible. . . . it should be particularly noted that he never questioned any matter of design, although the house was the first of contemporary design in the area (and did I appreciate the latter!).

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## NOTICES

### HARMON HALLETT

It is with great regret that we inform our readers of the recent death of Harmon Hallett, subscription and book agent for the Midwest. Those of you who have regularly placed your P/A subscription orders with Mr. Hallett are requested to send future orders directly to PROGRESSIVE ARCHITECTURE, 330 West 42 St., New York 18, N.Y., or to MRS. HARMON HALLETT, Albion, Mich.

## EXPOSITION

THE SIXTH ANNUAL CONVENTION AND EXPOSITION OF THE NATIONAL ASSOCIATION OF HOME BUILDERS will be held from February 19 to 23, 1950, in Chicago, Ill. Because of the size and scope of their activities, the builders will use the meeting and exhibit facilities of two hotels, the Stevens and Congress.

The convention committee intends to develop a program distinctly different in format from those of previous conventions. A number of outstanding national figures, including some from outside the building industry, will be brought to the convention platform. Technical sessions designed to acquaint builders with the latest and best operating and business methods will be given a prominent place on the program. An exposition innovation will be a special section devoted to new and revolutionary building products.

Advance registrations and hotel reservations are now being accepted. N.A.H.B. members may arrange for these through their local executive secretary. Others are requested to secure information from Convention and Exposition Headquarters, National Association of Home Builders, 111 W. Jackson Blvd., Chicago 4, Ill.

### NEW PRACTICES, PARTNERSHIPS

WILLIAM M. COOLEY, Architect, 162 N. Clinton St., Chicago, Ill.

JAMES S. SUDLER, Architect, 302 Colorado Bldg., Denver, Colo.

HOLLIS LOGUE, JR., Architect, Burrell Bldg., 246 S. First St., San Jose, Calif.

NAIRNE W. FISHER, DANIEL C. BRYANT (FISHER & BRYANT, Architects), 79 W. Monroe St., Chicago 3, Ill.

DANO JACKLEY, Architect, associate in the firm of Taylor & Fisher, Architects, 1012 N. Calvert St., Baltimore, Md.



# HELP

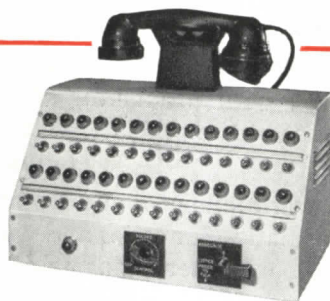
*when needed*

- *immediate contact*
- *is a vital necessity in*
- *successful hospital operation*

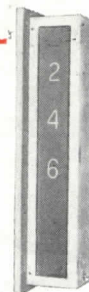
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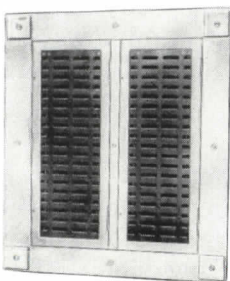
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## PROGRESS REPORT

To find the point of departure of C.I.A.M. one must go back 25 years, to the moment when a group of architects in revolt against the existing state of things and convinced of the need of international collaboration in the field of modern architecture, went to work. Their first meetings took place in rapid succession—in La Serraz, Frankfurt, Brussels, Athens, Paris, and Zurich—each with the purpose of the study and investigation of a single timely subject: the minimum house, rational land allotment, the charter of urbanism, dwelling and recreation, etc. After the war, a sixth Congress at Bridgewater in 1947 marked the renewal of C.I.A.M. activity; and it was decided that the scale of postwar problems made it desirable to enlarge the scope of future Congresses to include several themes.

The seventh congress, which took place last July in Bergamo, Italy, undertook an immense task. Six permanent Commissions were set up to investigate particular subjects and from their discussions, resolutions were formulated.

The basic theme, continuing the work done at Athens and at Paris, was that of "The Application of the Athens Charter." Since C.I.A.M. prepared this Charter of Urbanism in 1933, members and groups of the Congress have done work in urbanism which constitutes a practical trial of its principles. The First Commission (president, Le Corbusier; vice-president, J. L. Sert, who is also president of C.I.A.M.) made a comparative study of these planning

jobs in an effort to determine to just what point the principles of the charter are workable. To make this study, it had been necessary to establish some basic method of presentation which would allow comparison. The system used was that of the C.I.A.M. grid (developed during the last few years by the *Ascoral* group under the direction of Le Corbusier) which is so contrived that the results of a complete investigation of a given zone may be summarized upon a single panel.

Among the grids presented for study were those for Marseilles; for Sarre; for the city of Buenos Aires (by Le Corbusier in conjunction with the Argentine group); for a residential section in Buenos Aires (by the Argentine group); for the study for the harbor of Chimbote in Peru (by Wiener & Sert); for the study for Tumaco (by Wiener & Sert and the Colombian group); for the study of a civic and business center for Rio de Janeiro (by a group of architects of the municipality of Rio); for Puteaux (by P. Jeanneret); for the Isle of Elba (by Belgioioso, Peressuti, and Rogers); for the future evolution of London; Sotteville-lès-Rouen (by M. Lods); an industrial quarter near Venice (by students of The School of Architecture and their professor), etc.

The Second Commission was charged with finding a new "Synthesis of the Plastic Arts." The group was formed with S. Giedion as president and J. M. Richards, director of *The Architectural Review*,

as vice-president. Outside specialists invited to serve on this commission were James Johnson Sweeney and G. C. Argan.

The Third Commission treated a subject of growing interest today, "The Reform of the Teaching of Architecture and Urbanism." The Commission was presided over by Ernesto Rogers, Italian architect (well known to many as former director of *Domus*), with Jane Drew, of England, as vice-president. Walter Gropius, although unable to attend the conference, contributed a paper proposing twelve important topics for discussion.

The foregoing themes were the three major ones presented to the Congress. Also, three new commissions were founded, to deal with: "Industrialization of Construction;" "Legislative and Administrative Revision" (with reference to the Athens Charter, to bring it up to date with current conditions); and "Social Programs Useful to Urbanism." These were presided over, respectively, by Wells Coates, of the MARS Group; B. Merkelbach, of Holland; and Helena Syrkus, one of the Directors of the Reconstruction of Warsaw, and vice-president of C.I.A.M.

These six permanent Commissions will continue to work on the problems assigned to them, and will prepare progress reports on the work in hand for the next Congress, which is to have as its over-all theme, "Charter for Dwelling."



Mme. Helena Syrkus, of Poland, in charge of Commission on Social Programs.

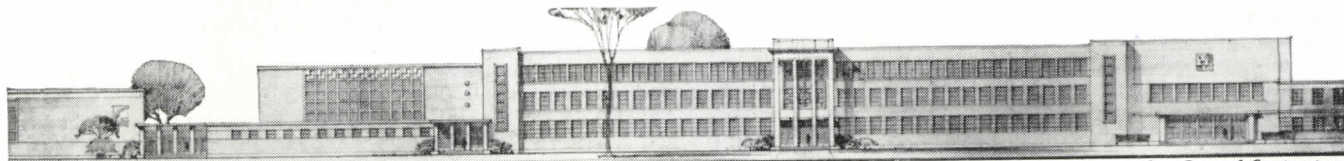


Architects J. L. Sert, Antonio Bonet, and Le Corbusier enjoy a side trip to Dalmine arranged for the Congress members and visitors.

Photos: Authenticated News.



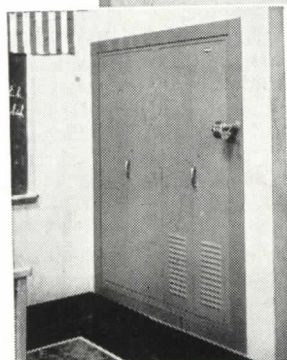
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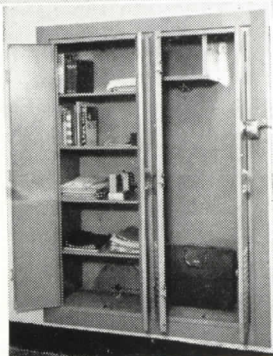
*Euclid Senior High School: Harry A. Fulton, Architect; R. B. Delamotte and Ben Krinsky, Associate Architects; R. P. Carbone Const. Co., General Contractor.*



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*Opened door view shows teacher's wardrobe and book shelf unit in use in Euclid Senior High School mathematics department.*



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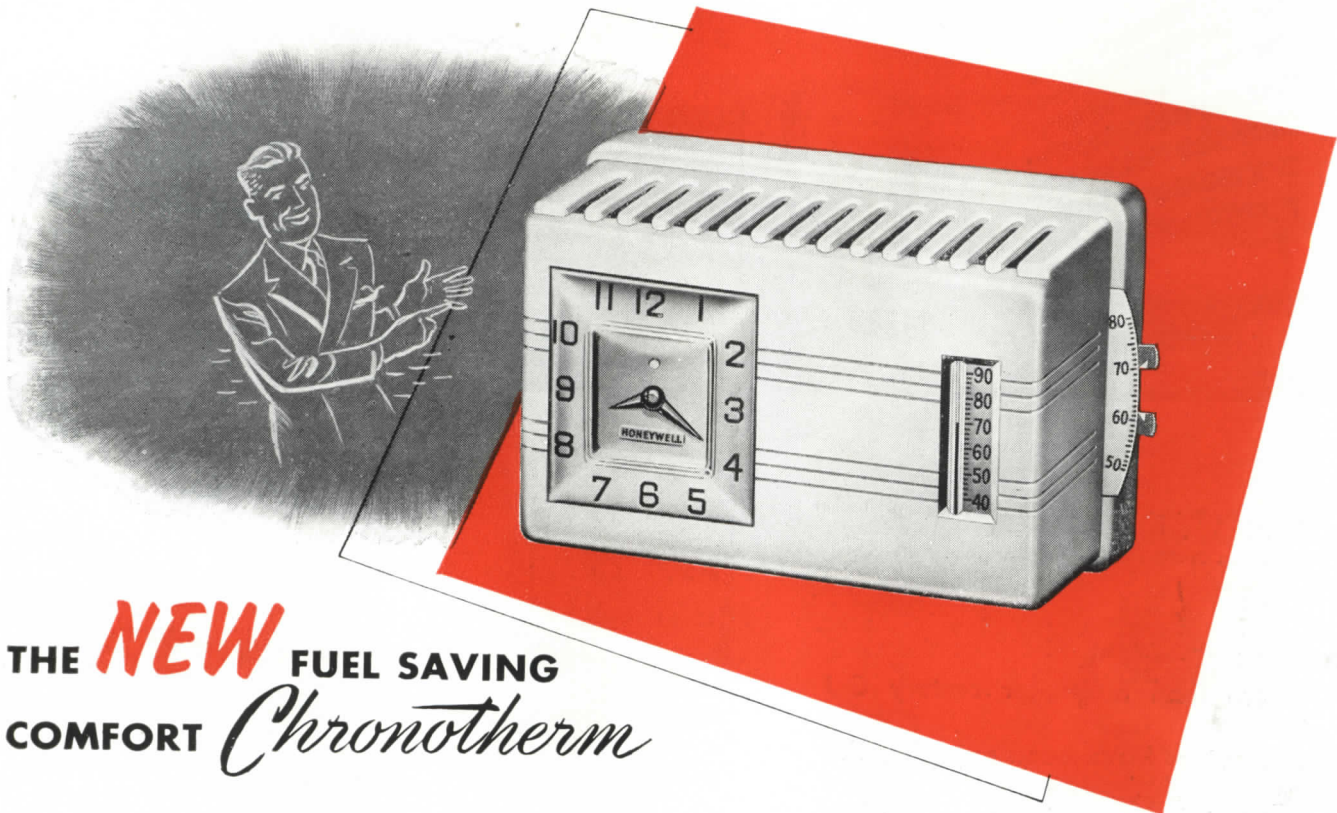
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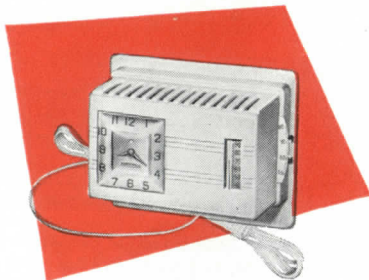


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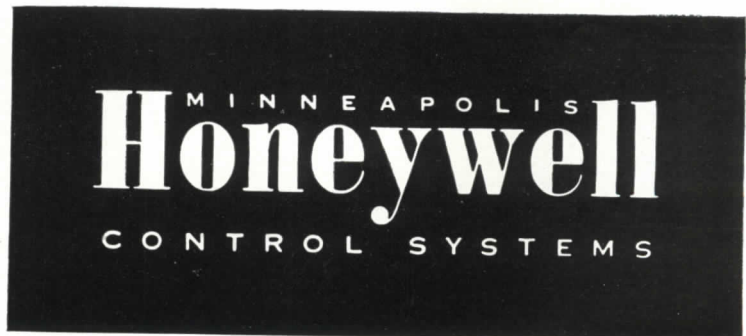
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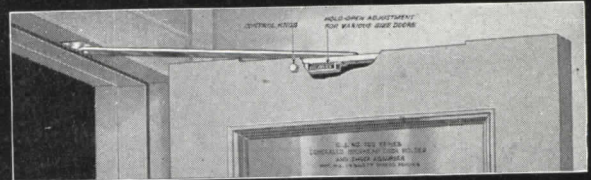


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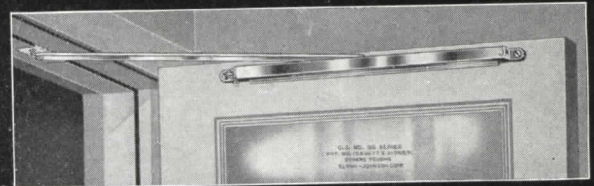
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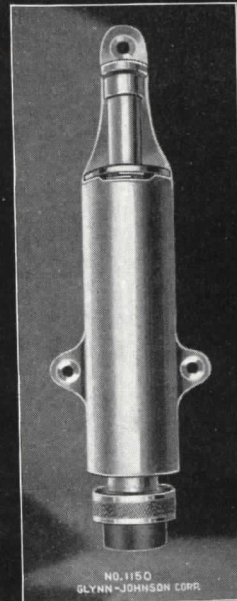
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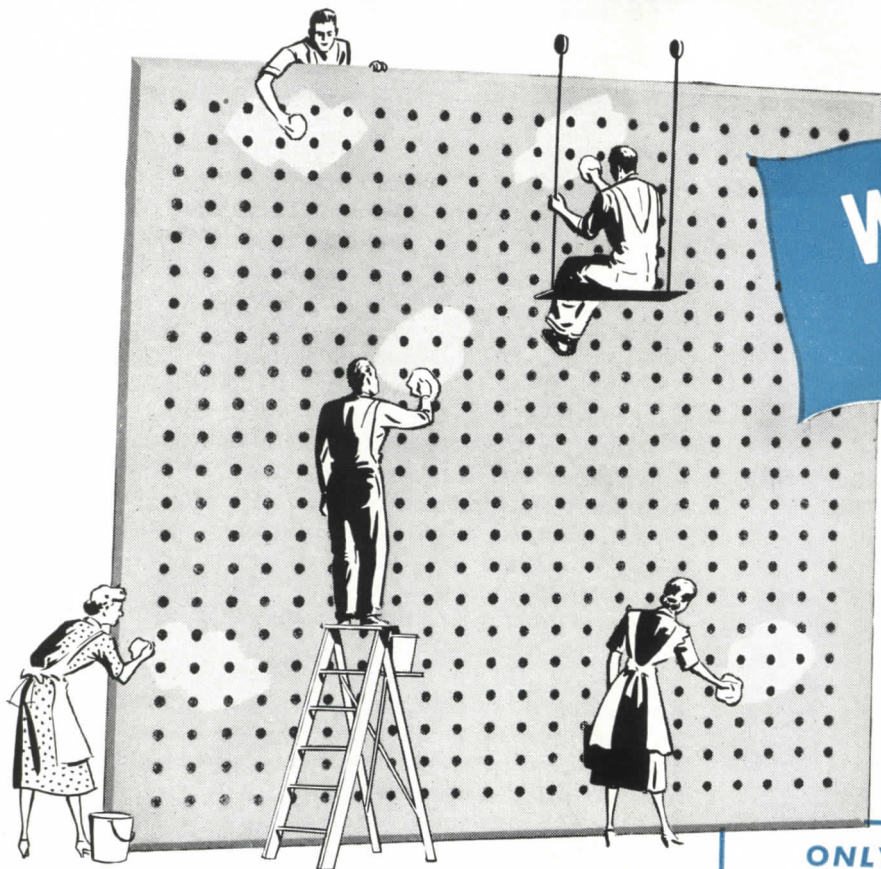


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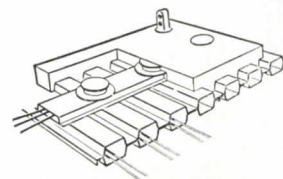
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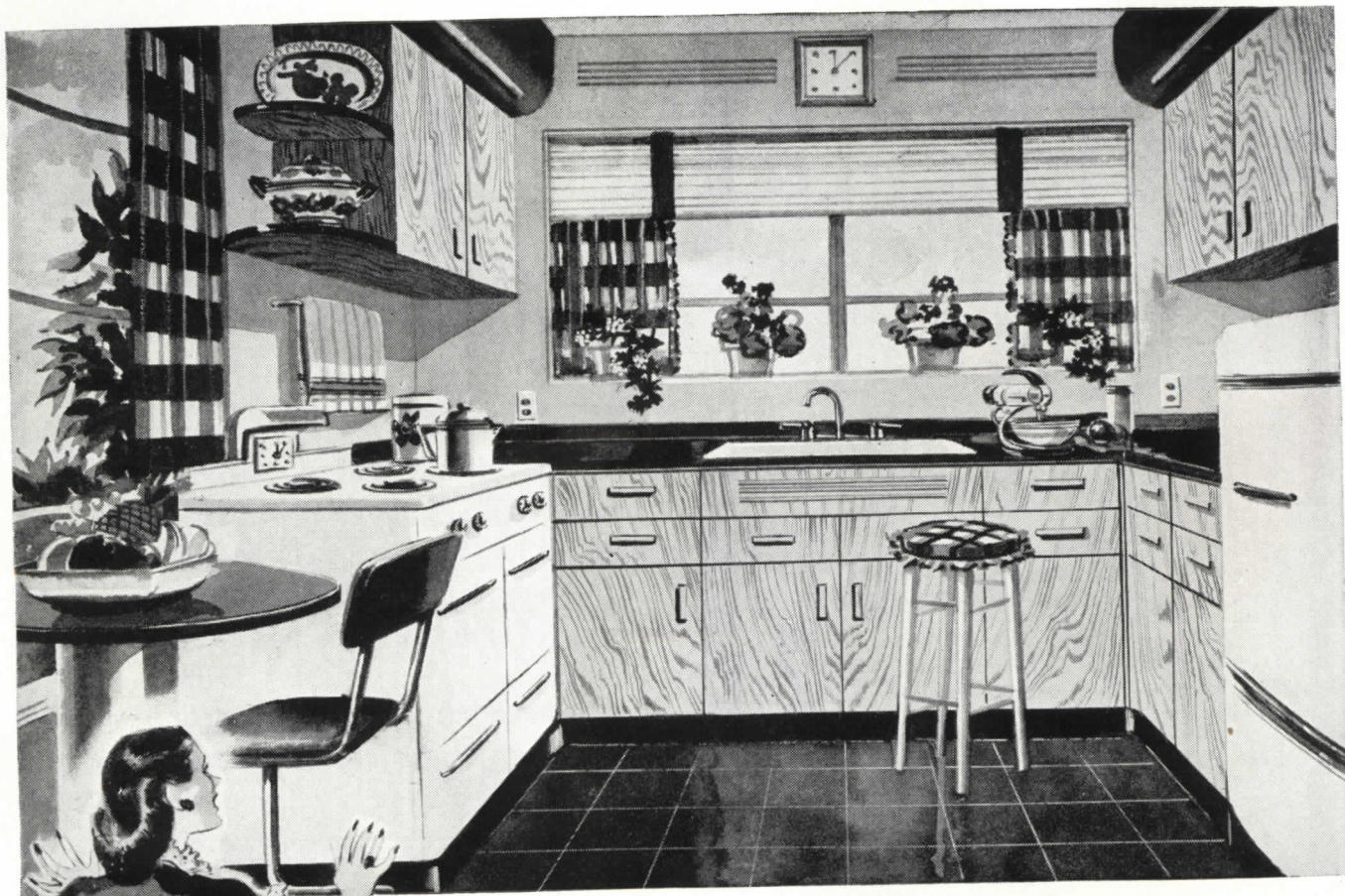
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You've heard women say it — "I want my kitchen to look like a home, not a hospital." Yes — today the modern woman wants the convenience of a modern kitchen, but she also wants it to be decorative — pretty and practical.

Roddiscraft Birch Cupboard Door Stock will appeal to your clients. It helps make the kitchen really a part of the home — gives it warmth and charm as well as utility.

And when you specify GE Textolite for all work surfaces you can be sure of satisfaction. GE Textolite is the new decorative laminate backed by two great names — Roddiscraft and General Electric. Made in a wide variety of beautiful patterns and solid colors to suit every taste. Write for a color chart and a technical bulletin describing best bonding techniques.

*\*Reg. U. S. Pat. Off.*

# Roddiscraft

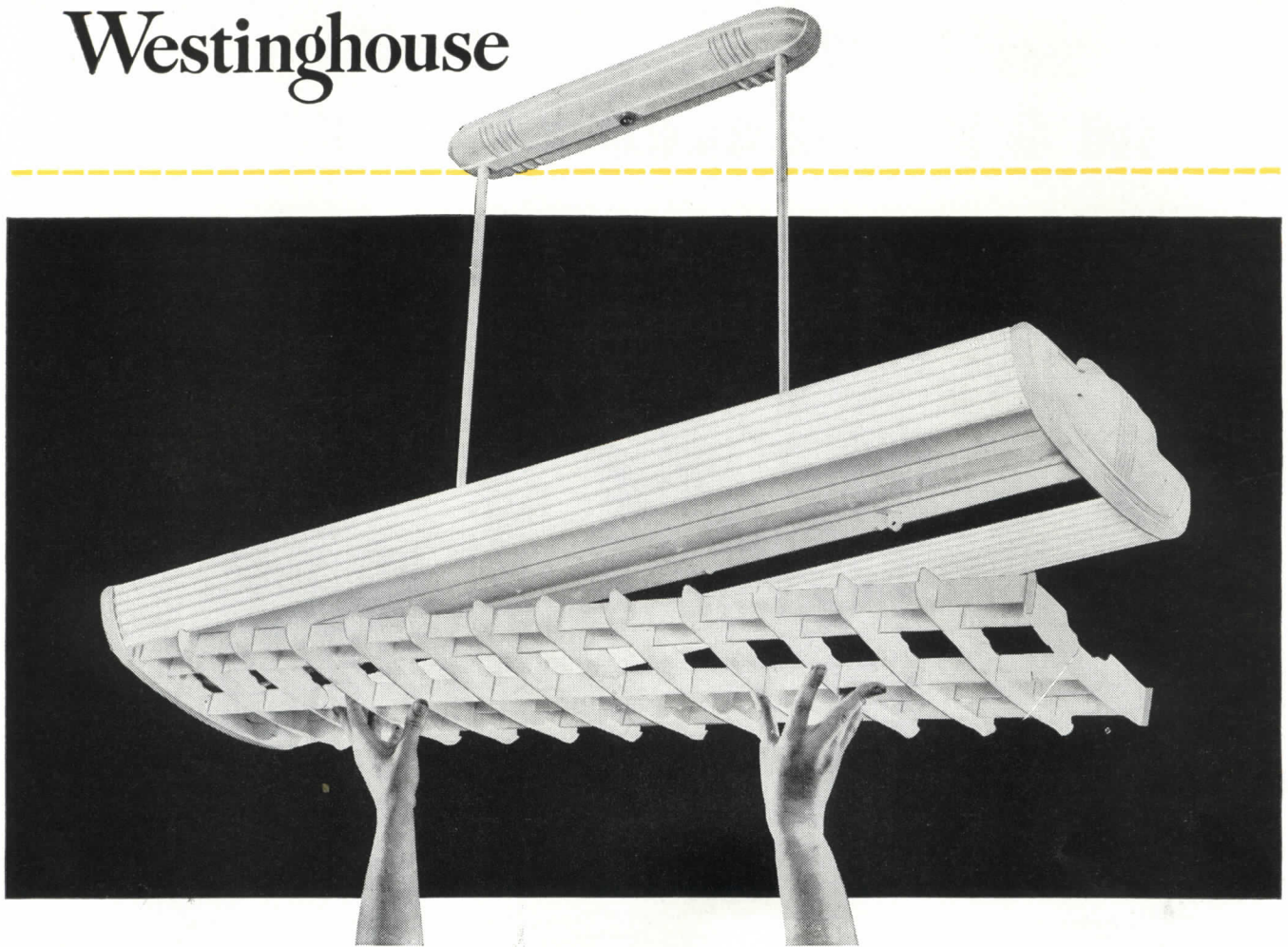
**RODDIS PLYWOOD CORPORATION**  
MARSHFIELD, WISCONSIN

### NATIONWIDE Roddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass. . . . . 229 Vassar St.	Los Angeles 11, Calif. . . . . 2860 E. 54th St.
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Cincinnati 2, Ohio. . . . . 457 E. Sixth St.	Milwaukee 8, Wis. . . . . 4601 W. State St.
Dallas 10, Texas. . . . . 2800 Medill St.	New York 55, N. Y. . . . . 920 E. 149th St.
Detroit 14, Mich. . . . . 11855 E. Jefferson St.	Port Newark 5, N. J. . . . . 103 Marsh St.
Houston 10, Texas. . . . . 2425 Sabine St.	Philadelphia, Pa., Pier 5, N. Delaware Ave.
Kansas City 3, Kan. . . . . 35-53 Southwest Blvd.	St. Louis, Mo. . . . . 4453 Duncan Ave.
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San Francisco 24, Cal. . . . . 345 Williams Ave.	



YOU CAN BE **SURE**.. IF IT'S  
**Westinghouse**



**installed and removed**  
***IN A JIFFY!***

Light weight, CD-80 and CD-160 fluorescent luminaires for schools and offices are easy to handle—quickly installed—easily maintained.

Louvers or plastic bottom panels may be removed in a “jiffy” for routine cleaning—then just as easily replaced. This means full efficiency of the luminaire at all times—and a timesaver for the maintenance man.

This is but one of the many features of the famous CD series, designed especially for schools and offices. Specify Westinghouse to get lasting performance and quality illumination.

To get the complete story, send for B-4075. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania. Call or write your local Westinghouse Lighting Engineer. He will gladly help with your planning.

J-04255

**Westinghouse**  
**PLANNED  
LIGHTING  
PAYS**





# FIREPROOF GOLD BOND ROCK WOOL NOW AVAILABLE IN 8 FT. SEALED BLANKETS!



• Gold Bond Sealed Blankets have a double strength stapling or nailing flange. Vapor barrier is part of Blanket. Breather cover on 3 sides for easy handling. Also 2 ft. and 4 ft. Enclosed Batts have all the features of the Blankets. Blankets come in 3 thicknesses: Jumbo, Standard and Mat; Batts in Full-thick and Semi-thick. For full details, see Sweet's.

**T**HESE days with the cost of fuel sky-high, you do your clients a bigger favor than ever when you specify top-quality insulation. You can now give them the best there is—fireproof, Full-thick Gold Bond Rock Wool—in new, easy-to-apply 8 ft. Sealed Blankets. The additional cost over thin, inadequate insulation will be more than paid back in year-round extra comfort and annual fuel savings. These savings often amount to a full 40% and continue for the life of the house!

Gold Bond manufactures a complete line of Rock Wool Insulation products to meet all your insulation requirements. Every one is completely fireproof—as fireproof as the rock from which it's made. Not just "fire-resistant" or "fire-retarding." For National Gypsum's new folder describing the full line of Insulation products, including data on thermal properties and specimen specifications, write Div. Y, Dept. PA-2.

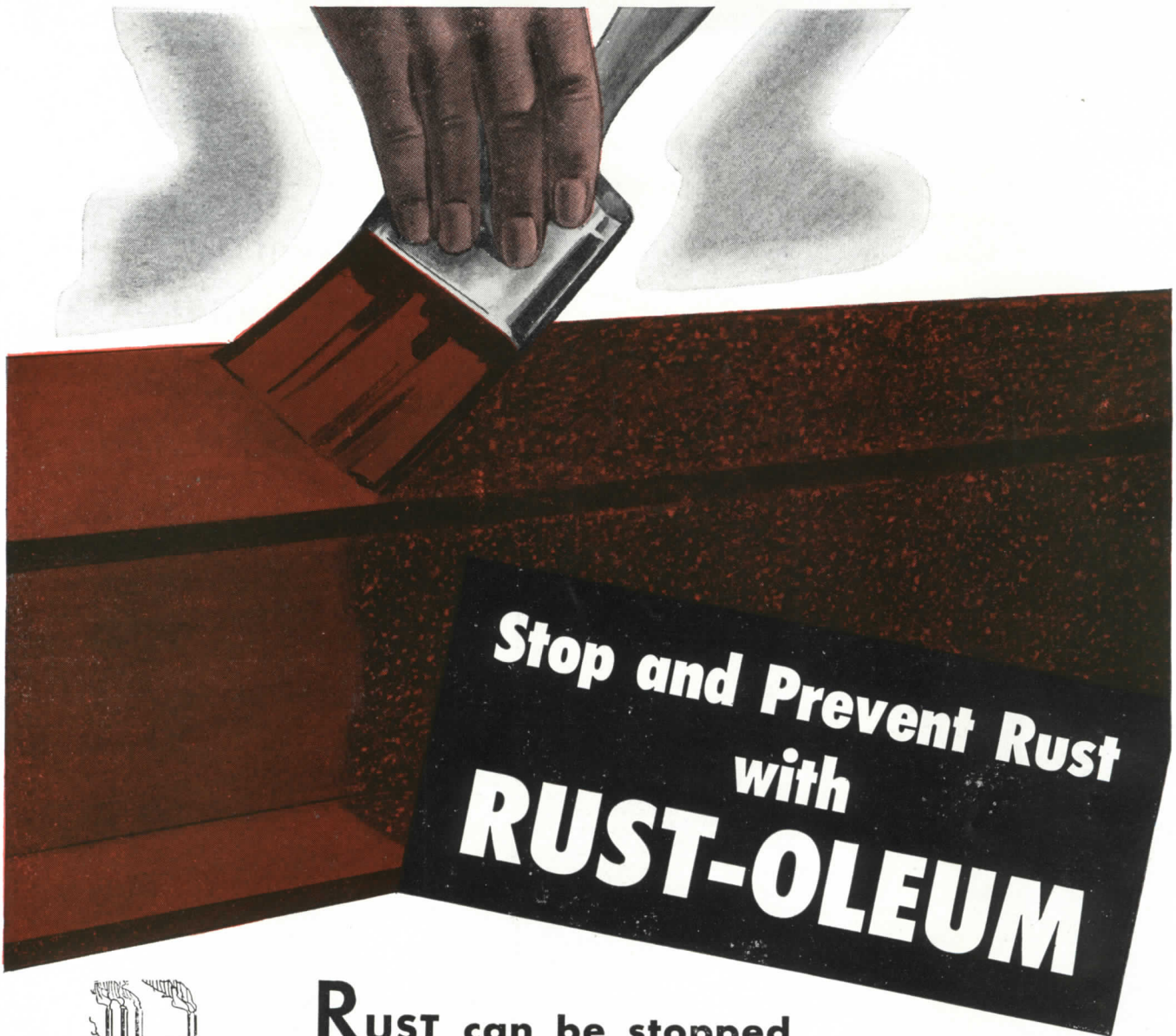
Fireproof Wallboards, decorative Insulation Boards, Lath, Plaster, Lime, Sheathing, Wall Paint, Rock Wool Insulation, Metal Lath and sound control products.

**NATIONAL GYPSUM COMPANY**  
BUFFALO 2, N. Y.

You'll build or  
remodel better with  
**Gold Bond**







# Stop and Prevent Rust with **RUST-OLEUM**

## **RUST** can be stopped

**. . . stopped easily, surely, economically!**

RUST-OLEUM is the answer. For 25 years it has proved its capacity to stop and prevent rust at sea, in fume-choked industrial areas, on railroad rolling stock, bridges and signaling equipment.

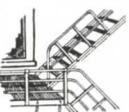
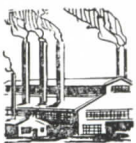
RUST-OLEUM . . . an exclusive formula . . . protects metal with a tough, long-lasting pliable film that dries to a hard, firm finish that defies rain, snow, salt air, fumes and weathering. It adds years of extra use to metal roofs, tanks, sash, fences, stacks, gutters, downspouts, machinery and other metal surfaces.

RUST-OLEUM decorates as well as protects. It is available in all colors, aluminum and white. It can be applied to metal where rust has already started. You don't have to remove all the rust.

RUST-OLEUM is stocked and sold by Industrial Distributors in most principal cities. See our complete catalog in Sweets, or write for full information.

## **RUST-OLEUM CORPORATION**

2489 Oakton Street, Evanston, Illinois





# TUF-FLEX DOORS



Architect: Horace M. Coy, Toledo, Ohio

accent  
the invitation  
of a  
**VISUAL FRONT**

Visual Front design is based on the principle that when people can see in—more come in.

What better place to remove barriers to visibility than in entrance doors? That's just what *Tuf-flex*\* doors are for. They're clear plate glass,  $\frac{3}{4}$ " thick, tempered to withstand impact and general rough treatment. They give you an opportunity to design for smart appearance—and for practicality.

All *Tuf-flex* glass doors are furnished complete, equipped with cast bronze or alumilited aluminum fittings, which are designed to receive standard pivot hinges and other builders' hardware. *Tuf-flex* doors are available in a variety of designs and hardware finishes to meet your requirements.

*Tuf-flex* doors are widely used in many places other than storefronts. Their transparency and smart design make them ideal for public buildings, offices, apartments, hotels, hospitals, banks, and many other uses.

Get in touch with an L-O-F Distributor for full information on *Tuf-flex* doors—sizes, hardware, installation details. And write us for our illustrated *Tuf-flex* book, plus our A.I.A. File Folder on design details.

\*®

**GLASS** MAKES IT A VISUAL



**FRONT**

## LIBBEY·OWENS·FORD

Libbey-Owens-Ford Glass Company, 6725 Nicholas Building, Toledo 3, Ohio.





SEWAREN GENERATING STATION, Sewaren, N. J.

Public Service Electric & Gas Co.—Owners & Engineers  
Walker & Poor—Consulting Architects  
United Engineers & Constructors, Inc.—Builders

Enduro-Ashlar Architectural Terra Cotta in units 17" x 30" provides an attractive facing 2" thick for main lobby, elevator lobby and vestibule. Color is sea-mist green.

You can count on impressive interiors

of correct color and texture when you design with...

## ENDURO-ASHLAR ARCHITECTURAL TERRA COTTA

So remarkable is the plasticity of form, color and texture of Enduro-Ashlar Architectural Terra Cotta that you can design in it without creative restraint. It is tailor-made to meet your most exacting requirements—individual units large or small, plain surfaces or decorative sculpture, brilliant colors or delicate tints. Moreover, the original richness and beauty of its ceramic-glazed finish can be retained indefinitely by simple soap-and-water washings. No wonder an increasing number of architects are specifying Enduro-Ashlar Architectural Terra Cotta—for mercantile, industrial and monumental construction, and for modernization.

*Construction detail, data, color samples, estimates, advice on preliminary sketches, will be furnished promptly without charge. Send your inquiry today.*

### FEDERAL SEABOARD TERRA COTTA CORP.

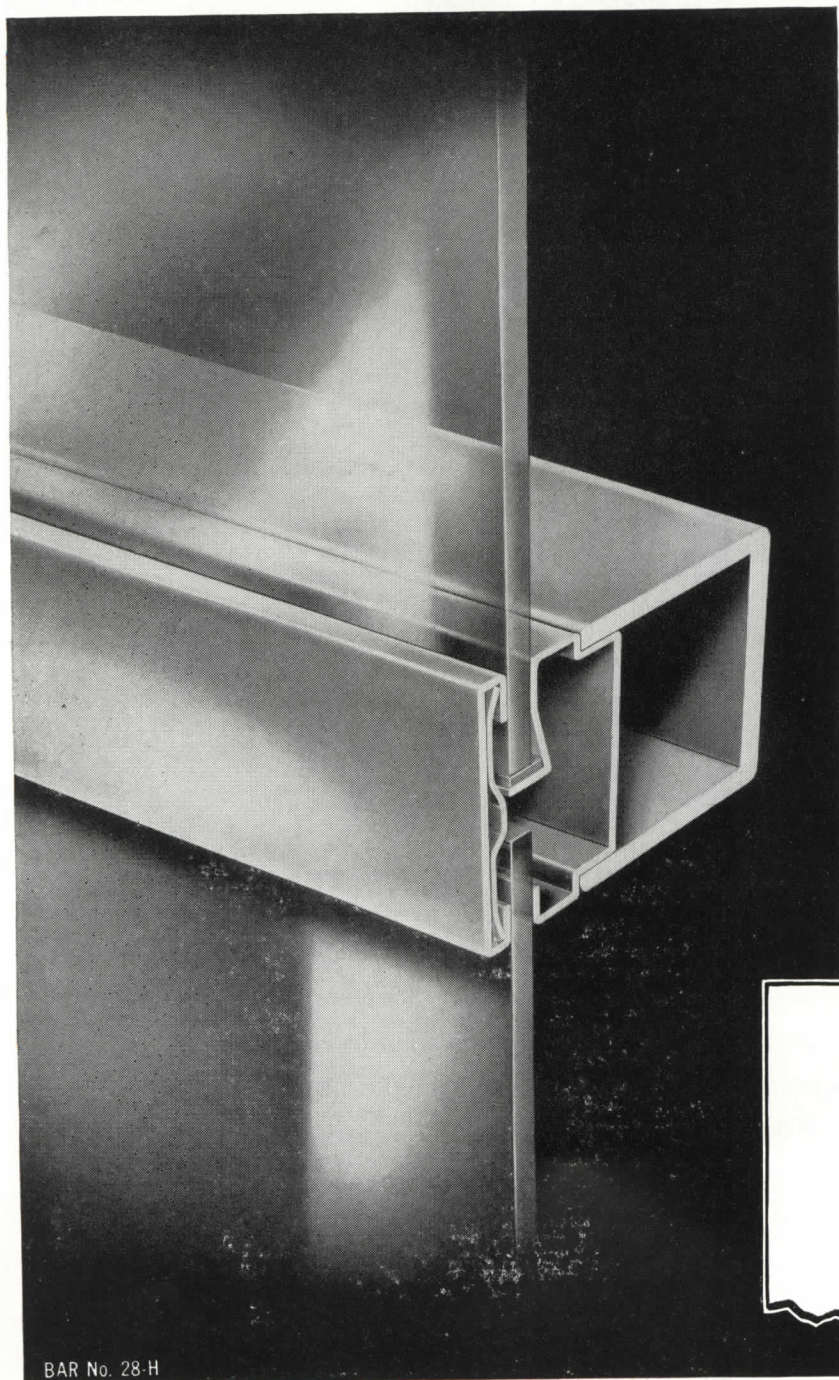


10 EAST 40th STREET, NEW YORK 16, N. Y.  
PLANTS AT PERTH AMBOY AND SOUTH AMBOY, N. J.



# *New Versatile Division Bar*

## **IN PITTCO PREMIER STORE FRONT METAL**

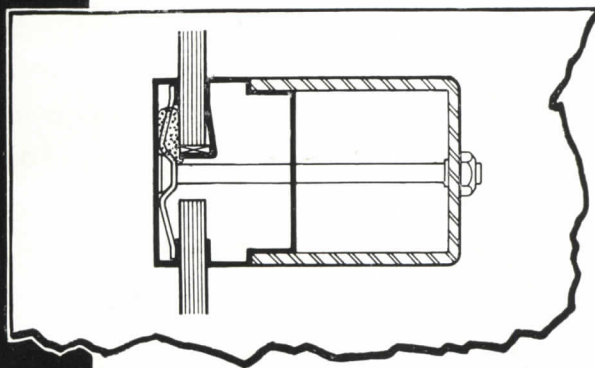


BAR No. 28-H

● This new Pittco Premier Division Bar (No. 28 H or V) will simplify design and construction on jobs where large areas of Plate Glass must be subdivided. Two features make it extremely practical. An interchangeable spring member permits this new bar to be used both horizontally and vertically. And skillful design has achieved unrivalled simplicity of structure and of installation. At intersections, a concealed fastening locks cross members together securely. Because of the bar's construction, mitering is unnecessary.

Division Bar No. 28 has a shallow profile and plain face, making it suitable for use in a wide variety of store front designs. It is extruded to give it maximum strength, yet it is not large and heavy. The extruded method of production assures a finish rich in tone and gloss.

The production of this versatile division bar is a result of Pittsburgh research . . . aimed to help solve architectural and building problems encountered in the field.

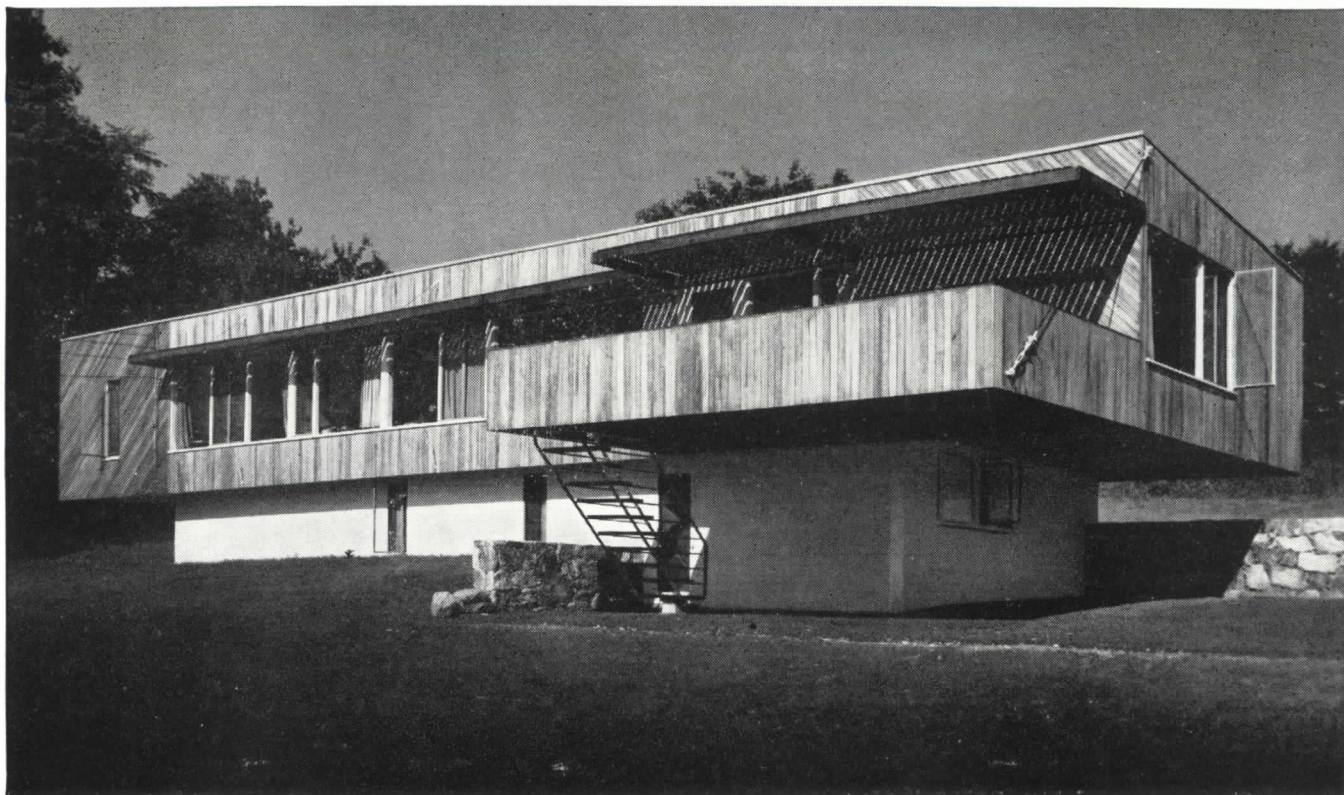


### **PITTCO STORE FRONT METAL**

**PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS**

**PITTSBURGH PLATE GLASS COMPANY**





MARCEL BREUER, *Architect*

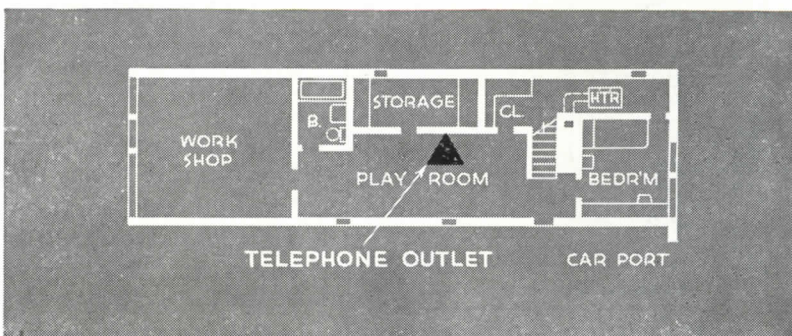
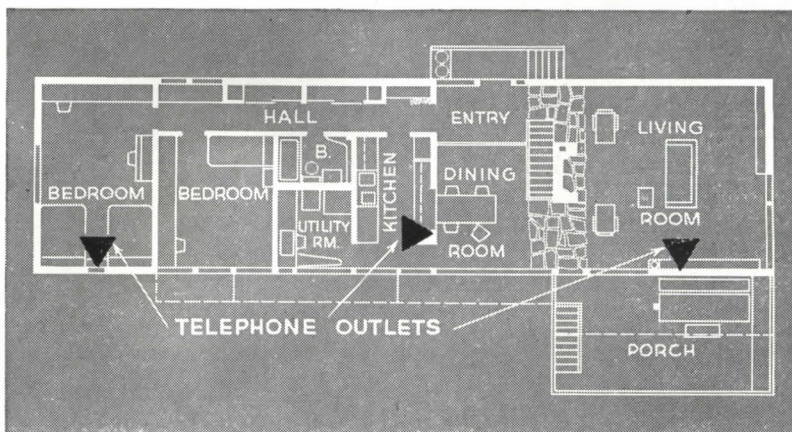
## HOMES WITH A FUTURE HAVE TELEPHONE RACEWAYS

Modern home planning considers the future as well as the present needs of the owner. Telephone raceways conceal telephone wires *within* walls. They also provide for the relocation or addition of telephones later on.

It's easy and inexpensive to provide for telephone facilities during construction. A few lengths of pipe or tubing placed in the walls will carry telephone wires to outlets located at key points throughout the house.

Your Bell Telephone Company will be glad to co-operate in planning telephone raceway systems. Just call your nearest telephone company Business Office and ask for "Architects and Builders Service."

**BELL TELEPHONE SYSTEM**





# GENERAL ELECTRIC

## A BRIGHT NEW

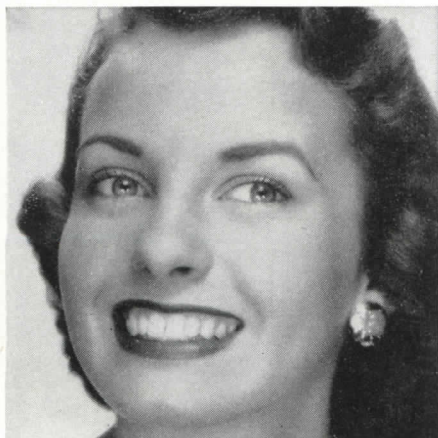
*Two new General Electric white fluorescent lamps show full beauty of all colors*



*Colors take on new life*

YOU'LL see colors come to life... fabrics and decorations take on new charm... complexions glow with new warmth... better than fluorescent lamps could ever show them before.

The secret is a revolutionary new phosphor, "D-R", which, in the inside coating of two new General Electric fluorescent lamps, transforms the effect of the white light they give. With these new lamps—1) DE LUXE COOL and 2) DELUXE WARM WHITE—excellent color rendition is achieved, and at the same time you are given a choice of *cool* or *warm* atmosphere.



*Complexions flattered*



*Fabrics look their best*

### Cool effect or warm?

Now you can plan lighting to help create either a cool or a warm atmosphere—give clients the light they desire and their surroundings suggest—with G.E.'s two new lamps.

For cool, crisp atmosphere:

DE LUXE COOL WHITE

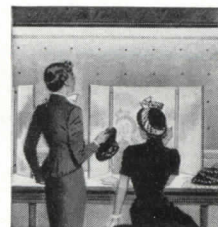
For warm, friendly, intimate surroundings:

DE LUXE WARM WHITE

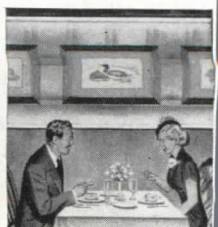
### Secret is new "D-R" phosphor

It took years of research to develop the phosphor, "D-R", that made General Electric's new color triumph possible. "D-R" is the first successful "deep red" phosphor ever known.

These two new lamps are one of the greatest advances in fluorescent lighting since General Electric introduced the first fluorescent lamp in 1938. The DE LUXE COOL WHITE and DE LUXE WARM WHITE lamps will both be introduced early in 1950 in the 40-watt size, later in all other popular sizes of G-E fluorescent lamps.



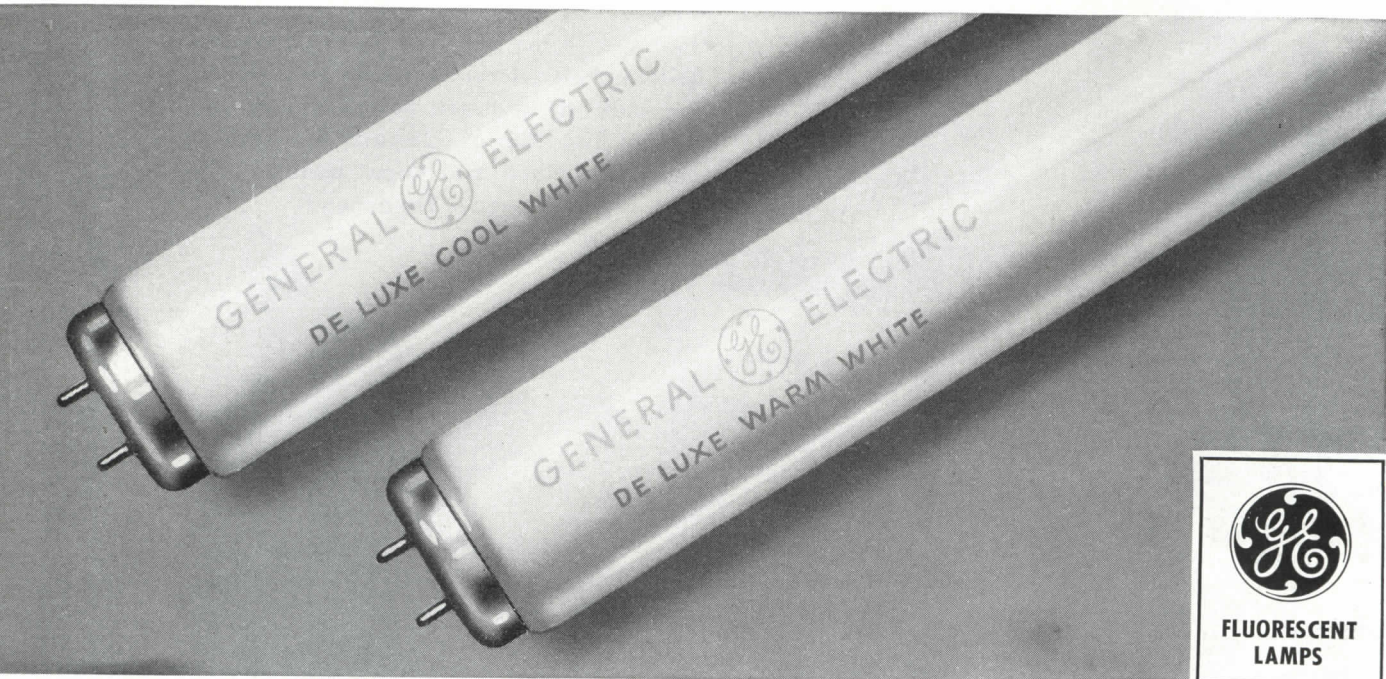
*For business,  
DE LUXE COOL*



*For intimacy,  
DE LUXE WARM*



# BRINGS YOU WORLD OF COLOR



Four G-E fluorescent lamps—the two above, plus a Standard Cool White and Warm White—now meet practically all fluorescent lighting needs.

## New white lamp line makes selection easy

The whole question of *which* “white fluorescent lamp” to use is now simplified. The two new lamps — plus two “high efficiency” lamps—create a line of four G-E white fluorescent lamps that fills practically all fluorescent lighting needs.

**STANDARD COOL WHITE** (formerly 4500)—offers highest efficiency with reasonable color rendition. Widely preferred for most working and selling areas.

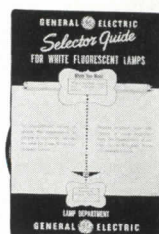
**DE LUXE COOL WHITE**—gives excellent color rendition with

good (but not highest) efficiency. Recommended for cool environment where the best appearance of color is essential.

**STANDARD WARM WHITE** (formerly Warm Tint) provides highest efficiency combined with reasonable color rendition.

**DE LUXE WARM WHITE** combines excellent color rendition with good (but not highest) efficiency. Recommended for warm environment where the best appearance of color is essential.

### FREE SELECTOR GUIDE



Shows which lamp you need to meet *your* lighting requirements. Write General Electric, Div. 166-PA-2, Nela Park, Cleveland 12, Ohio.

You can put your confidence in—

GENERAL  ELECTRIC



# KEWANEE®

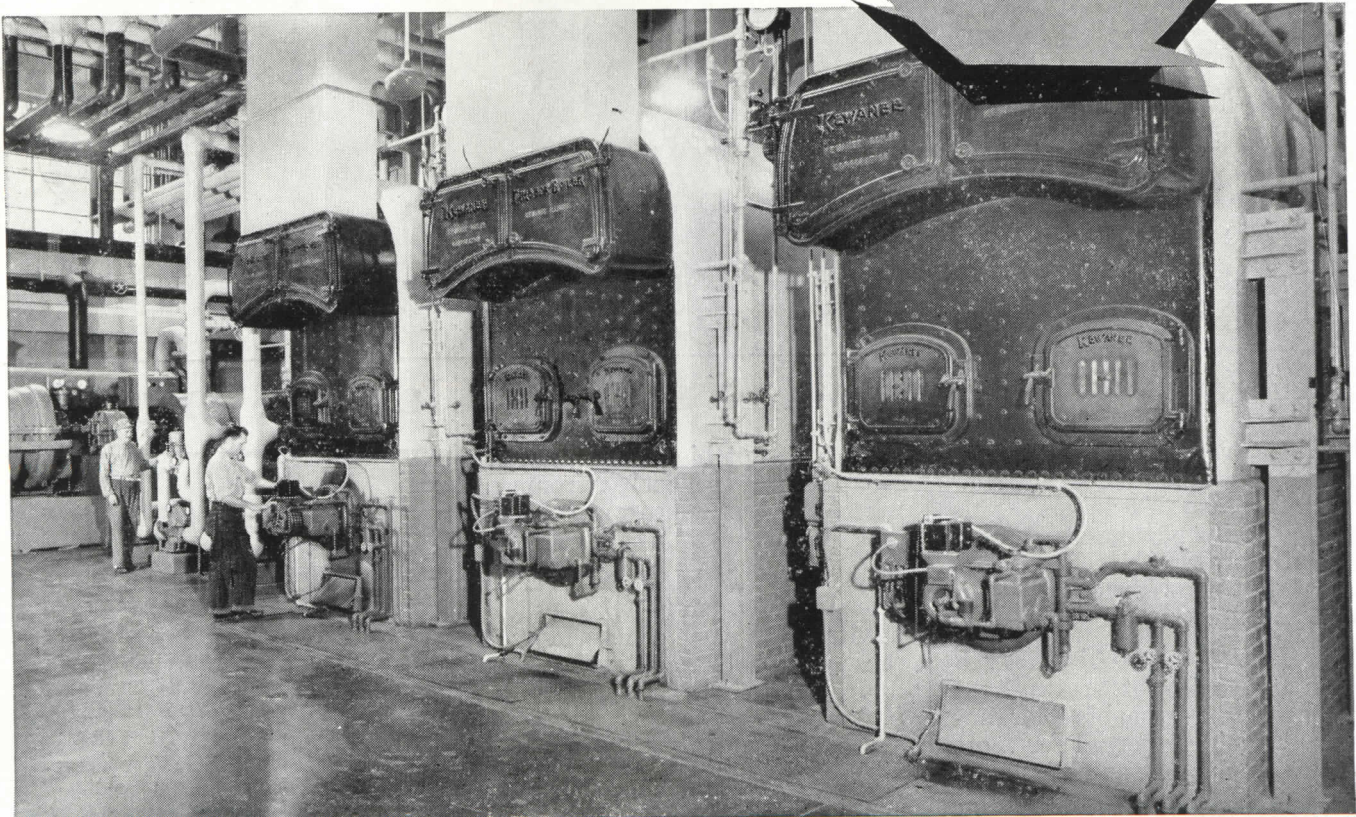
## STEEL BOILERS



Building of the BOILERMAKERS BROTHERHOOD, Kansas City, Kansas  
3 Kewanee Firebox and 1 Kewanee Scottie Jr. "on the job"

***Selected by men who know!***

• The fact that the Brotherhood of Boilermakers selected Kewanee Steel Boilers for their magnificent new building in Kansas City, Kansas, indicates that the men who make and know boilers best rely on Kewanee for dependable heat.



### KEWANEE BOILER CORPORATION

BOILERMAKERS 80 YEARS KEWANEE, ILLINOIS  
Branches in 60 Cities — Eastern District Office: 40 West 40th Street, New York City 18

*Serving home and industry*

AMERICAN STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON





## This is Armstrong's Linoleum

The unusual combination of beauty, durability, and moderate cost offered by Armstrong's Linoleum has made this floor the choice for countless thousands of stores, offices, and public buildings. Popular for many years, it is still a truly modern flooring. Manufacturing improvements have added to its serviceability, increased its beauty, made it easier to clean.

There's almost no limit to the custom designs that can be worked out in a floor of Armstrong's Linoleum. There are six types from which to choose—Plain, Jaspé, Marbelle®, Spatter, Straight Line Inlaid, and Embossed Inlaid. Colors and types can be combined to achieve any desired decorative effect.

Armstrong's Linoleum is made in three gauges: Heavy (1/8"), Standard (3/32"), Light (5/64"). It is not indented by furniture loads up to 75 lbs. per sq. in. This flooring can be specified for both conventional and radiant-heated suspended subfloors.

*They're both  
Armstrong's  
Floors*

## This is Armstrong's Asphalt Tile

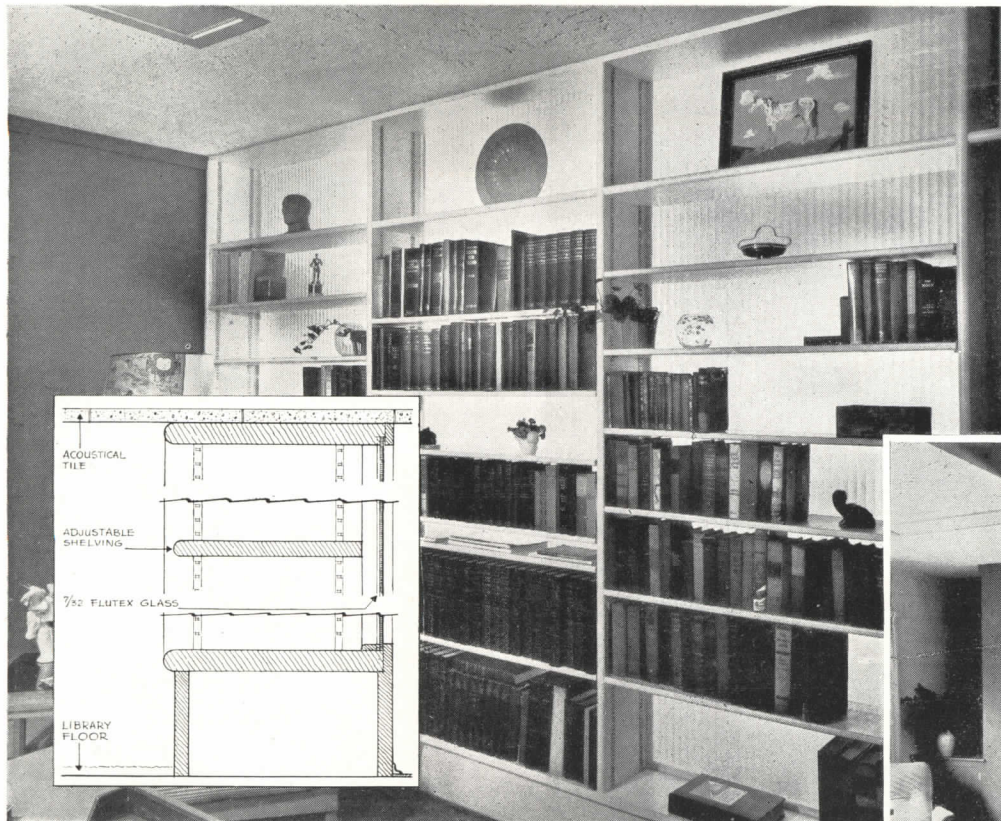
When clients' budgets are limited, Armstrong's Asphalt Tile is the ideal flooring choice. Low in first cost, it's a durable floor that's also economical to maintain. Installed tile by tile, there's almost no limit to the variety of designs and color combinations that can be created.

Unharmful by alkaline moisture, Armstrong's Asphalt Tile can be used in basements or on concrete floor slabs in direct contact with the ground. It performs satisfactorily over radiant-heated subfloors. Made in regular and greaseproof types and in two thicknesses—1/8" and 3/16", both types and gauges can be installed on wood or concrete floors.

For additional data on Armstrong's Resilient Floors—Linoleum, Asphalt Tile, Arlon Tile, Linotile®, Rubber Tile, and Cork Tile—consult Sweet's Architectural File, Section Number 13e, Catalog Number 2. For samples and specifications, as well as help in solving unusual flooring problems, write to any Armstrong District Office or directly to the Armstrong Cork Company, Floor Division, 8902 State St., Lancaster, Pennsylvania.







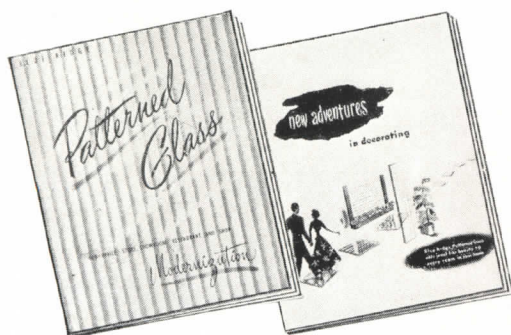
*Satinol* Flutex Glass makes a rich background for books on one side of the partition. At the same time, it's a translucent wall that borrows light from study for hall. Architect: Miller & Voinovitch, Cleveland, Ohio.



as versatile as your imagination

# ...Blue Ridge

patterned glass



## YOURS ON REQUEST...TWO "IDEA" BOOKS

1. "Patterned Glass for Modernization" is copiously illustrated with commercial installations. 2. "New Adventures in Decorating" shows ways to use *Patterned Glass* in residences. Write: Blue Ridge Sales Division, Libbey-Owens-Ford Glass Company, 8825 Nicholas Building, Toledo 3, Ohio

You can create so many interesting effects with *Patterned Glass*.

Equally beautiful from both sides, this glass in panels and partitions divides and decorates two areas at once. Because it transmits light yet obscures vision, it is ideal for doors and windows that must assure privacy.

Blue Ridge Glass comes in over 20 patterns for individuality in homes, offices, buildings of all types. To meet special needs, it may be *Satinol*\*-finished for greater privacy, and Securitized for greater strength. Your L-O-F Glass Distributor can provide complete details. Or see Sweet's File Section  $\frac{7a}{3}$ .

\*®



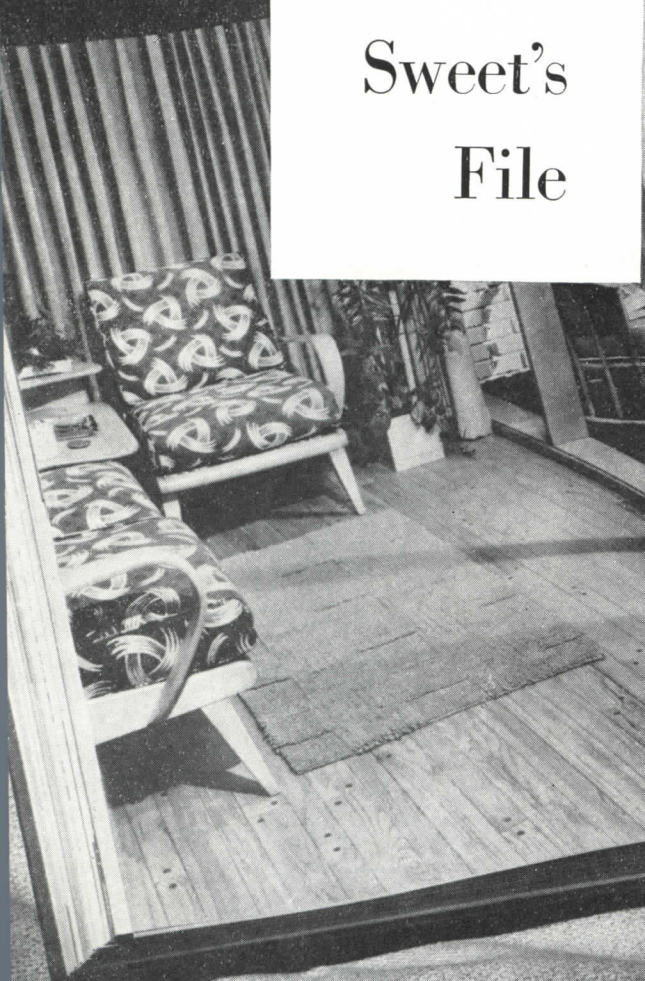
# BLUE RIDGE

# Patterned GLASS





# Sweet's File



**Alternate widths and walnut plugs** are the two most prominent characteristics of this effect and accommodate the beautiful shape of the wood. The walnut plugs in the floor appear as if they were cut by hand in expert craftsmanship. The plugs are made of a custom-matched species of wood in a random-width plank design. The plugs are designed by leading architects. The cost, however, is not high because it is much less complicated. It is laid like regular flooring. The plugs are 1 1/2 in. wide by 1/2 in. and 3/4 in. strips are alternated.

Actual effect and appearance are much less complicated. If you're alternately painting and wallpapering, the home decorator is much less concerned. A kitchen may have a few wavy lines, but the living room is a new, machine-made floor. The living room has a few wavy lines, but the living room is a new, machine-made floor. The living room has a few wavy lines, but the living room is a new, machine-made floor.

...parts of the floor  
...shade that has  
...dark finish forms a perfect  
...furniture or the darker shades of training

**For Modern Homes**  
... emphasis on de-  
... met by the  
... the wall

**For Ranch Homes**  
Low, rambling ranch-type homes call for the casual, informal treatment provided by the wide floor width.

**For Traditional Types**  
With its resemblance to  
down-width plank floor  
ancestors, Ranch Plank  
is ideal for Colonial or  
traditional architecture.

**For Apartments**  
A Ranch Plank Floor gives a luxurious, homelike touch to any apartment, lifts it out of the stereotyped class. Has floor the same color with tenants

TECHNICAL DATA (BRUCE RANCH PLANK FLOORS)

**TECHNICAL DATA**

Load in alternate 25% in, and 33% in strips. Edges of strips are reinforced. Walnut pegs in steel of raw strip. On 25% in strips, pegs are countersunk in steel. On 33% in strips, pegs are ground to give an intermediate rounded effect. These pegs are ground, rounded and finished at the factory.

**Ready and Grade:** Manufactured in Red Oak or White Oak. One grade only comparable to No. 1 Commercial & Better strip flooring.

**Finish:** Completely finished, sanded, and polished at the Brown

**RANCH PLANK FLOORS)**

Plants by the famous "Scratch Test" method (see pages 234-235).

**Style of Finish:** DECORATOR (medium dark).

**Installation:** In general, this flooring is laid exactly like regular strip flooring, except that 2 1/4" and 3 1/4" in. pieces are alternated. No flooring or finishing is required on the job, as flooring is prefinished. Ranch Plank Flooring is packed in convenient 4' x 8' x 1/2" and 4' x 6' x 1/2" strips. Complete laying instructions on card No. 10.

SECTION 2i IN BUILDERS FILE

# Bruce Hardwood Floors

[illegible]

*Mail coupon  
for an extra copy  
for your files*



E. L. Bruce Co.  
Memphis 1, Tenn.

Send us a copy of your new 4-color data file  
on Bruce Hardwood Floors.

Name\_\_\_\_\_

Firm\_\_\_\_\_

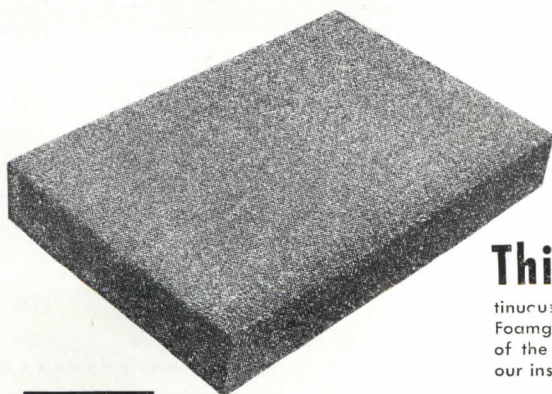
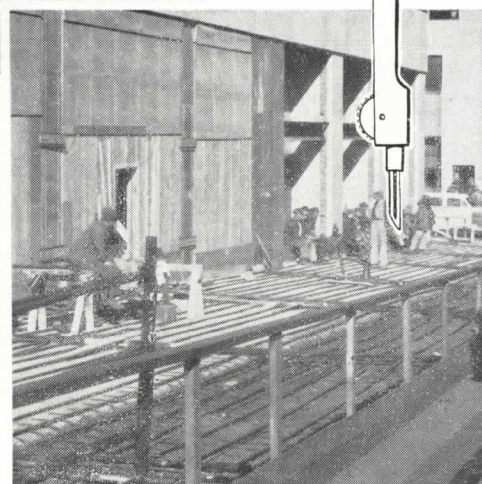
Address\_\_\_\_\_



# Give your clients



**IN THIS RADIANT-HEATED SIDEWALK,** PC Foamglas is being used to prevent heat loss . . . to assure efficient melting of any snow or ice that may form on the finished sidewalk. The two photographs, above and right, indicate how Foamglas and heating pipes are laid. The permanent insulating value and high compressive strength of Foamglas recommend its use under traffic-bearing areas. Office building at 100 Park Avenue, New York City; Architects: Kahn & Jacobs, New York City.



**This is FOAMGLAS®** The entire strong, rigid block is composed of millions of sealed glass bubbles. They form a continuous structure, so no air, moisture, vapor or fumes can get into or through the Foamglas block. In those closed glass cells, which contain still air, lies the secret of the material's permanent insulating efficiency. For additional information see our inserts in Sweet's Catalogs.



## FOAMGLAS INSULATION



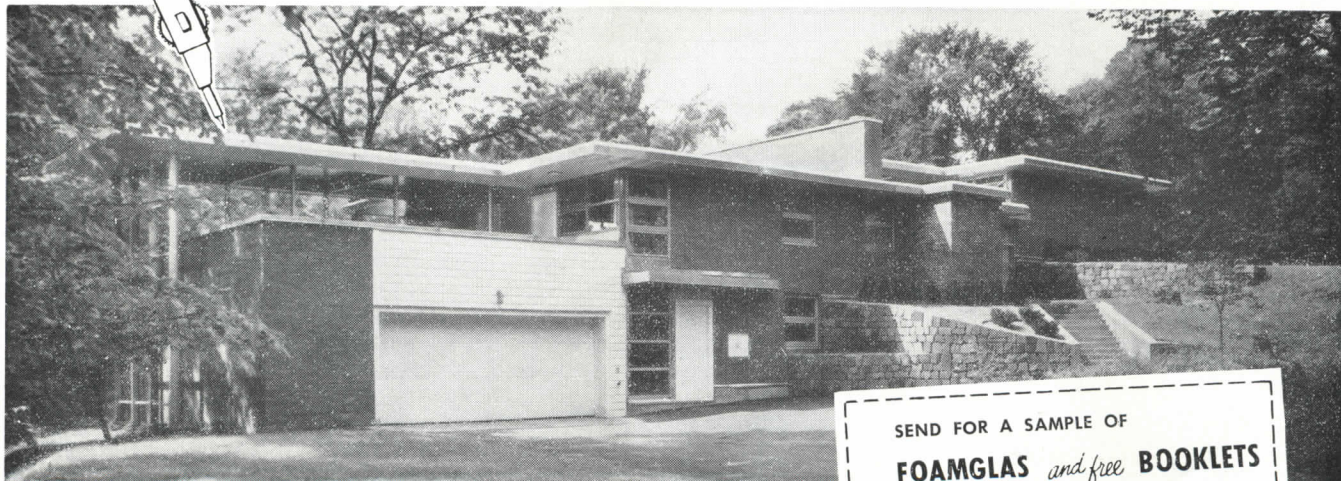
# the four-way protection of PC Foamglas Insulation

• **ACIDPROOF**

• **PERMANENT**



**AT THIS LAMINATED PLASTICS PLANT** of the General Electric Company, Coshocton, Ohio. PC Foamglas was used in the core walls of storage and processing rooms to help control temperature and humidity. Being a true glass in cellular form, Foamglas is unaffected by moisture . . . is vaporproof. Engineers & Builders: The Austin Company, Cleveland, Ohio.



**ON THE ROOF OF THIS NEW RESIDENCE** in Longmeadow, Mass., blocks of PC Foamglas Insulation help to exclude excessive summer heat and winter cold. And Foamglas on the below-grade concrete walls of the playroom protects occupants from dampness. Because it's fireproof, verminproof, moistureproof — because it's permanent, economical—PC Foamglas is favored by leading American architects for insulating roofs, walls and floors of new or remodeled homes. Architect: Alonzo J. Harriman, Auburn, Maine.

SEND FOR A SAMPLE OF  
**FOAMGLAS** and free **BOOKLETS**

Pittsburgh Corning Corporation  
Dept. N-20, 307 Fourth Avenue  
Pittsburgh 22, Pa.

Without obligation on my part, please send me a sample of PC Foamglas and your FREE booklets on the use of this permanent insulating material for:

Commercial, Industrial & Public Buildings ☐ Home Insulation ☐

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

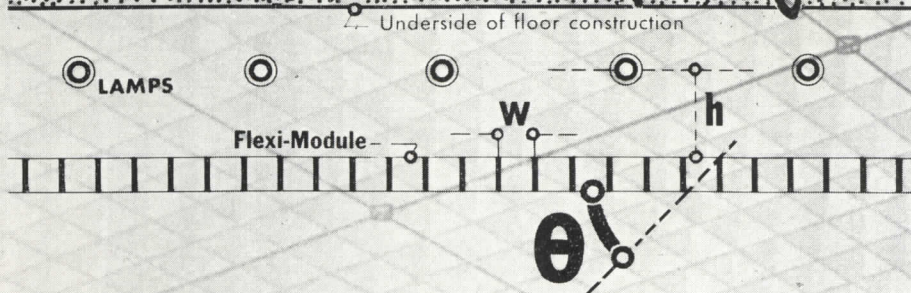
*When you insulate with Foamglas  
...you insulate for good!*



$$\Theta = \tan^{-1} \frac{h}{w}$$

Sylvania engineers know all about THETA, as in the formula. Frankly, I'm willing to leave THETA to them, too, since math was always Greek to me, anyway. But one thing I do know is that this Sylvania Flexi-Module Luminous Ceiling is a new concept of lighting! For spaces devoted to selling, working, and learning, the architect can create new interior effects with full confidence in Sylvania's engineering know-how, manufacturing skill, and long reputation for quality lighting products.

*Don Graf*



**DESCRIPTION**—Sylvania Flexi-Module Luminous Ceilings consist of 32 in. square "egg-crate" or louver grids that are suspended from old or new structural ceilings with fluorescent light sources in the resulting furred space. A completely architectural method of supplying light of proper intensity where it is needed.

**APPEARANCE**—The ceiling takes on an over-all textured appearance as the result of the cells blending together at a proper scale. Chemically treated aluminum is used for the grids, assuring low brightness of the surface and high efficiency. Special modular units in color, and other available units make a versatile design palette. Combinations of conventional ceiling materials with Flexi-Module units in borders, panels, or patterns further extends the possibilities for interesting treatments.

**PERFORMANCE**—Upwards of 100 ft. candles may be obtained on the working plane without awareness of the ceiling source of the illumination. Free circulation of air makes the lamps operate near the ideal for efficiency. Acoustic treatment, pipes, ducts, beams, sprinklers, air conditioning outlets, other services, and the lamps are all hidden by the Flexi-Module grid at normal angles of view—but the space between grid and the underside of the structural ceiling is always immediately accessible.

**INSTALLATION**—Only three parts form the elements of the Flexi-Module Luminous Ceiling system . . . the grids, the hangers, and the fixtures. It is the ultimate in simplicity . . . and adaptability to unusual room shapes or column spacings.

**COST**—Materials, installation, and maintenance of the Flexi-Module Luminous Ceiling construction is lower per year than many less interesting types of ceiling finish with conventional lighting.

**SYLVANIA SERVICE**—Complete technical data and folders on the use of Sylvania lighting in schools, offices, plants, and stores, are available on request. Help in planning a Flexi-Module Luminous Ceiling installation is as near as your telephone—just call your local Sylvania office or drop a note to Sylvania Electric Products Inc., Ipswich, Mass.



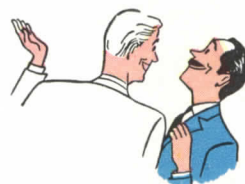
# SYLVANIA ELECTRIC

FLUORESCENT LAMPS, FIXTURES, WIRING DEVICES; SIGN TUBING;  
LIGHT BULBS; PHOTOLAMPS; RADIO TUBES; CATHODE RAY TUBES;  
ELECTRONIC DEVICES





**FLOORS?...** *Flexachrome* **WALLS?...** *Mura-Tex*  
**CLIENT?...** *Happy!*



Cafeterias, Libraries, Lobbies and other "dressed-up" areas in a school call for something special in planning and design. Consider the particular fitness of Flexachrome\* for floors, and Mura-Tex\* for walls, in locations of this kind.

The first thing about these plastic-asbestos materials to catch the eye is their brilliant color range. 33 sparkling hues to vitalize interiors. Rich, bright, *true* colors that bring striking beauty to floors and walls.

And they're matched colors. Flexachrome and Mura-Tex are made in companion colors . . . decorator-designed to blend or contrast perfectly with one another.

This color balance is only one virtue of these modern floor and wall coverings. Another is the tile-at-a-time installation that allows almost endless pattern variety. Still a third is

the custom-cut inserts that enable you to use *personalized* designs in floors and walls. And, because they're *truly greaseproof*, Flexachrome and Mura-Tex are ideal for coping with grease-abuse in kitchen, dining and similar areas.

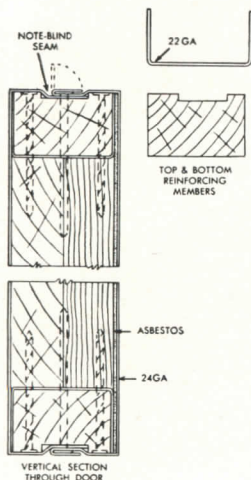
In addition, maintenance is simple and economical; durability is exceptional. You can specify Flexachrome and Mura-Tex for floors and walls with the comfortable assurance that you're giving clients cost-per-square-foot-per-year that's astonishingly low.

Let us send you complete specifications on these plastic-asbestos materials. You'll find they not only make clients happy . . . they're stimulating to work with. THE TILE-TEX DIVISION, The Flintkote Company, Dept. S, 1234 McKinley St., Chicago Heights, Ill.

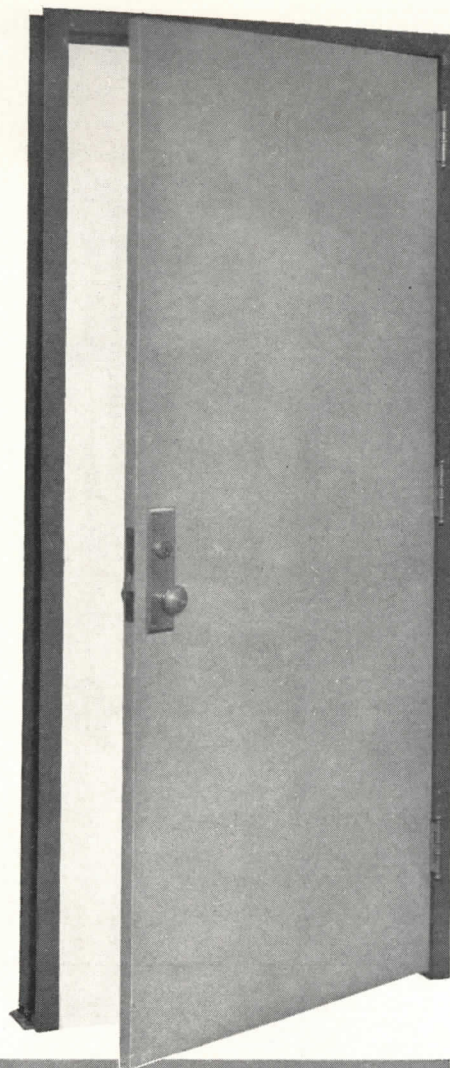


\*REGISTERED TRADEMARK, THE FLINTKOTE COMPANY

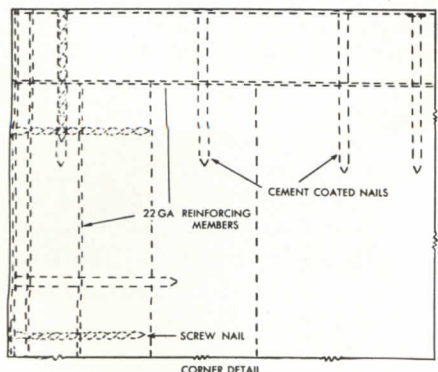
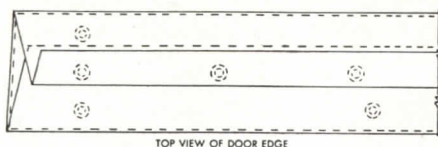




Richmond flush kalamein doors are 1 3/4" thick having two ply wood cores laminated for expansion. Cores have edges reinforced with metal and wood (left) and one side of each is insulated with a 1/16" thick asbestos sheet.



## DETAILS explain quality



**NO SEAMS** — All seams in the metal covering of Richmond flush kalamein doors are in the center of the door edges and are thoroughly filled with solder and ground smooth. All doors are prepared at the factory to receive hardware. That is — all necessary reinforcing, mortising, drilling and tapping for mortise hardware is completed before delivery. For most favorable insurance rates, Richmond labeled frames should be ordered with labeled doors.

**NO WAVES • NO BUCKLES**  
Cores are covered inside and out with 24 gauge galvanized steel glued under enormous pressure to insure flat surfaces free from buckles and waves.

# Seamless smooth asbestos lined steel reinforced

Richmond flush kalamein doors are built in accordance with the method approved by the Underwriters' laboratory and are eligible to bear labels for class B, C, D and E situations.

Steel reinforced and asbestos lined, with metal coverings glued to cores under enormous pressure, these doors are not only sturdy, fire resistant and corrosion resistant, they are smooth and rich in appearance and decidedly modern.

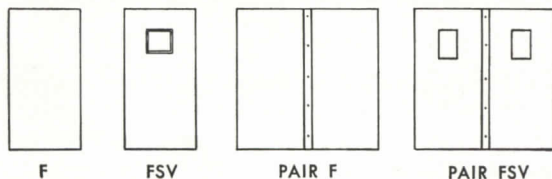
Richmond flush kalamein doors are being specified by an ever increasing number of architects for public and semi-public buildings... wherever fire protection and easy quiet door action are essential. They are ideal also for exterior openings being waterproof.

Ask for details.

THE  
**Richmond**  
FIREPROOF  
DOOR CO.

ELIGIBLE  
TO BEAR CLASS  
"B" "C" "D" and "E"  
LABELS  
UNDERWRITERS'  
LABORATORIES

RICHMOND  
**Flush kalamein door**



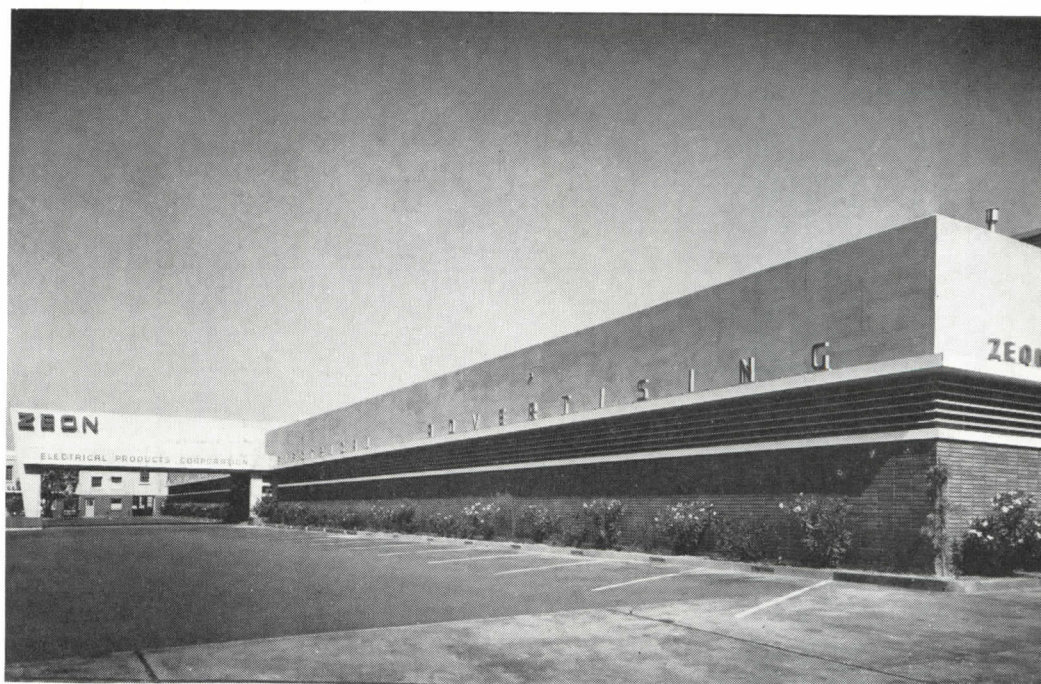
## use this coupon

**THE RICHMOND FIREPROOF DOOR COMPANY**  
DEPT. PAZ RICHMOND, INDIANA

Gentlemen: Please send service sheet R1 containing complete information and specification, Richmond flush kalamein doors.

Name .....  
Company .....  
Address .....  
City..... State.....





## Industrial Buildings: 1. Los Angeles, California

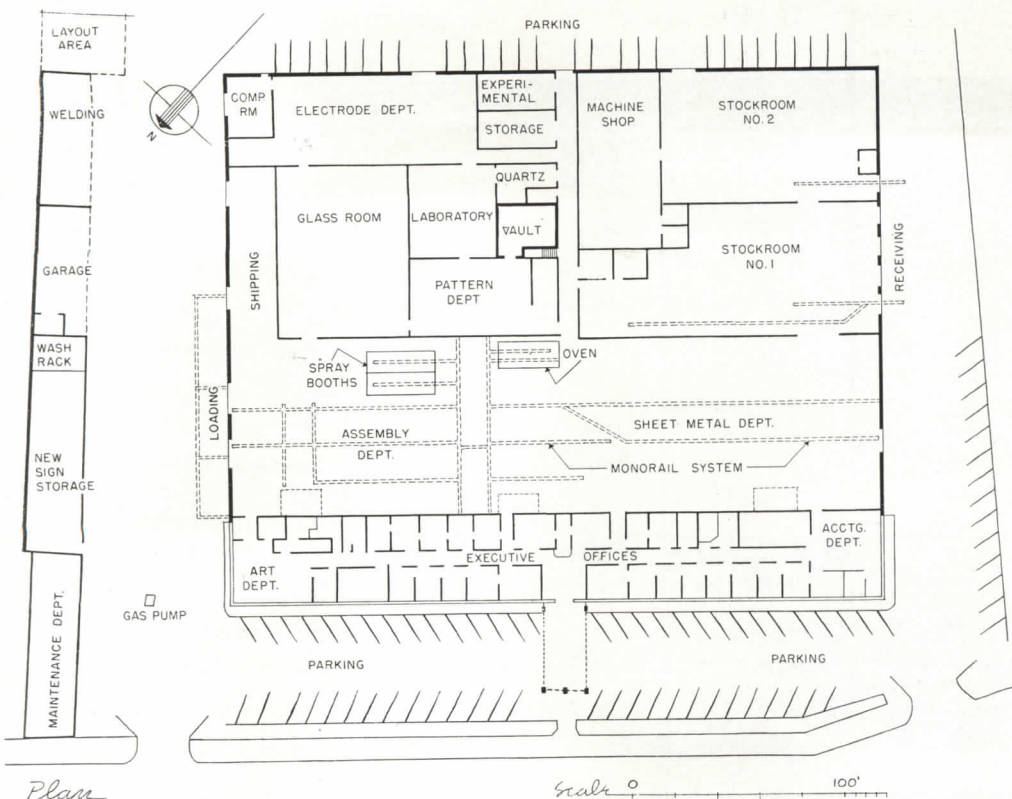
THE AUSTIN COMPANY, ENGINEERS AND BUILDERS

A plant for the manufacture of tubular electrical advertising signs and other lighting products, this factory incorporates advances in both straight-line-flow production methods and illumination principles utilizing the company's own products.

The air view shows the ample site; detail pictures illustrate the straightforward design of the office-building portion of the structure, with fenestration bands shielded by metal louvers.

Photos: Julius Shulman. (Aerial view by Goodyear-Airship-Kopec.)





### Los Angeles, California

**program:** A plant for the manufacture and assembly of tubular electrical advertising signs to serve the Southwest. A requirement: direct production flow from raw material to finished product, to eliminate back-tracking and to spur volume output.

**site:** A 5½-acre tract, within a mile of Los Angeles City Hall, accessible from all directions.

**solution:** A compact scheme worked out within a rectangle, with office portion along the main front, an 80' x 300' manufacturing area immediately behind, and receiving-stock area; machine shop; laboratories; electrode and glass rooms at the rear. Placement on the site provides parking at front, rear, and one side of building. Raw materials arrive at right, rear; production flows from right to left and out to loading dock for shipment. Interconnecting monorails serve the entire manufacturing process.

**materials and methods:** CONSTRUCTION: Poured concrete foundations. Walls: structural steel frame; gun-applied concrete, both unsurfaced and (in office portion) surfaced with face brick. Floors: concrete; surfaced with asphalt tile, ceramic tile, or (in factory area) metallic hardener. Roof: factory—wood purlins and 2" sheathing; office—poured concrete; asphalt composition and gravel surfacing. Insulation: (office portion only): acoustical—tile; thermal—4" wool type. Partitions: factory—wood studs and plywood; office—steel studs, metal lath and plaster. Fenestration: steel sash; factory—rough wire and heat-absorbing glass; office—¼" semi-transparent glass.

EQUIPMENT: Heating and air conditioning: gas-fired unit heaters; all-year air-conditioning (for office only): sheet metal ducts; automatic controls.



Interconnecting monorails (standard H-section welded steel trusses) serve all manufacturing areas. Above: view of main system—a pair of 10" rails, 16' apart, with interconnecting switch-rail running diagonally between them.

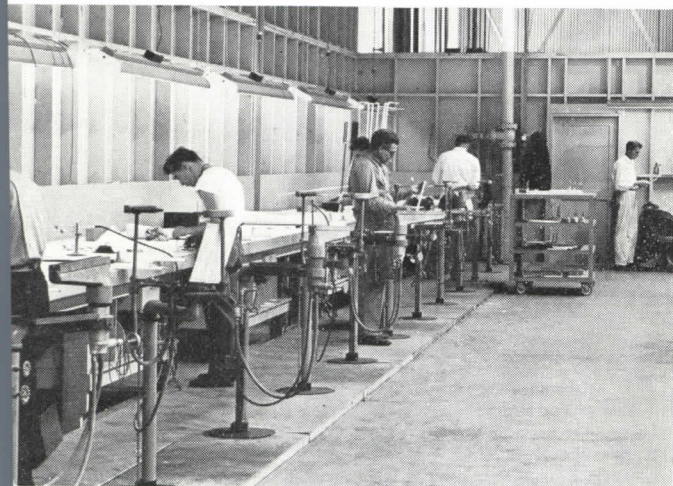
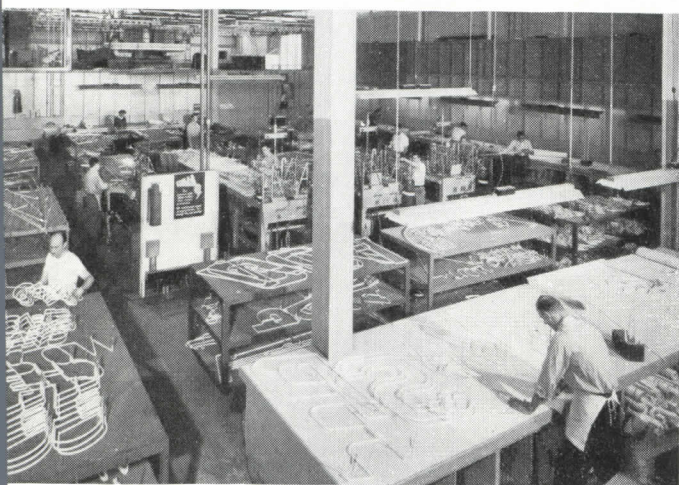
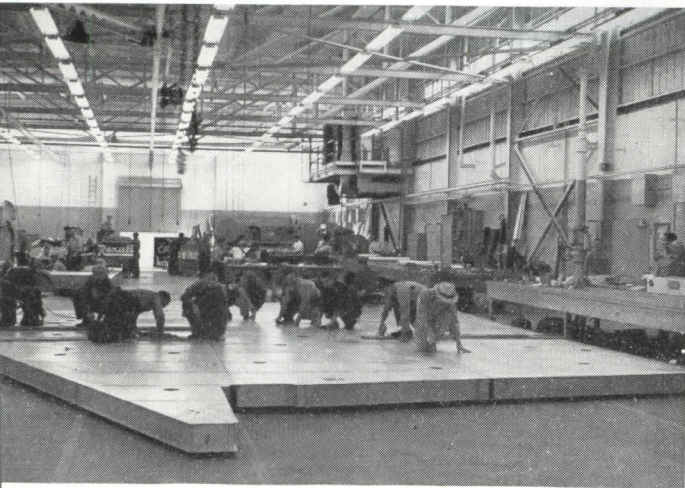
Across page, top: assembly area, showing the system of 8' cold-cathode lighting fixtures mounted at a height of 18', providing 35 footcandles at working level.

Right: the glass room where lettering is formed; in the center are a hot cathode station and three double-sided pump tables.

Right: 17 glass-working (tube blowing and forming) stations occupy continuous benches along three walls of the glass room.

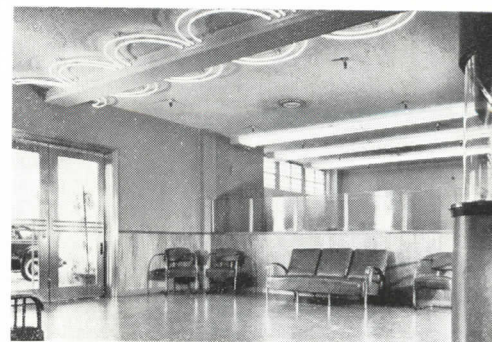
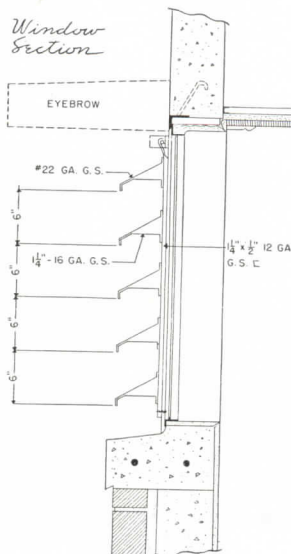
Right: the art department (in a corner of the office building portion). Tubular lighting system provides 80 footcandle at work height. Detail beyond shows the louvered window system in the portion of the plant.





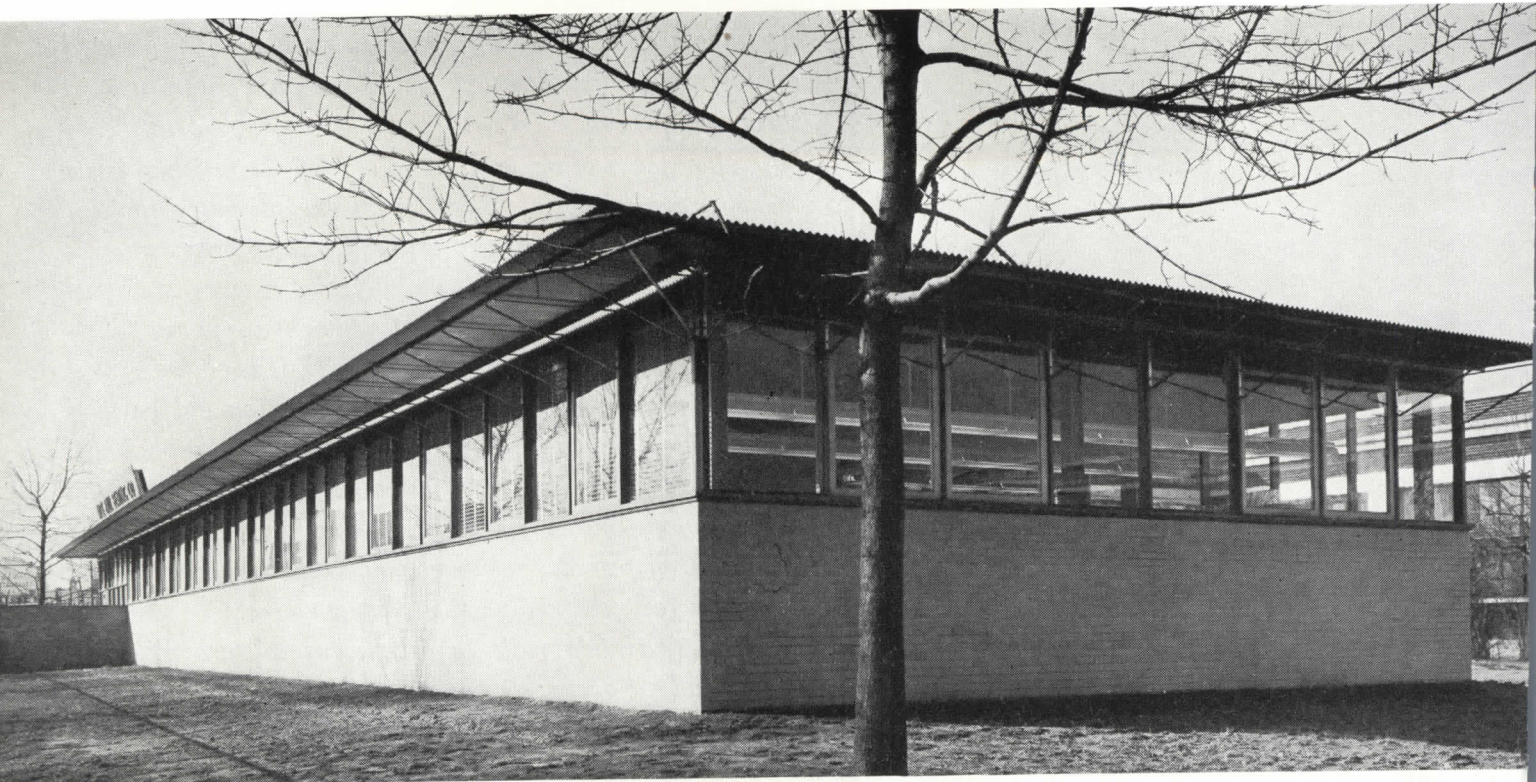
Architecture to serve manufacturing cannot be assayed apart from rather detailed consideration of how well it serves the process involved. In the case of the plant shown here, the fabricating and assembly of advertising signs seems to have been arranged in an exceptionally efficient layout, due to the logically ordered conveyor system that maintains throughout. The raw material arrives at the receiving dock and is lifted from the trucks by power hoists and carried into the stockrooms so well, it is claimed, that the time required for unloading a 28,000-pound carload of sheet metal has been cut from 50 hours to a single hour. The paired monorails in the manufacturing area carry the process along initial stages of production directly; signs may be transferred from one to the other by means of a crossover rail; the right-angle craneway system interlocks with the two main rails to take signs to spray-painting booths and/or ovens; thence returned to the main line for assembly, the adjacent glass room and electrode department feeding in the final elements from directly alongside; finally, at the loading dock outside the building, the two main monorails interlock at right angles with a 100' cantilever craneway running the length of the dock (big enough to accommodate 10 trucks) to facilitate loading for storage and shipment. In respect to pure function, the plant seems unassailable. Structurally, the building offers little in the way of innovation, though the scheme seems simple and economical.

In finished design, there is a cleanliness and harmony that is not always the rule in industrial buildings. Differentiation of office and manufacturing portions is clearly defined but in no sense shocking. Perhaps the extended porte-cochere feature in front of the main entrance is more self-assertive and whimsical than need be, but it is frankly introduced as an eye-attracting advertising sign in itself. All in all, this seems to be a very successful plant.



The entrance lobby with natural birch dado; receptionist's booth at right. The lighting system was designed by the company engineers.





## 2. Philadelphia, Pennsylvania

CARROLL, GRISDALE & VAN ALLEN, ARCHITECTS

**program:** Administrative offices, with secretarial and clerical space, for a factory—offices that previously had crowded one corner of the adjoining plant. Strict budgetary limitations demanded an uncomplicated solution.

**site:** A broad, shallow, corner plot immediately south of the factory (busy traffic street on the south; existing drive into plant on the west).

**solution:** Site and orientation dictated a long, rectangular structure facing south; economy dictated a central corridor plan with offices at either side. A show wing, with service rooms, toilets, and lounge at either side, joins the new building and the existing plant, and also allows good fenestration along the north wall of the office building.

**materials and methods:** CONSTRUCTION: Reinforced concrete foundation. *Frame:* steel. *Walls:* brick cavity. *Floors:* reinforced concrete, surfaced with asphalt tile, waxed. *Roof:* open-web steel joists; 20-year, built-up roofing; aluminum gravel stop. *Thermal insulation:* board type on roof; 1" around edge of floor slab. *Partitions:* lightweight aggregate block; metal toilet partitions. *Fenestration:* wood sash; double-strength "A" glass; awning-type panels.

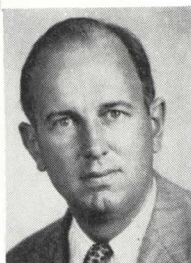
EQUIPMENT: *Heating and air conditioning:* radiant system, with wrought-iron piping in floor slab; converter changes steam (from main plant) to water for office-building system; outdoor-indoor controls. *Electrical:* industrial fluorescent fixtures. *Water piping:* copper.

**the architects:** J. Roy Carroll, Jr.: B. Arch., M. Arch., U. of Pa. From 1941 to 1945, Asst. Prof., Architectural School, and Exec. Chairman, Design Staff, U. of Pa. John T. Grisdale: U. of Minn.; U. of Pa. W. L. Van Allen: Cambridge U., M. Arts; B. Arch., U. of Pa.

Grisdale



Carroll



Van Allen



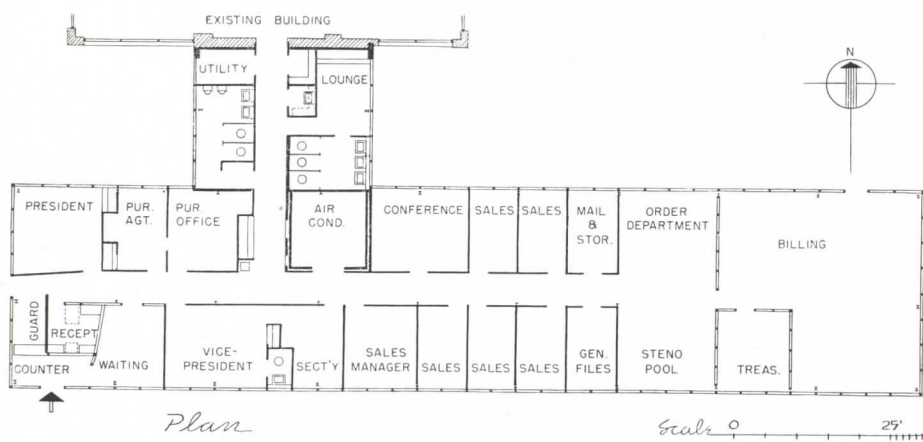
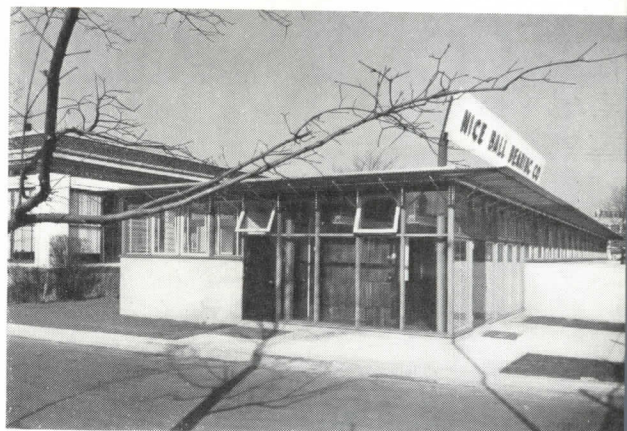


Photo across page: general view from southeast; entrance is beyond fence at far left. Bracket-supported eyebrows, plus Venetian blinds, control sunlight.

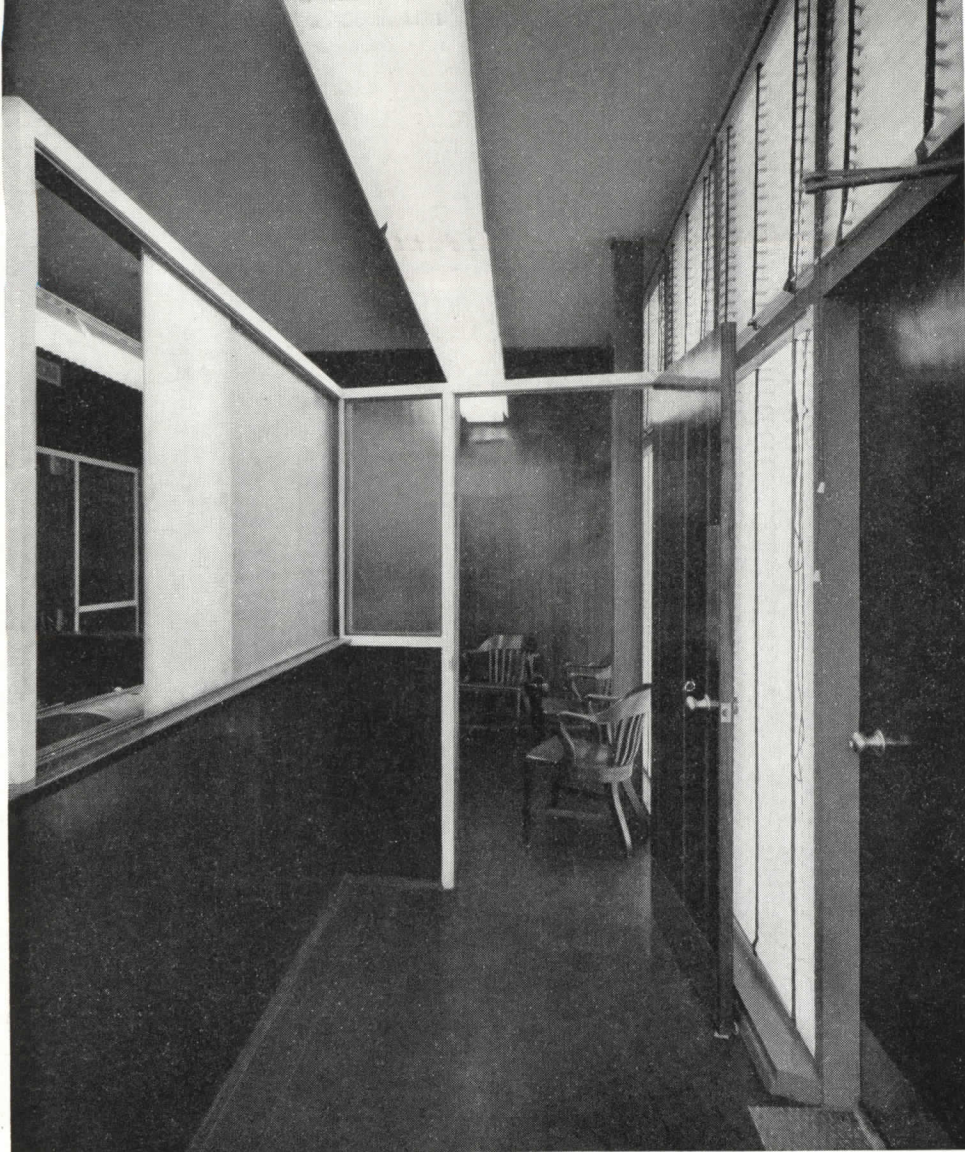
Above: main entrance; lower glass panels are fixed; the upper ones are out-opening awning type.

Right: view of entrance corner from southwest; driveway to manufacturing plant in foreground.

Photos: Cortlandt V. D. Hubbard







Left: entrance vestibule; receptionist's enclosure at left.

Below: waiting room. Exposed structural steel columns inside building envelope are painted red; partition walls are gray.

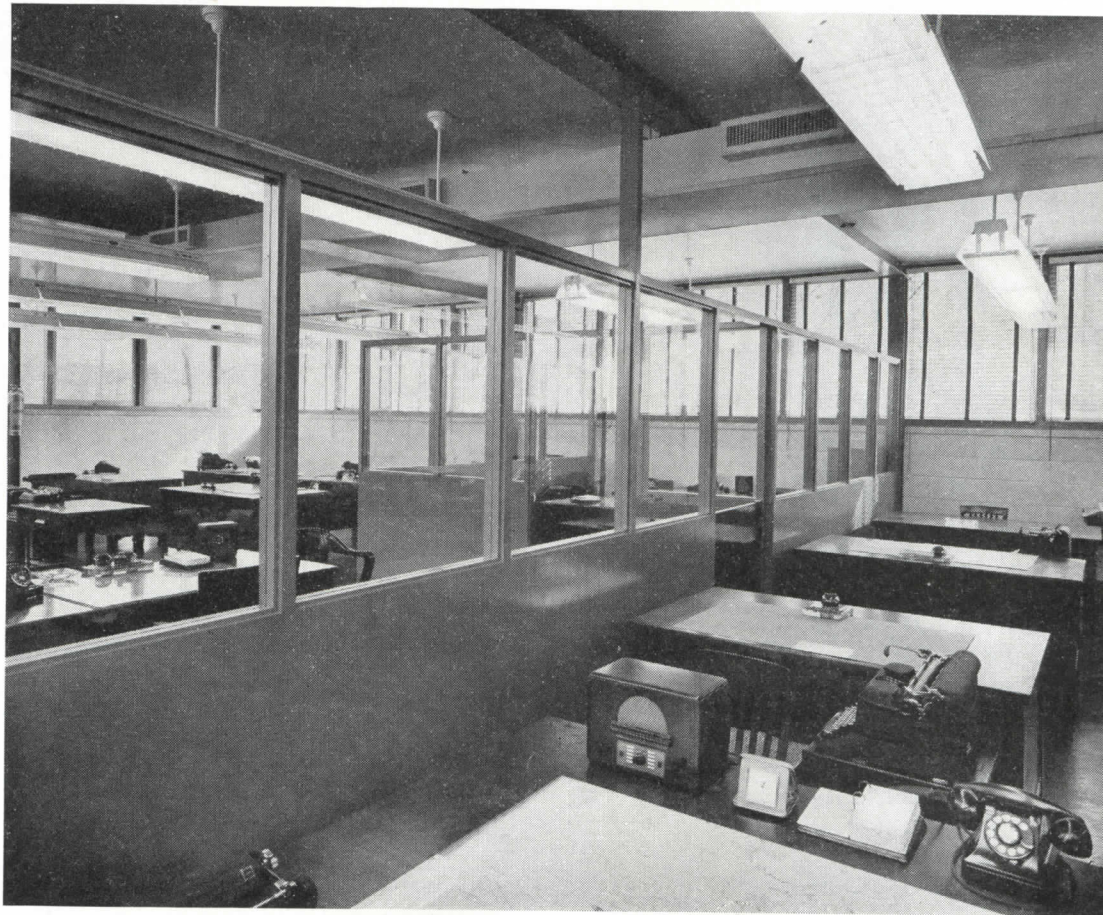
### Philadelphia, Pennsylvania

*Where the budgetary limitations, in the hands of another, might have produced a pinched and cheerless design result, the architects have overcome these limitations, if not capitalized on them, to produce a sparkling bit of industrial architecture.*

*Placement of the steel frame inside the building envelope not only permitted the effective use of continuous fenestration, fixed panels alternating with sliding ones, but also avoided many problems of joining and connecting. Adoption of a cavity-wall system eliminated moisture penetration, thereby making interior surfacing unnecessary and also automatically providing considerable insulation. Of course, these devices and economies alone would not have produced distinguished architecture; but their use modified the design and cost problems sufficiently so that the architects could achieve much more than bare essentials. The proportioning of the sash and the scheming of the eyebrow tie together the plain rectangularity of the wall patterning in a particularly felicitous way.*

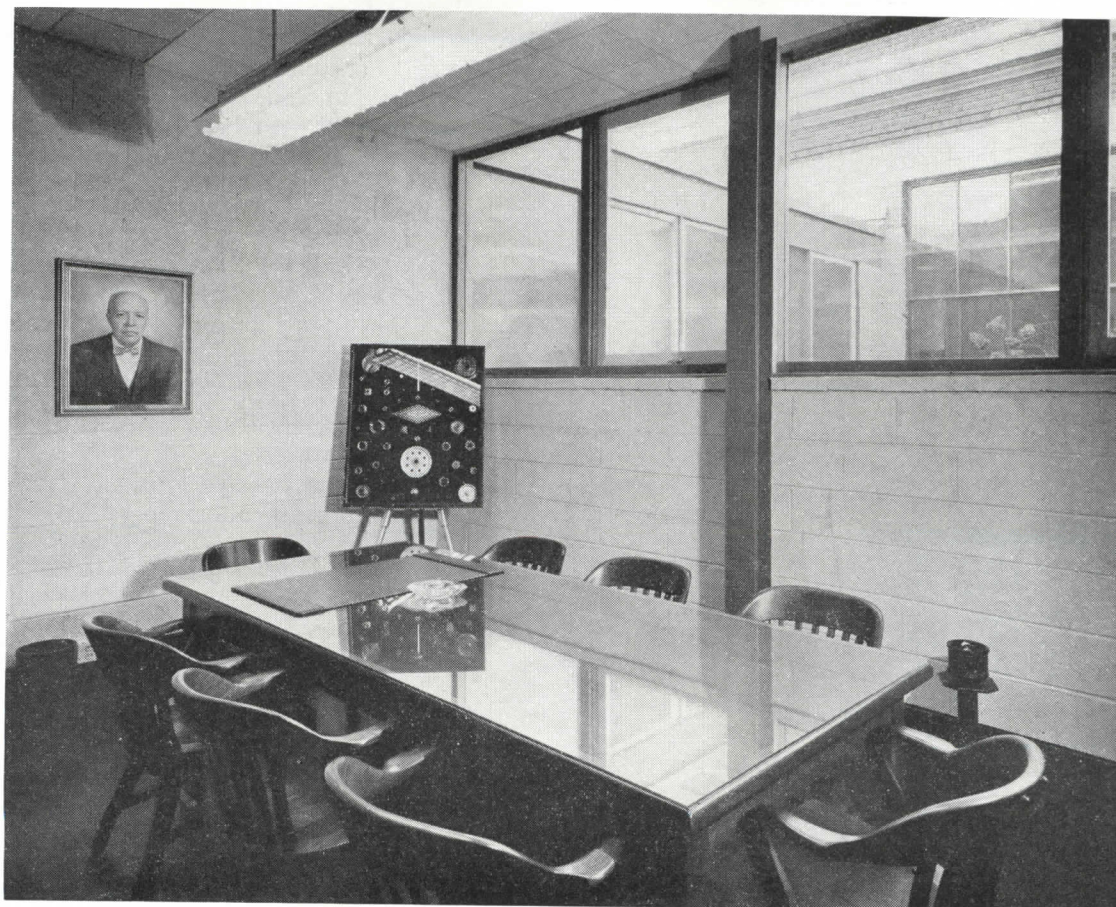




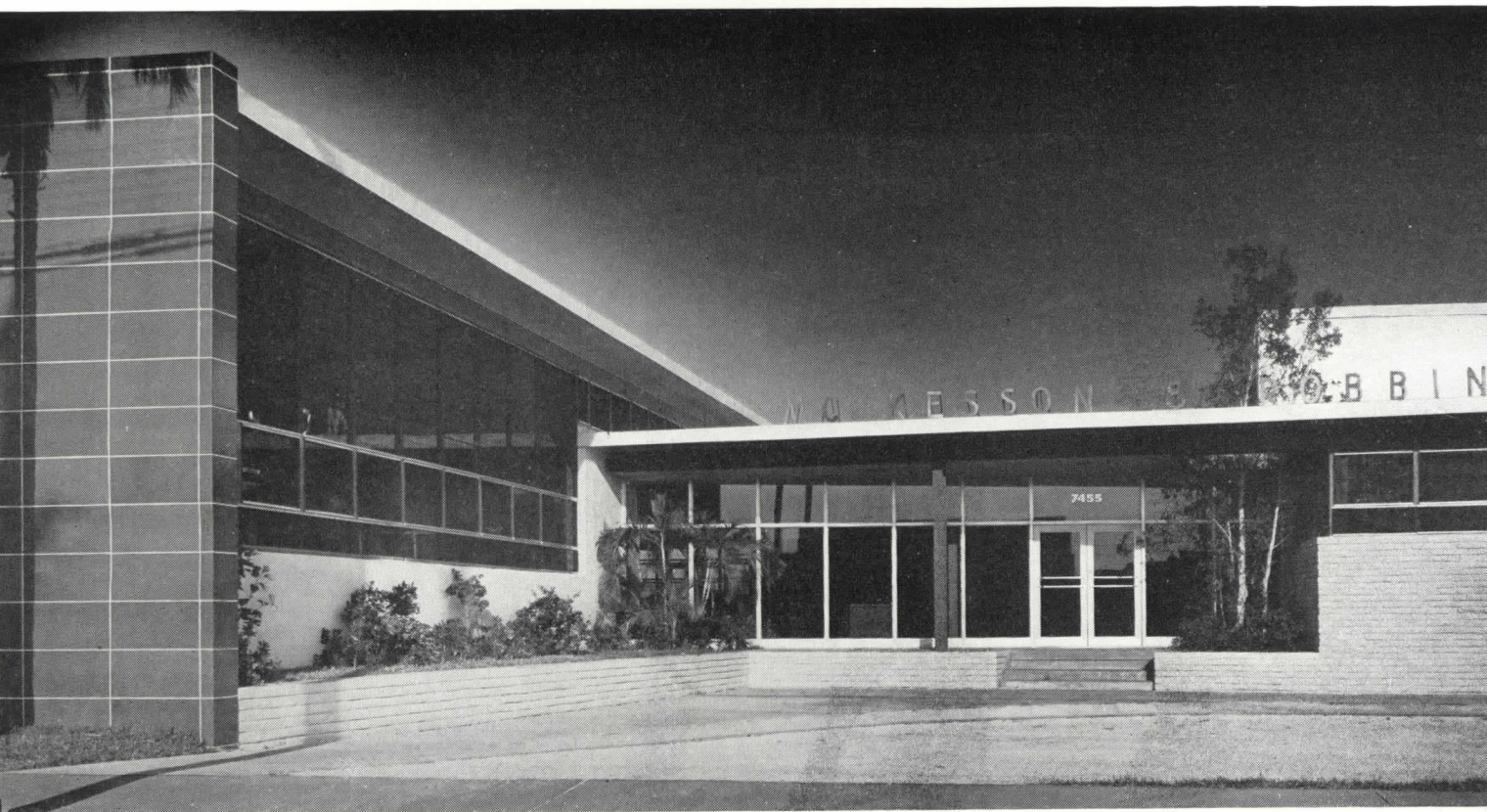


Right, above: general office area; order and stenographic space, foreground; treasurer's office in middle distance; billing department occupies entire end of building.

Below: conference room. Through windows note the wing connecting office building and plant. Lightweight aggregate block-partition wall and inner surface of exterior cavity wall construction are painted.







### 3. Miami, Florida

ROBERT LAW WEED & ASSOCIATES, ARCHITECTS

**program:** A distributing warehouse for drugs, sundries, and liquors. Warehouse portion to facilitate receipt, sorting, storage, and repacking of goods for shipment to retailers. Facilities for handling two types of merchandise—drugs and sundries (usual arrival by truck; usual shipment in broken lots); and liquors (usual arrival by rail; usual shipment in case lots)—to be provided in separate but co-ordinated areas. Uniform light and filtered air (to prevent spoilage caused by dust) an essential.

**site:** Deep, flat site, facing west; rail siding along south side.

**solution:** Shipping dock (meeting point for both types of merchandise) located in southwest corner of warehouse area; receiving dock for drugs and sundries at northeast corner; rail siding on south. For details, see plan across page.

**materials and methods:** **CONSTRUCTION:** Reinforced concrete foundation. *Frame:* structural steel. *Walls:* concrete block, surfaced outside with terra cotta, insulated metal siding, or slump brick. *Floors:* ground—concrete; second—steel decking; surfaces—hardener on concrete; quarry tile in toilets; asphalt tile in office areas. *Roof:* steel decking; built-up roofing. *Insulation:* acoustical—perforated cane tile on ceilings; steel facing on partitioning; thermal—vermiculite. *Fenestration:* aluminum projected; glass block; plate glass.

**EQUIPMENT:** *Heating* (none) and *air conditioning:* (in office portion only): built-up unit; radial compressor; air diffusers; automatic controls; ventilating (warehouse only)—propeller-type fans. *Electrical:* fluorescent lighting; some cold cathode in sales area; incandescent flood and spot lights. *Special equipment:* burglar alarms; intercommunication system; conveyors; pneumatic tubes; sprinklers.

**the architects:** *Robert Law Weed:* Carnegie Inst. of Tech. *T. Trip Russell:* U. of Pa. *Frank E. Watson:* T-Square Club, Phila. *Herbert H. Johnson:* Rice Institute; Certificate in Naval Architecture, postgraduate school of Naval Academy.

Weed

Johnson



Russell

Watson



Left (across page): entrance to main lobby; general office wing, left; sales offices behind high window band.

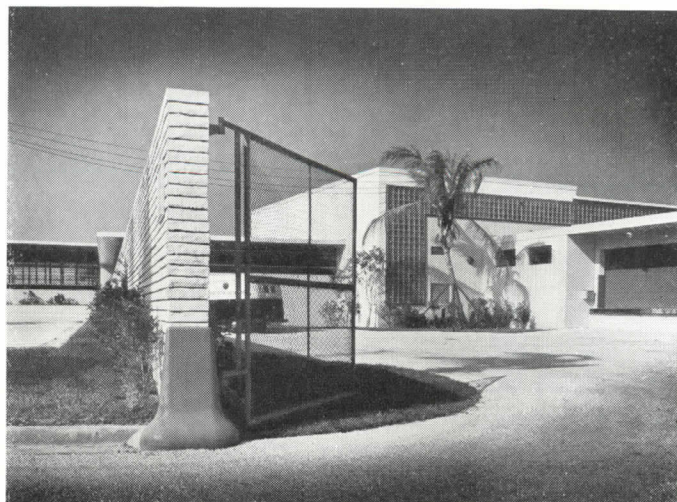
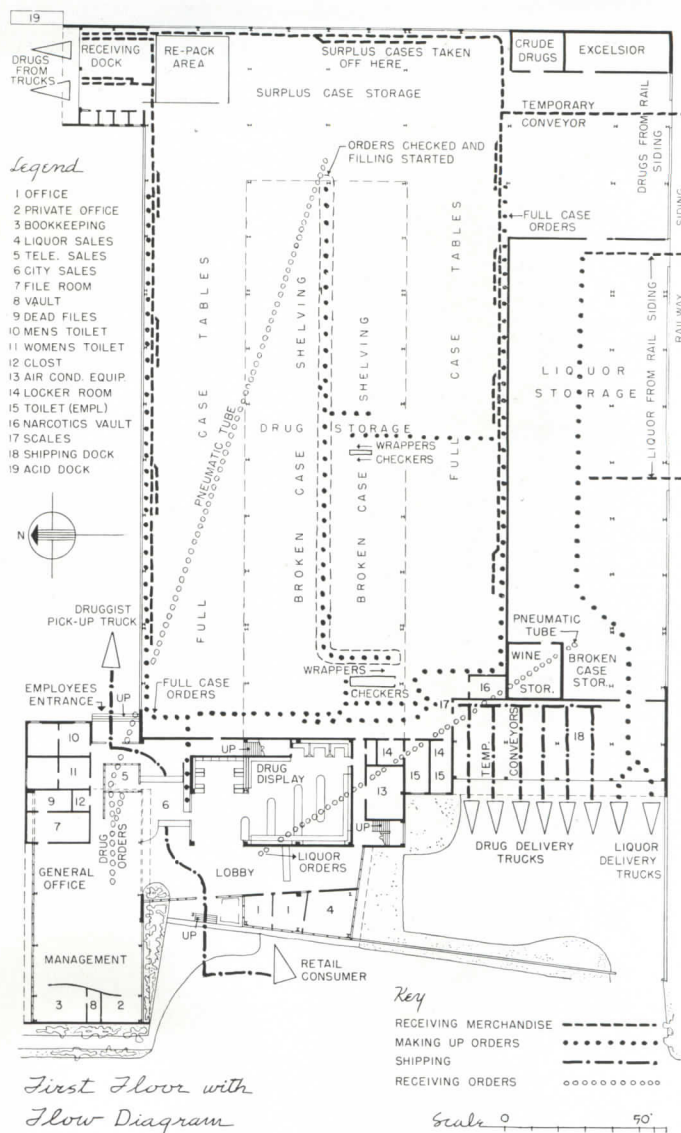
Photos: Joseph B. Brignolo

**Plan:** The truck-shipping dock and service area are screened from the front-office area by a landscaped wall. Liquor receiving (by rail) and storage extends east behind the dock; major portion of warehouse organized to the north, served from truck-receiving dock. A system of conveyors takes the drugs along either north or south walls of warehouse, full cases being stacked on immediately adjacent tables. Broken cases are sorted and stored on shelving either side of a two-level conveyor at the center. Above the latter is a chain conveyor along which packing baskets move continuously. As orders come in, packers working either side of this central conveyor lift baskets down, fill them from shelves, and place them on the conveyor for transportation to the shipping dock. Phoned orders, to be picked up from the front office, reach a city-sales desk by means of a separate conveyor. Liquors, almost always handled in full-case lots, move directly from storage to shipping dock.

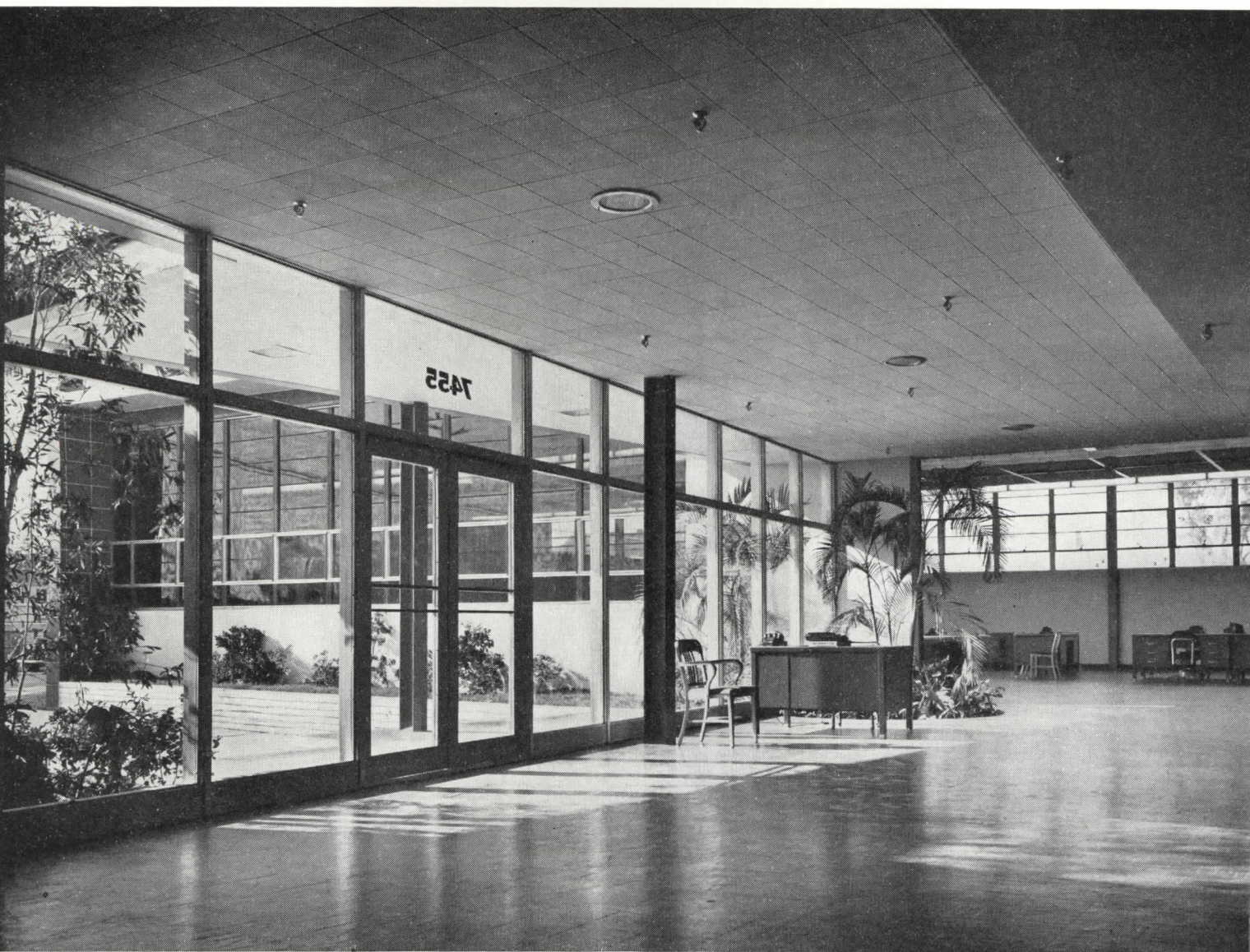


Above: general view showing off-street paved driveway and (at right, behind screen wall) mass of warehouse.

Right: detail at end of screen wall; office wing at left; warehouse and truck-shipping dock at right.







View immediately inside main entrance; receptionist's desk and general office space in background; asphalt tile floors; perforated acoustical ceiling.

*One of the most imaginative we've seen in quite a time. The functional requirements have been met in a very direct and efficient manner, so that goods (from receiving to shipping) move quickly and directly. Division between, yet co-ordination of, the two major types of products is neatly handled by the two-part warehouse, with the parts joined at the point of shipping. Perhaps the most refreshing result is the confident, finished design. The steel structural frame is exposed—mostly on the interior, but outside the building envelope, at the entrance. In finishes, the architects have not hesitated to employ a number of related surface materials and textures. Not the least of the good attributes is the achievement of a distinctly regional quality in the design. One has the feeling that the aspect of the Miami industrial area is considerably enhanced by this addition. There may be a slight disparity in esthetic between the clear glass areas of the office building and the glass-block panels of the warehouse. But the functions are quite distinct, and the distinction is handled frankly.*



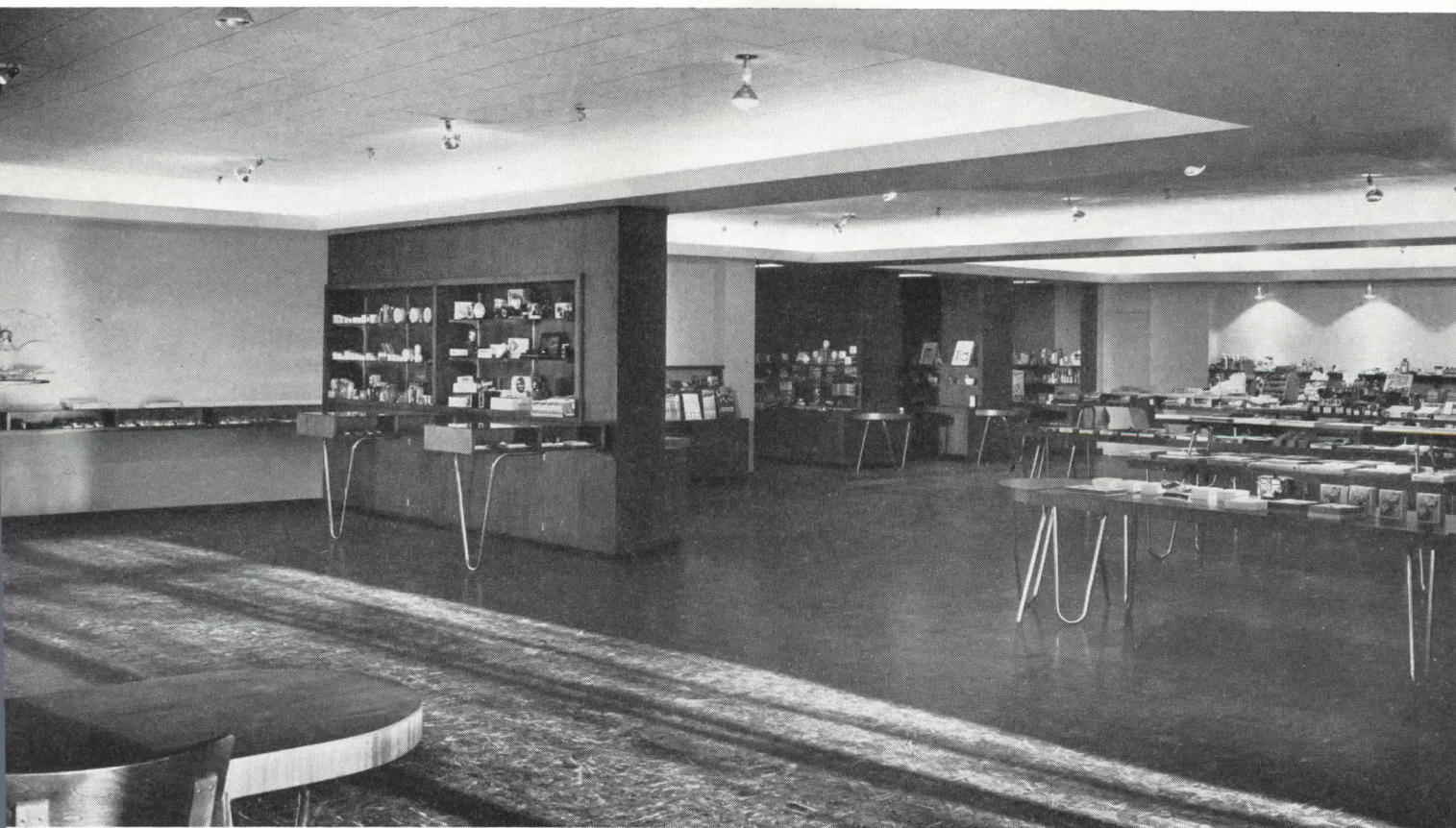
Miami, Florida



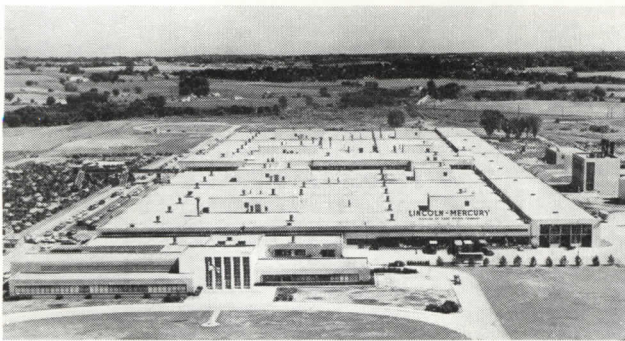
Above: detail of double-deck level roller conveyor in central portion of warehouse; baskets on continuous chain conveyor above are lifted down for packing from adjacent storage shelving and moved, via the roller conveyor, to shipping dock.

Left: general office space, from pickup, city-sales area. Far background partition sets off private office, a vault, and book-keeping room. Exposed structural steel columns.

Below: looking into drug display area immediately off entrance lobby, purposely made an interior space for more controlled lighting; flexible spotlights provide endless variety.



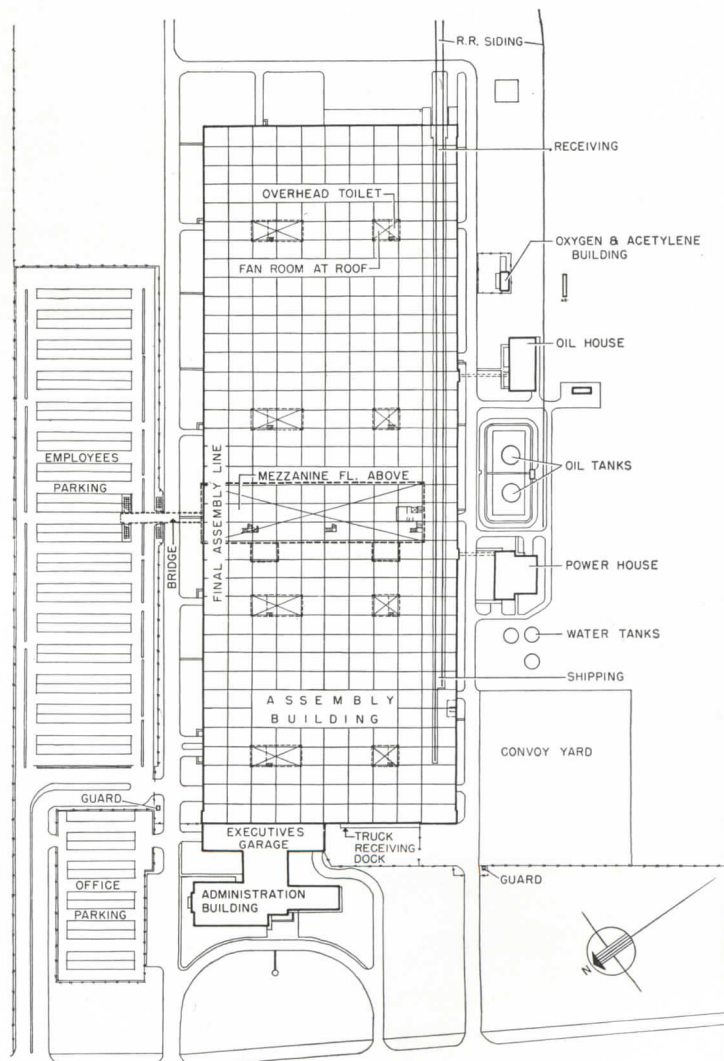




## 4. St. Louis, Missouri



Lobby of office building is one and a half stories high, with curved acoustical ceiling. Walls—limestone and bleached mahogany; floor—terrazzo; door frames and trim—aluminum.



Plant Layout

Scale 0 400'



General offices, in the center of the north wing of the office building, with glass-block clerestory and big, end-wall window supplementing artificial (fluorescent) lighting. Mineral-tile acoustical ceiling; asphalt tile flooring.

ALBERT KAHN ASSOCIATED ARCHITECTS & ENGINEERS, INC.



**program:** One of the new units in Ford Motor Company's nationwide expansion program (other new plants in Metuchen, N.J., Atlanta, Ga., and Los Angeles, Calif.), this vast St. Louis plant houses an assembly operation.

**site:** Ample, relatively flat land.

**solution:** Straightforward layout—administration-business offices at front; plant extending in huge rectangle to the east; rail siding, for delivering parts or subassemblies and for shipment of finished cars, along south side of building; employees' parking to the north, with overhead entrance bridge. Assembly process zig-zags back and forth (south to north and vice versa) in several stages, with parts and subassemblies being joined to the main stream from alongside, until assembly along north wall turns out finished cars.

**materials and methods:** CONSTRUCTION: *Frame:* structural steel. *Walls:* brick, gun-applied concrete and (in office building) some tile and stone. *Floors:* concrete, surfaced (in offices) with asphalt tile or terrazzo. *Roof:* cement tile on steel deck, built-up roofing. *Insulation:* acoustical—mineral tile and metal pan; thermal—board type. *Partitions:* metal and glass (office); metal and masonry (factory). *Fenestration:* steel sash; plate glass (office); sheet glass (factory).

EQUIPMENT: *Heating* (both units) and *air conditioning* (office building only): convectors; radiators; unit heaters; refrigerant; compressor; blowers; automatic controls. Oil-burning boilers. *Electrical:* mainly fluorescent; some incandescent.



Office-building corridor, showing movable metal-and-glass partitioning.

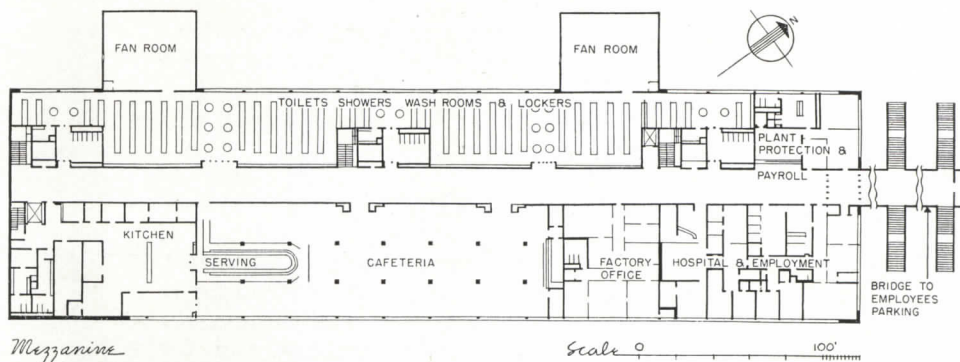
Photos: Hedrich-Blessing except as noted



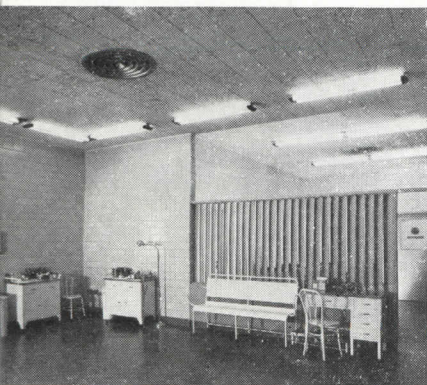
## St. Louis, Missouri

*Implicit, but not inherent, in the plant shown here is the important latter-day trend toward decentralization of heavy industrial operations.*

*It is routine in the work of the Kahn office to find reasonable and sometimes exciting solutions to the span and enclosure of the great spaces needed for automobile assembly. Since Kahn's early work for Ford, there has been no attempt to do more in plan than scheme the most obvious and efficient route for the manufacturing or assembly process, from delivery of parts to discharge of the finished product. Lighting and ventilation have reached a point of integration with the structure where they are unobtrusively well-studied. There is now a confident approach to the design of the production end of the plant that is only occasionally disturbed by a self-conscious, tacked-on administration and office building. In this case, the main entrance alone remains somewhat conventionally imposing. One admits, however, that the quality of impressiveness, which was presumably part of the program, is adroitly achieved. In the interior of this space there is a dignity reminiscent of the best TVA structures.*



Workers enter the plant by means of an overhead bridge (above) with stairs up from both an employees' parking lot and a bus stop on the plant roadway. Hence they proceed past protection officers into the mezzanine locker rooms (see plan) and then, by one of four stairways, down to the main production floor. Note also the first-aid-hospital facilities (below), employment office, and cafeteria. Photo at right is exterior of rail-siding bay.

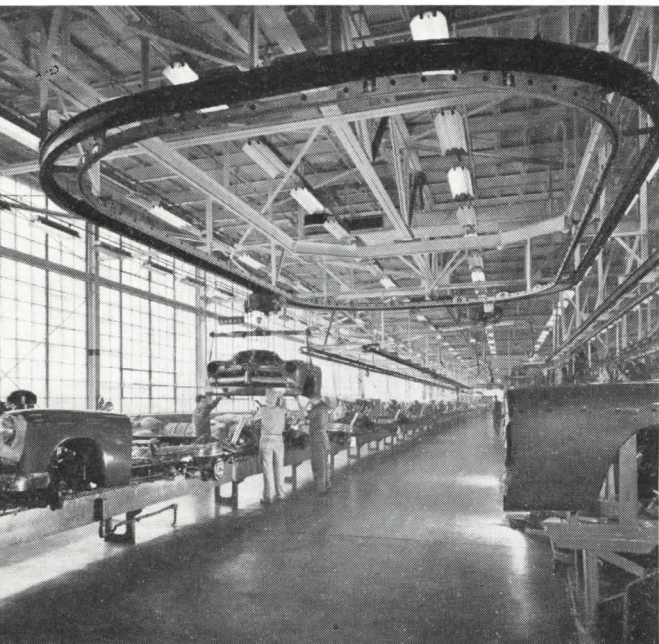






Above: dock at southeast corner of plant, just north of the rail siding, takes care of receiving less than carload lots of parts; mechanized equipment brings these into the plant for introduction to the assembly lines.

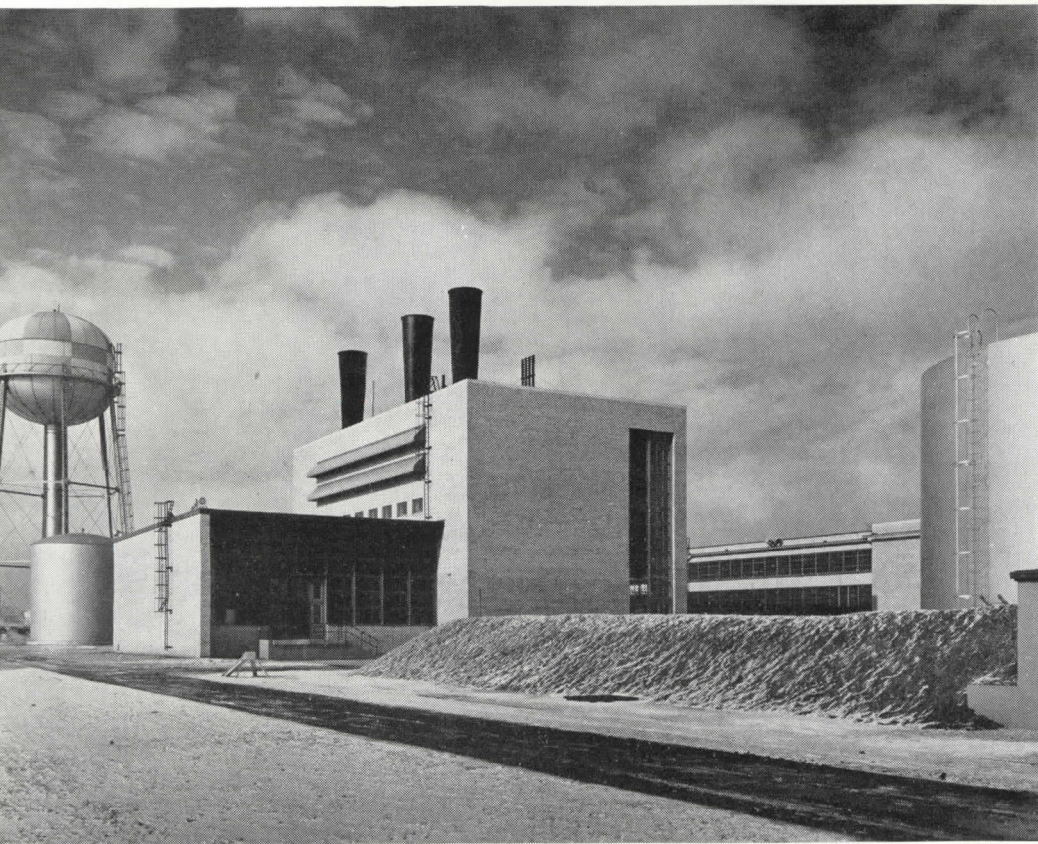
At left: final assembly steps take place along the north wall of the plant. When working two shifts (1900 day workers, 600 night workers) the plant turns out 500 cars a day.



Shipment of finished cars takes place on the south side of the rail-siding bay, which contains two spur tracks, one toward the north for receiving; the one shown here for shipping.



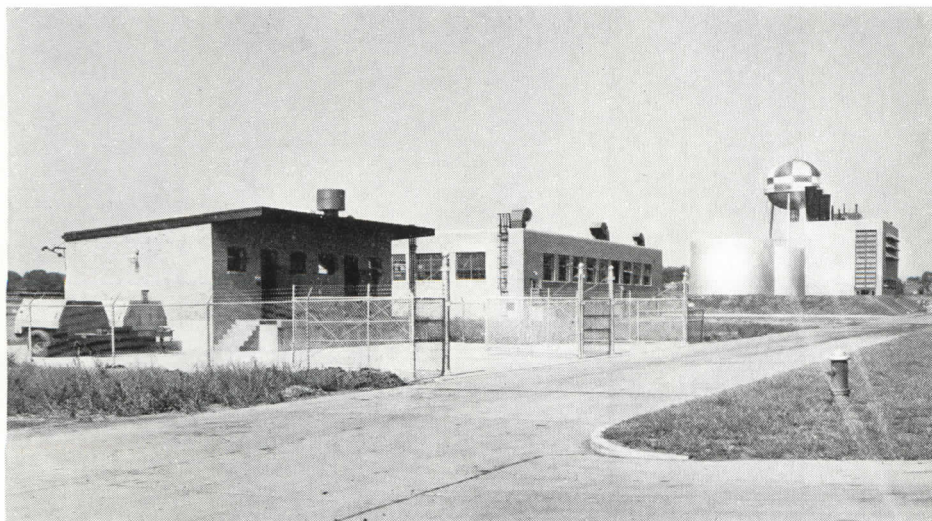
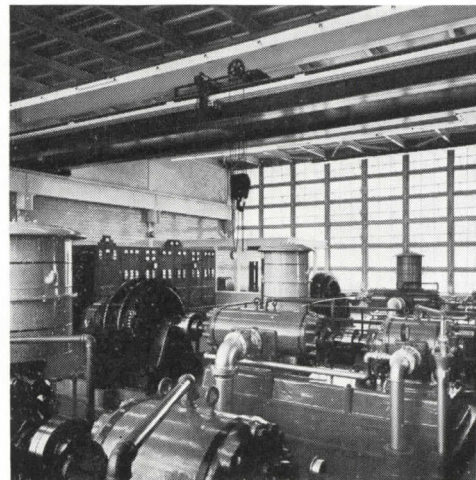




To the south of the plant proper, across an access roadway, is the boiler house (above, at right, and in background of photo below). A basement accommodates feed water pumps and heaters, forced-draft fans, and other auxiliary equipment.

Photo at right is the room for the motor-driven, rotary-type air compressors, in the boiler house. Floors and walls are surfaced with quarry tile; equipment is set on terrazzo bases and curbs, facilitating cleaning.

## St. Louis, Missouri



General view of auxiliary buildings on south side of site—oxygen-acetylene building, oil house, oil tanks, boiler house, and water tank. The oil house contains facilities for storing and handling the materials for preparation of paints and enamels, and the various oils and greases required for proper operation of cars leaving the assembly line.



## Today's Working Drawings: PART I

By GUY G. ROTHENSTEIN

The technique of making architectural working drawings has not been fully adapted to today's building conditions. The methods of graphic and explanatory presentation employed in most offices originate from systems which were devised when buildings were small and simple, and when construction methods were quite different from those used now.

Working drawings are not meant to be a form of representational art reflecting the skill or the taste of the author; they are merely graphical instruments to convey precise information in a concise manner—just as the printed word is, in a specification. That being so, they must be prepared in such a way that they give the builder—the man who will use the information they offer in the field—facts and figures which are clear, accurate, adapted to the industrialized building methods and the contemporary tools and techniques which he uses, suited to the mass-produced and sometimes prefabricated building parts that he installs. Any information on the working drawings which is extraneous, repetitive, or given in such a way that it is not consistent with the construction process is not only wasted—it actually interferes with an efficient building operation.

These premises should logically lead to a re-evaluation of accepted methods of using the graphic scales, of dimensioning, of indicating the interior conditions of a building, of presenting elevation drawings, and, indeed, of giving explanatory information in general on the drawings. This article will deal with the first two aspects of the subject—scales and dimensioning.

### SCALE OF DRAWINGS

At present it is customary on large projects, and often on smaller ones, to draw floor plans and elevations at  $\frac{1}{8}$ " scale, and then to "blow up" to  $\frac{1}{4}$ " scale in certain areas where equipment or finishes call for more extensive explanations. The number of spaces to be drawn at two scales varies with the nature of the building, including a very considerable number of structures such as hospitals. This method of duplicating drawings for the same area is very unsatisfactory for a number of reasons: the drafting time required; the errors and inconsistencies which creep

in; difficulties in checking, estimating, and supervision. Perhaps the greatest trouble with this system lies in trying to establish satisfactory rules on the separate functions of  $\frac{1}{8}$ " and  $\frac{1}{4}$ " scale drawings; e.g., where to indicate such details as door types, hardware, equipment, etc. On a recent job, the author had the experience that after having set up such rules with care, to avoid duplication of indication and crowding of drawings, the clients (the Corps of Engineers, in this case) requested that all information carried on  $\frac{1}{4}$ " scale drawings be shown also on the  $\frac{1}{8}$ " scale sheets, thus defeating the purpose of the two scales completely.

A possible solution, derived from techniques employed in the metric system, would be the choice of a single scale best adapted to its specific purpose—in this case, the scale of  $\frac{3}{16}$ " to a foot. The following advantages of such a single-scale system might be considered:

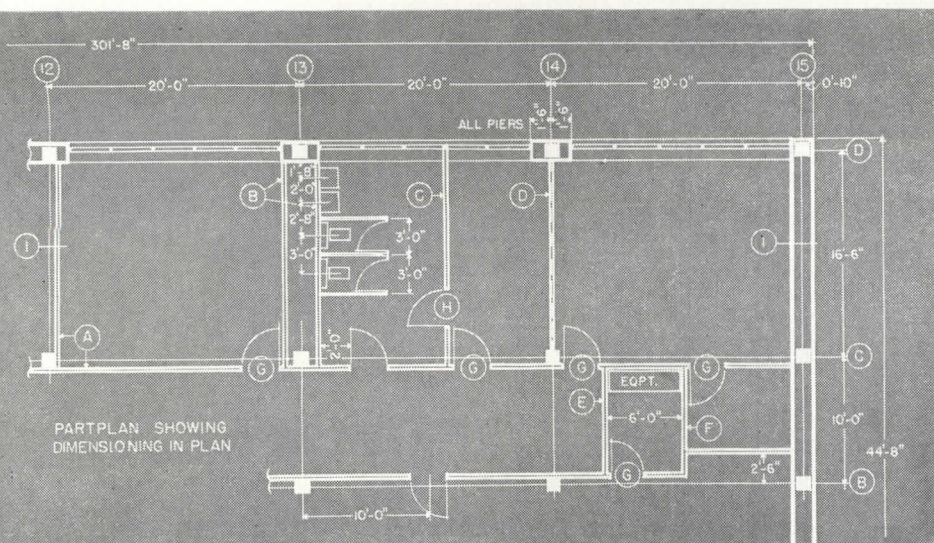
1. Assuming that the sheet size remains unchanged, although there would be more  $\frac{3}{16}$ " scale drawings than there are  $\frac{1}{8}$ " scale drawings in the conventional method, there would be *less than the total* of  $\frac{1}{8}$ " and  $\frac{1}{4}$ " scale combined.
2. The inclusion on one drawing of all the information previously shown on two would take considerably less time than the complete making of  $\frac{1}{8}$ " scale basic plans and  $\frac{1}{4}$ " "blown-up" plans. Thus drafting time would be saved.
3. Errors resulting from transferring information from drawings of one scale to other drawings in another scale would be eliminated.
4. Checking, estimating, and supervision would be simplified with all information on a single drawing and the need for cross-reference eliminated.

There is no doubt that the change to such a scale as  $\frac{3}{16}$ " would call for some adaptation in drafting room and in the field, but once the liberation from the two-scale routine had been carried out, and the best use had again been made of the characteristic of scale—its relativity—everyone concerned would profit from this reform.

### DIMENSIONING

The dimensioning system used for a building with load-bearing walls should be fundamentally different from that used for a structure with steel or concrete





Location of Partition Indicated by:

- A. Face of column
- B. Face of pier
- C. Center of mullion
- D. Center of column
- E. Width of door
- F. Dimension based on equipment

Location of Door Indicated by:

- G. Room corner
- H. Adjacent door

Partition and Wall Thickness Indicated by:  
I. Type numbers.

Note: No additional dimensions are required.

**frame.** In the first case, exterior and some of the interior walls are erected at the same time by one trade; in the other, the structural frame precedes wall and partition construction and the two processes are performed by different trades.

In framed construction the column center lines form a more or less regular grid, and columns will *exist* when walls and partitions are erected. Consequently these grid lines and their intersections form perfect local references for determining the location of walls and partitions. These *local references to existing construction* can replace the usual strings of dimensions which represent a drawing condition—a target—but not the actual condition after construction. Using local references is thus similar to the method usually employed in alteration work, where partitions are to be erected within an existing structure.

The following outline of office procedure, illustrated by the accompanying drawing, is suggested for working drawings of a building with steel or concrete frame. It could be simpler if all drawings were made at a single scale.

#### general principles

1. Dimensioning should emphasize fundamental distances, such as:

Bay module dimensions (determined by typical space requirement).

Certain room sizes which are not typical (fixed by the design program).

Other mandatory dimensions (location and size of stairs, elevators, items of mechanical equipment, etc.).

2. Additional indications will be used only to complete a definite tie-in of all construction features.
3. Dimensions are to be given once only, on the largest scale drawing that applies, except as noted below.
4. Parallel strings of dimensions with identical totals are to be avoided.

#### exterior dimensions

1. Dimensions determining exterior features are to be given on  $\frac{1}{8}$ " scale plans as follows:

Over-all dimensions.

Column dimensions; from interior column to interior column; in end bays, from interior column to finished exterior wall. (Use center or face of column consistently, following structural drawings.)

Dimensions from window centers to column.

All breaks in exterior wall.

#### interior dimensions

1. Dimensions determining interior features will be given on  $\frac{1}{4}$ " scale plans (wherever such plans exist), and on them only.

2. Column numbers and bay module dimensions are to be shown (the only thing to be repeated from  $\frac{1}{8}$ " scale plans).

3. All dimensions are to be local and will tie in one finished face of partition, preferably to a column or in certain cases to the exterior wall if that relationship is more direct.

4. Partition-thickness and wall-thickness dimensions are to be avoided where possible; let the partition or wall type number give that information.

5. Partition locations which have an obvious relationship to established features (mullions, columns, expansion joints, openings in slabs, etc.) are not to be further dimensioned.

6. Location of doors is to be determined by dimensions only when that location is critical in relation to equipment. Otherwise location will be established graphically or by scaling.

7. Plumbing fixtures or other mechanically connected equipment is to be located by relating center lines of equipment to columns.

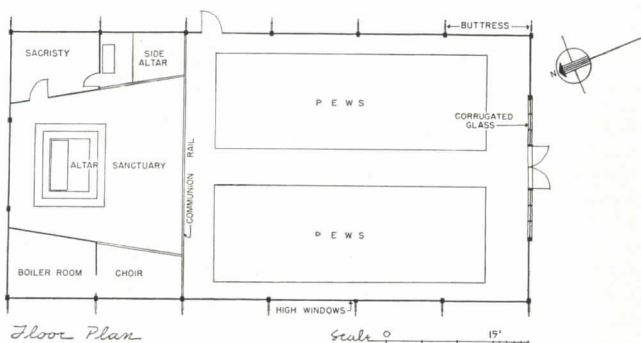
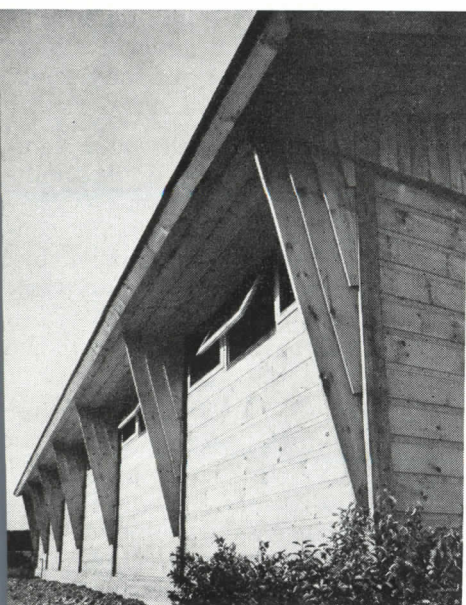
If this procedure is followed, there should be very few exceptions to the conclusion that it would not be necessary at any time to establish additional dimensions or strings of dimensions.





## Church, Stowe, Vermont

WHITTIER & GOODRICH, ARCHITECTS



A rural Roman Catholic church, originally conceived as a simple wood structure which in form and materials seemed appropriate to the Vermont countryside. After completion, it was lavishly decorated with murals by André Girard (see next page).





Top: one of the exterior murals—black line on natural boards—depicting scenes from the life of Brother Dutton, who went out to help, and later succeed, Father Damien in his work with the lepers of Molokai. Above this are three of the casement windows with murals on glass.

Immediately above: interior detail, with Stations of the Cross, surmounted by window murals of the life of Christ. The ones here are (left to right): The Paralytic ("Take Up Thy Bed and Walk"); Jesus and the Woman at the Well; and, The Wedding Feast at Cana. Insulation board on the underside of the roof is decorated with angelic figures and arabesques.

#### CHURCH, STOWE, VERMONT



Exterior view showing gable end and side wall panels with illustrations from the life of Brother Dutton in the leper colony at Molokai, Hawaii. This hard-working missionary was born on the site of the church shown here.



**program:** A church to seat about 300 parishioners and to cost not more than \$18,000.

**site:** A field, 120 feet wide, 366 feet deep, bordered on the south by Mount Mansfield Highway.

**solution:** An uncomplicated, direct plan; a structural system consisting of wall panels of three thicknesses of boarding (total: approx. 3") set in to 6" x 8" fir posts, placed 12 feet o.c.—the 12-foot dimension being the maximum length of native knotty pine. Fir trusses left exposed. Flanking the main entrance doors are three-part panels of diffused glass. The remarkable decorations were due to the influence of the Liturgical Arts Society, under general supervision of Maurice Lavanoux, secretary of the Society and editor of the quarterly *Liturgical Arts*.

**materials and methods:** CONSTRUCTION: poured concrete walls and footings. *Frame:* fir posts and roof trusses. *Walls:* built-up panels of three thicknesses of pine, battens closing the joints between the 9" boards. *Floors:* concrete, surfaced with green and red Vermont marble. *Roof:* asphalt shingles over boarding. *Insulation:* thermal—insulation board on ceiling, between trusses. *Fenestration:* wood casement, 1/4" polished plate glass.

**EQUIPMENT:** *Heating:* forced, warm-air system, with ducts in floor slab. Oil-fired furnace.

**the architects:** *Roland M. Whittier:* Wentworth Institute; work in office of Freeman-French-Freeman; Stone & Webster; and U.S. Engr. Dept. in Newfoundland. *Julian W. Goodrich:* Rhode Island School of Design; work in office of Freeman-French-Freeman. Formed partnership in 1947.





Left (across page): the altar of verde antique marble, sheltered under a silver-and-gold wood baldachino. The mural behind it (chiefly in white, gold, and black) includes the Blessed Trinity; a choir of angels (above) and suffering humanity (below).  
 Above: the simple interior as originally conceived —structure exposed; marble floor; wood pews and baldachino.  
 Right below: detail of entrance, before murals were added.



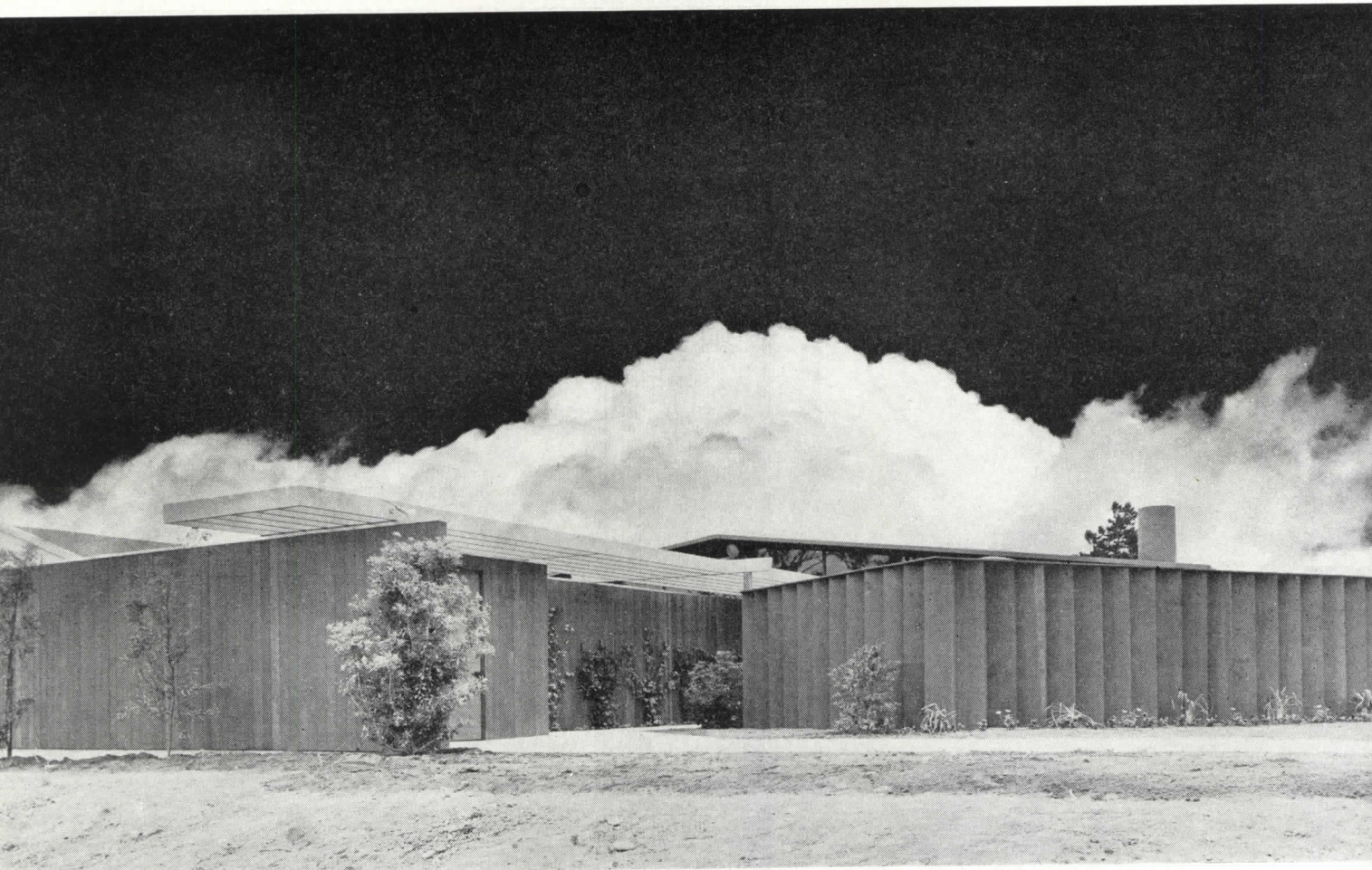
Whittier



Goodrich







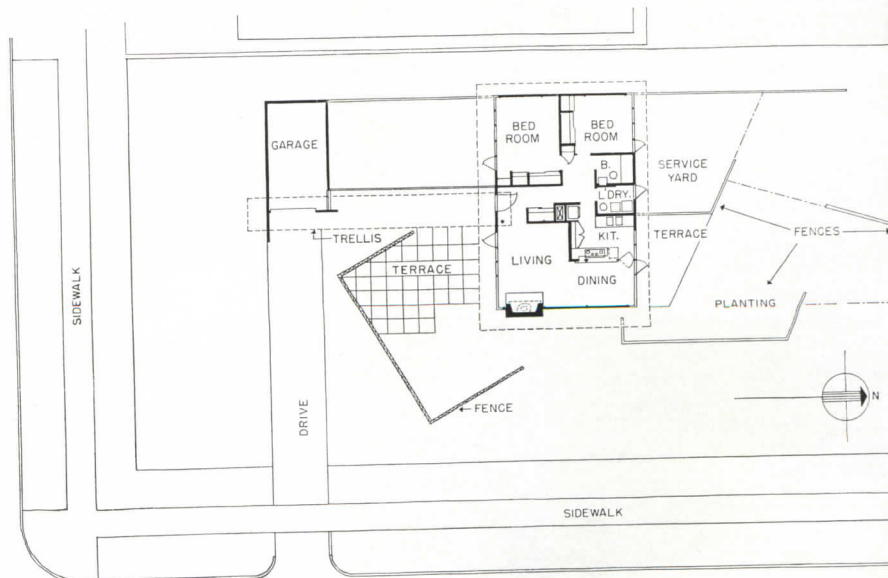
Model picture shows the outdoor areas provided for each room; in this particular house, four types of fencing were used so that prospective purchasers could study alternatives.

Top—general approach view.

Photos: Julius Shulman

## Low-Cost House, San Diego, California

A. QUINCY JONES, JR., ARCHITECT



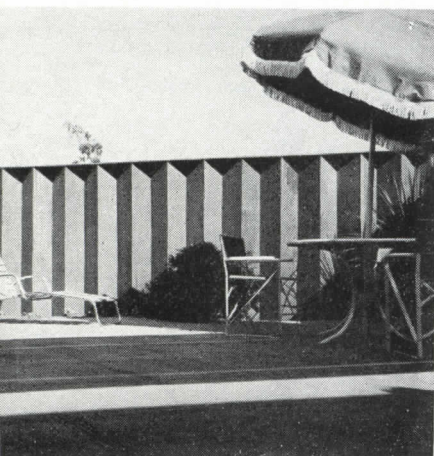
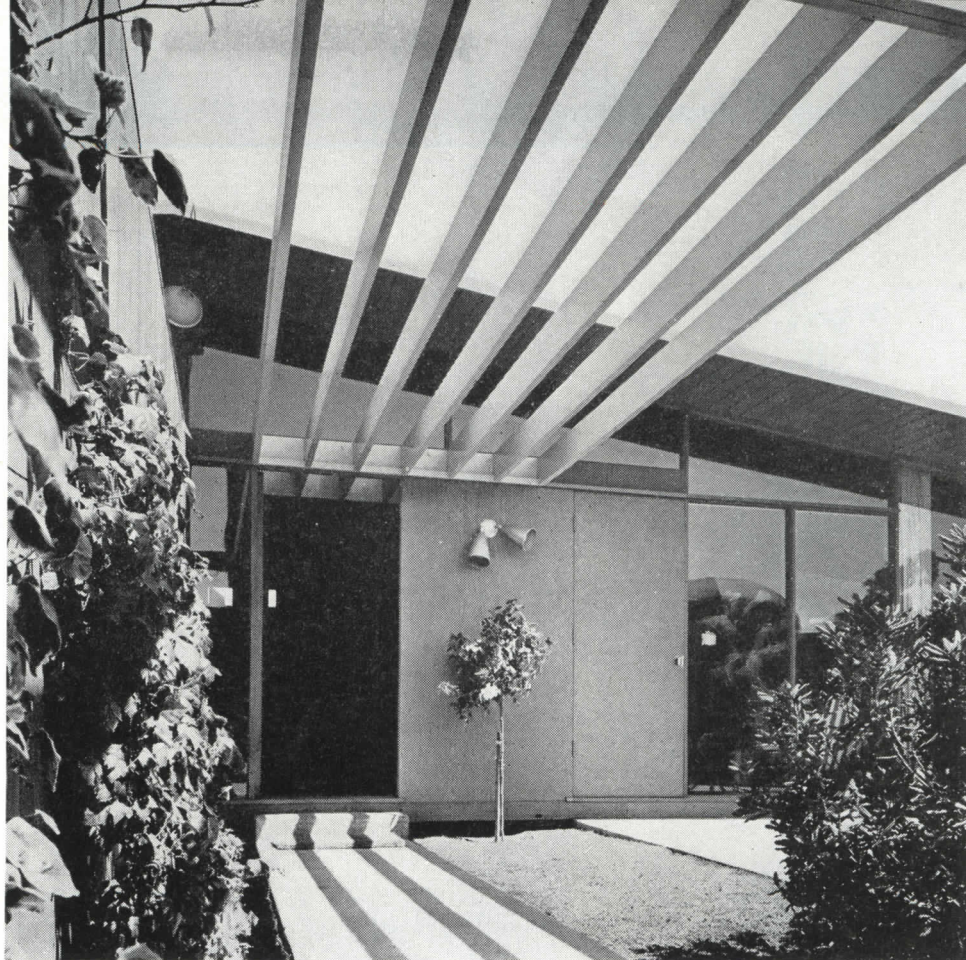
Plot Plan

Scale 0 25'



Right: trellis to front door; waterproof, creosote-stained plywood panels and living-room door.

Below: The living-room garden enclosure.



**program:** To develop a contemporary, low-cost house that a contractor could build for persons already owning property; to prove that a good contemporary job can compete successfully in price with the usual jerry-built house. To also include generous built-ins so owner could move in with minimum of furniture.

**site:** In this particular case, a corner lot; but the architect has developed eight alternates for differences in approach, views, orientation, and privacy factors.

**solution:** A house that sells for \$8750—including fees, profits, sales expenses, kitchen equipment, built-in casework, phone desk, shelving, and fireplace; \$150 allowance for sewer connection (an add or deduct item, depending on the site); and the two garden fences that connect the garage and the house. Fireplace is optional; if not included, the house costs \$200 less. Roof insulation (1½" glass-fiber board) is also optional; if included, house costs \$125 more. Economy comes from a frame of four large (paired 2 x 12's) rigid ribs running in the longest direction of the rectangle, supported by built-up posts (2 x 4's either side of a 2 x 6). Ribs covered by 2 x 6 T & G fir, which is stained and left exposed. Remainder of walls is simply a skin enclosure. House approved by San Diego office of FHA.

**materials and methods:** CONSTRUCTION: Concrete slab foundation. *Frame:* rigid wood ribs (see above). *Walls:* exterior grade plywood and redwood; inside—fir plywood. *Floors:* concrete; cork; carpet. *Roof:* tar and white gravel over sheathing.

EQUIPMENT: *Heating:* gas-fired warm-air system. *Kitchen:* electric range and oven; dishwasher; garbage disposal unit.

**the architect:** A. Quincy Jones, Jr.: B. Arch., U. of Wash.; worked with various architects in Los Angeles area; own practice and collaboration with others starting in 1940; private practice since 1945.

Jones

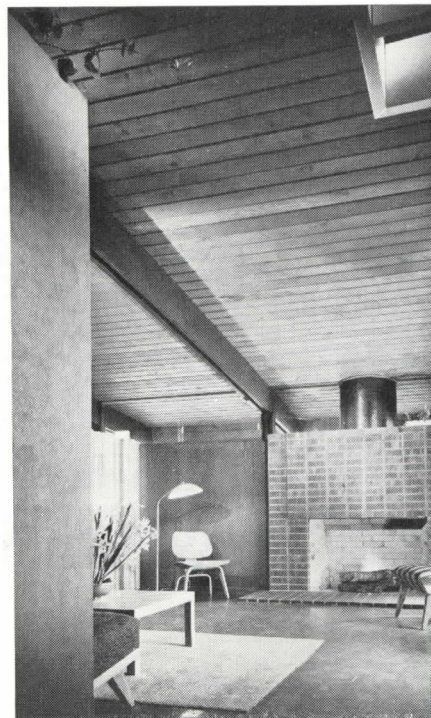






Left: living room looking back toward front door. The T & G sheathing over paired 2" x 12" rib frames is left exposed; the fir plywood walls are stain-waxed.

# LOW-COST HOUSE, SAN DIEGO, CALIFORNIA

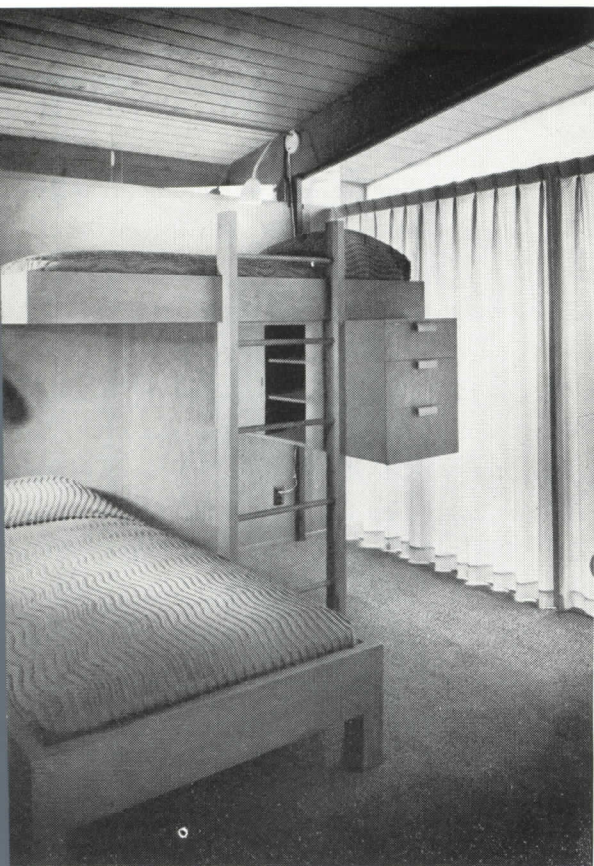


Above: the fireplace—a \$200 optional item included in the \$8750 sales price. High bands of windows (some sliding) provide flexible ventilation control.



Left: looking from living room through dining space and out through the window wall of the kitchen.





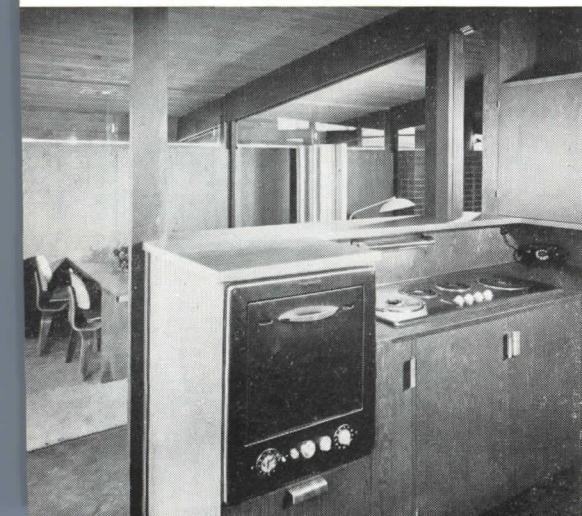
The smaller bedroom has an ingenious arrangement of double bunks.

Below: the built-in casework and shelving in the master bedroom, included in the sales price. Carpeting by owner.



Above: sink wall of kitchen, including much built-in storage space. In the house as a whole, there is more than twice as much storage and wardrobe space as required by FHA.

Left: looking across the counter above the kitchen range and oven to the dining area. Plywood in kitchen and bath has a waterproof finish.





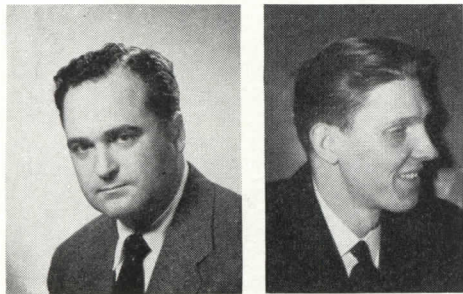
## theater remodeling IN THE OFFICE OF

*The firm of William Riseman Associates, of Boston, has made an intensive specialty of theater remodeling as a field of practice. Like any other specialty, this one has its particular problems, hazards, and rewards.*

*With current construction costs, the Riseman firm states, it is usually sounder economically to remodel an old theater than to build a new one. New theater costs range from about \$200 to \$300 per seat in the average small town, up to \$400 to \$500 per seat in the metropolitan area. By contrast, the old, legitimate theater (1870-1900), seating from 1500 to 2000 can be remodeled into a movie house for about \$100 to \$125 per seat; the lush movie palace built in the '20s seating from 1500 to 2500 can be brought up to date for about \$75 to \$100 per seat; and the small-town theater of 500 to 1000 seats can be refurbished for around \$50 to \$75 per seat. The theater remodeling field is no small one, either, the designers point out. There are about 15,000 theaters in the United States that are either being remodeled—or are ripe for remodeling.*

*On these pages, we show several of the firm's recent jobs and discuss some of the more frequent problems.*

Riseman Neer



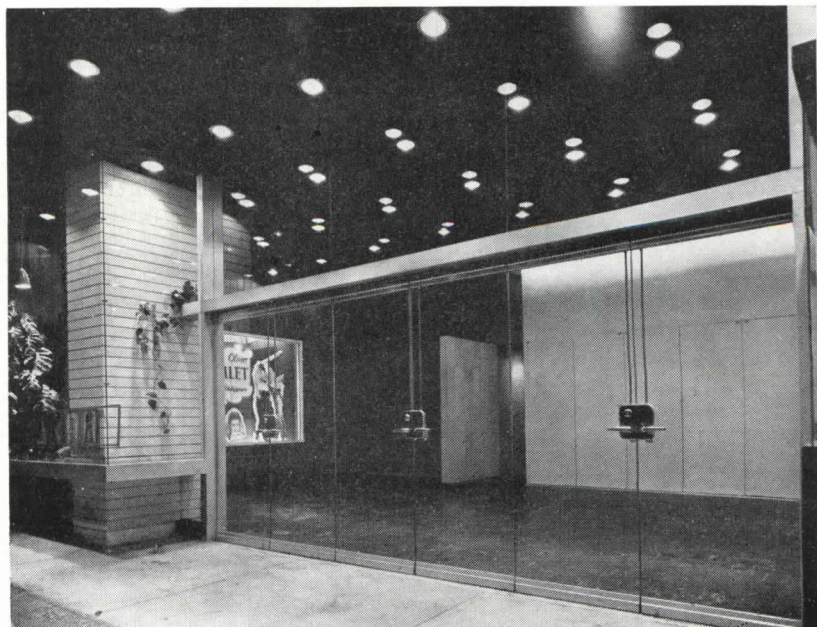
### 1. Boston, Massachusetts



Left: As it was, in all its gaudy glory.

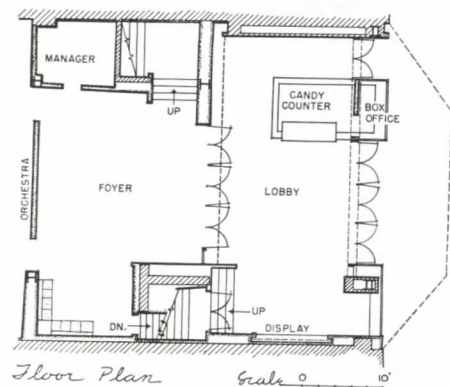
Below: The parallel view today. The cement plaster ceiling is painted blue-black; brick, white; doors and transom bars, lime yellow; the asphalt tile flooring, red-black marble pattern. The box office (below, left) is surfaced with a black plastic board.

Photos: George M. Cushing, Jr.





# WILLIAM RISEMAN ASSOCIATES, ARCHITECTURAL DESIGNERS, BOSTON, MASSACHUSETTS



**program:** To convert a run-down "grind house" into a setting for "Class A" motion pictures. Major structural changes in lobby-foyer area, the portion shown here.

**site:** Downtown Boston.

**solution:** In place of the miscellany of display panels, along both walls and around the freestanding structural column, the designers have allocated the left-hand side of the lobby as a co-ordinated, flexible display area; the lobby has been enclosed with doors and a wall of heavy plate glass that allows an unhindered view of the colorful interior; the ticket kiosk has been removed from its officious position in the middle and replaced by a combined ticket-office candy-counter unit at one side. Lowered ceilings with flush-mounted downlights conceal the new electrical installation and air-conditioning ductwork.

## materials and methods:

**CONSTRUCTION:** *Floors:* asphalt tile; carpet. *Walls:* brick; mahogany siding; birch plywood; plaster. *Ceilings:* metal furring; wire lath; gypsum plaster. *Partitions:* steel stud; metal lath; gypsum plaster. *Fenestration:* polished plate glass; light aluminum sash and covering.

**EQUIPMENT:** *Heating and air conditioning:* steel piping; unit heaters; heating coils; refrigeration unit; diffusers; blowers; filters; controls.

## the designers:

**William Riseman:** B.F.A., Yale U. Firm of William Riseman Associates formed in 1936, specializing in theater remodeling. **Casper S. Neer:** Chief designer of the firm. B. Arch., U. of Texas. M. Arch., Harvard U. Associated with the firm since discharge from the Navy in 1947.

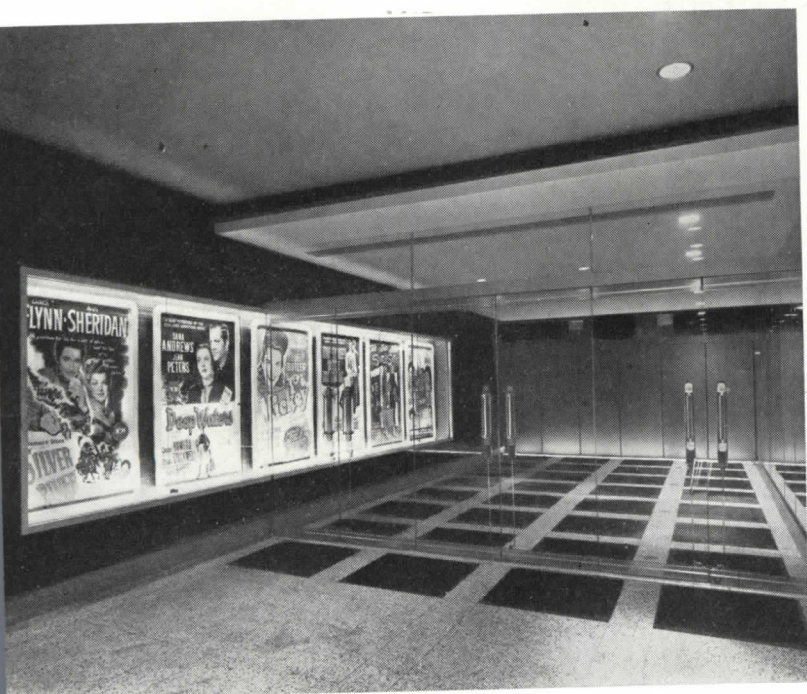
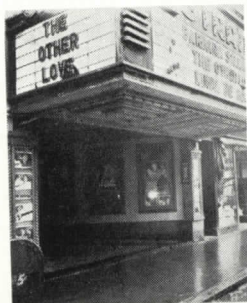
The Foyer—before (below) and after (below, right). The lowered plaster ceiling, studded with pin-point lights, is painted deep gray; the far wall is finished with mahogany-stained chestnut siding; other walls, surfaced with various plywoods and patterned panels of vinyl plastic; the carpet is gray; the settee, sharp blue.





## 2. Fall River, Massachusetts

Right: the old marquee—and the new. The entrance ceiling is gray cement plaster; wall surfaces are black-green marble or lime yellow plastic panels. Box office is finished in black and green marble. Floor is terrazzo, with recessed rubber mats.



Above: after and before pictures of the entrance lobby. In the completed job, the doors to the foyer (background) are Chinese red plastic. Organized display space consists of an interpenetrating cased unit.

**program:**

**site:**

**solution:**

**materials and methods:**

Complete renovation of an obsolete 1917 theater. Thickly settled industrial district.

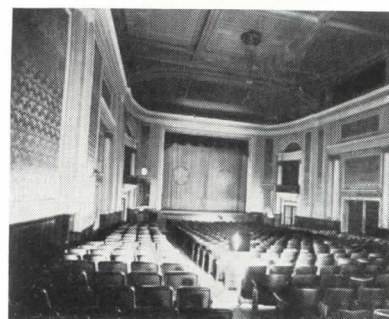
Entire shell of building gutted—from marquee to movie screen. Condemned balcony removed, and a new projection room installed; new lounge and toilet facilities; a portion of an adjoining courtyard incorporated to enlarge the candy sales area.

**CONSTRUCTION:** *Marquee:* steel frame; galvanized iron roof deck; cement plaster soffit. *Attraction panels:* opal glass; changeable letters. *Floors:* terrazzo; carpet; ceramic tile. *Walls:* verde antiquo marble; plastic sheets; mahogany plywood. *Ceilings:* metal furring; wire lath; acoustical plaster; gypsum plaster. *Partitions:* wood stud; cinder block; wire lath; gypsum plaster. *Glass:* polished plate; double patterned, corrugated glass.

**EQUIPMENT:** *Heating and air conditioning:* oil burning boiler; radiators; steel piping. Air-conditioning unit.

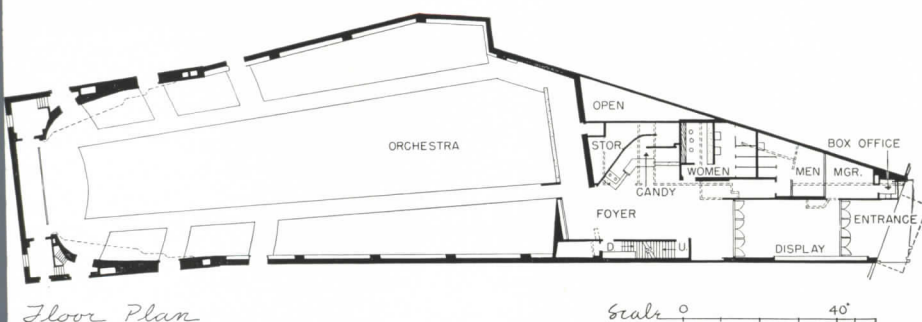


Theater remodeling, Riseman Associates emphasize, is considerably more than applying a new face over an old one. Some of the knottier problems: old theaters frequently have too few exits to meet today's safety laws, so additional ones must be provided; in some cases, it develops that because of this problem entire balconies have to be abandoned. In old, legitimate theaters, the big stages frequently use much potential seating space and this is important, since the caliber of films the management can obtain sometimes depends on the number of seats. New types of projection equipment require new provisions for safety in line with local building and fire laws. Existing heating, ventilating, acoustical elements, and electrical work may have to be replaced entirely; sight lines for movies, differing from those for the legitimate theater, may require major structural changes. The stringency of the usual budget for remodeling work is a constant challenge. The architect may discover that, in order to satisfy health and safety regulations first, he must dip deep into the budget before the appearance of the theater is changed at all.



Above: before and after of the auditorium. The high—and acoustically poor—ceiling was lowered (balcony eliminated) and the air-conditioning system installed within the space. Plaster walls are either medium or deeper blue; the splay wall surfaces are of wood, painted light blue gray. The stage curtain is tangerine color, as are the metal seats.

Below, and at left: before and after views of the foyer. The plaster ceiling is deep blue; wall surfaces are plaster, mahogany paneling, or corrugated wood. The carpeting is red and gray.





### 3. Thompsonville, Connecticut



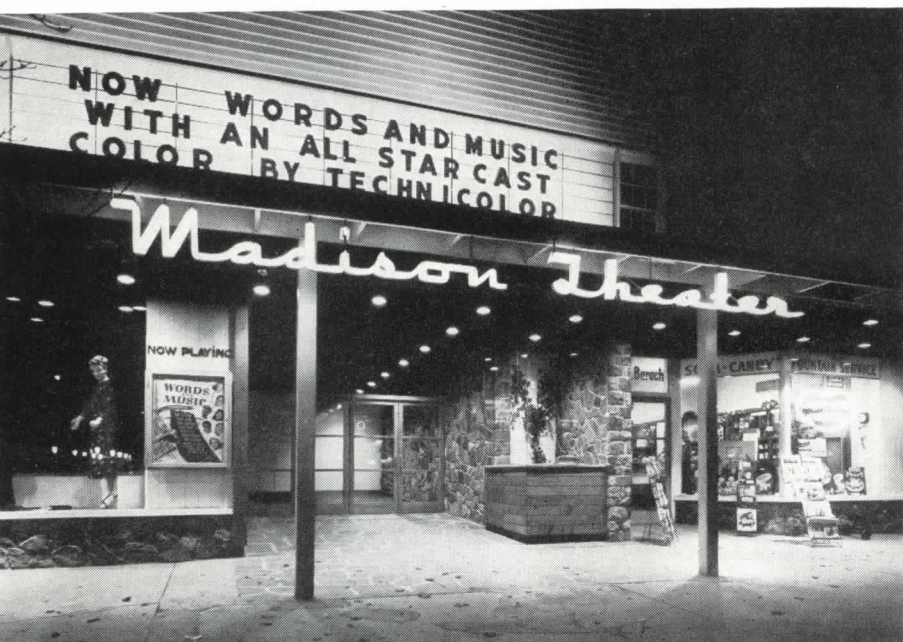
- program:** Complete remodeling of the front, lobby, and concession area of a typical movie theater in a smaller community.
- site:** Interior portion of an average two-story Main Street block, with shops at either side and offices above.
- solution:** Adjoining store taken over, to add width to front. The entire new width spanned by the new marquee, with flush downlights in the soffit lighting the sidewalk area; candy-concessions counters angled toward rear of the new space so that they are completely visible from the sidewalk. Box office and display moved to right, leaving the main entrance clear for introduction of heavy glass doors. Even the angling of the rubber floor mats leads the eye—and, presumably, the feet—to the ticket office and concessions area. The wall behind the concessions counter is surfaced with a flexible covering made up of squares of wood. Lobby walls are mainly marble.



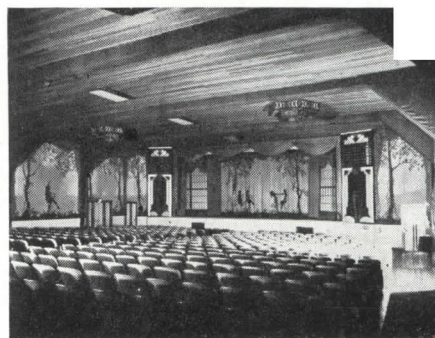
Despite the hazards of this sort of practice, the Riseman Associates say that amazing transformations have been achieved through imaginative use of space, lighting, and color. Major functional problems to be solved include how to attract the patron, how to create an exciting "escape environment." Still essential are brilliant and colorful display of the theater name, name of main attraction, and featured stars. But the designers maintain that it is possible to accomplish the result in an architectural way. Modern concepts of space use and illusion, for instance, find excellent application in theater remodeling. The customary long, narrow tunnel entrance may be transformed with mirrors, lights, and other devices, into an inviting approach. Planning and lighting can be employed to lead the eye from one attraction to another—not the least of which is the popcorn-candy counter, an important source of added revenue for most managements. Repetitious lobby displays may be effectively combined into one effective panel (as in the Fall River Strand), or into a defined allotment of space (as in the Boston job shown).



Above: the rather bleak block front as it was; left: the remodeled front, showing the continuous sidewalk marquee and fieldstone elements tying the design together.



The before-and-after pictures of the auditorium. Existing wood ceiling was painted gray; walls are surfaced with deep blue plaster or corduroy fabric; general simplification of detail.



## 4. Madison, Connecticut

- program:** Modernization of a theater and shops at either side of the entrance to form an integrated unit, contemporary in approach but designed to harmonize with "Colonial" buildings of the neighborhood.
- site:** A typical, ungainly store block, stuccoed walls.
- solution:** Front of building raised up to simple, clapboarded gable; trellis marquee extended out in front of both the shops and the theater entrance, with signs suspended from outer edge; fieldstone wall applied to right-hand side of theater entrance, including back of box office, and extending back into theater proper; base of box office finished in pine siding; lobby doors painted lime yellow.





## Lighting as a Factor in Office Economy

BY R. L. OETTING\*

Cost naturally and inevitably affects the selection of a lighting system for any office. When the questions "How much light?" and "For what purpose?" are asked, the answers are always found in solutions within a limitation of cost. If sensitivity to cost intrudes too strongly, the real economy may be lost. Conversely, the lighting dollar can be spent more effectively when lighting cost is considered in its proper relation to other expenditures; the return on many of these may be affected by the relevance of the lighting.

Every office requires some light; if that amount were limited to the lowest value for "just barely seeing," very little would be needed as only a fraction of a footcandle is essential for most tasks. All will agree, however, that such an amount would place a tremendous burden on the

eyes and its effect would be reflected in larger elements of office cost, to say nothing of personal sacrifice and possible permanent harm to eyesight. A constructive view of wise spending would show that so small an amount of light would contribute only to hazard; no one would willingly create hazard and expense by placing this limitation on seeing. Yet, there are some who often take lighting for granted and assume, if no protest is made, that any amount of light is satisfactory. Such indifference not only is expensive, but prohibitively so. A brief analysis will show the contribution of simple improvement in lighting to larger items of the office budget.

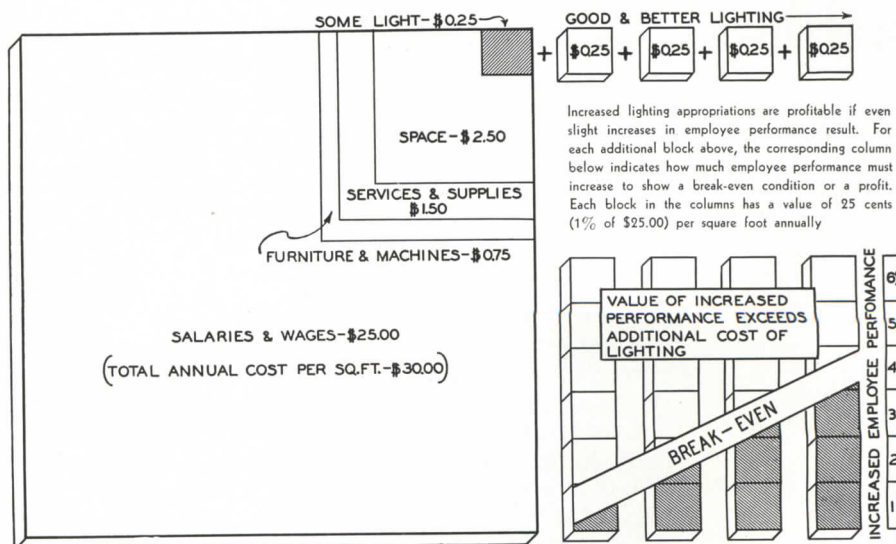
The operation and maintenance of a system which gives "some light" will be at least 25 cents per square foot annually. Although many inefficient installations now in use actually cost twice as much, the lower

value will be considered. The object of lighting is to serve the office personnel who represent a cost of at least 25 dollars per square foot annually. It is obvious that if better lighting would produce but small increase in employee performance, the increased value of dollars paid in salaries and wages would be sufficient to justify a several fold increase in lighting cost.

Presented pictorially below, increased expenditures for good and better lighting are offset by a 1 to 5 percent increase in employee performance. Increases of 2 to 5 percent or more for the respective lighting costs are actually *profitable*. The benefits are greater than represented due to the increased return on fixed expenditures for space, services (telephone, telegraph, etc.) and supplies, and furniture and machines. Gains in employee performance exceeding 5 percent are not uncommon.

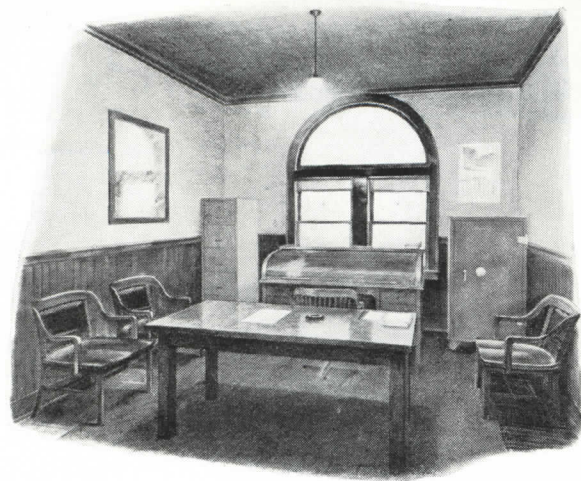
\*Engineering Division, Lamp Department, General Electric Company

Analysis of economies derived from good office lighting. This chart is based on a typical distribution of annual office expenses; costs are related to a square foot of space.





# 1. correlation of lighting and surface finishes

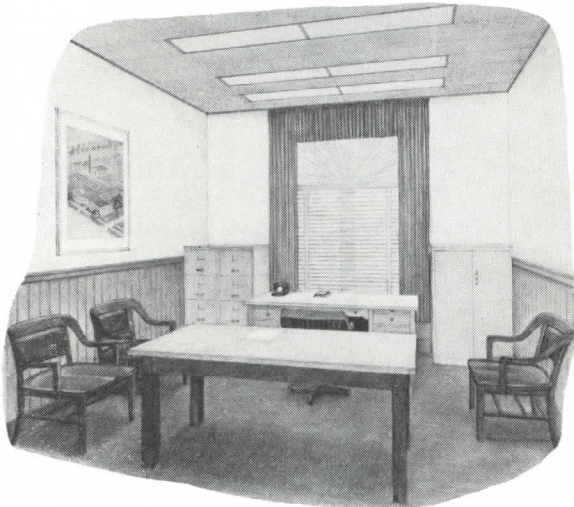


Left: care in the treatment of room surfaces, as well as with lighting equipment and design, is essential for comfortable seeing conditions. An old office is useful in pointing out the importance of correlating lighting and room surfaces for improved seeing; a feeble but glaring light source, an unshaded window, dark walls and ceiling, darker furniture and carpeting express discomfort. The occupant may escape window glare by turning his back on it, but he will immediately find the reflected glare from the dark, shiny table top intensified by the generally dark environment.

## guide to desirable reflectances

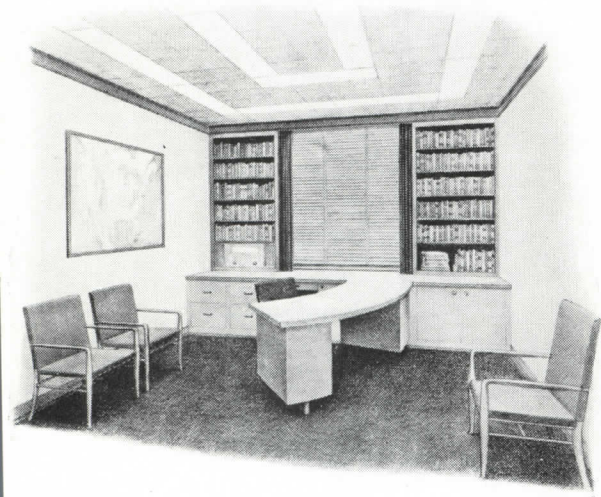
Ceiling	80% or more
Walls*	50-60%
Desk tops, furniture, equipment	30-35%
Floors	20-30%

\*Should appreciably darker finishes be employed for decoration, they should be used only on walls not generally in or adjacent to the working field of view.

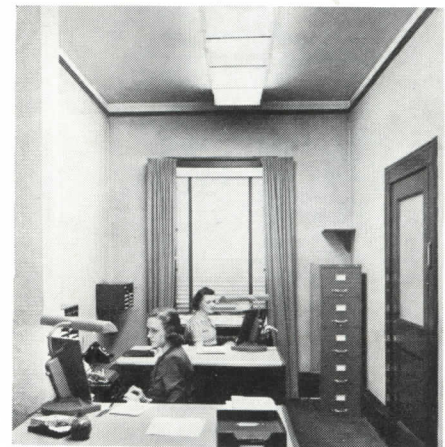


Left: modernization of this office on any scale will have comfortable seeing as its objective. In replacing the ancient light source with a recessed troffer system a major step has been made towards comfort. It would fall far short of its goal, however, if light, high-reflectance, mat-finish surfaces were not substantially building up efficiency and appearance values. Appearances have been thoughtfully considered in this modest plan. The venetian blind treatment not only eliminates daylight glare, but "keeps light" from the artificial system within the office. A visual slot is desirable in treating windows, however, so that psychological advantages of looking out are preserved.

Below: a practical harmony of objectives is realized in this small office. A simple general lighting system, provided by the ceiling units, is given heightened efficiency and appearance by the selection of room finishes of recommended reflectance. The raised copy holders with their well-designed supplementary units greatly increase the visibility of the typists' copy. The light colored desk tops and other surrounding surfaces eliminate the possibility of unsatisfactory brightness patterns which result when illumination is not balanced in quality and quantity.



Above: remodeling plans for an old office, to the potentials of form and efficiency provided in lighting today, can achieve superior appearance values. The troffer system is employed in a distinctive pattern and effectively delivers illumination for all purposes. It is balanced in character by the light-colored room decorations and furnishings. In the clean-cut composition of the ensemble, the concern for seeing was the objective that shaped the ultimate result.



Right: it is well to observe the way the light-colored desk "fits" into the office environment. Essential for comfortable seeing at the more effective lighting levels, light-colored finishes also contribute to the clean simplicity of good office design. Conversely, the dark desk clashes with its surroundings and accentuates the relation between the white paper of the task and the surrounding area.

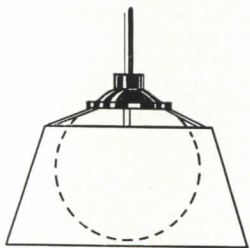


2. the evolution of quality lighting

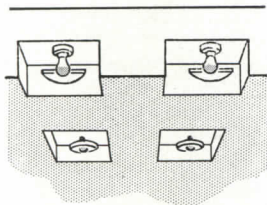


enclosing globe

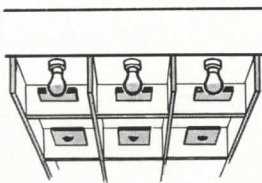
duplex



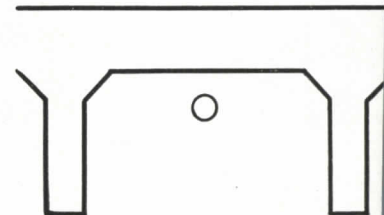
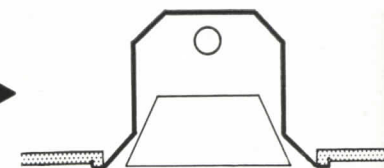
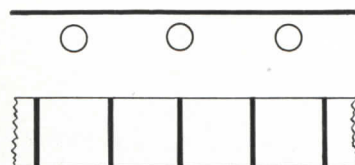
parchment shade



coffer



coffer



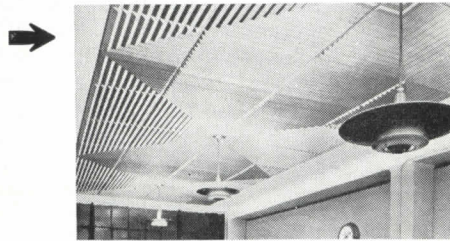
louverall



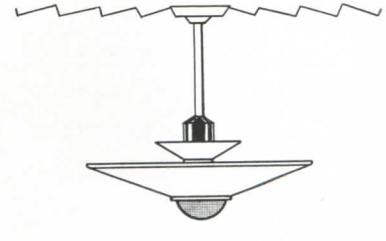
The sequence of systems indicated by the directional arrows roughly approximates a series of developments that lead from enclosing globes to present-day louverall ceilings. The advance of ideas in incandescent filament systems, from enclosing globes to parabolic ceiling sections and to the refinements of coffer lighting, prepared the way for fluorescent systems. Thus the troffer was the natural fusion of ideas represented by the parabolic trough and the coffer. As illuminants have improved, objectives in quality and quantity have risen. Techniques to realize these objectives have closely followed the opportunities presented by improved light sources.



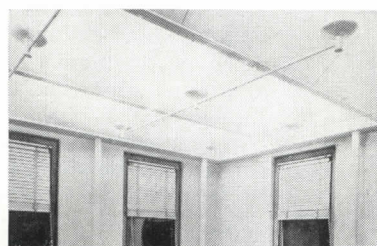
silvered bowl



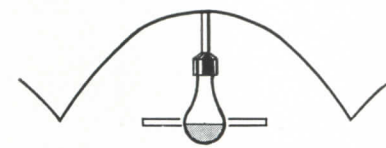
parabolic sections



beamed ceiling



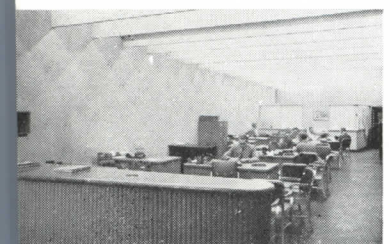
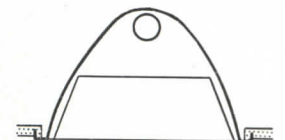
parabolic troughs



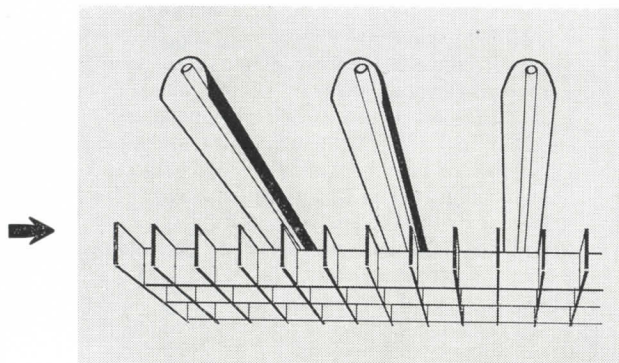
white troffer



aluminum troffer

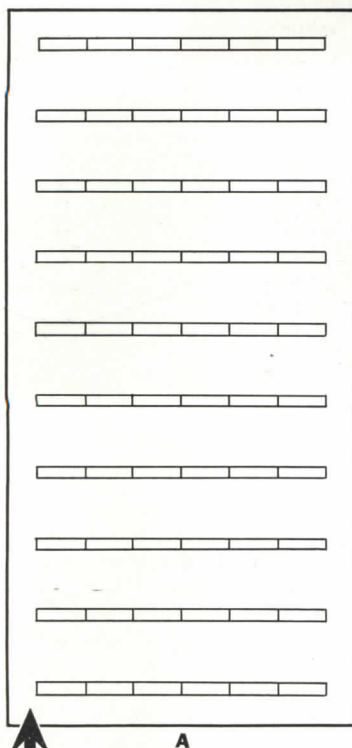


plaster



future louverall





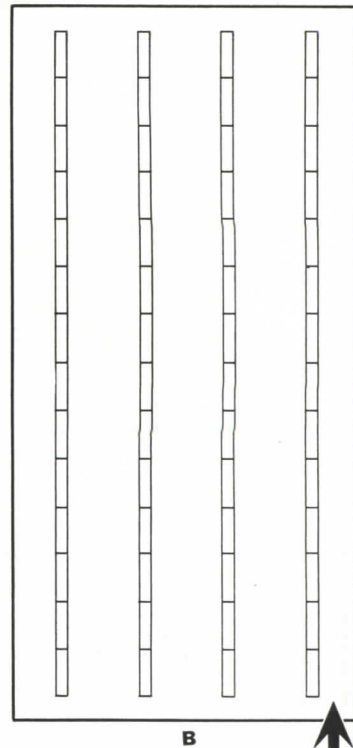
A

**1. appearance**

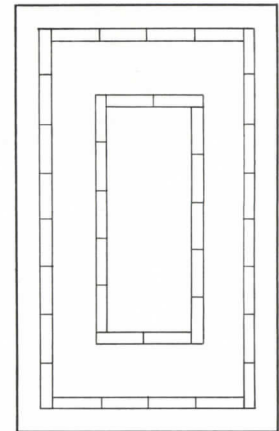
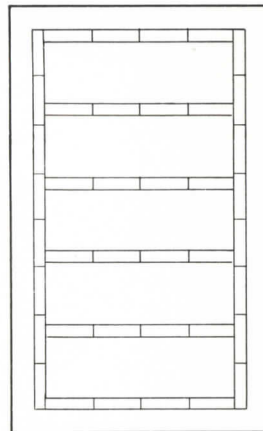
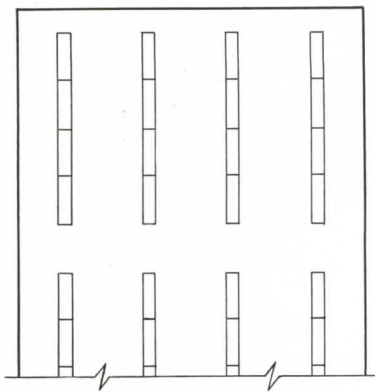
Long lines of plan B tend to give an unpleasant "bowling alley" impression. This effect is accentuated by sharp demarcation of brightness when units are mounted too close to ceiling or recessed as troffers. In addition, irregularities in suspension and alignment are more readily noticed. Plan A minimizes these disadvantages while retaining the value of continuous-row technique. With either plan A or B, the heavy effect of low mounting should be avoided.

**2. comfort**

Best use of troffers and most luminaires with opaque sides is found in plan A; units or rows of them are placed perpendicularly to the predominant direction of view. Luminaires with light-transmitting sides should not be used in transverse mountings because, in perspective, the sides form a continuous ceiling effect. When the transmission results in panel brightness of more than 200-400 footlamberts, it is essential that the orientation of plan A be followed.

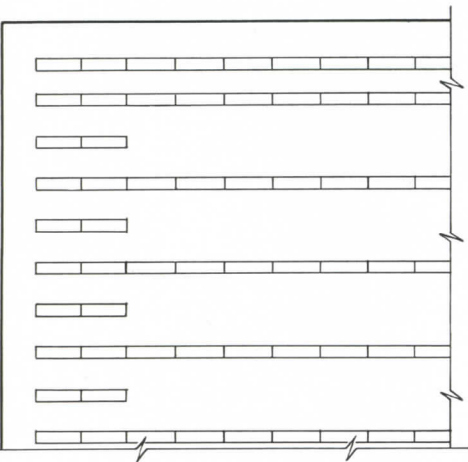


B

**3. patterns**

Intermittent rows at left break up converging-line pattern of plan B. They are superior to individual luminaires which produce a "forest of fixtures" effect and require a power outlet for each unit. Combinations of plans A and B result in patterns suggested above. These produce uniform brightness effects on all walls, avoiding scallops which are objectionable to some. Patterns should be used only if equipment is low in brightness.





4. illumination

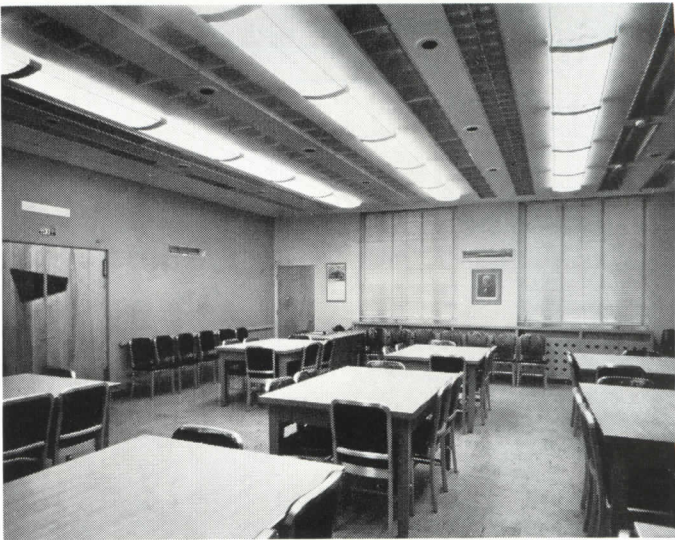
In addition to other advantages, plan A often permits a closer approach to a chosen quantity of light. The addition or subtraction of a row has much less effect than in plan B. Refinements, aimed at a more uniform distribution of illumination, are suggested above. Personnel in perimeter areas are often penalized in quantity of light, or, if walls are dark, in direct quality. Concentration of units as illustrated will alleviate these conditions.

5. reflections

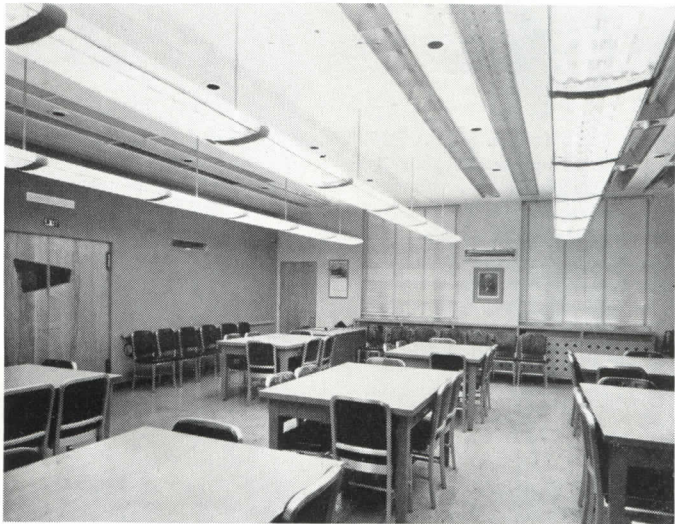
The use of mat-finish, light-colored surfaces on office furniture and equipment eliminates the occurrence of lamp, fixture, and window reflections. The trend toward these finishes is permitting a freer choice of lighting equipment. In wood finishes, a combination of rubbing and grain may develop a directionally selective reflection effect. Sources imaged perpendicular to the desk are often sharp, confined; those parallel are fuzzed out, indistinct. This result recommends the use of lighting plan A. Other considerations regarding the reflectance and surface characteristics of finishes are in the section entitled "Correlation of Lighting and Surface Finishes."

direction of view

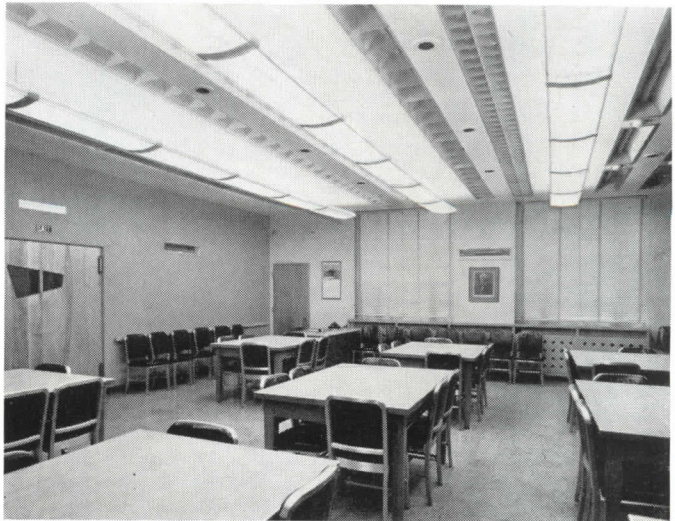
"Long views" are desirable psychologically to give maximum feeling of space, and physically to assure muscular relaxation of the eyes. Relaxed distant vision requires 15-20 feet. Work flow and supervision often suggest the indicated orientation of personnel.



Above: "bowling alley" effect accentuated by sharp demarcation of brightness when lighting units are mounted too close to ceiling.



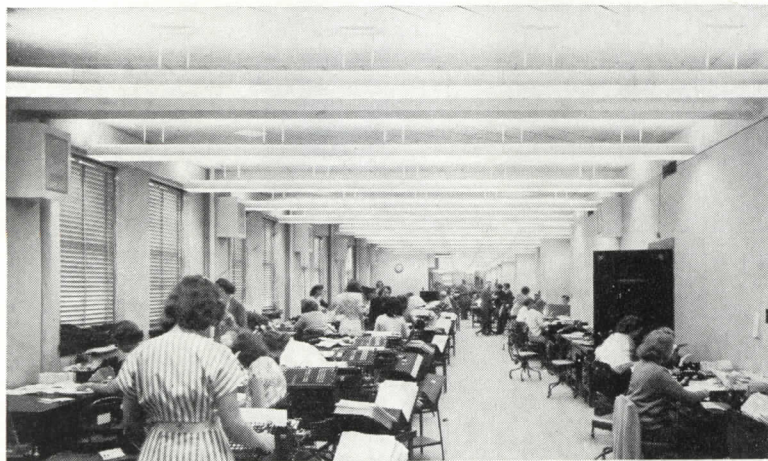
Above: heavy effect produced by low mounting.  
Below: lighting units hung at proper distance below ceiling for optimum lighting.





#### 4. comfort and appearance with economy

*These examples represent the types of lighting systems and equipment employed in good practice today. Legends present considerations which assure maximum satisfaction from each and indications of typical costs per square foot annually. Symbols—L: lamps; E: energy at \$0.03 per kw-hr; C: three cleanings annually; A: amortization at 16⅔ percent; T: total. Annual use, 2800 hours.*



Above: 50 ft-c; L:\$.07; E:\$.30; C:\$.09; A:\$.25; T:\$.71. Direct-indirect units with opaque side panels generally give greatest comfort at right angles to the direction of view. The appearance limitations of apparently converging rows is also avoided. Direct-to-ceiling mounting is satisfactory only with closely spaced units designed for such use. Again, suspensions should be chosen to keep the system a part of the structure and as far out of the visual field as practicable. Single stems are adequate and preferable to the design shown.



Above: 50 ft-c; L:\$.06; E:\$.26; C:\$.09; A:\$.30; T:\$.71. Troffer systems are neat, functional, and rate high in appearance. Light-colored room and furniture finishes improve appearance by reflecting light to the ceiling between troffers. For comfort, the units should yield lamps crosswise to at least 40 degrees and present very low brightness in usual viewing directions. Comfort and appearance indicate rows at right angles to the line of sight. With no indirect component, troffers must be closely spaced to avoid sharp, deep shadows at the work; aims are best met by troffers in continuous rows not more than four feet apart.

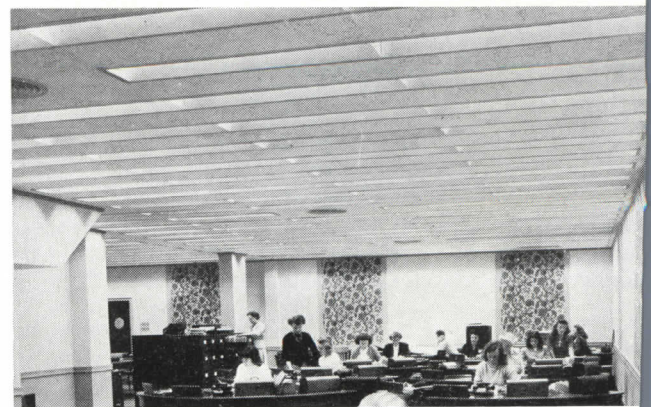


Above: 35 ft-c; L:\$.06; E:\$.62; C:\$.02; A:\$.05; T:\$.75. Initial fixture cost is low for indirect and semi-indirect filament units. Limitations of heat, cost of operation, and wiring restrict illumination to less than 40 footcandles; fluorescent units are less limited by these factors. In large areas ceiling brightness may introduce discomfort at levels much over 50-60 footcandles.



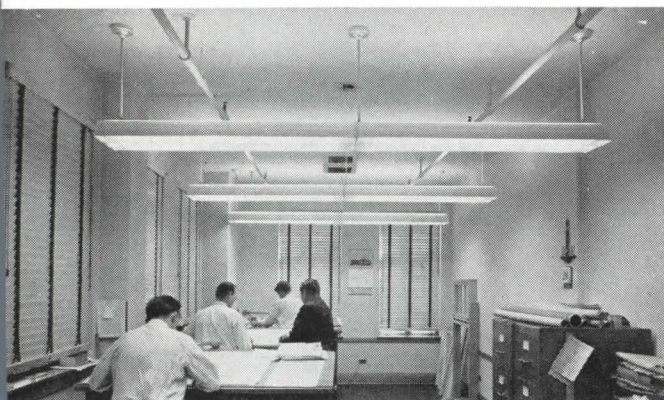
Above: 50 ft-c; L:\$.08; E:\$.32; C:\$.11; A:\$.26; T:\$.77. Excellent lighting results can be obtained with equipment combining direct and indirect components. These units must be spaced closer together than those which are primarily indirect; however, rows may be 50-100 percent farther apart than with direct-lighting troffers. Shielding should be at least 45 degrees crosswise and 25 degrees lengthwise. Luminous sides help minimize ceiling brightness variations but usually dictate lengthwise viewing for comfort. Lengthwise shielding can be increased to at least 45 degrees with but moderate reductions in efficiency.

Below: 50 ft-c; L:\$.06; E:\$.27; C:\$.10; A:\$.43; T:\$.86. Costs include installation of troffers but not the furred ceiling. Laid-in, co-ordinating ceiling systems may cost as little as 50-75 cents per square foot installed.





## 5. drafting rooms

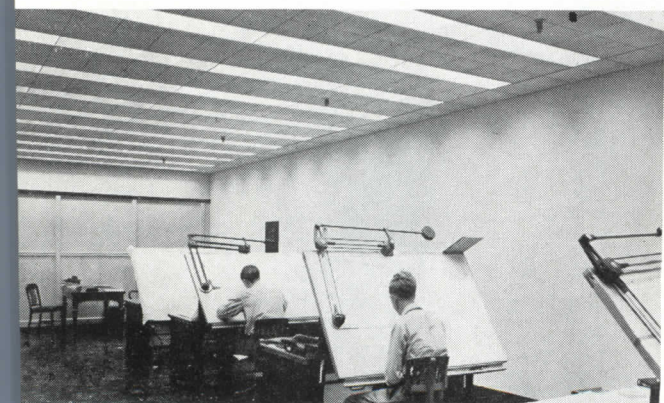


Above: general purpose lighting equipment, with enough indirect distribution to give some of the important quality characteristics desirable for drafting, may still produce shadows along straight edges parallel with the equipment. The sharp definition of the shadows is the source of difficulty, not necessarily the density. For a small office where tables can be properly located with respect to the lighting units, this system is as practical as well as an attractive solution.

Below: luminous indirect system. As there are no sharp shadows with this method it is well regarded by draftsmen.



Below: aluminum troffers in continuous rows offer top potentials for comfortable office lighting. In this system vertical drafting boards take full advantage of quantity and quality for seeing tasks by: 1) eliminating shadows; 2) providing freedom from reflection; 3) encouraging good posture; 4) increasing utilization of drafting room space.



Above: office space with special lighting design for drafting is seldom available in rental space. By orienting the boards at 15-20 degrees to the axis of the rows of lighting equipment sharply defined shadows at major straight edge positions are avoided. Should the lighting be turned an orientation of 45 degrees is most practical; however, this technique imposes limitations of appearance, flexibility, and type of occupant.



## 6. private offices

Below: lighting plus decoration can create the atmosphere for either individual or conference work in a private office. Venetian blinds and drapes at the window assist other visual comfort objectives. Simple, suspended fluorescent fixtures, completely louvered, supply the general illumination.

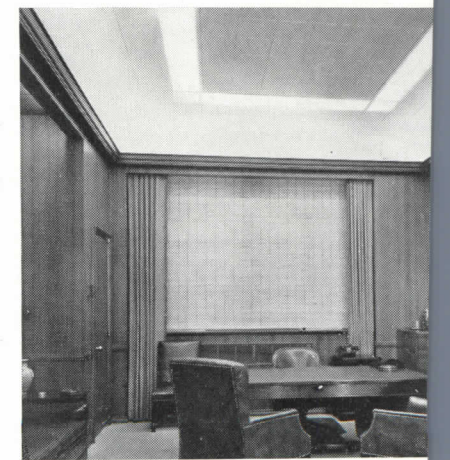
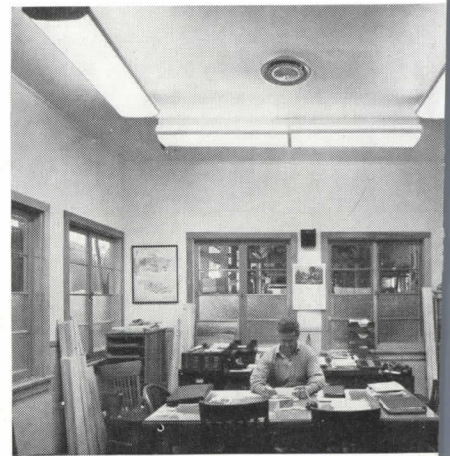


Below: in this view, custom furnishings are evident in the lighting. The element over the desk contains fluorescent sources in parabolic reflectors and is finished with a panel of low-diffusion plastic tiles. It is a tailored feature, exclusive for the indicated work position. A perimeter recessed element delivers a brightness to balance that of tasks on the desk.



Above: the lighting and provisions of privacy for a plant executive need not depart from strict simplicity. Here, the acoustical ceiling accommodates the air conditioning unit and the rows of troffers. With an over-all pattern, furniture for this occupant may be located with complete freedom.

Below: L- and U-shaped lighting patterns provide light over the work space with little chance for direct or reflected glare. When these units are used alone it is essential that they have an indirect component to provide balanced brightness patterns throughout the remainder of the area. This approach restricts the placement of furniture and may be an inconvenient limitation if the occupant or a new occupant wishes a change in work location.



Above: indirect lighting from the perimeter cove supplements direct lighting from the recessed troffer pattern; this office was designed for a company officer or top executive.



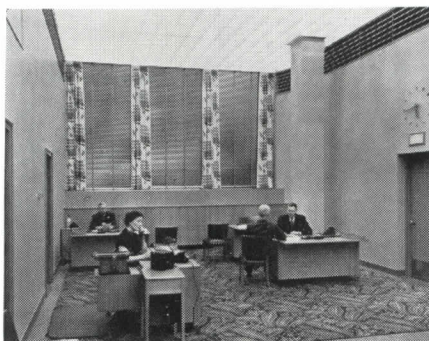
## 7. corridors, lobbies, conference rooms



Below: corridor lighting is often slighted because it is merely circulation space. Since corridors often speak for a whole building in first and last impressions upon visitors, it is wise policy to light them carefully. Simple treatments, planned in co-ordination with the systems in adjoining areas, contribute safety plus respect and prestige for the property.



The character of the public space in an office building speaks for the reputation of the property and the tenants. In this example a single organization is the sole occupant of the building; the main floor lobby (left) is lighted by built-in features—luminous ceiling panel and recessed downlights. On an upper floor (above) a glass screen separates reception space from general offices.



Below: in this small conference room the wedge-shaped table permits conferees and

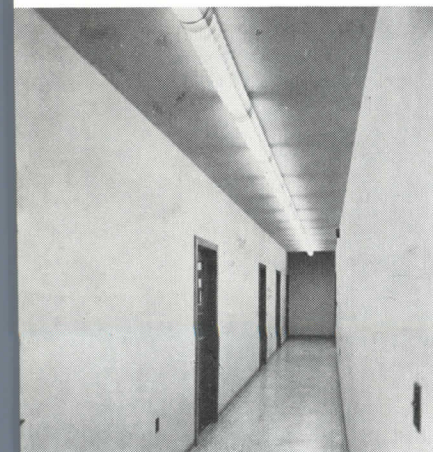


Above: louverall systems, most discussed of post-war techniques, may be employed for countless types of rooms. This installation, located in the loan department of a bank, has been carefully planned by the architect and lighting engineer to create luminous space. The design is unobtrusive yet it provides high level, comfortable lighting.



chairman to see each other directly. Each line of the general lighting equipment above the rows of chairs is fully shielded from the view of seated persons; this lighting provides 100-150 footcandles across the conference table. Projectors for motion pictures and slides may be operated conveniently at the narrow end of the table, as all lighting controls are duplicated there. The drapes back of the chairman's position may be drawn to expose a screen or a well-lighted presentation area.

Below: a continuous line of fluorescent lamps, mounted on wiring channel and shielded by a simple arrangement of louvers, provides efficient corridor lighting. This method supplies about 15-20 footcandles, meeting a trend to provide directly 20-50 percent of the illumination in circulation areas.



Light: in this large conference room the pattern of the troffer system was suggested by the rectangular dimensions of the table and room. The work illumination on the table top can be brought to 70 footcandles. This system matches the simplicity of the light-colored walls and furnishings.



## shoots studs into concrete



Above: workman employing powder-actuated stud-driving tool to anchor metal door frame to concrete floor. Entire operation requires only a few minutes.

## better lecture room seating

To provide better lecture room seating, the American Seating Company has adapted its Universal Table so that it can be installed in either straight rows or in arcs. Similar units, particularly suitable for medical and law school amphitheaters, were specified by architect Suren Pilafian for the lecture rooms of the new science building at Wayne University, Detroit. Installed with swivel chairs, the tables save space, increase seating capacity, permit wide alleys, and greatly reduce fire and accident hazards. Built with heavy cored plywood, bonded with hot-press, urea-resin adhesive, and reinforced with tongue and groove hardwood framing, the table tops offer great resistance to moisture, temperature changes, and warping. Steel pedestals with offset flange mountings of cast iron provide generous leg and knee room for any sitting position. The tables are 29" high and 16" to 24" wide; any lengths may be obtained, although two-pupil sections are customary. American Seating Company, Ninth and Broadway, Grand Rapids 2, Mich.

## automatic door-opening device

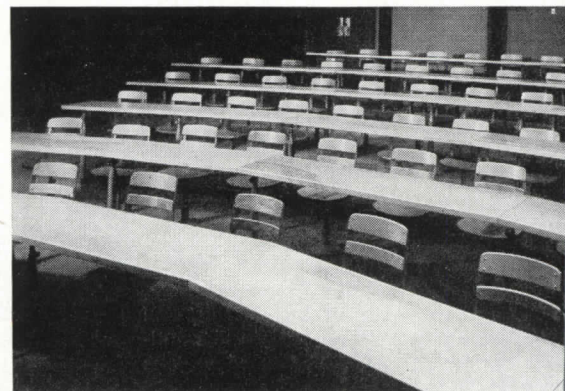
A new type of automatic door-opening device which can be installed without any remodeling of doors, walls, or floors, and can be purchased for less money than other types of similar equipment, is being introduced by the Astra Engineering Company. The unit's simplified design completely eliminates extensive

A powder-actuated driver that shoots studs into concrete has been developed by Mine Safety Appliances Company. Recently this tool was successfully employed to fasten 200 door frames to the concrete floors of a building at the Gulf Oil Corporation Research Laboratories. The workmen simply placed the frames in their permanent position and shot the studs through holes in the angle lugs; washers inserted between the angle lugs and the stud heads provided bearing surface. The entire operation for each frame took but a few seconds and the necessity of drilling holes for expansion bolts was eliminated. Conduit boxes and channels for metal lath were also hung by this method.

Studs are fastened by a piston-like arrangement to blank cartridges;

this assembly is fitted into the steel barrel of the driver. By rotating a spring-loaded safety arm in the handle and pushing the tool sharply against the surface, the cartridge discharges and forces the stud into the concrete. Tests have shown that once embedded, the studs resist a pull of several thousand pounds.

No outside power is required to operate this tool which weighs less than five pounds. Threaded or plain shank studs are available in various lengths; by interchanging the barrel, two diameters of studs— $\frac{1}{4}$ " and  $\frac{3}{8}$ "—can be used. Every precaution has been built into the tool to prevent accidents; the piston holding the stud to the cartridge minimizes the possibility of ricochet. Mine Safety Appliances Company, 201 N. Braddock Ave., Pittsburgh, Pa.



Above: tables with mitered ends are placed on radius so that students in all parts of room face lecturer.



Left: swivel chairs are bolted to concrete floor. Pedestal is securely fastened to table top for reinforcement and rigidity.

wiring, contact points, relays, electronic devices, and other difficult-to-maintain parts. Door opening is electrically initiated by walking on floor area either side of door; no guide railing is necessary as the door will open when approached from any reasonable angle; the floor plate which governs the contact area is only  $\frac{3}{16}$ " thick. Both the opening and closing of doors are air operated and hy-

draulically controlled. Air power may be supplied by the building's regular air pressure system, and electricity is furnished from a 110-volt wall outlet. When building air supply is not available air may be supplied from small compressor. In case of power failure doors can be easily operated manually. Astra Engineering Company, 3933 S. Fair Oaks Ave., Pasadena, Calif.



# this month's products

## air and temperature control

**Uni-Flo Grille:** for ventilating and air conditioning systems in schools and public buildings. Air volume and direction regulated by temperature adjustments accessible from grille face; removable cores for duct access. Supplied in gray prime coat or in wide selection of metal finishes. Barber-Colman Co., Rockford, Ill.

**Grinnell Thermolier:** for vertical delivery of heated air from heights above floor ranging from 9 to 25 ft. Six new models, ranging from 50,800 to 257,000 Btu per hr. Electric motor built to specifications; heavy gage sheet steel housing over assembly. Grinnell Co., Inc., 277 W. Exchange St., Providence 1, R.I.

**Hydrotherm Model #2-1/2HW4:** new addition to line of gas-fired, cast iron hot water boilers, especially suited for radiant and convective heating systems. Input rating of 200,000 Btu will supply 800 sq. ft. installed radiation. Carries 100 lbs. pressure rating, permitting direct connection to city water lines for volume hot water heating. Hook & Ackerman, Inc., 18 E. 41 St., New York 17, N.Y.

**Forced Air Gas Furnaces:** new line, made in 160,000 and 200,000 Btu input sizes. One central combustion chamber contains burners in all sizes up to 200,000 Btu, are adjustable for any type gas. Lennox Furnace Co., Marshalltown, Iowa.

**"Controlled Humidity" Air Conditioning System:** provides complete control of temperature and relative humidity, varies conditions whenever required; air filtered at normal atmospheric temperatures with little or no refrigeration. Equipment can be used for winter air conditioning by installing tempering coil, humidifier, and reheat coil. For use in food industries, storage plants, laboratories, as well as for human comfort. Niagara Blower Co., 405 Lexington Ave., New York 17, N.Y.

**Fog Air Treatment Unit:** air conditioning and purifying system, employing filters continually passing in solution of triethylene glycol and water; infectious diseases caused by various types air-borne bacteria claimed to be reduced. Especially recommended for business offices and commercial buildings. National Air Conditioning, Inc., Johnstown, Pa.

**Horizontal Water Circulator:** new unit added to line of hot water heating and domestic water supply. Constantly lubricated pump bearing; said to have very quiet operation due to permanent alignment provided by special spring mounting and coupling. Available in six sizes. A. Thrush Co., Peru, Ind.

## construction

**oc-Nail:** automatically clinching, stainless steel fastener for use in gripping low density building materials. E. G. Building Fasteners Corp., 11 Park Ave., New York, N.Y.

**Bricklayer:** bricklaying device with built-in spirit levels, sides and ends, checks constant plumb, saving away with need for plumb lines, string and guides, and repeated use of mason's level. Guides and rigid side walls assure true courses and uniform joints; brick can be laid three times faster with 75% lower labor costs. Adjustable for 8" to 13" walls, fits all standard brick sizes. Hodgson-Sommers, Inc., Montgomery, Ala.

**Fire-Resistive Partition:** solid partition, 1 1/2" thick, comprising lightweight perlite-gypsum plaster applied on metal lath, for nonbearing walls. Effective one-hour barrier against fire; useful as space-saver and weight reducer in structures where total floor area is subdivided into rooms of relatively small occupancy. Metal Mats. Assn., 336 Engineers Bldg., Cleveland 14, Ohio.

**Lead Copper Flashing:** complete system for sound construction; provides positive mechanical bond in every direction in mortar bed, during protection against seepage and leaks in copings, parapets, sills, and other masonry joints. Economical to install, may be bent to required shape. Furnished in standard lengths 42" and any width needed. Revere Copper & Co., Inc.

## doors and windows

**Plastishade:** Vinylite plastic window shade. Will not tear in normal use, does not support flame, is resistant to fading, cracking, and staining; can be cleaned with soap and damp cloth. Available in four colors, in stock widths of 36", 42", and 48", and 6' and 7' lengths. Charles W. Breneman Co., 2045 Reading Rd., Cincinnati, Ohio.

**"Wedge-Tight" Overhead Garage Door:** sectional, lightweight wood door, in 8' x 7' size only. Adjustable lock bar guides, ballbearing steel rollers; tongue and groove track assembly assures smooth track joint. Calder Mfg. Co., Lancaster, Pa.

**Dynatomic:** door check to control interior door weighing from 15 to 175 lbs. Claimed never to need any maintenance; sealed against dirt and moisture, guarded against rust, is not affected by pressure or temperature changes. New England Mfg. & Supply Co., 42 Church St., New Haven, Conn.

**Weldwood Flush Veneer Door:** core made up of kiln-dried basswood lumber, laid on edge in staved construction. For interior or exterior use. In wide range of sizes. U.S. Plywood Corp., 55 W. 44th St., New York 18, N.Y.

**Glide-All Sliding Doors:** constructed of presd-wood, complete with roller assemblies and tracks, for closets, wardrobes, and cabinets. Floor to ceiling application, eliminating framing, bracing, and plastering. Panels come in widths up to 48"; as many as 10 panels may be accommodated by tracks to cover span up to 40'. Woodall Industries, Inc., 2035 S. Calumet Ave., Chicago, Ill.

## electrical equipment

**Accentlights:** newly designed lighting fixtures featuring Perma-Tension swivel for firm focusing in any position; flexibility in application, numerous mounting arrangements; for accent and over-all illumination in contemporary interiors. Models available in coral red, gray-green, oyster-white, white, and brushed aluminum. General Lighting Co., Inc., 1527 Charlotte St., New York, N.Y.

**Type CF2-G Plug-In Strip:** with grounded receptacles to support increasing trend for grounded electrical systems. Provides outlets at either 6" or 18" intervals. May be cut to fit job at any desired location between receptacles. National Electric Products Corp., Chamber of Commerce Bldg., Pittsburgh 19, Pa.

**Midget-Lites:** for use with new 75w R30 lamps. Patented spring tension socket, universally adjustable: 90° vertical, 350° horizontal; accommodates louver and color lens. Available in recessed, portable, screw-in, box plate, and clamp-on models. Finishes: brushed satin, baked lacquer. For store, public building, museum, theater use. Swivelier Co., Inc., 30 Irving Pl., New York, N.Y.

**Sylvania Slimline Fixture CL-496:** equipped with 4 instant start slimline lamps. Complete one-piece louver shielding assembly; servicing accomplished by releasing cam-type latches and lowering louver assembly which is held beneath fixture on retainer chains for safety and convenience; relamping made easy by removal of side baffles—no tools required for either operation. Sylvania Electric Products, Inc., 500 Fifth Ave., New York, N.Y.

**Fluorescent Sun Lamp:** identical in dimensions and electrical operation with standard fluorescent lamps. Unit has life of more than 4000 hours compared with maximum 1000-hours of other types. Large variety of uses, including irradiation of schools, offices, factories, gyms, and hospitals. Westinghouse Electric Corp., Lamp Div., Bloomfield, N.J.

## finishers and protectors

**Wade Seal Remover:** heavy-bodied liquid solvent, effective in removing old seals, varnishes and other finishes from wood floors, walls or woodwork, and fine furniture. Nonflammable, will not damage grain or discolor wood. Huntington Laboratories, Inc., Huntington, Ind.

**Styrenated Acid-Causticbond:** maintenance coating said to give tough, chemical-resistant paint film over damp and rusty surfaces; resists flame spread and fungus growth. Simple application by brush or spray. Wilbur & Williams Co., 43 Greenleaf, Boston 15, Mass.

## specialized equipment

**No. 44 Folding Chair:** tubular steel construction evenly distributes sitter's weight, renders toppling or overturning difficult; no sharp edges or corners to tear garments; metal parts enameled, form-fitting seat and back durably lacquered. American Seating Co., Ninth & Broadway, Grand Rapids 2, Mich.

**Chronopaks:** new collection of electric clocks designed by George Nelson, in variety of materials (metal, wood, glass, plastic) and shapes (one with convex "bubble" plexiglas encasing dial face). Individual designs, modestly priced. Howard Miller Clock Co., Zeeland, Mich.

**Kitchen Appliances:** 10 models of electric and gas ranges, welded construction throughout; integral burner bowls can be quickly dismantled and cleaned; completely concealed venting; large oven and storage drawers; Universal gascocks usable with manufactured, natural, or bottled gas. Also new series of sink and cabinet combinations, floor and wall cabinets, and flat-rim sinks made with either single or double sumps. Murray Corp. of America, Home Appliance Div., Scranton, Pa.

**"Quicfreez" Home Freezers:** new line, each model equipped with separate compartment for fast freezing. All-steel construction, Fiberglass insulation; lightweight table-top lids; metal food baskets included at no extra cost. All models 27" deep, ranging in capacities of from 8.27 to 16.8 cu. ft. Sanitary Refrigerator Co., Fond du Lac, Wis.

**Compartment Water Coolers:** two new models, bottle and pressure bubbler, for use in offices and other locations. Provide 50° drinking water for 25 to 30 persons; 35°-38° refrigerated storage space for food, beverages, or pharmaceuticals; freezing unit, producing 3 1/2 lbs. ice cubes at one freezing. "Magi-Trol" control maintains three desired temperatures in water cooling chamber, freezer, and refrigerated space independently of each other. Westinghouse Electric Corp., P. O. Box 868, Pittsburgh 30, Pa.

## surfacing materials

**Blendwood Blocks:** factory finished, containing pecan, elm, beechwood, sycamore, and hackberry woods in standard 25/32" thickness. Intended for laying in mastic, blocks are manufactured with two metal splines inserted in back, with opposing tongues and grooves on edges. Prefinished only. E. L. Bruce Co., Memphis 1, Tenn.

**Plastic-Finished Wall and Ceiling Panels:** 10 new patterns simulating grain and finish of fine wood, as well as reproductions of imported marbles. Moldings in aluminum alloy, presd-wood, and plastic to go with paneling. Marsh Wall Products, Inc., Dover, Ohio.

**"Over-Lock" Plastic Tile:** highly glazed, resistant to scratching, ordinary household corrosives. Can be installed over plaster, wood, cement, and any non-porous surface. Patented "over-lock" edge permits each tile to be firmly locked into place; between-tile grouting eliminated. Available in wide range of colors. Skyline Industries, Titusville, Pa.

**Mulsomastic Redimixed Flooring:** inexpensive, quickly applied resurfacing coating 1/8" thick, for floor areas that are uneven or chipped, damp or cold, or for renewing worn stair treads. Can be used on small patch or entire floor. Removes danger of tripping, gives gripping surface for workers to stand on. Tremco Mfg. Co., 8701 Kinsman Rd., Cleveland, Ohio.

**Non-Skid Floor Plate:** composed of abrasive grain and rolled steel, for use on industrial floors, loading platforms and ramps, walkways, building entrances, etc. Can be sheared, drilled, countersunk, machined, and flame-cut. Available in 1/8" to 3/8" thicknesses, in widths up to 60" by 144" in length. Alan Wood Steel Co., Conshohocken, Pa.



# MANUFACTURERS' LITERATURE

## AIR AND TEMPERATURE CONTROL

**1-341. Type "E" Series Induced Draft Cooling Towers** (Sect. 42), 4-p. illus. catalog on blower type cooling towers designed for small water cooled air conditioning and refrigeration condensing units up to 6 tons. Applications, operation, specifications, typical installation diagram, performance data, selection table, ordering information. Binks Mfg. Co.

**1-342. Breidert Air-X-Hauster (VFC-49)**, 8-p. illus. booklet describing vent flue cap providing ventilation no matter which way the wind blows, and eliminating back-drafts and smoking. Description, types, sizes, operating drawing. G. C. Breidert Co.

**1-343. Heating Equipment (A645B)**, 20-p. illus. catalog presenting variety of furnaces, wall heaters, and water heaters, oil- and gas-fired; heating accessories. Installation data, types, descriptions of parts, specifications, advantages. Coleman Co., Inc.

**1-344. Federal Boilers (Bul. 125)**, 6-p. illus. folder showing oil- and gas-fired units for light and heavy commercial requirements; also stoker units for residential use. Advantages, general descriptions, ratings and specifications. Federal Boiler Co., Inc.

**1-345. A Multi-Vent Story (Bul. 395)**, 6-p. illus. folder describing perforated metal ceiling panel for low velocity air diffusion in heating, ventilating, and air conditioning. Advantages, uses, typical installation photos. Pyle-National Co.

**1-346. Royal Jet-Flow, AIA 30-B-1**, 11-p. booklet on heating system using jet principle, circulating heat at velocity of 300 ft. per minute to all parts of average size house. Operation, advantages, suggestions for best layout, typical floor plans, framing instructions in new and old construction, photos. Royal Heaters, Inc.

**1-347. Saf-Aire (10-746)**, 4-p. folder illustrating wall furnace of all-aluminum cast construction; burns natural, manufactured, or LP gas in "safety-sealed" combustion chamber; no chimneys or ducts needed. Description, operating diagram, advantages. Stewart-Warner Corp.

**1-348. How to Recess Type A Convactor (1865)**, 16-p. illus. booklet demonstrating step-by-step procedure of convactor-radiator installation in test room. Photos. Trane Co.

**1-349. Air Circulating and Ventilating Equipment**, 28-p. illus. catalog describing various types of circulation and exhaust fans. General data, sizes, uses

and applications, specifications and price lists, photos. Edgar T. Ward Industries, Inc.

## CONSTRUCTION

**3-130. Alcoa Aluminum Industrial Roofing and Siding, AIA 12-C (AD-167)**, 18-p. illus. brochure. Properties and advantages of aluminum, typical applications, fastening accessories, flashing details, application data, weight and coverage tables, suggested specifications. Aluminum Co. of America.

★ **3-131. Masterplate "Iron-Clad" Concrete (MP-4a)**, 36-p. illus. booklet describing metallic aggregate made of size-graded iron particles combined with special cement dispersing agent, for application on concrete flooring to provide wear resistance. General data, advantages, typical applications, laying directions, specifications, photos. Master Builders Co. Catalog describing wide line of structural clay tile and brick. Construction details, types and sizes, colors, tabulation of standard shape numbers, list of other products and their uses, index. Circular on quickset compound for sealing leaks in masonry walls; filler to seal masonry joints and surfaces; and finish coat for masonry surfaces. General and technical data, uses, specifications, application directions, typical photos. Standard Dry Wall Products, Inc.:

**3-132. Natco Structural Clay Tile, AIA 10A-B (Cat. SA-50)**

**3-133. The Thoro System (17)**

**3-134. Anti-Bacterial Cement**, 8-p. booklet on specially treated cement that reduces chance of infection by fungi and bacteria growing on surfaces of swimming pools, bath houses, shower rooms, etc. Laboratory test results, advantages. North American Cement Corp.

**3-135. Master Specifications for Copper Roofing and Sheet Metal Work, AIA 12**, 23-p. guide to sheet copper installation in building construction. Index. Revere Copper & Brass, Inc.

## DOORS AND WINDOWS

**4-253. Aluminum Windows and Screens, AIA 16 L**, 12-p. illus. catalog. Several types of residential units, including casement, awning, and projected windows. Stock sizes, details, specifications, window treatments, features, special custom and detail work. A.B.C. Steel Equipment Co., Inc.

**4-254. Hollow Metal Doors, Jambs and Trim (1950 Cat.)**, 12-p. illus. catalog. Details of standard construction, door designs, types, underwriter's data, spec-

ifications, drawings. Aetna Steel Products Corp.

**4-255. Lupton Metal Windows and Doors, AIA 16-E (1950 Cat.)**, 34-p. illus. catalog giving specifications, details, and data for steel and aluminum residence casements, casement doors, basement and utility windows, industrial doors, screens, window hardware and other items. Michael Flynn Mfg. Co.

**4-256. Wood Fire Doors, AIA 16**, 4-p. folder describing wood doors with built-up core impregnated with Protexol, fire retardant chemical, furnished in 60 and 90 minute ratings. Construction, heat transmission charts, characteristics, tests, performance, brief descriptions of other products. Fox Bros. Mfg. Co.

**4-257. Pittsburgh Doorways (G91175)**, 16-p. illus. booklet presenting line of door-frames of heavy extruded aluminum reinforced with steel, for use with glass doors. Advantages, styles, equipment and accessories, standard and variable dimensions, typical sections and details, general data. Pittsburgh Plate Glass Co.

**4-258. Richmond Engineering Handbook of Standards**, set of stapled sheets describing construction and application of kalamein doors and related items such as kalamein frames, molds, casings. Specifications, underwriters' requirements, drawings of designs, details, corner sections, etc. Richmond Fireproof Door Co.

**4-259. Thorn Windows, AIA 16e-1 (Cat. SA50)**, 24-p. catalog on aluminum and steel pivoted and commercial projected windows, industrial doors, residence casements, other types. Construction details, specifications, sizes, dimensions drawings, photos. J. S. Thorn Co.

**4-260. Donovan Windows, AIA 27-C-1** portfolio of loose sheets and folder containing details and specifications for awning-type windows, casements, and transoms. Universal Window Co.

**4-261. Vita Automatic Windows**, 4-p. illus. folder describing electrically operated, double-glazed windows involving no weight lifting or counterweights. General information, sections, plans. Vita Automatic Windows, Inc.

## ELECTRICAL EQUIPMENT, LIGHTING

**5-237. Slim**, 6-p. illus. folder on commercial and industrial fluorescent fixtures for single or continuous mounting and the Louverliner, for pendant and flush mounting. General data, model dimensions, accessories. Duro-Te Corp.

Four booklets describing four types electric plants. Models, technical data, specifications, applications, general information. U.S. Motors Corp.:



5-238. Diesel Electric Plants (J 1041)  
 5-239. Emergency - Standby Electric Plants (J 1100)  
 5-240. Gas-Gasoline Electric Plants, Air-Cooled (J 1039)  
 5-241. Gas-Gasoline Electric Plants, Water-Cooled (J 1040)

5-242. Over-All Lighting, AIA 31-F-23 (Cat. 50), 40-p. illus. catalog describing line of fluorescent and incandescent lighting equipment. Types, dimensions, test reports, views, lighting design data, computations, catalog specifications, index. F. W. Wakefield Brass Co.

Folder and engineering bulletin on Flexi-Module, new aluminum louvered ceiling employing unique hanging method eliminating need for supporting rails. Description, installation, drawings, advantages, layout data, plan and typical sections showing installation conditions. Sylvania Electric Products, Inc.:

5-243. Here's a Modern Lighting System  
 5-244. Flexi-Module Engineering Bulletin (0-96)

#### FINISHERS AND PROTECTORS

5-186. Duridine (410A), 4-p. illus. folder describing dual action cleaner and phosphate coating for metal surfaces; provides rust-proofing and promotes long paint life. Advantages, applications, typical process sequences. American Chemical Paint Co.

5-187. Bakelite and Vinylite Resins (G-6-a), 14-p. booklet giving latest advances in coatings based on Bakelite and Vinylite resins. Improved materials, better techniques, applications, properties, formulations. Bakelite Corp.

#### INSULATION (THERMAL, ACOUSTIC)

5-147. Kaylo Pipe Insulation (KH-26), 4-p. illus. folder describing lightweight pipe insulation designed for temperatures of from 200F to 1200F. Standard sizes and thicknesses, recommended thickness, physical characteristics, insulation efficiencies and heat loss. Owens-Illinois Glass Co., Kaylo Div.

5-148. Insulrock, 4-p. illus. folder describing incombustible structural insulation board, composed of chemically treated mod fiber coated with fire-resisting and water-resisting Portland cement; provides high insulating value and sound absorption. Description, advantages, typical applications, construction details, properties, typical specifications, sizes of slabs and acoustical tile. Johns & Kanzler Co.

#### IRRIGATION, WATER SUPPLY, DRAINAGE

5-505. Fairbanks-Morse Pump (ADM-1 A), circular describing vertical deep-well water system for irrigation, leaching, soil soaking, and other jobs requiring steady flow of water in ample volume; also supplies water under pressure for home use and fire protection. Diagrams, pump rating chart. Fairbanks, Morse & Co.

Three loose sheets giving features and specifications for three types of water heater. Also, 8-p. illus. booklet on welded steel boilers for automatic firing by oil, stoker, or gas. Details, dimensions, cutaway views. L. O. Koven & Brother, Inc.:

19-506. Automatic Gas Water Heater

19-507. Automatic Electric Water Heater, Vertical Model

19-508. Automatic Electric Water Heater, Table Top Model

19-509. Waterfilm Boilers

#### SPECIALIZED EQUIPMENT

19-510. Time Indicating & Signaling Systems, AIA 31-i-24, portfolio of stapled sheets describing newly redesigned line of master clocks, program systems, and recorders for use in business and industry. Types, operating principles, wiring diagrams, specifications. Cincinnati Time Recorder Co.

19-511. New Executone (290), 4-p. brochure presenting line of intercommunicating stations featuring "Chime-Matic" signaling, indicating calls by mellow chime and signal light; full-trunkage switching; electronic voice circuits for faithful voice reproduction and maximum audibility. Advantages, other features. Executone, Inc.

19-512. In-Wall Fold Tables and Benches (Cat. 11549), 8-p. illus. booklet. Unit consists of steel pocket, folding table, two folding benches, operating and locking mechanisms interconnecting pocket and table and benches; for in-the-wall or against-the-wall installations to provide lunchroom and other facilities in schools, clubs, churches.

Advantages, details, elevations, specifications. Schieber Mfg. Co.

#### SURFACING MATERIALS

Two illus. folders, one on hardwood floors, the other, on hardwood block flooring. Descriptions, typical installation photos, color plates. E. L. Bruce Co.:

19-513. Yours for a Lifetime (Key 81)

19-514. Modern Hardwood Floors of Bruce Blocks (Key 82)

19-515. A New Design for Living, 4-p. illus. folder on Panelyte Cameo, new design in laminated plastic surfacing material; product is hard-to-mar, cigarette-burn resistant, unaffected by alcohol stains, fruit juices. Advantages, uses, colors. St. Regis Paper Co., Panelyte Div.

#### TRAFFIC EQUIPMENT

20-247. Sedgwick Lectro-Lift (363-R), 4-p. illus. folder describing residence elevator operated by fully automatic momentary pressure push button control, either from car or landing levels. General data, view showing standard arrangement of equipment, installation photos, standard sizes, plan and specifications. Sedgwick Machine Works.

★ 20-248. Freight Elevators (B-4402), 46-p. illus. buyer's guide containing engineering data needed to determine selection of freight elevators. Design, types, lifting capacity and size, speed requirements, control, door operation, layouts, application examples, budget price data, freight elevator application curve, typical and special installation photos. Westinghouse Electric Corp., Elevator Div.

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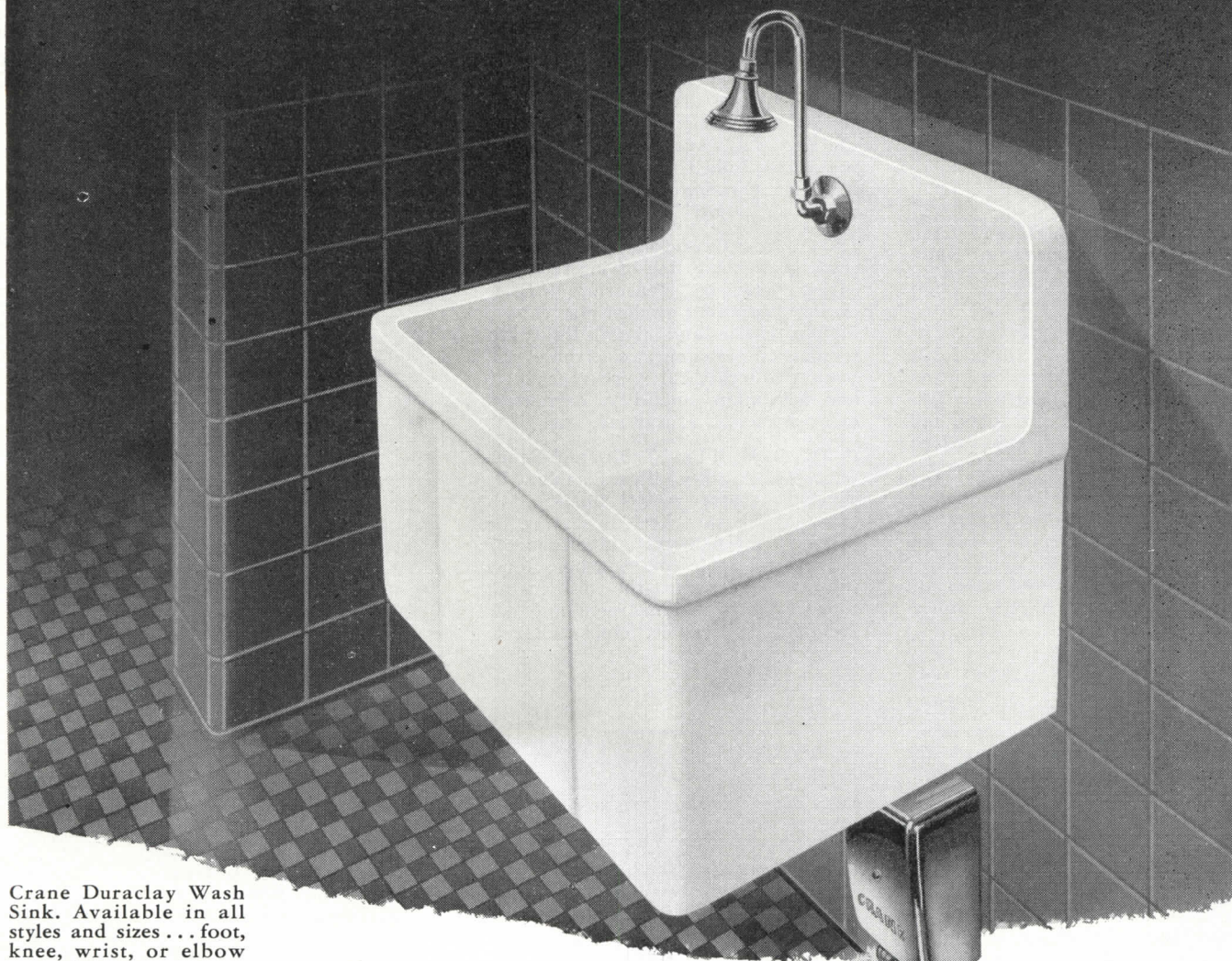
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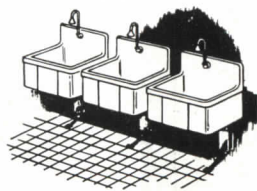
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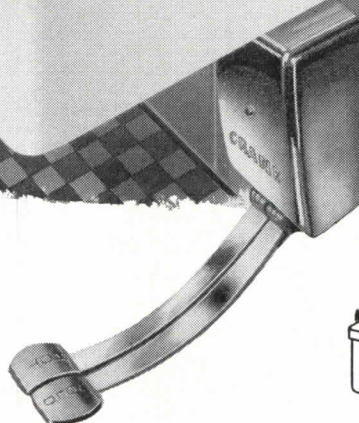
Crane Duraclay Wash Sink. Available in all styles and sizes...foot, knee, wrist, or elbow operation.



Running water, open drain make sanitation complete.



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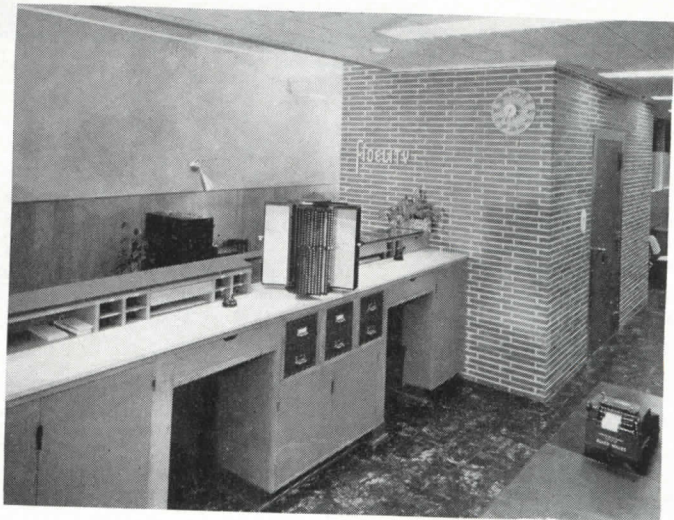
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# CRANE

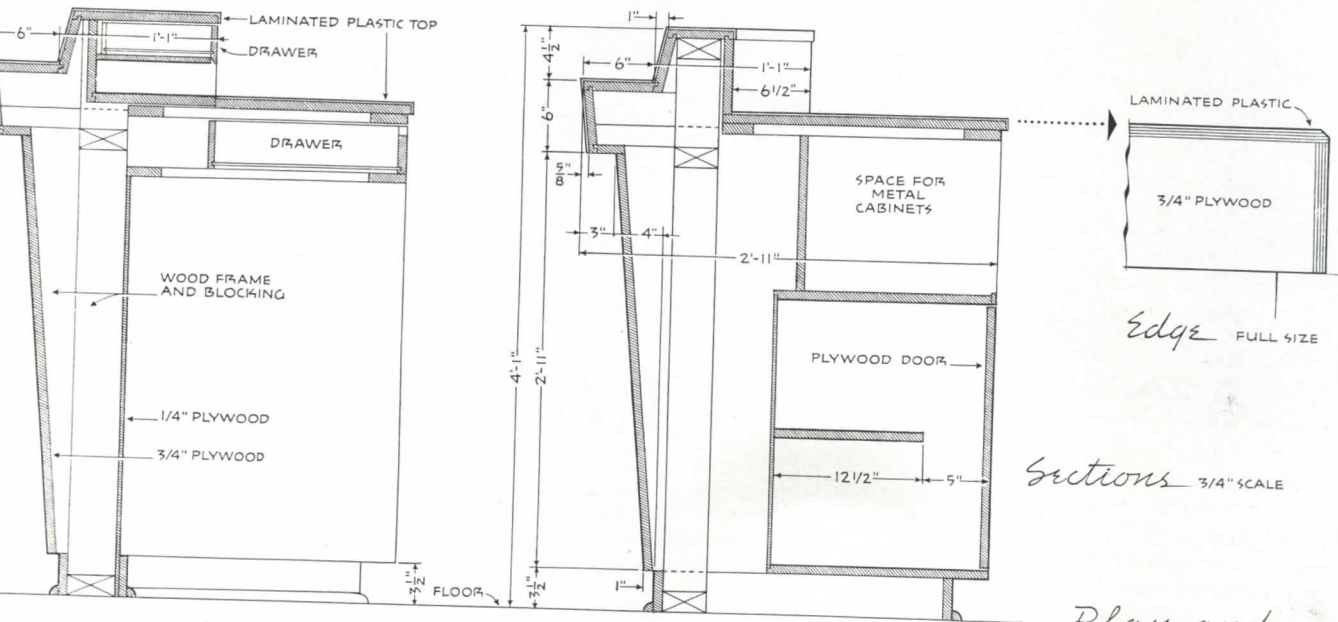
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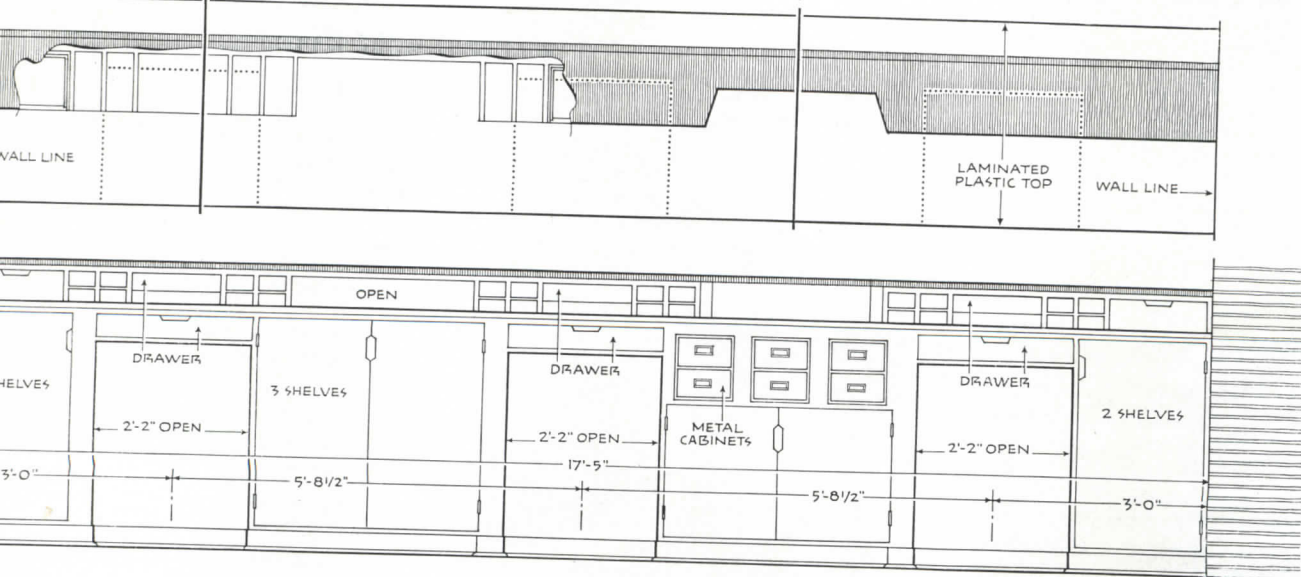




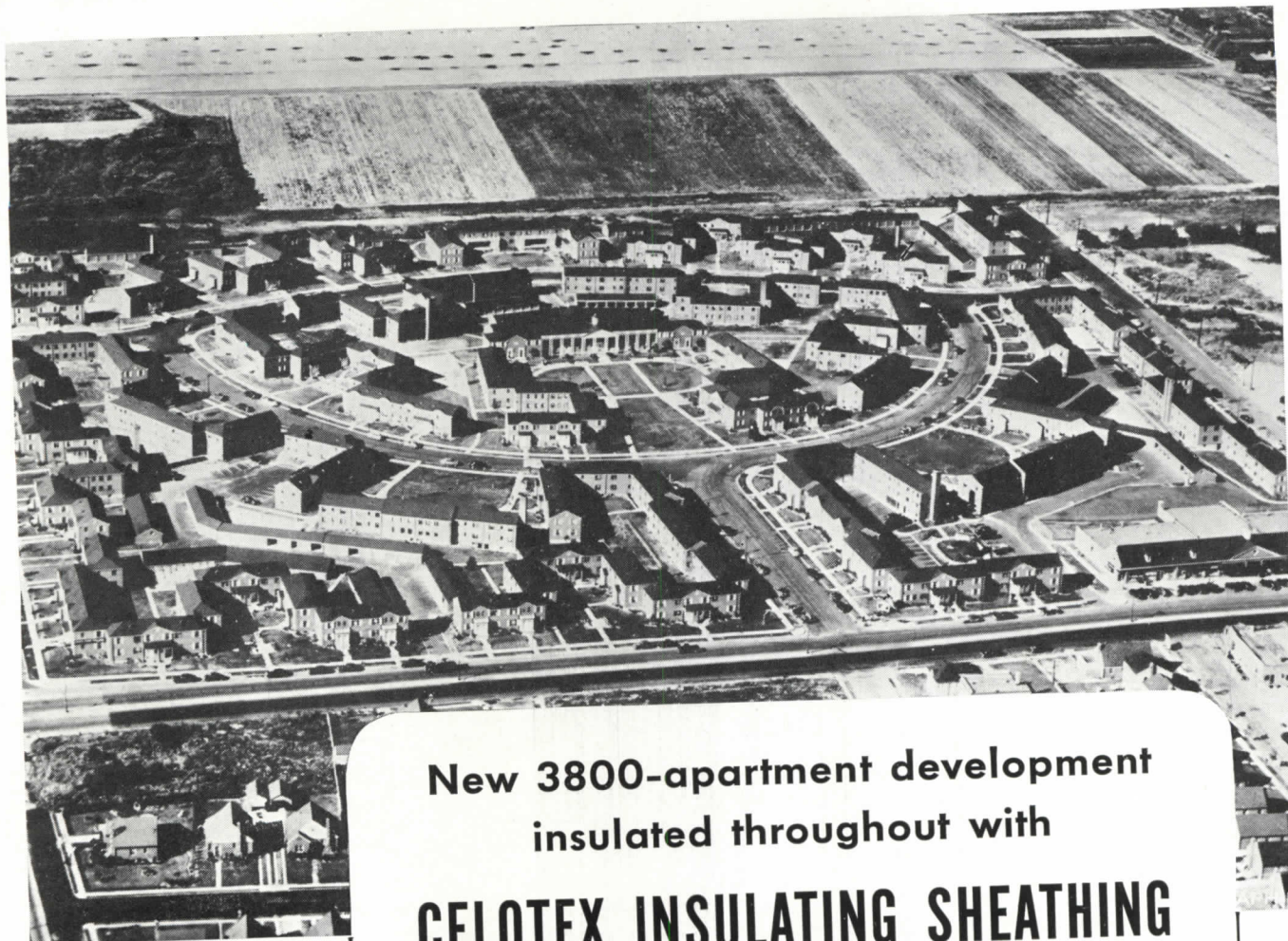
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**Above,** a section of Glen Oaks Village in Bellerose, Long Island, N. Y. Celotex Insulating Sheathing was used throughout in this beautiful garden-type development which comprises 3800 modern apartments. Built by Gross-Morton of Jamaica, L. I., N. Y. Architect: Benjamin Braunstein.



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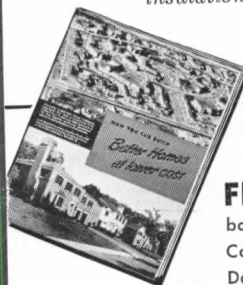
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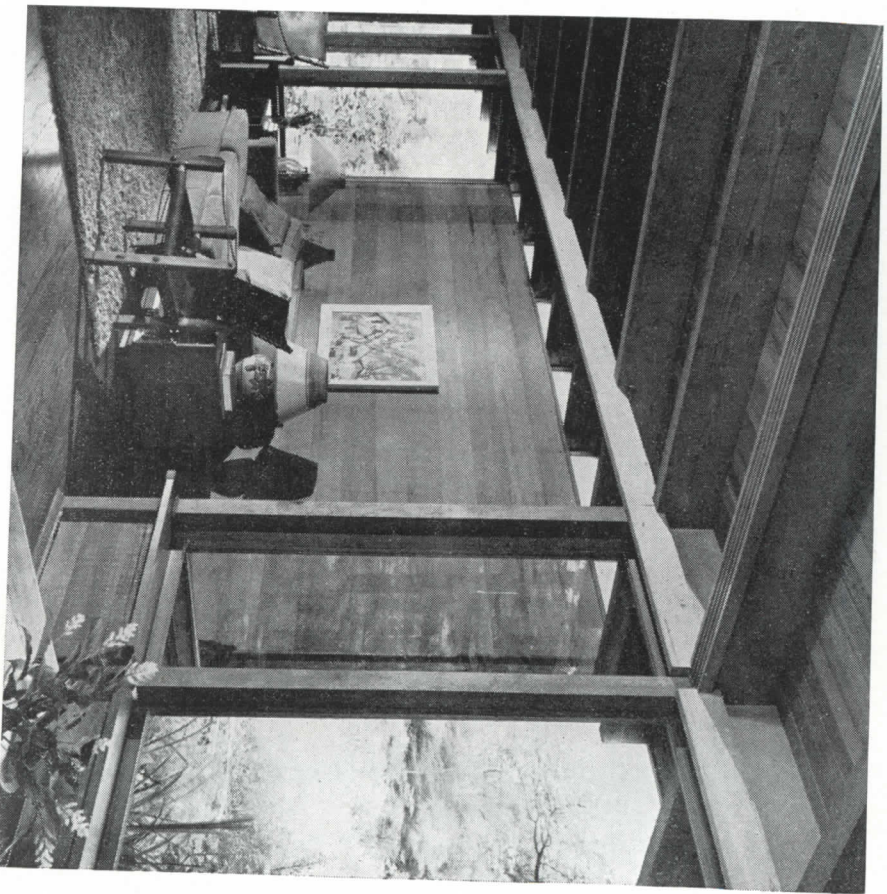
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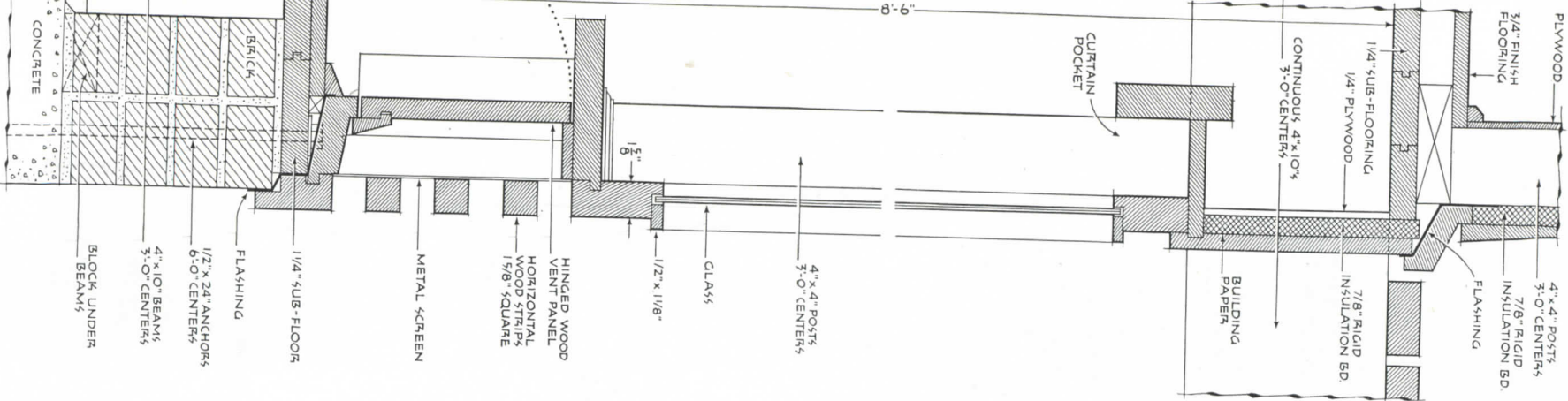
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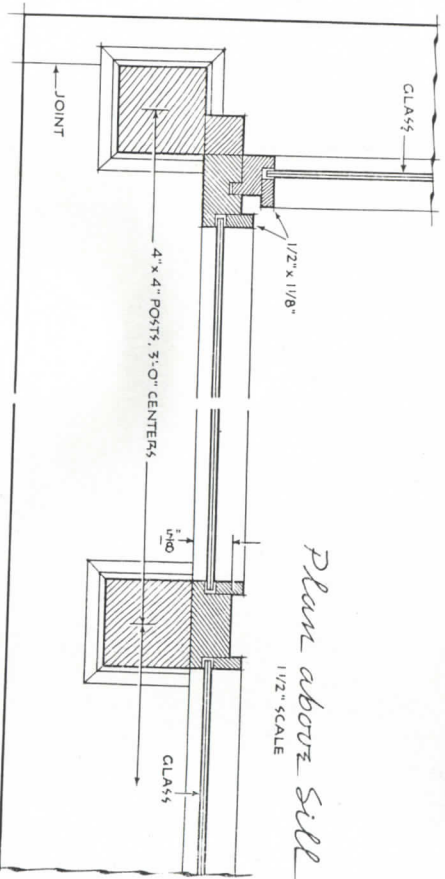
HOUSE: fixed window with ventilation panel below



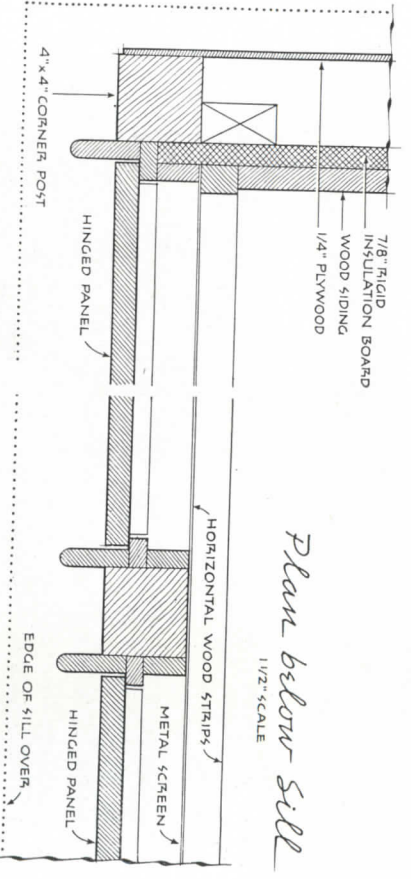
HEDRICH-BLESSING STUDIO



*Sill section*  
1 1/2\"/>



*Plan above Sill*  
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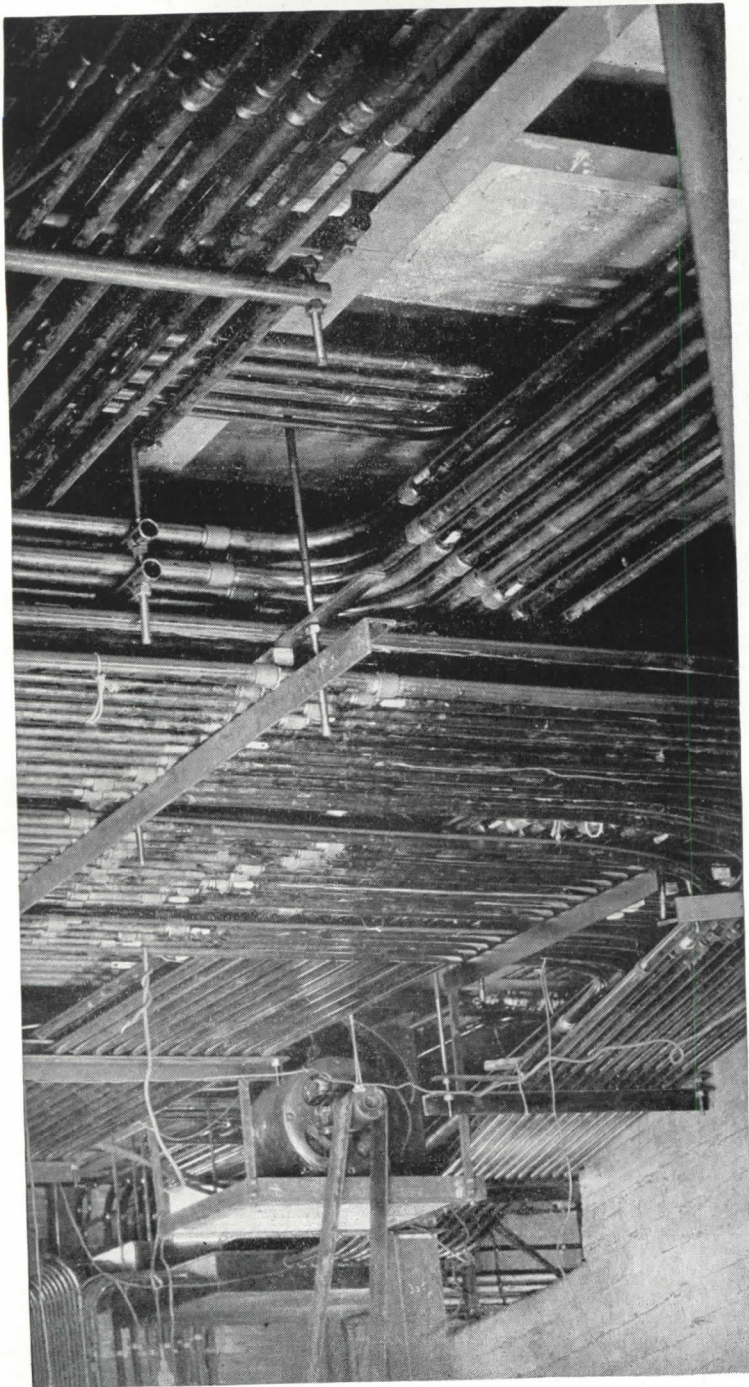
*Plan below Sill*  
1 1/2\"/>

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SCHWEIKHER & ELTING ARCHITECTS



FOR SAFETY'S SAKE . . . USE CONDUIT (*Full Weight Rigid Steel*)



This system of Buckeye conduit, installed in a large department store a generation ago, still provides dependable wiring protection to owners and tenants.

## RACEWAYS to lasting safety

WHEN you're planning wiring systems for the buildings of tomorrow, safety is naturally a first consideration. Not only safety, but *permanent* safety!

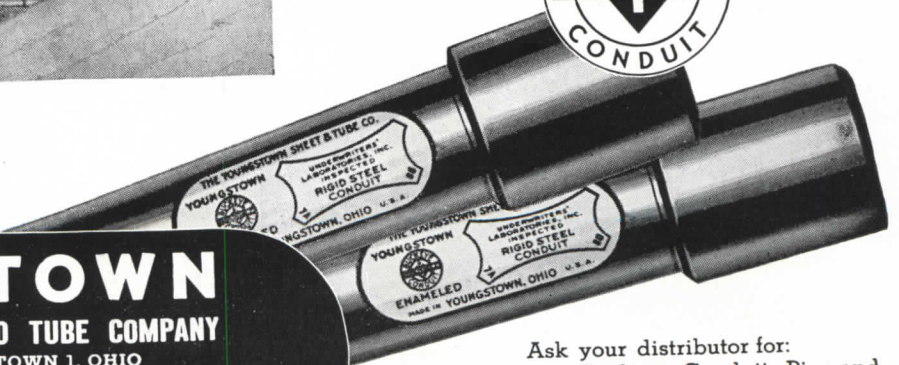
The electrical industry has long since agreed--and incorporated it in the national code--that the one safest system for the lasting protection of electrical wiring is that employing heavy-wall steel conduit. This is the only system approved for use in hazardous locations and occupancies, as being dependably moisture, vapor, dust, and explosion proof.

So for positive protection, install permanent raceways of full-weight, rigid steel conduit--"Buckeye" conduit. Wiring is easily changed to meet changing day-to-day needs, yet the conduit remains in place, as raceways to lasting safety.

Youngstown "Buckeye," the world's most widely used standard-threaded, full-weight, rigid steel conduit, is sold by leading distributors in all markets.

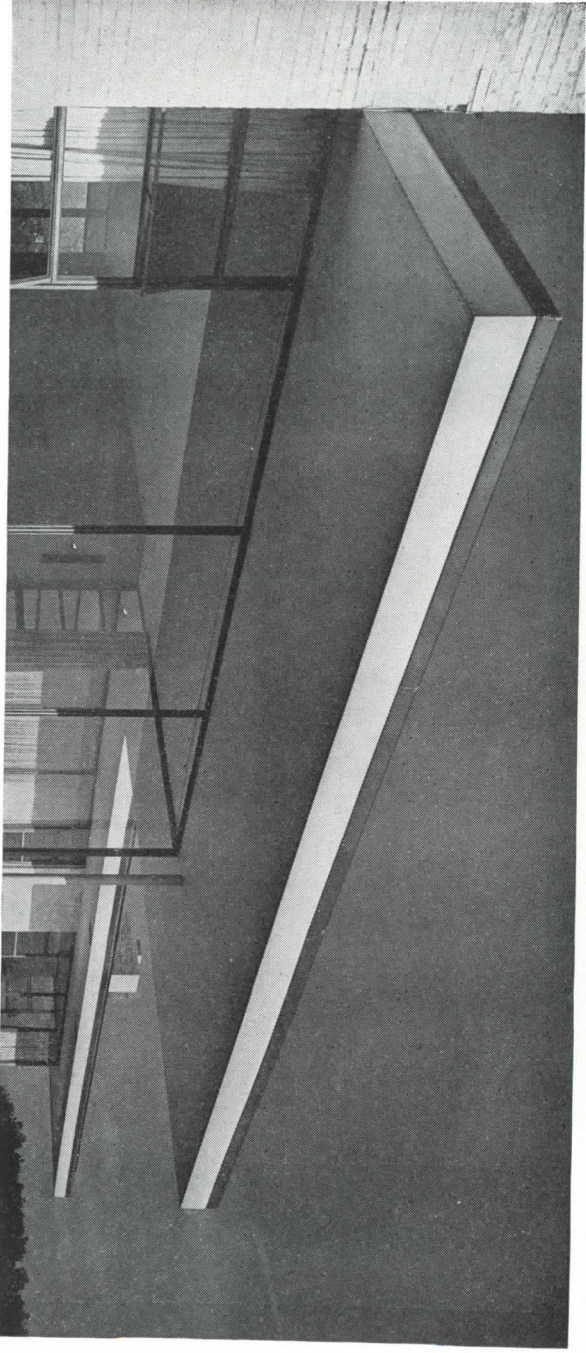


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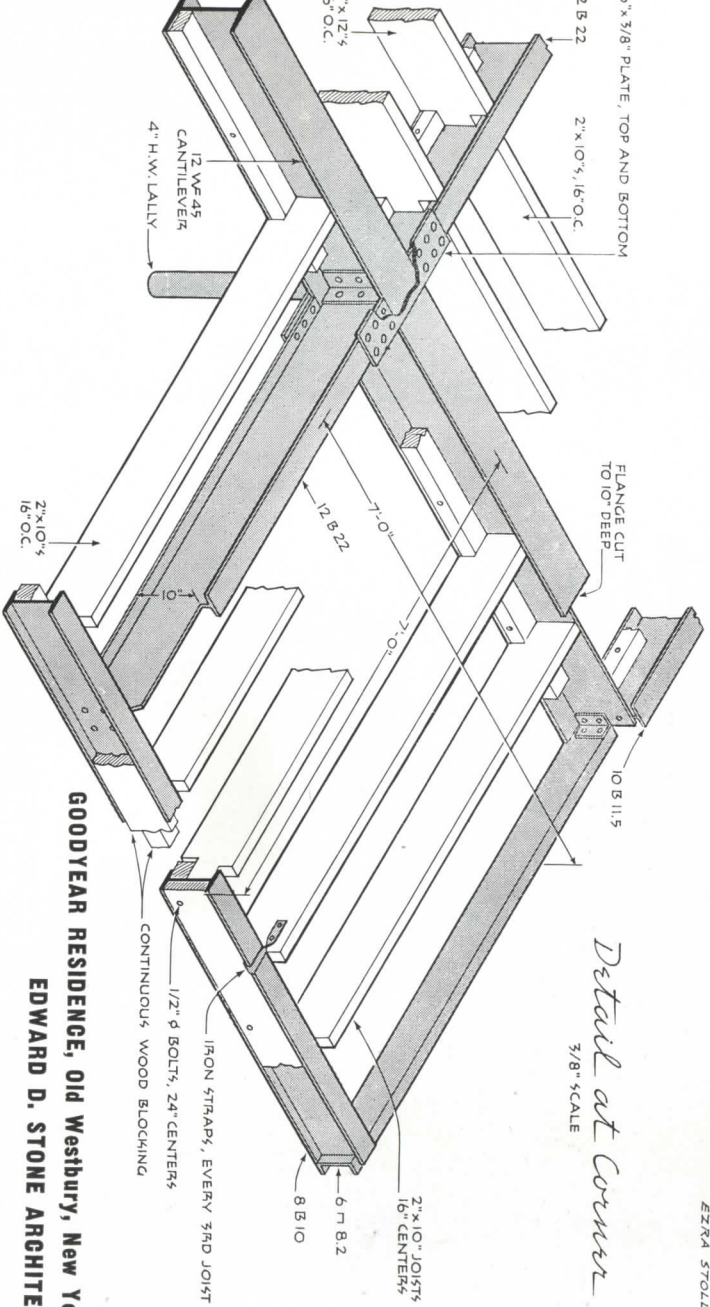


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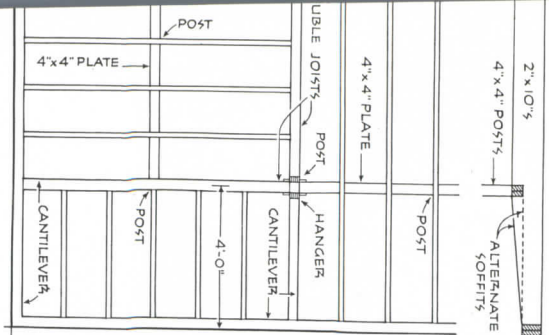




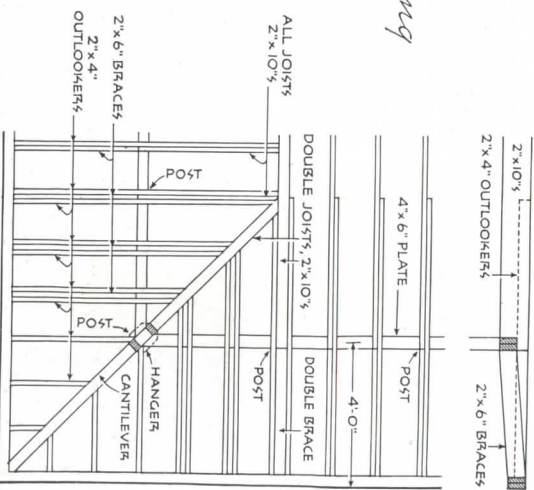
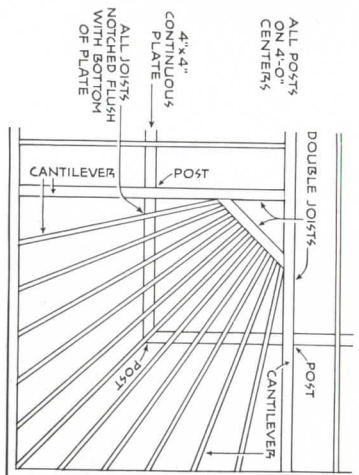
HOUSE: two-way cantilever overhang



GOODYEAR RESIDENCE, Old Westbury, New York  
EDWARD D. STONE ARCHITECT



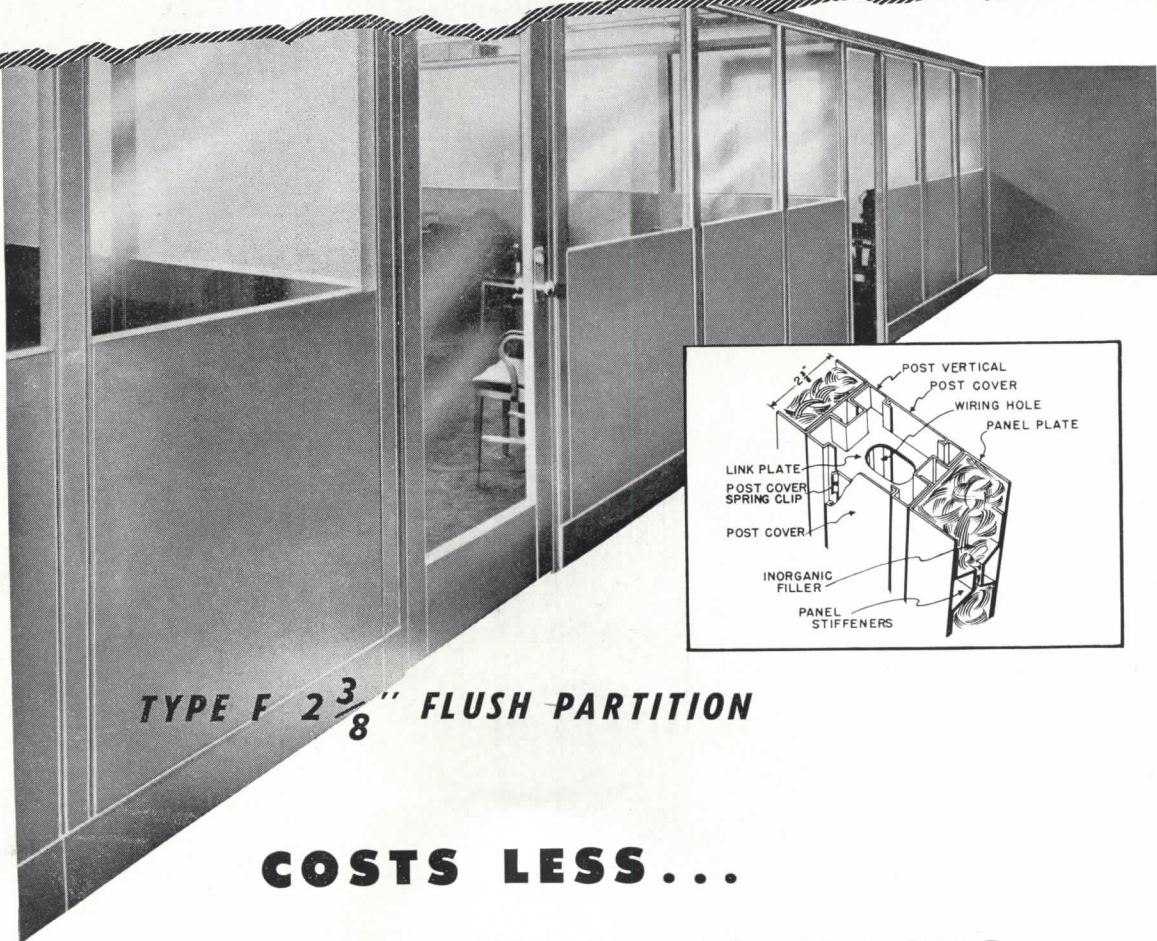
Typical Wood Framing  
3/16" SCALE





# Virginia Metal Products

"MASTERS of METAL"



TYPE F  $2\frac{3}{8}$ " FLUSH PARTITION

**COSTS LESS...**

**CUTS ERECTION COSTS...**

**CUTS MAINTENANCE COSTS!**

- ① *Smarter Appearance . . .* Simplicity of Design. Vertical and horizontal lines reduced to minimum. Vertical "V" joints eliminated.
- ② *Lighter weight . . .* Lightness factor in decreasing floor loads in new buildings. Handled by fewer men.
- ③ *Plus . . .* all advantages of other flush partitions including flexibility, sound-proofness and space for wiring facilities across the top, through the base, or up the posts.



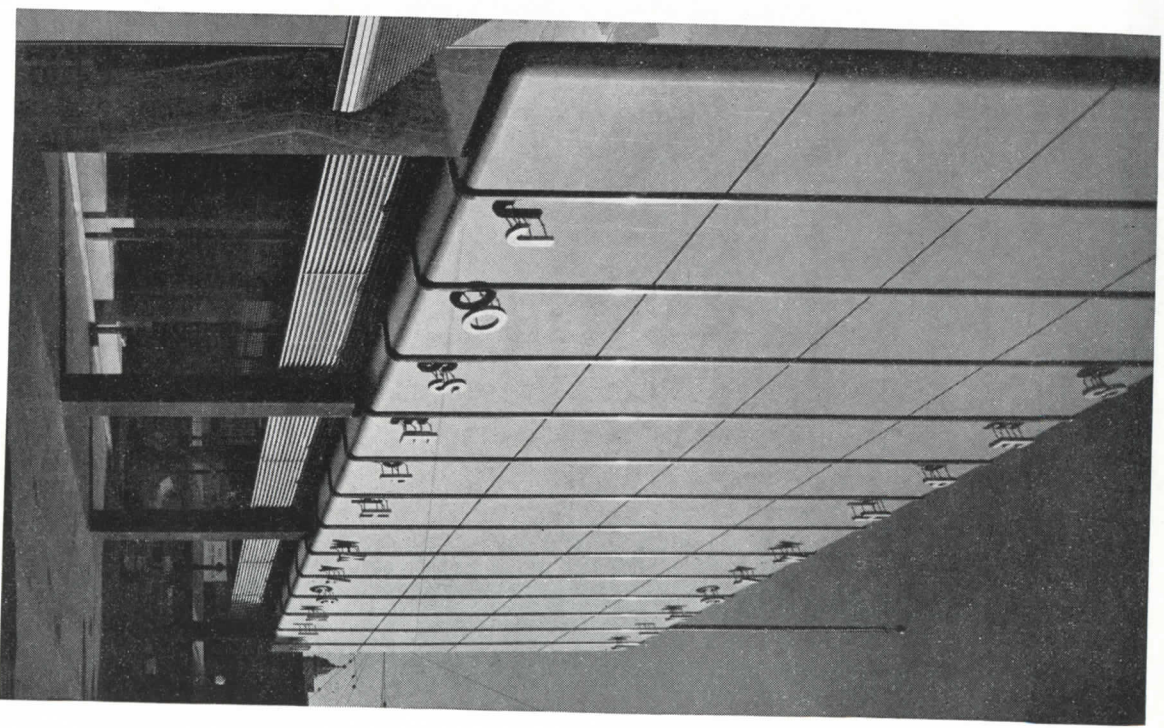
**VIRGINIA METAL PRODUCTS CORP.**

*Main Office and Plant . . .* **ORANGE, VIRGINIA**

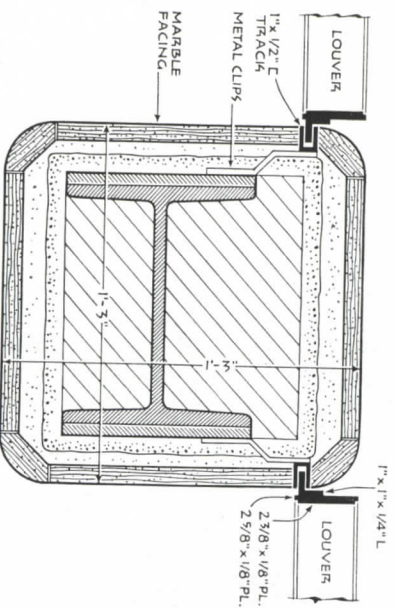
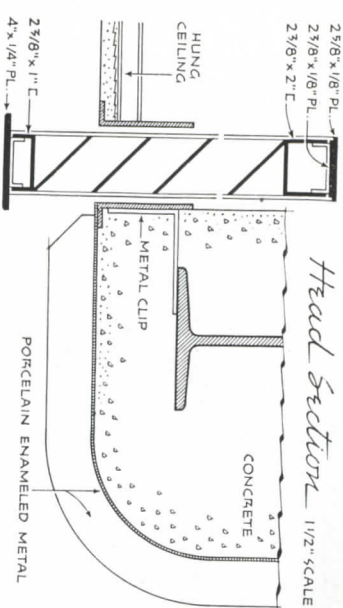
**CALL . . . ORANGE 2651**

LIBRARY EQUIPMENT • MOBILWALLS • MOBILRAILS • ALL METAL BI-PASSING DOORS • ALL METAL SWING DOORS

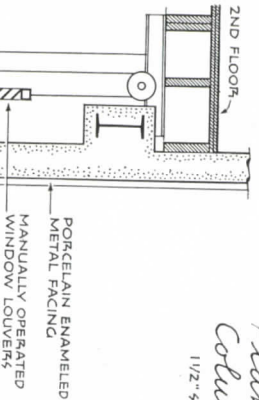




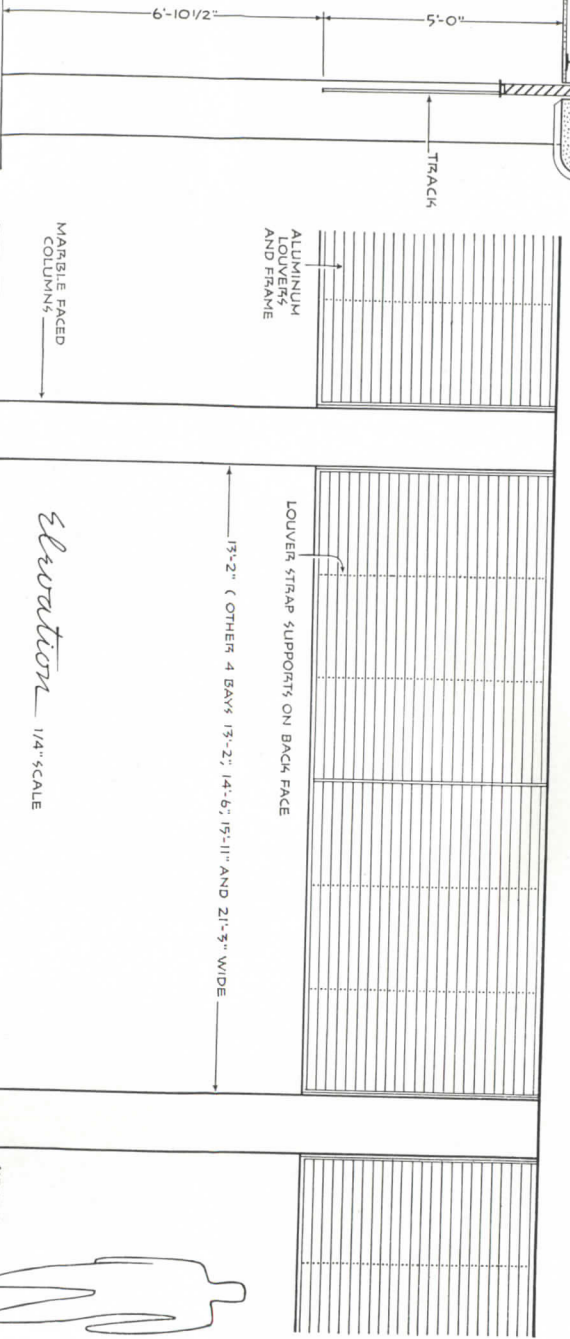
ROGER STURTEVANT



Plan at  
Column  
1/12" SCALE



Section 1/4" SCALE



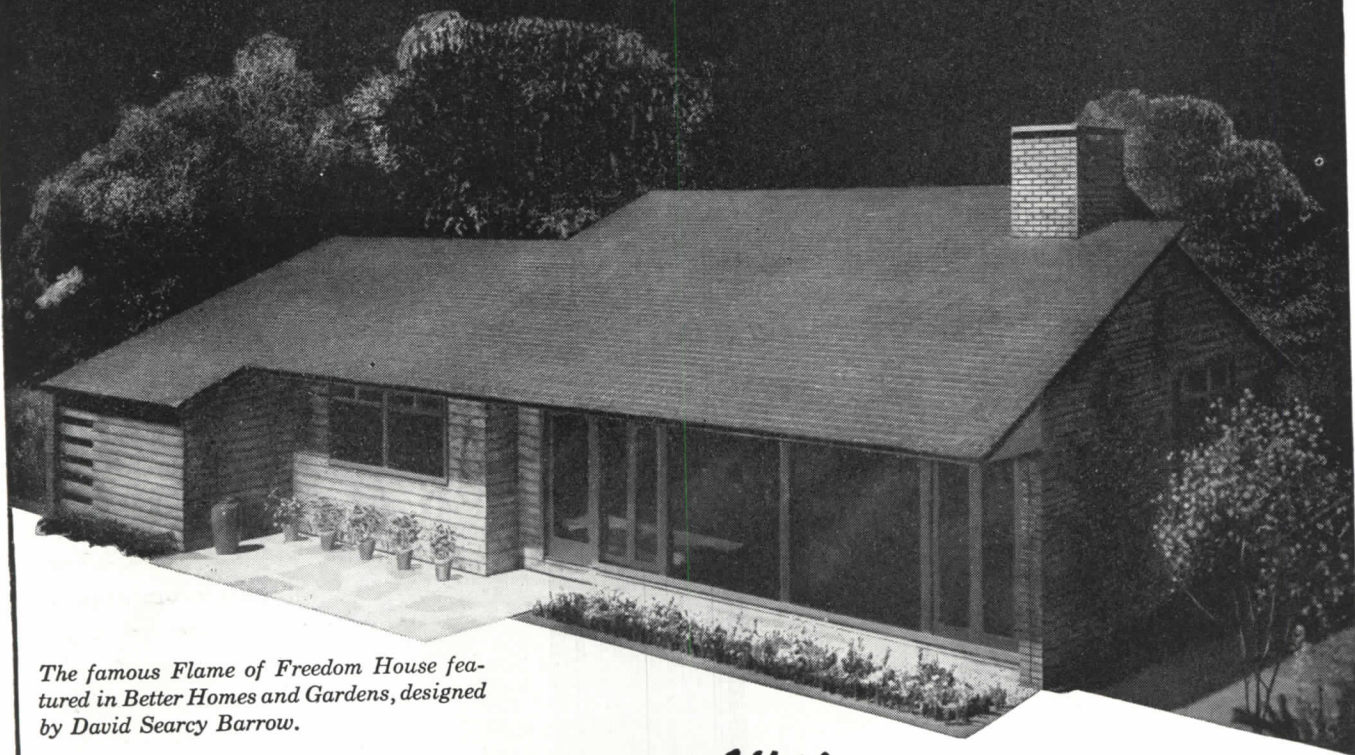
SEPH MAGNIN STORE, Sacramento, California

GRUEN & KRUMMECK ARCHITECTS



# Now—

## You can give your clients



*The famous Flame of Freedom House featured in Better Homes and Gardens, designed by David Searcy Barrow.*

### How you can offset cost of *All-Year* air conditioning

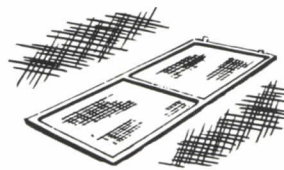
By deciding to use *All-Year* Air Conditioning in the early planning stage, you can make enough economies to give your client year-round comfort at little or no extra cost. Moreover, the features which you would eliminate—such as a screened-in porch, fireplace, attic fan, conventional heating plant—afford comfort only for a short period of time, while *All-Year* Air Conditioning provides your clients with the ultimate in comfort all year-round.



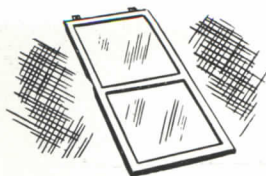
**NO FIREPLACE**



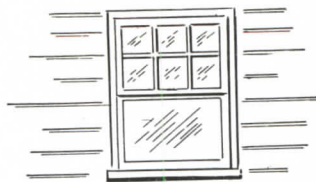
**NO PORCH**



**NO SCREENS**



**NO STORM SASH**



**LOWER COST  
WINDOW CONSTRUCTION**



**NO ATTIC FAN**



*All-Year* **air conditioning**

at little or no extra cost!

**TODAY**, everyone wants the convenience and comfort provided by Servel *All-Year* Air Conditioning in their homes. You can provide your clients with this modern unit simply by planning your homes around a Servel Air Conditioner. Recent studies and cost estimates have indicated that you can do it without increasing the total price. The reason for this is that, by planning around a Servel unit, you gain certain structural economies which offset the price of the Air Conditioning.

For instance, a house designed for Servel *All-Year* Air Conditioning needs no fireplace. It needs no porch. Outside doors and windows can be kept closed and many windows need never be opened at all. That means a big saving on screens and storm sashes. In most parts of the country the total savings would more than offset the cost of the Air Conditioning.

Keep that in mind when your clients ask you about Servel *All-Year* Air Conditioning. Keep in mind, too, that Servel provides them with year-round

comfort . . . refreshing cooling in summer and instant heat in winter. And changeover is accomplished by a mere flick of a switch.

Keep in mind, also, that the use of Servel *All-Year* Air Conditioning is not confined just to one type of architecture. It can be easily adapted to any type, style, size, or shape of home your client wants. Remember, by including the Servel unit in the original plans, you can provide it for your client at *little or no extra cost*. For full facts, ask your local Gas Company, or write direct to Servel, Inc., 4002 Morton Ave., Evansville 20, Indiana.

**Servel**  
*All-Year* AIR CONDITIONER

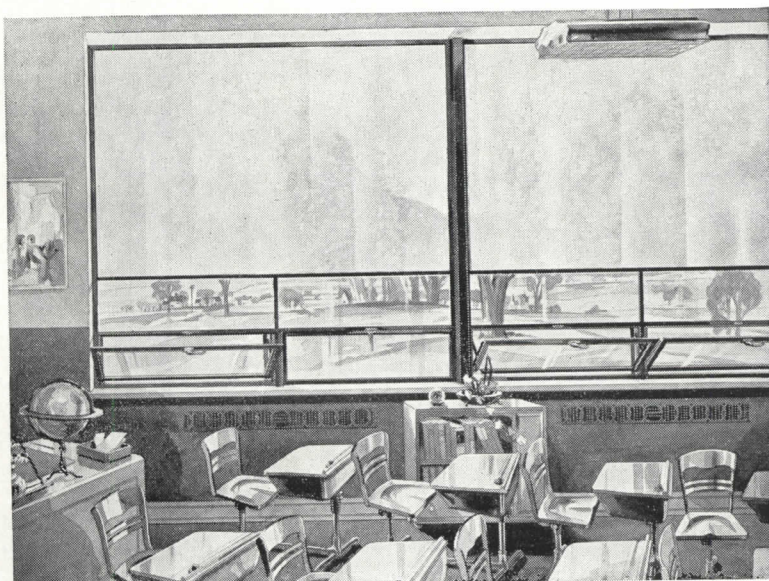
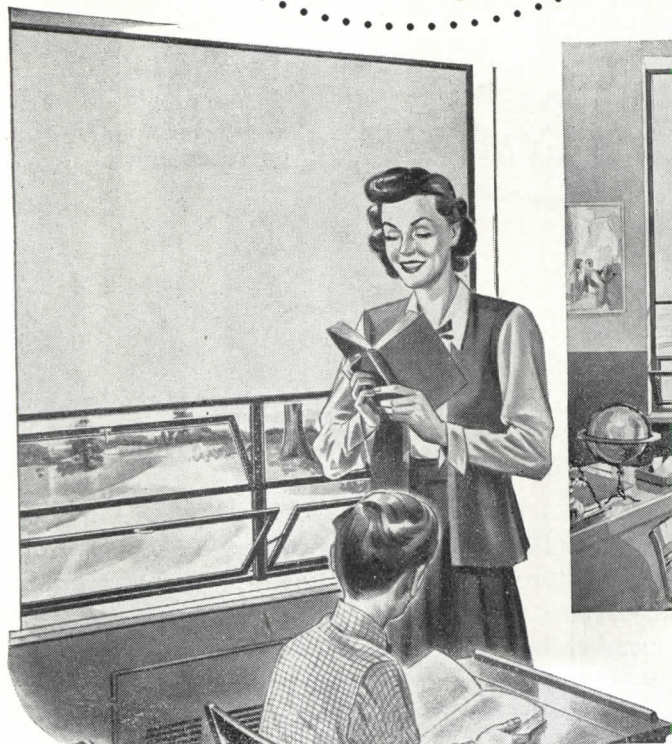






# TRUSCON *Intermediate* CLASSROOM WINDOWS

new daylight  
effectiveness...



*Truscon Intermediate Classroom Windows are custom built in integral units with widths up to 10'-0" and in heights up to 9'0". They are fabricated, bonderized and painted to the same exacting specifications as the time tested standard line of Truscon Intermediate Windows.*

## new *classroom efficiency*

This is the newest development in Truscon light-and-ventilation engineering for classroom use! Point for point, the Truscon Classroom Intermediate Window offers *greater* flexibility, *greater* and more efficient use of Nature's free sunlight and fresh air, and *greater* simplicity of maintenance than any other type of classroom window. Note: Upper light of efficient diffusing pattern glass. Lower light clear. Alternate opportunities: insulating (double) glass, heat absorbing glass, or non-glare glass. Glass is installed from the interior side. Choice of glazing completely adaptable to geographical location, climatic conditions, degree of exposure. Ventilators can be installed in both lower and upper glass panels of vision strip if desired. Important feature is marked economy in original cost. Also superior maintenance from standpoint of window washing and glass replacement. Write for free illustrated literature giving complete details on this Truscon window innovation!



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**TRUSCON** STEEL COMPANY  
Subsidiary of Republic Steel Corporation  
YOUNGSTOWN 1, OHIO  
Warehouses and sales offices in principal cities

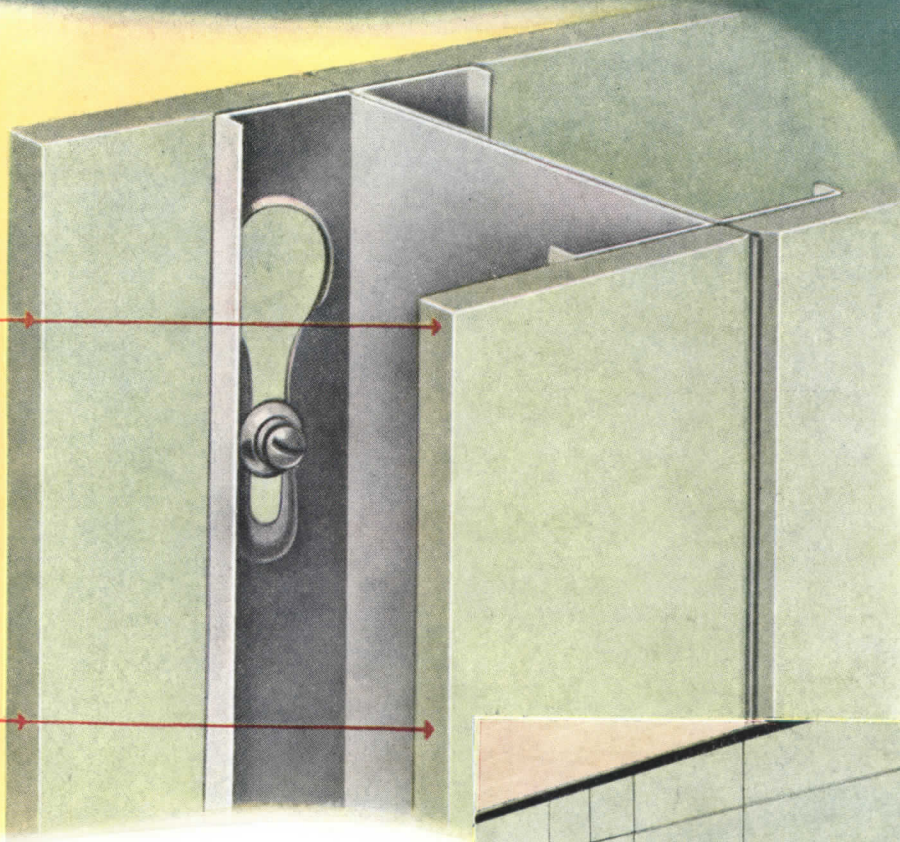


# Johns-Manville Announces

## A NEW DEVELOPMENT IN MOVABLE WALLS

### Asbestos Panels "INTEGRALLY COLORED" at the Factory

Cutaway of typical J-M Movable Wall construction. The 7/16"-thick asbestos panels, on patented steel studding, are available in a light green and light tan. NOTE HOW THE COLOR GOES ALL THE WAY THROUGH EACH PANEL!



### No more painting. No more redecorating maintenance.

In the world's largest laboratory devoted to the improvement of building materials, Johns-Manville scientists have perfected a process for introducing inorganic pigments as an integral part of the asbestos panels used in J-M Movable Walls.

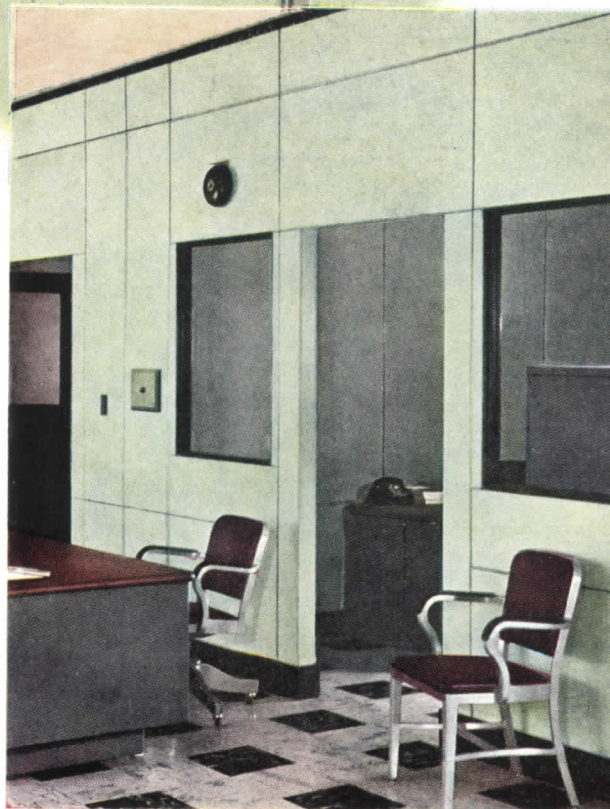
As a result, these beautifully-textured, fireproof panels now come pre-colored.

What's more, you'll have the advantage of "integral coloring," with the color going *all the way through*

*each panel*, so that it will never wear off. Your walls will have that "first-day newness" *every day* for years and years to come!

By eliminating painting and decorating expense, these new Transitone\* Movable Walls will help you to meet your wall and partition requirements *economically*.

Transitone panels are hung on steel studs, forming a 4" double-faced partition. Also used as interior finish for the outside walls. Lighter than ever, they are readily installed or re-located. For details or an estimate, write Johns-Manville, Box 290, New York 16, New York. \*Reg. U. S. Pat. Off.



**Johns-Manville**



# Transitone

**MOVABLE WALLS** with asbestos panels colored all the way through





# TRANE



## How to stop picture window chill!

With catlike quickness the new Trane "Picture Window" Convactor intercepts those infiltrating fingers of cold air that forever seek admittance to the room with the view. Skillfully designed to blend with the artistic beauty of the picture window, this new low heating unit gently but thoroughly blankets even the largest expanse of glass with protective warmth—positively preventing picture window chill.

This newcomer to the Trane line provides the same dependable, economical convector heat as standard size units. It embodies the same efficient extended surface heating coil—the same top quality materials and construction features as all other Trane Convectors.

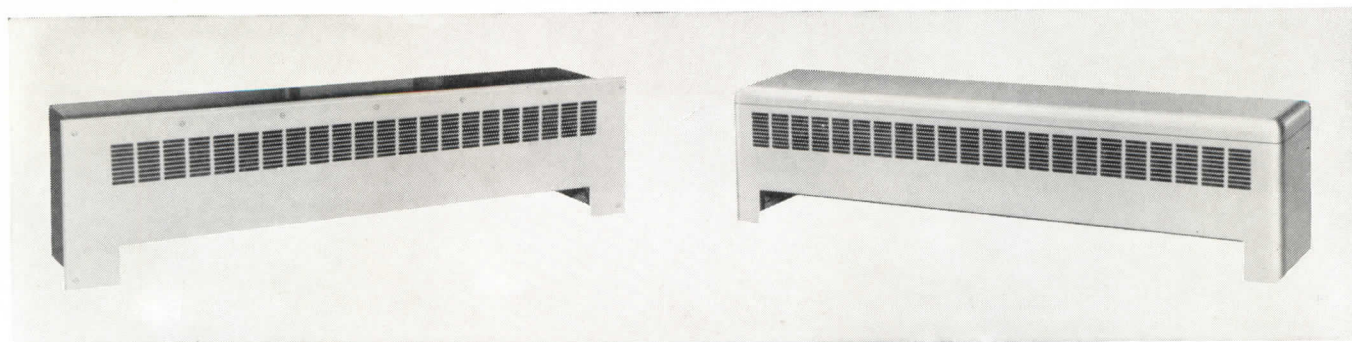
Used as supplementary heating, the picture window convector puts heat in a hurry on the area of greatest heat loss. Rooms are more evenly, quickly, healthfully warmed all over, at low fuel cost.

There is a Trane Convactor for every picture window that has a space of 12" or more existing between the bottom of the casement and the floor line. Available in three styles—free-standing—semi-recessed—or completely recessed, in depths of 4", 6", 8" or 10", and lengths from 17" to 88" for any steam or hot water system. This new Convactor development is but one of a complete line of Trane Convectors. Ask the Trane sales office in your area for complete information.

**THE TRANE COMPANY...LA CROSSE, WIS.**  
EASTERN MANUFACTURING DIVISION, SCRANTON, PA.

Manufacturing Engineers of Heating, Ventilating and Air Conditioning Equipment—Unit Heaters, Convactor-radiators, Heating and Cooling Coils, Fans, Compressors, Air Conditioners, Unit Ventilators, Special Heat Exchange Equipment, Steam and Hot Water Heating Specialties ... IN CANADA, TRANE COMPANY OF CANADA, LTD., TORONTO.

Left: Model RKL fully recessed unit. Right: Model FKL free-standing convector. Sizes are flexible to fit all standard requirements.







By JOHN RANNELLS

## climate control

A most promising and ambitious project for doing something about the weather was introduced in the A.I.A. Bulletin for September and in the October issue of *House Beautiful*. It is *House Beautiful's* project, actually, with the Institute collaborating by giving a full presentation of the technical data. One regional climate will be presented in popular style each month in the magazine; two in each bi-monthly Bulletin. Reprints are available.

Dr. Paul A. Siple, Army climatologist, was retained a couple of years ago to analyze the U.S. Weather Bureau data for a series of cities and their surrounding regions in terms of residential design. He has done a masterful job—a job that will give us architects food for thought and guides to action for years to come. The American Society of Heating and Ventilating Engineers has long been using the weather data for heating and air-conditioning design but this is the first time the whole picture of a climate has been spread out before us. The whole picture in the Bulletin, that is. In the magazine it is mostly romantic accounts of features which should appeal to the readers. More of that later.

We have a lot of climates in this country, in case you've forgotten. Enough to match most places in the world, as Dr. Siple reminds us: Key West like the ocean tropics most of the year; Pacific Northwest like England; California like the Mediterranean or South Africa or New Zealand; East Coast from Maine to South Carolina like the east coast of Japan and China; Plains States like parts of central Europe and Russia and the pampas of South America; the arid Southwest like the dry-land areas of Africa, the Middle-east, and Australia. Whatever the climate, the main problems are insulation against excessive heat, cold, rain, wind, and sun, and opening up to pleasant weather. Solutions of the separate problems are likely to be contradictory, as we all know. For example, protection against hot afternoon sun vs opening up to a pleasant southwest view and prevailing southwest afternoon breezes or protection against winter cold vs adequate summer ventilation. We are right where we've always been in designing for good living—good solutions will always be got by juggling compromises which arise from conflicting requirements and conflicting environmental conditions. But we should come up with more and more good solutions now that we have this clear information to help us arrive at decisions. Now at least we have full data of the climatic conditions typical of the area,

which we can modify according to the local climate, topography, soil, etc., of the actual site. The data are given in sufficient detail and so weighted that they can be used as design criteria—to decide, for instance, how much to spend on heating or insulation or how to arrange for ventilation at various times

of day in different seasons, whether double glazing or air conditioning is indicated, etc.

The "opener" of the series is Ohio, centering on Columbus and reaching into all the surrounding states. General

(Continued on page 100)



## FLEXWOOD SETTING...

for "Jewels by Trifari"

Beauty... distinction... durability... these were among the requirements called for in the main display room of the famous New York jeweler, Trifari, Krussman & Fishel, Inc.

The above photograph shows how architects Kahn & Jacobs met these specifications with walls of striking Satinwood Flexwood. The bamboo color of the Satinwood is a perfect complement to the jade green appointments.

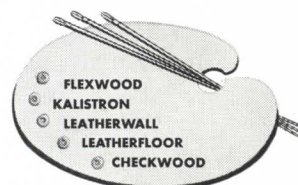
You'll find the smooth beauty of Flexwood\* enhances any good basic design,

modern or traditional... over curved surfaces or flat.

And it's durable! Real wood, in its most architecturally versatile form. Thin veneers of decorative hardwoods permanently bonded to flexible fabric backing.

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Flexwood is manufactured and marketed jointly by United States Plywood Corporation and The Mengel Company.



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● Individual or continuous runs provide flexibility of arrangement to fit any ceiling light pattern desired.

Recessed, flush-to-ceiling, or suspended models with louvers or Alba-Lite glass. The new Flur-O-Guide curved lens are available in recessed Troffers. Models to suit any light requirement and decorative motif.

Fluorescent Models are available with 2, 3 or 4-lamp starter or instant start (H. P. F.) and Slimline Models with 2, 4 or 6 lamps in various lengths and milliamperes capacities, to permit greater or less light output as required in particular locations—*without change* of fixture style.

Wiley originated the E-Z Servicer feature that permits one man, without tools, to clean and replace lamps in a matter of minutes.

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Sweet's Catalog Section <sup>31a</sup><sub>23</sub> contains  
full information on Wiley Fixtures

Underwriters Approved

I.B.E.W. Label

## technical press

(Continued from page 99)

variations from conditions like Columbus are shown on one cleverly executed map, with zones indicating five percent differences: dryer-wetter, colder-warmer in January and July, cloudier-sunnier, more snow-less snow. This map appears in both the magazine and the Bulletin. The real meat is a series of double spreads in the Bulletin analyzing thermal, solar, wind, precipitation, and humidity conditions in tabular form throughout the day and month by month. Each graphic analysis is followed by "Design Data" interpretation in the same tabular form, with detailed advice on construction, condensation, heat load, etc., for all the different times and sorts of conditions. These detailed data outline a complete education in environmental factors affecting design. It all adds up, after some study, to a broad, rich, understandable panorama. Thanks to this we architects may become weather-wise to some purpose.

We shall *have* to become wise, or build up some other defense to cope with the great expectations of *House Beautiful's* readers and all the other consumers who will want the latest thing. They are given glowing accounts of how much better houses can be made by using the principles of "climate-control." The houses displayed are pretty spacious and luxurious. That's as it should be, for *House Beautiful*. But the purpose of the project was not only to provide the ultimate in luxury for the affluent client but to "offer guidance to architects, community planners, consulting engineers, producers of building materials, and those interested in the development or regulation of house construction."

There is so much that we could do to increase the comfort and usefulness of all sorts of buildings—in construction and in relation to the site—in housing developments—in planning for the entire community. It's not too difficult to provide all the luxuries in a house that's big enough and costly enough. To provide a fair share of them in a house or apartment that a medium-income family can afford is more challenging and in the long run will turn out to be more rewarding for us architects and for the community at large.

A public informed as to what it should get from us will give us no end of trouble for a while. We shall have to "stand and deliver" and give an account of ourselves. The feature writers who describe the advantages don't say much of the difficulties and contradictions, but that, after all, is our business. If this results in no more than an increased demand for "architected" houses designed for good living it will be O.K. Be sure that the speculative builders and real estate men will get on the bandwagon and acquire an appropriate jargon in line with the trend, perhaps to no better purpose than the current

(Continued on page 10)



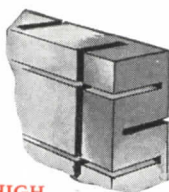
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**REALLY STABLE**  
**SOLID-CORE DOOR?**

**MENGEL** *Solid-Core Flush Doors*  
 Expand **INTERNALLY—**  
 But **NOT EXTERNALLY!**

**M**engel Solid-Core Flush Doors represent a radically new *Standard of Stability*. Their unique construction does not undertake the impossible job of *preventing* expansion and contraction caused by changes in humidity — it *controls* these forces to an extent hitherto unknown.

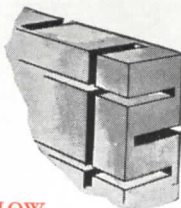
All Mengel solid hardwood core members are deeply slotted at frequent intervals both with and across the grain. *These slots effectively absorb expansion and contraction.* Thus the solid wood *between* the slots can expand and contract as the weather changes, without in any way affecting the stability of the door itself! Furthermore, Mengel's exclusive key-lock dovetails and waterproof hot-press phenolic bonding keep the entire assembly *permanently* tight. . . .

Get all the facts about Mengel Solid-Core Flush Doors—the really *stable* doors that co-operate with nature on the *inside*, ignore it on the *outside*! The coupon will bring you full information and specifications.



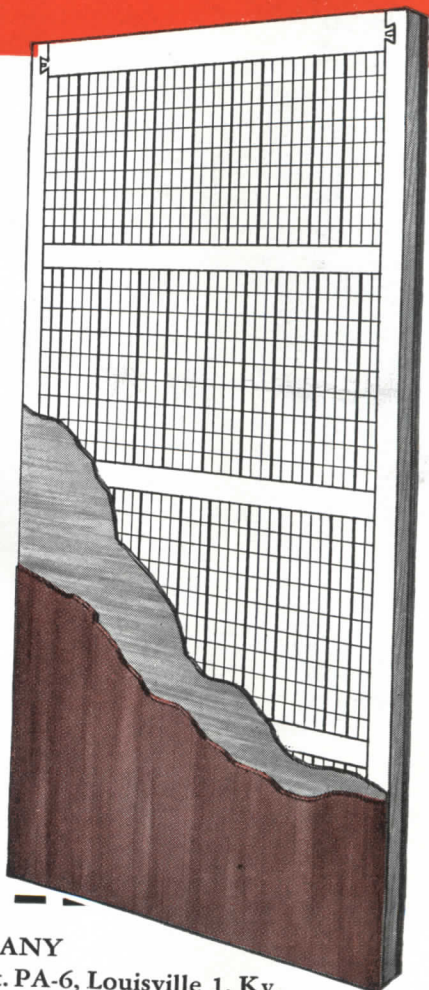
**HIGH HUMIDITY**

*Wood expands under humidity, but expansion is absorbed by deep slots cut both with and across the grain. Note how the expansion of the solid wood has closed the slots.*



**LOW HUMIDITY**

*Dry atmosphere has shrunk the solid wood between the slots, thereby increasing the width of the slots, without changing the dimensions of the door itself.*



**MENGEL**  
*Flush* **DOORS**

THE MENGEL COMPANY  
 Plywood Division, Dept. PA-6, Louisville 1, Ky.

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# technical press

(Continued from page 100)

"ranch style" cliché. It's up to us to come through with the real thing. And, please, don't name it yet. It might even turn out to be "regional."

The material in *House Beautiful* is glamorized to the hilt but a lot of excellent material is given—much of it well worth perusal by the architects. We can at least learn here about the intellectual climate of those wisened-up clients whom we shortly expect to have in our hair. Dr. Siple's summaries of each climate in the magazine are espe-

cially fresh and lively. In the Bulletin he assumes that we are all conversant with material that actually needs popularizing with most of us, too.

A specially designed house will be presented in the magazine for each regional climate. The November issue (New Jersey climate) is almost entirely taken up with their "Pacemaker House" that has just everything—except historic style. "Style" it has, in abundance. We are not likely to stop designing houses to please the eye just because

the emphasis now is to "please the whole body," as implied in the October editorial announcing the project. Despite being a bit mixed on some of the facts the editor deserves all praise for furthering progress in architecture toward a better life.

Some of the trappings of the *House Beautiful* presentation are pure circus. Here's the text of a one-page rhapsody, with appropriate stylized illustrations: "You are two different personalities. Your hot self is the opposite of your cold self. When you are extremely hot your body relaxes and your mind becomes contemplative, imaginative. You like flowing, rounded lines, poetic ideas, shapes like a woman's. When you are very cold your body becomes tense and rigid. Your cool self becomes rational, energetic, efficient. You like things square, to fit exactly. If you had to design a building it would come out engineered, functional, square cornered, and factory-like."

See? All we need to do to produce designs to order is adjust our office microclimatizer to the appropriate settings and turn on the juice. The New Empiricism under eclectic control!



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Stainless Steel, bright and rustless, is no longer the "new" metal—it's the *proved* metal for the embellishment of buildings with gleaming, permanent beauty. Put

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### NEW PRACTICES, PARTNERSHIPS

HERMAN H. SIEGEL, ERNEST D. RAPP (SIEGEL & RAPP, Architects), 184 Broadway, New York 23, N. Y.

THOMAS H. DESMOND, GEORGE A. YARWOOD (DESMOND & YARWOOD), Landscape Architects and Site Planners, 1 Drake Hill Rd., Simsbury, Conn.

JOSEPH A. PARTRIDGE, JR., Architect, Woosley Bldg., Lake Charles, La.

HENRY A. BETTMAN, Architect, 51 Provident Bank Bldg., Cincinnati 2, Ohio.

ERLING G. DOLLAR, Architect, 101 Washington St., Wilmington, Del.

VLADIMIR BOBOVITCH, Architect, NGWAI FOOK, Designer (VLADIMIR BOBOVITCH—NGWAI FOOK ASSOCIATES), 204 46th St., New York 17, N. Y.

STEWART S. GRANGER, Architect, 300 Wilshire Blvd., Los Angeles 5, Calif.

LEONARD H. GLASSER, Architect, 88 Lincoln Rd., Suite 1, Miami Beach, Fla.

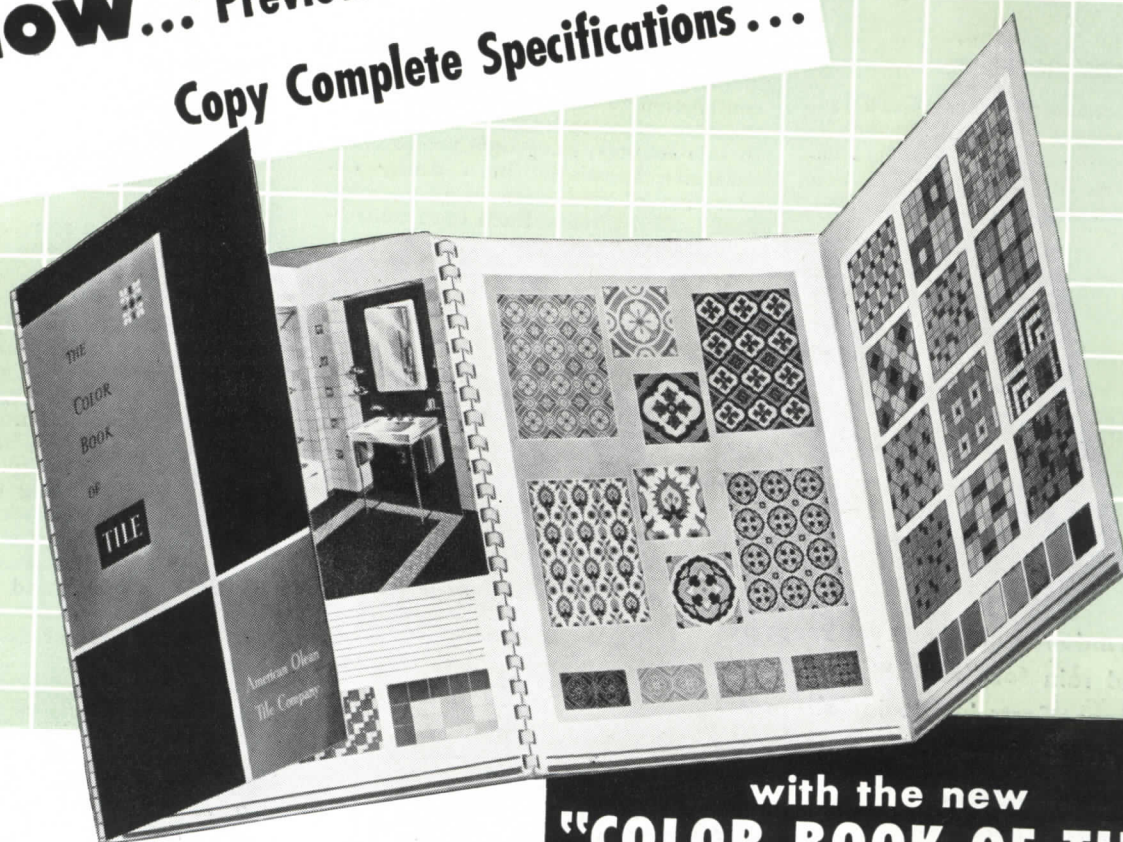
GEORGE D. BROWN, JR., BERNARD GUENTHER (BROWN & GUENTHER), 18 Broadway, New York 23, N.Y.

SANDERS & MALSIN, Architects, announce the establishment of a branch office at 309 S. State St., Ann Arbor, Mich. Main office: 1 E. 42 St., New York 17, N.Y.

RICHARD B. BENN, ROSWELL H. JOHNSON, JR. (BENN & JOHNSON, Architects), 5907 Penn Ave., Pittsburgh, Pa.



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**BOOKS**

**SECONDARY SCHOOLS**

**Planning Secondary School Buildings.**  
N. L. Engelhardt, N. L. Engelhardt,  
Jr., and Stanton Leggett. Reinhold Pub-  
lishing Corp., 330 West 42nd St., New  
York 18, N. Y., 1949. 252 pp., illus.  
\$10.00

Three educational consultants, well-known to all who have observed and contributed to the development and refinement of secondary school curricula in this country, have here pooled their extensive knowledge in a timely exploration of this class of educational facility. All three authors have contrib-

uted books and pamphlets to the educational research library—and as consultants have participated in the planning and supervision of school plants in more than 100 U.S. cities. Thus equipped, they have turned their attention to the secondary school of the future.

"It will not be a standardized school," the authors point out in their foreword. "American communities will continue to plan and build to meet their local requirements. The school building will be planned to make the curriculum work. It will offer expanded opportunities for learning. It will serve, not a limited number of special minds, but will advance the individual interests of the various types of youth. It will make provision for learning the social arts, as well as for growing in physical health and emotional stability. It will be the educational focus of its community serving youth and adults alike. It will become a superior educational and inspirational center for all American youth."

The theories and proposals advanced have been formulated after countless experiments and discussions of the secondary school problems encountered in professional practice as well as in class conferences on school administration at Teachers College, Columbia University. The intricacies of the modern secondary school—realized in part through long insistence by the senior Dr. Engelhardt on clarification of the basic curricula—are skilfully subdivided and discussed. The refinements of secondary training veterans of many attacks by "practical men" who rejected them as "frills," are thoughtfully analyzed, considered in their relation to educational objectives and firmly established as vital components.

The maturing of the secondary school curricula is noted. Architects can, from this study, learn to meet new challenges.

C.M.

**WHAT INDUSTRIAL DESIGN IS**

**U.S. Industrial Design 1949-50.** Society of Industrial Designers. The Studio Publications, Inc., 381 Fourth Avenue, New York, N.Y., 1949. 176 pp. \$10

This is a book on industrial design by industrial designers. It is a survey of the present state of the art in the United States, made by members of the Society of Industrial Designers. Each designer selected examples of his own work and prepared the text and page layout himself.

The book is not an elucidation of a

(Continued on page 1)

**a new concept  
in  
window construction**

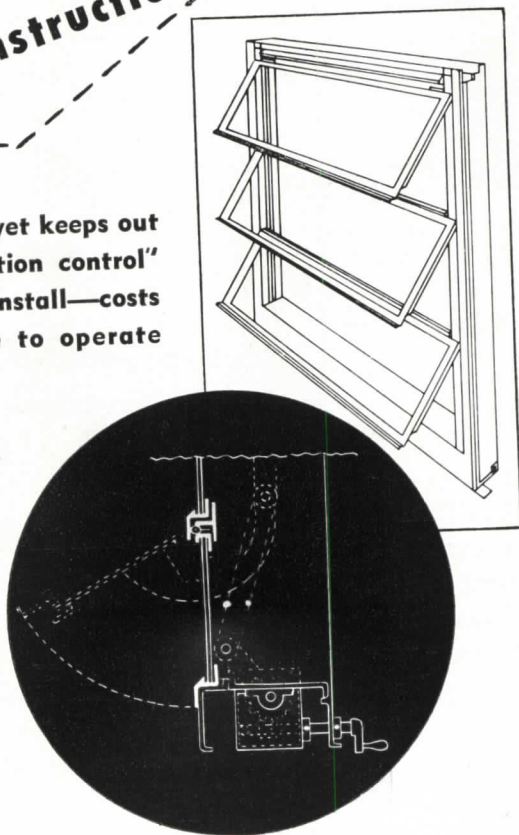
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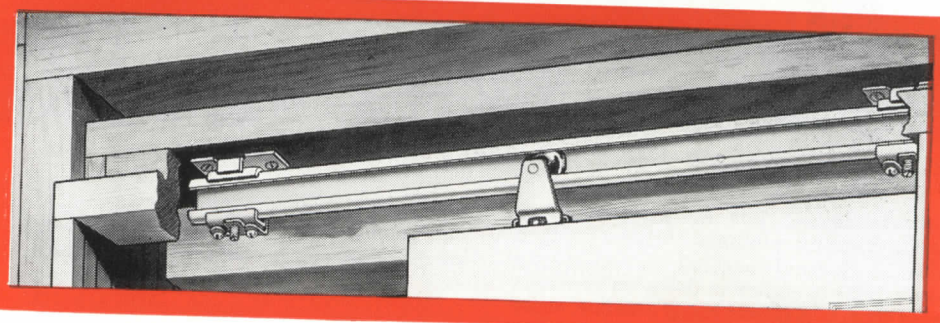
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- No upkeep required

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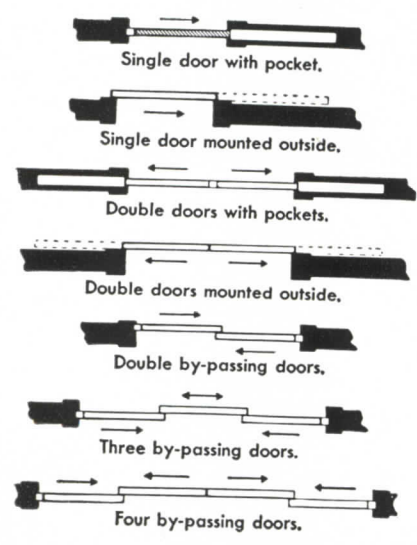
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## REVIEWS



## REVIEWS

(Continued from page 106)

of collections and buildings but also of the records of many years of work by eminent art historians, is unhappy evidence that the enlightened principles laid down by international conventions are still far from universal acceptance, which would rule them out as legitimate military objectives.

CHARLES NAGEL, Director  
The Brooklyn Museum

### HISTORIC COLOR

**A Treasury of Early American Homes.** Richard Pratt. Whittlesey House, McGraw-Hill Book Co., Inc., 330 W. 42 St., New York 18, N. Y., 1949. 136 pp., illus. in full color. \$12.50

Struck by the perennial tourist-attraction of the great houses of America dating from the pre-Revolutionary and

### LOOT OR WORLD TREASURE?

International Protection of Works of Art and Historic Monuments. Charles De Visscher. The Department of State, Publication 3590, International Information and Cultural Series 8, Division

early Republican periods, *The Ladies' Home Journal*, during the past year or so, has published a series of 22 articles illustrated in full color—rich fruit of a pilgrimage by Richard Pratt, architectural editor of that magazine. These handsome color photographs have now been brought together in a book that records the beauties which annually draw thousands of visitors.

No attempt is made to explore beyond the sightseer's plane of interest—to explain the motives of planters and merchants who lavished money and cheap man-hours creating mansions to die in, costly heritages almost invariably lost by their descendants—but all the grandeur is here of the émigrés who sought to establish themselves as an aristocracy in the European possessions, from British Maine to Spanish California. This is just the book for clients who are confused as to which side won the American Revolution, but have need of time-tested power symbols. C.M.

Brevitt Shoe Salon at B. Altman & Co., New York

Designer: John Muller



## THE CASE OF THE WANDERING SHELVES

PARDON our peaked hat and British accent. They're just props anyway, to introduce a recent "case" we solved successfully. It started with our assignment to do the new Brevitt Shoe Salon at B. Altman & Co. Brevitt is a top-notch English shoe concern.

And here's where Bergen's wood-wizardry came to the rescue. The designer's plans called for display shelves that could "wander" all over the columns and background panels of the Salon. Shelves that could be easily

positioned to reflect changing display ideas. It was elementary, Watson. Bergen aged-in-the-wood craftsmanship always solves these puzzling cases with an elan and dispatch that leaves bystanders shaking their heads in wonderment.

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### NEW PENCIL BOOK

**Pencil Drawing Step-by-Step.** Arthur L. Guptill. Reinhold Publishing Corp., 330 W. 42 St., New York 18, N. Y., 1949. 200 pp., illus. \$7.50

The majority of our readers, having learned the secrets of pencil technique from Arthur L. Guptill's *Sketching and Rendering in Pencil* (the Reinhold book that set a standard in its field from the original edition in 1922 and through eight subsequent printings), will appreciate the significance of this new Guptill work on the art and craft of pencil drawing. The text, the illustrations, and all new and the author offers a new feature—plates of representative work of 30 of our foremost artists.

Guptill has organized his new book in three parts: "Fundamentals of Lead Pencil Drawing," "Some Special Materials and Techniques," and "A Gallery of Professional Examples," mentioned above. His explicit instructions and clear examples are supplemented by the plates selected from the best work of Egmont Arens, William Auenbach-Levy, Vernon Howe Bailey, Joyce Ballantyne, A. Thornton Bishop, Pat Bransom, Paul Brown, Dean Cornwell, John E. Costigan, Alfred D. Crimi, Carl Erickson, Hugh Ferriss, Gordon Grant, Earl Oliver Hurst, Leon Kroll, Henry Lee McFee, William Oberhardt, Henry C. Pitz, Chester B. Price, Louis Rosenfeld, E. M. Schiwetz, Everett Shim, Paul Smith, Eugene Speicher, Diarmid Thorne, Ernest W. Watson, J. Sco Williams, Stanley Woodward, J. Floy Yewell, and Frank H. Young.

Like its predecessor, which is now out of print, this book can help the amateur, the school student, and (as reference guide) the practicing delineator.



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## The Fox-Made Gate City Picture Awning Window

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Sashes open to the degree desired—provide perfect, healthful ventilation.



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- **GREATER CONVENIENCE** A simple turn of the handle tilts all sashes out horizontally to any degree — the tilt keeps out the rain. They can be washed easily from within the home . . . and screens and storm sash are also applied from within.
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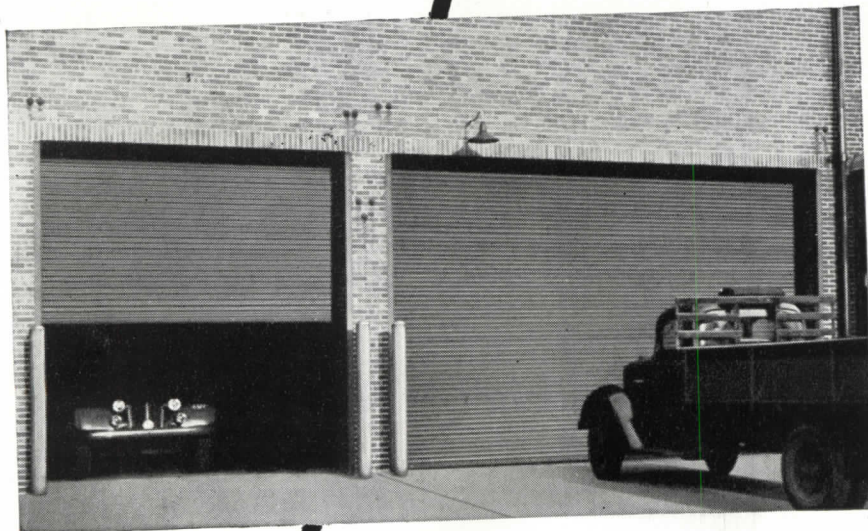
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**ROLLING DOORS**



## REVIEWS

(Continued from page 108)

### SILHOUETTES

**Profile Art Through the Ages.** R. L. Mégroz. *Philosophical Library*, 15 E. 40th St., New York 16, N. Y., 1949. 181 pp., illus. \$7.50

Shades of the prehistoric past, of the Greek, European, and (finally) contemporary world are presented here in dusty array. This is a popular history of silhouette written by an Englishman for the reader's "entertainment." Although the author does not attempt a scholarly treatise, he explores the various stages of silhouette and relates them in time and feeling. The reader occasionally wishes he had said something about American activity, since the book was published here as well as abroad, and that he had been more explicit in his summaries. In the chapter on ornamental miscellany, for instance, a line of recognition of the Teutonic barbarians' influence on sixth century decorative art would have been welcome. Except for isolated facts that provoke a raised eyebrow, this book is generally as dull as its layout.

HELEN MERCNER

### A.I.A. SEMINARS

**1948 Convention Seminars:** *Aesthetics, Urban Planning, Dwellings, Retail Business Buildings, Modular Design.* Compiled and edited by Walter A. Taylor, Department of Education and Research, The Octagon, 1741 New York Ave., N.W., Washington 6, D.C., 1949. 161 pp., illus. \$3.00 to members of A.I.A., \$5.00 to non-members

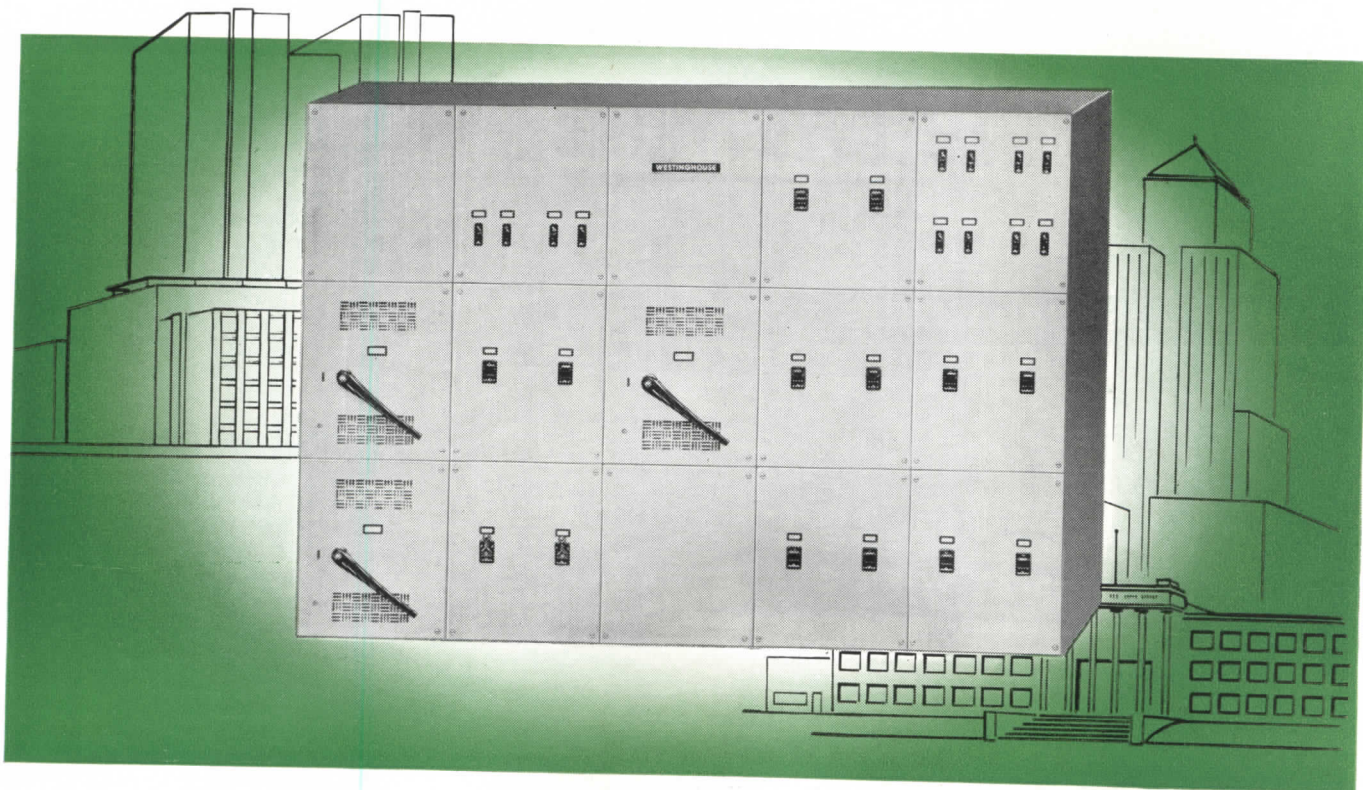
Reports of the seminars on the Fundamental of Design, the theme of the 80th Convention of the American Institute of Architects, are now available in book form. For those who did not attend the convention, this book offers the meat of the many discussions. It is interesting not only as a "who said what" but also as a commentary on where architecture may go in years to come.

Here are some poignant comments by some of the speakers. Belluschi: "Beauty, thank God, has the property of being forever fluid in the minds of the men who feel and think." Kamp hoefner: "There have been many failures in residential design by architect who did not have the 'feel' of the region in which they are working." Hugh Stubbins on domestic architecture: "The in

(Continued on page 11)



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**REVIEWS**

(Continued from page 110)

ner man must be satisfied, his emotions, sense of security, and feeling of participation in a continuous and rational society are of primary importance."

Perhaps the most critical comment to be made is that many of the speeches are recorded verbatim without editing and, therefore, some references which may have been shown in movie or slide form are not easily understood.

J. H. L.

**ENGINEERS' RESEARCH**

**Review of Current Research and Directory of Member Institutions.** Edited by John I. Mattill and John P. Weber. Engineering College Research Council of the American Society for Engineering Education, College of Engineering, State University of Iowa, Iowa City, Iowa, 1949. 186 pp., \$1.75

This paper-bound book contains entries from 82 educational institutions which hold membership in the Research Council. It describes the administrative policies for conducting engineering research and lists the responsible personnel, research expenditures, short courses and conferences of special interest, as well as the titles of all engineering research studies currently active at each institution.

J. H.

**SCHOOLS OF 1949**

**The American School and University Year-book 1949-50.** American School Publishing Corp., 470 Fourth Ave., New York 16, N. Y., 1949. 785 pp., illus. \$4

Bigger and better—this issue will be of particular interest to architects. More articles than before are written about school planning by such accomplished architects as John Lyon Reid, Lawrence B. Perkins, Walter H. Kilham, James H. Bailey, Hermann H. Fiedler, Jay C. Van Nuys, and John W. McLendon.

John Lyon Reid's frank comment on the Fairfax School's orientation is both informative and a basis for further study of microclimatology. John McLendon's suggestions for long-range planning and flexible storage space are well illustrated.

(Continued on page 112)



At the University of Michigan . . .

Administration Building,  
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## REVIEWS

(Continued from page 112)

trated. In a discussion of determining space requirements, Larry Perkins blows off with the usual good sense: "Get the thing wired and piped so that you can tap into it anywhere with anything and then go ahead and have partitions if you must."

J. H. L.

## COLLEGE TEXT

**Heating, Ventilating, and Air Conditioning Fundamentals, Second Edition.** William H. Severns and Julian R. Fellows. John Wiley & Sons, Inc., Publisher, New York, 1949. 666 pp. \$6.50.

Here is a book strikingly appropriate for the college classroom. All the pertinent and traditional equations and formulas have been assembled into an encyclopedic textbook of heating, ventilating, and air conditioning knowledge. Here we can find discussions of terms and definitions, load calculation for heating and cooling, fuels and combustion, steam, water, and air heating systems, panel design and the heat pump, fans, ducts, boilers, furnaces, stacks, registers and unit heaters, mechanical, absorption, and steam jet refrigeration, automatic controls. Everything is included, with detail illustrations of equipment from the needle valve thermostatic traps, up to the precipitron for purifying air. Words and pictures fail, tables and curves take over. Teachers will be delighted.

However, despite the use of "fundamentals" in the title, this book will illuminate very brightly the problems of architects, engineers, and contractors who are seeking real fundamental understanding of these subjects. The scope of the work necessarily has compelled in many instances, a compactness of discussion that may prove a little undigestible to the out-of-school learner. These individuals are likely to conclude that, in their cases at least, the material would be preferred in two books instead of one, and with somewhat more thorough treatment in each.

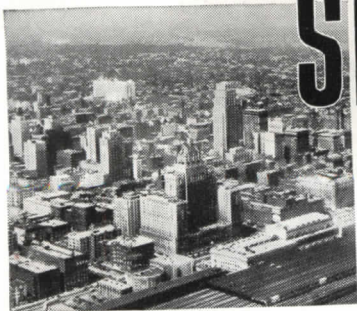
Except as a refresher, practicing designers likewise will find little of compelling interest in this text. Certainly the data presented by curves and tables are not new to the up-to-date practitioner, and moreover tend to be more complete than those he obtains from usual every-day sources.

Perhaps the best way to evaluate this book, is to say that it is an unusual comprehensive text of, by, and for, college classroom.

ROBERT H. EMEY

# skylines...

by Otis

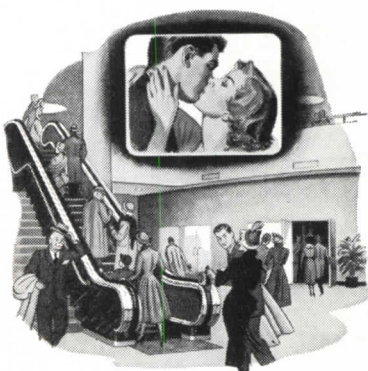


**Toronto**, which began as a wooden stockade on a site known to the Indians as the "place of meetings", has grown to be Canada's commercial and financial capital and a great educational and cultural city. The home of Toronto University, it supports two symphony orchestra organizations and stages the annual Canadian National Exhibition which is the industrial show window of Canada. Toronto's skyline, which includes the tallest skyscraper in the British Empire, is served by 3,724 elevator installations — of which 2,174 are by Otis.

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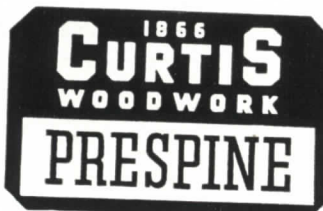


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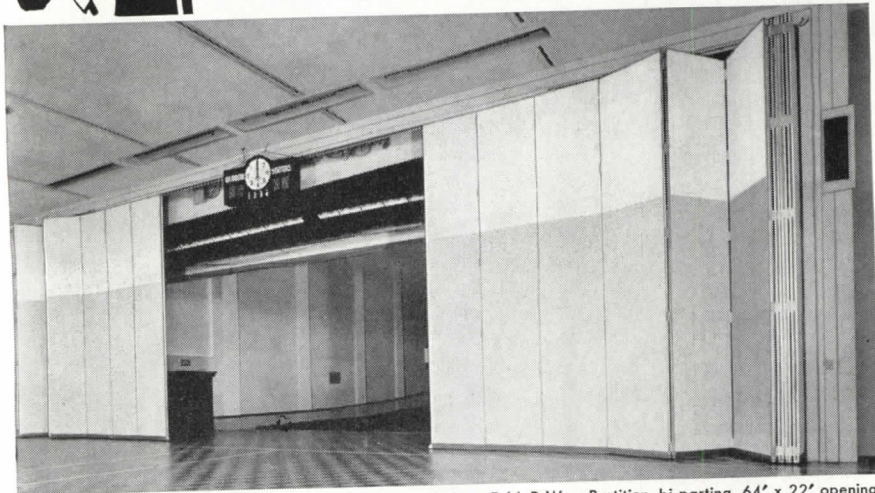
*Prespine is used in most Curtis flat panel door models, including interior, exterior and garage designs.*





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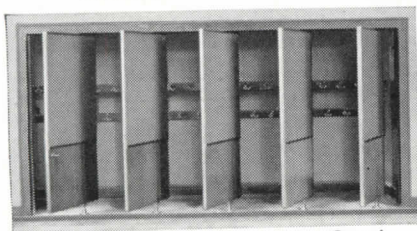
R-W DeLuxe FoldeR-Way Partition, bi-parting, 64' x 22' opening.

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## NOTICES

### APPOINTMENTS

THE NORTH CAROLINA STATE COLLEGE SCHOOL OF DESIGN announces the return of Lewis Mumford as Visiting Professor of Architecture to the college for his second year with the school, and the appointment of Fred N. Severud of New York to a similar position in the school for 1949-1950.

The announcement is also made by the School of Design of the appointments as visiting lecturers during the current year of Leo Katz, Eero Saarinen, William W. Caudill, Alonzo J. Harriman, Thomas Church, R. Buckminster Fuller, Richard J. Neutra, and Frank Lloyd Wright.

### FELLOWSHIP

PRINCETON UNIVERSITY has announced the *Lowell M. Palmer Fellowship in Architecture* for 1950-1951. The purpose of this fellowship is to assist a student of unusual promise in the advanced study of architecture at Princeton, including research in architectural composition at the Architectural Laboratory, and the opportunities offered through the close affiliation of the School of Architecture, the Bureau of Urban Research, the Department of Art and Archeology, and the other graduate Departments of the University.

The Palmer Fellow is exempt from tuition fees, and will receive a stipend of \$700 during his year of residence at Princeton. He will be entitled to all the privileges of a Fellow of the University, including residence in the Graduate College buildings.

In awarding the fellowship particular consideration will be given to (1) achievement in architectural design; (2) personal qualifications; (3) scholastic record; (4) professional experience.

All applicants must be citizens of the United States of America, holders of a Bachelor's degree, less than 27 year of age on October 1, 1950, and in good physical condition. In order to receive consideration for appointment for 1950-1951, applications, together with supporting documents, must be received not later than March 1, 1950.

Application blanks may be obtained by writing to: Secretary, School of Architecture, Princeton University, Princeton, N. J.

### CONVENTION

The 46th Annual Convention of the AMERICAN CONCRETE INSTITUTE will be held February 20-22 at the Edgewater Beach Hotel, Chicago, Ill. The program will include sessions on inspection, A.C.I. Building Code studies, reinforced concrete

(Continued on page 1)





The Fred Jones Lincoln Building, Oklahoma City  
 Architect: Sorey, Hill & Sorey  
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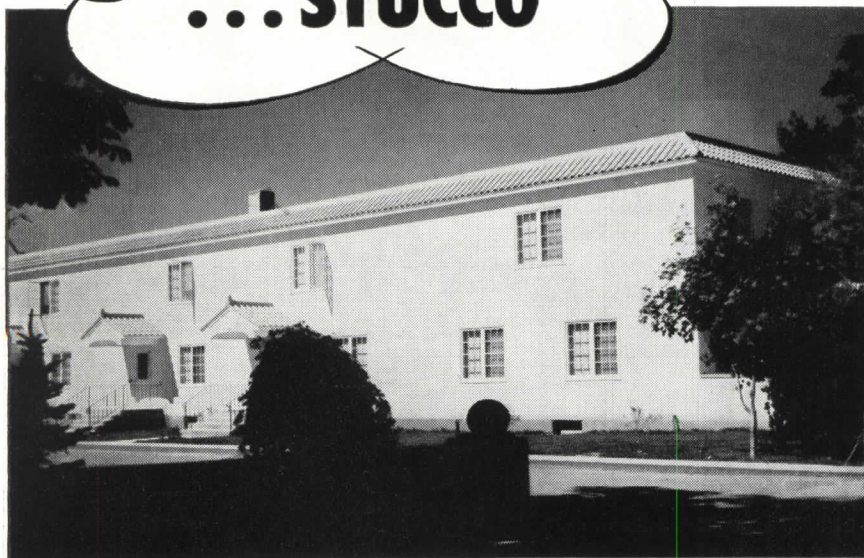
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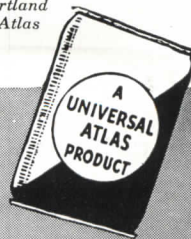
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**p/a**

## NOTICES

(Continued from page 116)

crete design problems, structural design of concrete pavements, admixtures for concrete, a panel discussion of questions on concrete problems and the annual open session on concrete and cement research. Further information may be obtained from: American Concrete Institute, 18263 W. McNichols Rd., Detroit 19, Mich.

### NEW PRACTICES, PARTNERSHIPS

ARNE G. ENGBERG, Architect, 3810 Fannin St., Houston, Tex.

JOHN H. FARRENS, JR., Consulting Architect, 1055 Convention St., Baton Rouge, La.

H. FRED GEHRKE, Architect, 12 Hillcrest Ave., Oaklyn, N. J.

JAMES P. LOCKETT, Architect, 212 W. Main St., Visalia, Calif.

ALBERT E. TAYLOR, Architect, 1907 Fidelity-Philadelphia Trust Bldg., Philadelphia 9, Pa.

WALTER ZICK & HARRIS SHARP, Architects, 1806 S. Main St., Las Vegas, Nev., P.O. Box 1808.

ANTHONY S. CIRESI, Architect, 7113 Euclid Ave., Cleveland 3, Ohio.

CHARLES FREDERICK WISE, Architect, 2063 S. Cecil St., Philadelphia 43, Pa.

RICHARD HAWLEY CUTTING ASSOCIATES, Architects and Engineers, 2074 E. 36 St., Cleveland 15, Ohio.

### NEW ADDRESSES

ROBERT N. EDDY, Architect, 25 Kern County Land Co. Bldg., 1700 19th St., Bakersfield, Calif.

JOHN HALL BROWN & JAY LOWE CHAPMAN, Architects, Suite 501-502 M & F National Bank Bldg., Sherman, Tex.

WILLIAM CHARNEY VLADECK, Architect, 250 W. 57th St., New York 19, N. Y.

LAURENCE P. JOHNSTON, Architect, 410 Wisconsin Ave., N.W., Washington 16 D.C.

CARL KOCH, ARCHITECT & ASSOCIATES, 57 Brattle St., Cambridge, Mass.

MANN AND COMPANY, Architects & Engineers, Box 1148, 201 E. First, Hutchinson, Kans.

HANS G. R. SCHICKELE, Architect, 222 Bancroft Way, Berkeley 4, Calif.

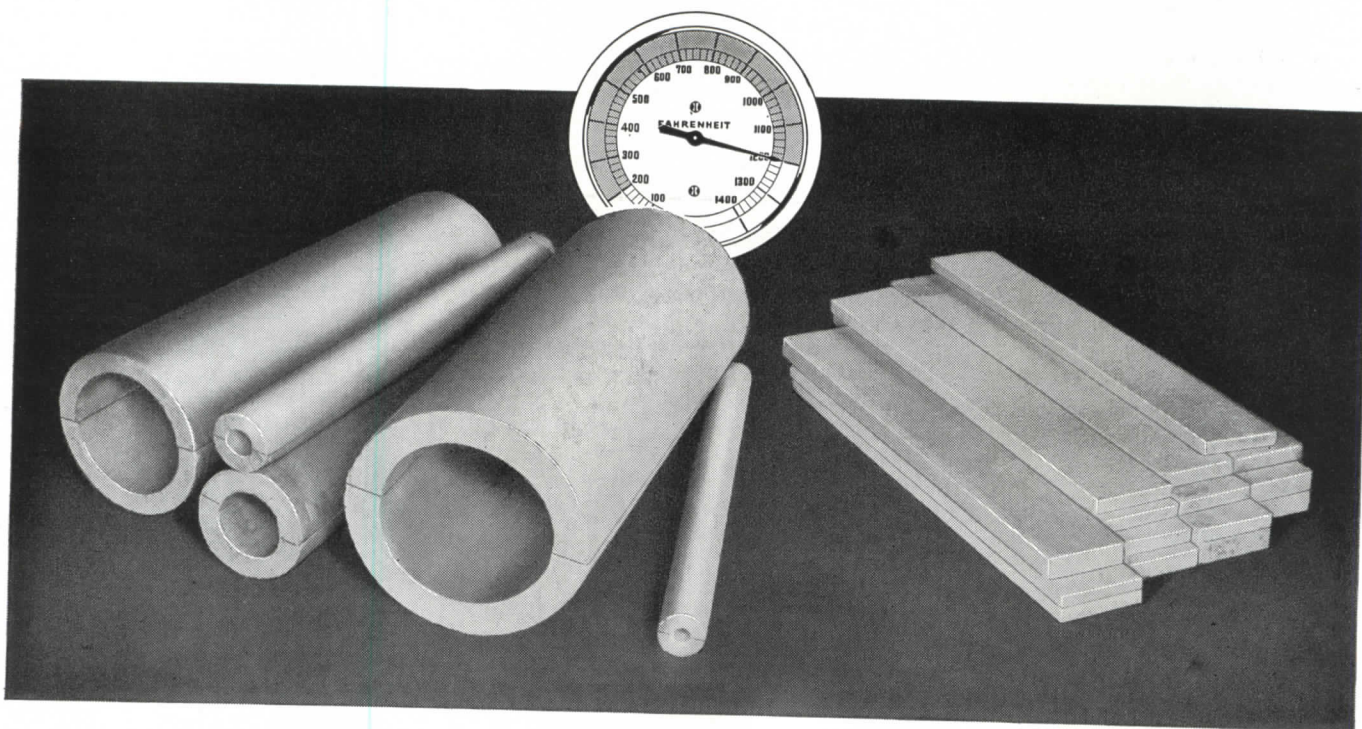
TECHNICAL PLANNING ASSOCIATES, INC., 111 Whitney Ave., New Haven 10, Conn.

M. TONY SHERMAN, Architect and Industrial Designer, 732 N.E. 79 St., Miami 38, Fla.

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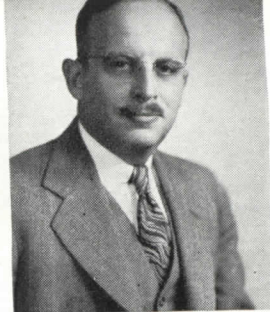
ADDRESS.....

CITY..... STATE.....



# out of school

By CARL FEISS



*Do not variegate the structure of your walls with Euboean and Spartan stone; but adorn both the minds of the citizens and of those who govern them by the Grecian education. For cities are made good habitations by the sentiments of those who live in them, not by wood and stone.*

EPICETUS

This essay might be called "Sixty Schools in Search of a System." It is a continuation of the statement in the January issue which should be read, or re-read, before delving here.

The school-by-school breakaway from allegiance to the Beaux Arts Institute of Design was effected quietly. I quote

here at length from Weatherhead:\*

"The American architect, having forsaken his comfortable philosophy of plagiarism, came to the realization that he was floundering. At first, as a defense mechanism for his heresy, he began to reason more deeply about architecture. His dissatisfaction and unrest increased. Architectural education in like manner was forced to evaluate its methods and to attempt a readjustment in the preparation for contemporary practice.

"It should be understood that, while the curricula and the philosophy of teaching of Beaux Arts Eclecticism had been crystallized, the schools remained far from actual conformity in details. They were still departments of American universities, all of which had developed along more or less individual lines. In the older schools traditional methods of instruction had taken form through the early years, and these could not be entirely overcome. Also, especially in architecture where so much depends upon the qualifications of the staff and the attitude of the student body, many of the essential qualities of the schools were not to be measured by the terms of any standard. The check of the programs of member schools by the Executive Committee of the Association in 1928 disclosed such a variation in curricula as to make it 'a very puzzling situation.' By that time the school had practically abandoned any attempt to apply literally the provisions of the standard minima in considering new members, and in 1931 these traditional standards were abandoned. The most important results of the survey of 1930-31 by the Association of Collegiate Schools of Architecture was the discovery of challenging divergencies which gave promise of a better approach to the present-day problems of architectural education."

For those Easterners who believe that all good things are cradled on the Atlantic Coast it is well to point out that the School of Architecture and Allied Arts at the University of Oregon was the first in this country to break away from the B.A.I.D. and its methods. Dean Ellis Lawrence courageously began an experiment in non-competitive training shortly after the close of World War I. Student individuality and research methods were stressed. In addition, great emphasis was laid on interdepartmental collaboration similar to the plan instituted by Dean Everett Meeks at Yale in 1919. School by school

\*THE HISTORY OF COLLEGIATE EDUCATION IN ARCHITECTURE IN THE UNITED STATES: A Dissertation submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy, under the Joint Committee on Graduate Instruction, Columbia University. Arthur Clason Weatherhead, Los Angeles, California, 1941.

(Continued on page 121)



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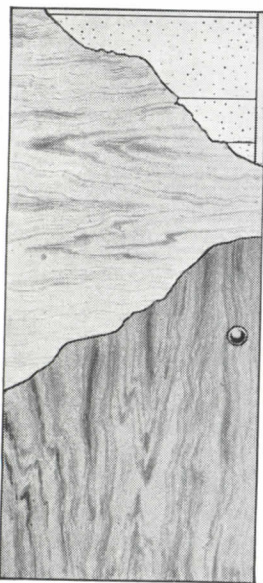
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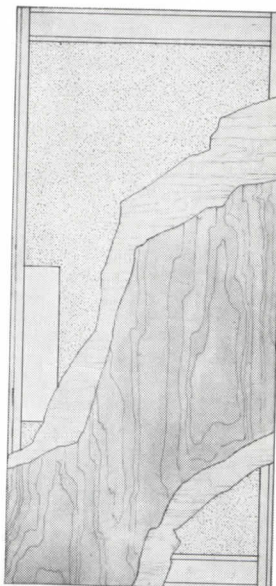
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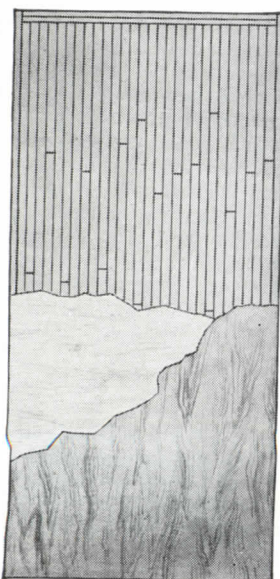


The solid mineral core of this newly developed type of standard door, plus the waterproof phenolic bond gives you a durable, versatile door that can be used either for interior or exterior openings.

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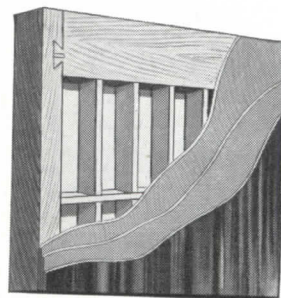


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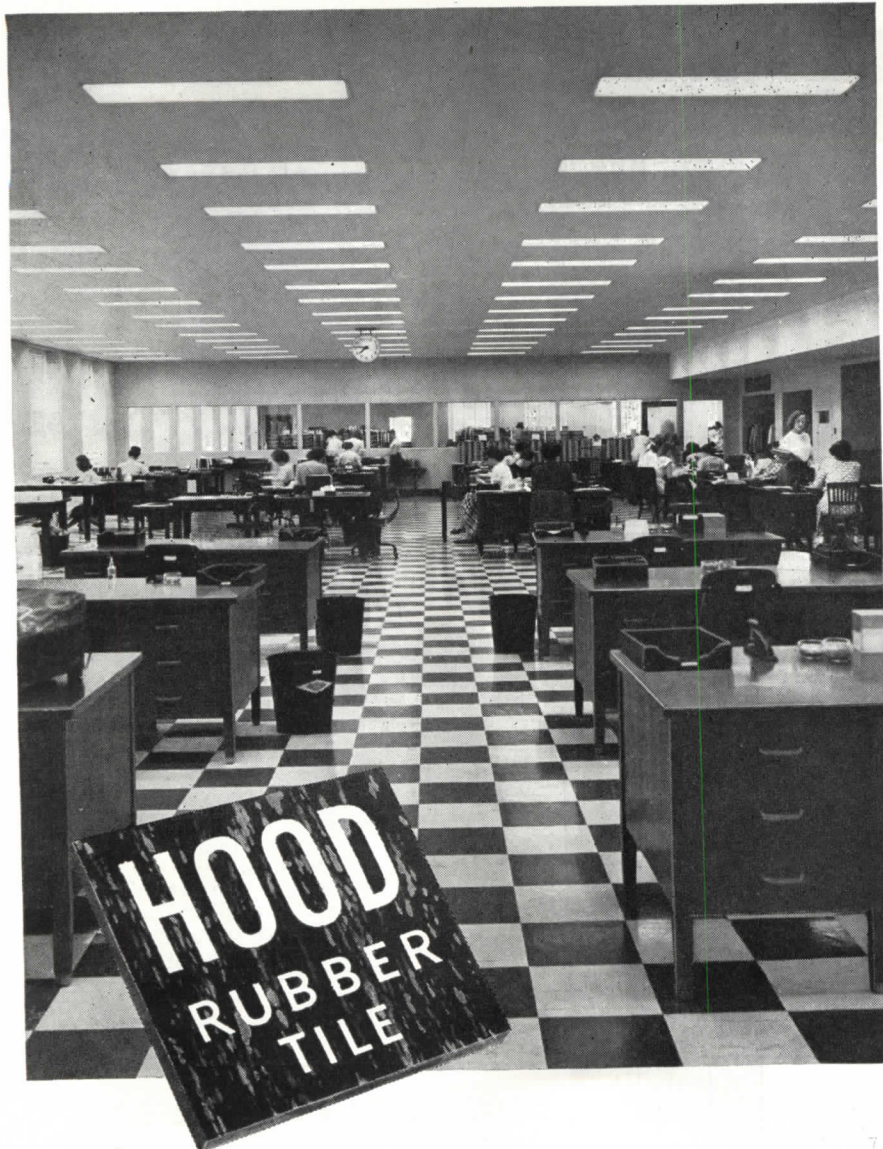
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## out of school

(Continued from page 120)

new methods of training were studied. In 1924 the University of Cincinnati, under Ernest Pickering, was vigorously experimenting with co-operative courses in which students worked on alternate months with practising architects or in industry. In 1930 the University of Southern California began experimenting with three-dimensional design as well as a more businesslike realism with local problems. In 1932 the University of Kansas was giving freshmen three-dimensional abstract forms and was making early experiments in the teaching of what now is frequently called "basic design." The *analytique* was beginning to dissolve into its own antiquity. Beginning at Columbia in 1934 and continuing at Harvard in 1935, Dean Joseph Hudnut experimented with comprehensive curriculum reorganization, influenced in part by contemporary German educational trials.

It is impossible to cover here in detail, the changes that took place in the 1930's and 40's, school by school. I refer you to Weatherhead's valuable analysis of this, if you are interested in pursuing the subject. All professional educators reading this column should do so.

A word of praise is due here to the American Association of Collegiate Schools of Architecture. Founded in 1912, this association has consistently worked toward a clarification of architectural educational problems and the promotion of high standards of scholastic performance. At an early date it attempted to establish the minimum high school training required for admission to schools and to tie disparate schools together by common meetings. Granted the group, representing eclectic education for years, was and has remained conservative, still it has frankly faced many issues and brought to light many ticklish problems. The famous Bosworth and Jones report, "A Study of Architectural Schools," 1932, a joint effort of the Association with the Carnegie Foundation, was a turning point in scholastic self-appraisal. Another such study is badly needed now, although the Association keeps in close contact with the schools. It is hoped that similar results may be obtained from the work of Dr. Edwin S. Burdell's special committee on architectural education and registration, appointed by Ralph Walker, A.I.A. president, and financed again by the Carnegie Corporation. With the wide disparity in size, location, curriculum, personnel, funds, equipment, and objective of the approximately 60 schools accredited or otherwise, the Association remains the one significant clearing house of collegiate architectural education.

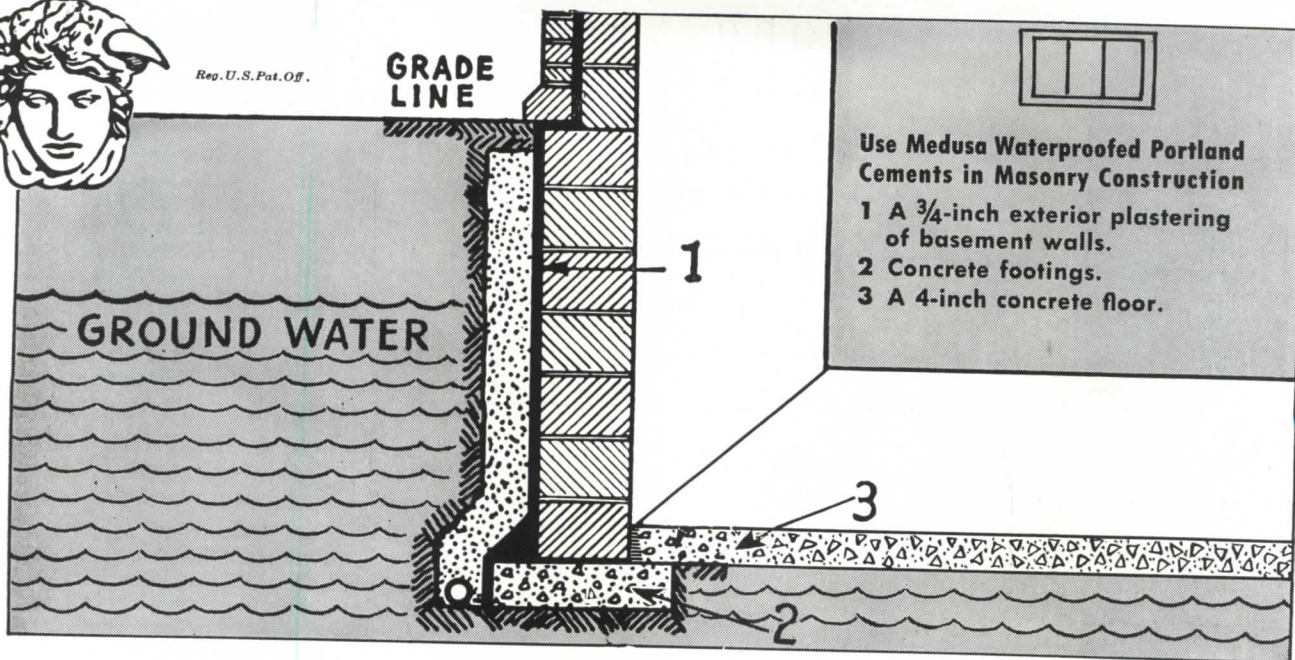
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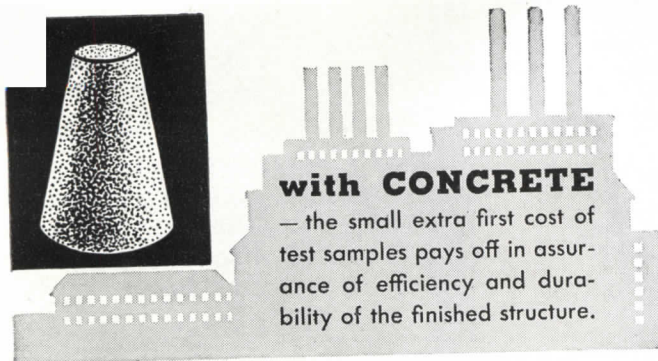
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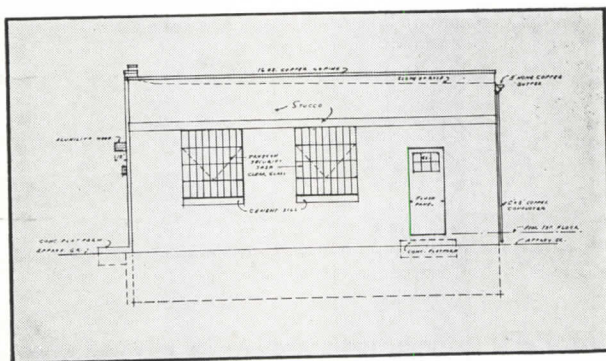
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# ARKWRIGHT

## TRACING CLOTHS

AMERICA'S STANDARD FOR OVER 25 YEARS

## out of school

(Continued from page 122)

tion. The A.I.A. Committee on Education is advisory and honorary in nature. The National Architectural Accrediting Board, formed in 1939, is a joint committee of the A.I.A., the Association of Collegiate Schools of Architecture, and the National Council of Architectural Registration Boards. There is a wide variance of opinion as to the need for and the effectiveness of this accrediting organization. Comment on this would be most welcome here.

Now what has happened in the schools and whither architectural education? A simple question without a simple answer because what happened is still happening. Several Prince Charmings simultaneously broke through the briar patch of tradition and awoke the Sleeping Princess of architectural education from her long and lovely Beaux Arts dream. The poor girl is still distracted by her ardent wooers who stop at nothing to gain her attention. Prince Bauhaus, stern, handsome, and correctly dressed, every button and zipper shining and his pants creased by a surveyor, appeals by his technical competency and his uncompromising rectitude. Anatomically his is physical perfection: socially he is a snob and impeccably superior. Prince Scandinavia is more gentle and individual. He likes to sit in a corner smiling softly and making cats' cradles which are perfection in little design. He is very handsome, elusive and dreamy, and not a little romantic: and he knows it. Prince Corbu, one of the literary suitors, charms with Swiss Gallic fervor, a boulevardier of the October Revolution. An idea man, daring, intolerant, brilliant, not too meticulous in detail of his dress, but sufficiently original to tempt myriads of imitator who are not half as bright. They followed him through the briar patch and ape his movements: it will be impossible to get rid of them. Prince Ausonius the only American among the suitors is an artist, an individualist, flamboyant, illogical, exciting and romantic. He has moments which reveal great beauty of soul and others of abysmal egotism which combine to make him suspect a person to live with, but obviously someone to admire. Actually none of these Princes is an ideal mate, and the Princess, not wanting to take the easy way out by going to sleep again, faced either with polygamy or looking for a spouse perhaps less individual, more democratic, and certainly less mortal.

Architectural education has been beset by personalities which too often

(Continued on page 12)



## *for the people*

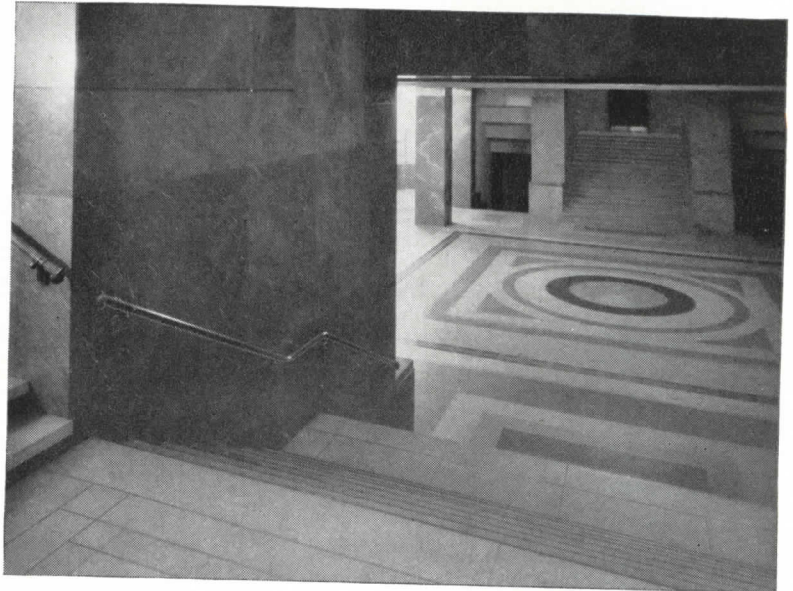
*FOR the people* is this handsome Memorial Auditorium with its attractive terrazzo floors and stairs. *For the people* also is the permanent, non-slip protection given these floors and stairs by the use of ALUNDUM terrazzo aggregate.

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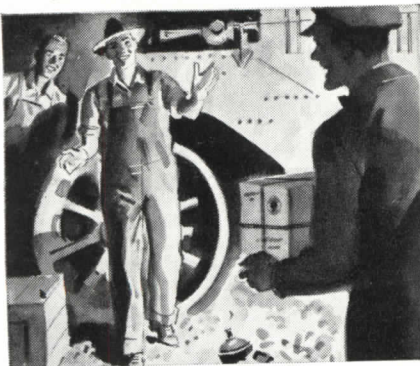
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## out of school

(Continued from page 124)

interfere with analysis of objectives. (This was touched on in the previous column.) The obvious danger in training, based on the power of an individual in design and the student devotion engendered by brilliant personality and brilliant accomplishment, is the evanescent quality of the training program. Sure, "The artist dies but his work lives on." But in teaching, men are working with men and ideas are the tools which must be constantly sharpened by living men in order to create a living educational system. Otherwise we become eclectic in any period and for any cause. A creative and great architecture grows with an understanding of the needs of the community and the people who make up the community. It changes always as the times change. It does not come filtered down through the personality of any one man, no matter how brilliant, even if he is used symbolically as the epitome of his time.

What then are the alternatives? We are back again to fundamentals. Part of the problem in our schools is that we teach *design* rather than architectural service. To too many in education, design exists, like pure research to the scientist, free of human use connotations. It may be possible to theorize that design can be an entity without human association. To a degree, Mondrian proved the point. But applied to building, the Mondrian design remains unsatisfactory as architecture (*viz.* the cold-steel cubes in Chicago). Architecture can not be abstract because it is the application of all forces—social, psychological and physical—needed to produce a man-made environment. Pure scientists reason that science can exist must exist without other reason than itself. Pure designers maintain the same. Nuclear fission in pure science as an abstract experiment is one of man's greatest discoveries. I have heard scientists justify the discovery on one hand, and disclaim all responsibility for its application on the other.

The schools, now searching for convictions which will aid them in source curriculum building, are finding that the highly limited forms of specialization of the past and the segregation design from the comprehensiveness architecture are great handicaps. When no schoolman of today would pretend that he had the answers, many are taking proper pride in their willingness to search and experiment. The result is stimulating to both student and teacher, and perhaps because of this

(Continued on page 125)



# Here's How Kimsul\* Advertising

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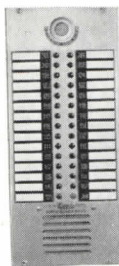


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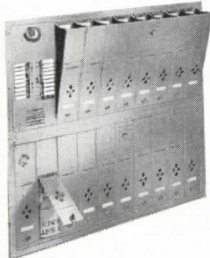
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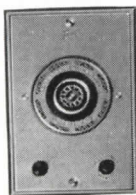
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## out of school

(Continued from page 126)

is almost as good as finding an answer.

What do I mean by the "comprehensiveness" of architecture? Words are funny symbols which like oysters or olives leave different tastes in different people's mouths. To me a whole city is as much architecture as any building drawn isolated from its context. Slums are bad architecture. The average American street, downtown or anywhere, is bad architecture. The American credo that all buildings stand by themselves as in the open country has led to, and will always lead to, bad architecture. The comprehensiveness that makes up the word architecture to me is to a large extent what Frederic Kiesler calls the biotechnic quality—the application to building technology of the needs of people, psychologically and physiologically. To the teacher, this breaks the old boundaries of eclecticism and adds service to design and construction. Urban sociology, problems in contemporary culture, psychology, government, and health, become fundamentals in design and construction. The unit of measure becomes the human being instead of the inch or the module. The *grand plan* is the city and region as a human whole, designed as a compound environment. This becomes exciting architecture—living, dynamic and challenging. Each building within the compound environment and all open space between and around must be designed to the human unit of measure to provide the order, beauty, and satisfaction which are true architecture.

Can this architecture be taught? Yes, and each year the schools are broadening out to it. Even architectural practice is changing in this direction. Recently a well-known firm of New York architects not only added "Town Planners and Housing Experts" to their letterhead but have employed an outstanding public health specialist as a member of the firm. This latter individual, noted for his knowledge of the physiology and psychology of human indoor and outdoor space requirements develops the backbone analysis of all plan work.

There is not enough time in any one school—pre-professional, undergraduate, or graduate—to learn everything that is needed in our enlarged concept. Each school will find, in time, its own aptitudes and develop its own techniques. That is the encouraging element in the present search for a system. As you can see, I am an optimist. I believe implicitly that comprehensive architecture will be taught and will develop great architects. Architecture will come again into its own, not as a dubious luxury in a disinterested world, but as a driving force with and for all of the people.

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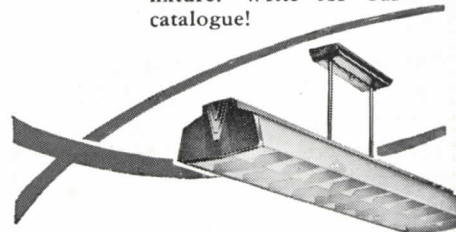


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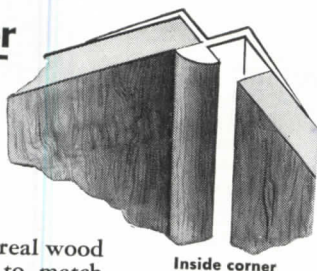
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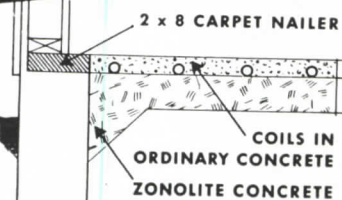
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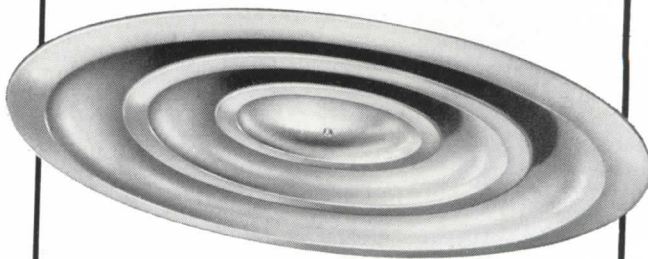
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# it's the law

By BERNARD TOMSON



Do you have or do you intend to have a partner? How are the profits and losses to be shared among the partners? Who is to control and manage the business? Is a partner entitled to a salary in the absence of profits? What happens when one of the partners retires or dies? Do the testamentary provisions

in the wills of the partners conform to the partnership agreement and will the death of a partner embarrass the partnership? All these and many other questions should be expressly answered by the terms of a contract entered into by the partners at the initiation of the relationship. Lack of a written agree-

ment, or adoption of an inadequate one, may result in a judicial determination as to the rights of the partners, which may be injurious to one or more of them.

Some of the office practice aspects of partnership were discussed by Thomas H. Creighton in an article entitled "Partners" in March 1949 P/A. There the question considered was, "Should you have a partner in your practice?" Once having determined this question in the affirmative, the importance of a complete written agreement delineating the rights, privileges, duties, and responsibilities of the partners can not be over-emphasized. Such a written agreement not only sets forth the legal relationship, but also affords an opportunity for the parties to consider seriously the practical aspects of the relationship that exists or will exist.

Failure to enter into such an agreement can result in legal responsibility not contemplated by one or more of the partners. It can also result in complications arising from a failure on the part of all the partners to determine in advance what specific part each partner is to play. Although it is not the intention of this column to consider all of the aspects of a partnership agreement, a discussion of some of the matters involved illustrates the pitfall inherent in an architect's association with other architects, when no written agreement exists.

The partners' relationship is a fiduciary one: each partner is both principal and agent, trustee and beneficiary. Thus the acts of one partner in his dealing with third parties, within the scope of the partnership business, will bind all the others. As between themselves, persons associated in business will not be deemed to be partners unless it was their intention to be so associated. Under certain circumstances, persons associated in business even though they do not intend to be partners, are considered insofar as third persons are concerned.

The partnership agreement is the structure upon which the rights, responsibilities, and liabilities of each partner is based. Any person who is capable of entering into contractual relations may become a partner. The partnership contract should set forth the length of time the partnership is to endure. The absence of such provision it will be inferred that the partnership is terminable at will. Even with a specific clause setting forth the term of the partnership.

(Continued on page

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## it's the law

(Continued from page 130)

ship, it may be dissolved by any of the partners. However, the dissolution of a partnership by the act of one of the partners before the specified term has expired, will make him responsible for the damages suffered by the other partners for his breach of contract.

Perhaps the most important term in the partnership agreement is that provision relating to the proportion that profits and losses are to be shared by the partners. In the absence of such provision, courts called upon to construe such an agreement will infer that the profits and losses are to be shared equally among the partners. The *quid pro quo* which supports the validity of a partnership contract is the contribution of each partner of either his capital, property, or skill to the business. In many instances these contributions are not of equal value and the shares of the profits of the business are therefore not intended to be distributed equally. Sometimes it is desirable to guarantee one or more partners against losses. The partnership agreement should spell out in detail the financial relationship between the parties.

It is often the practice to provide for salaries to be paid the partners. If the contract between the parties does not provide for compensation for services to be rendered, no compensation may be paid for such services. This is so, even if the services rendered the partners are not equal and even if one of the partners is the active manager of the business. The contract must expressly state the compensation to be received by any one of the partners. Disputes also have arisen as to whether these salaries are to be paid in the absence of profits. If the partnership agreement does not expressly cover such contingency, the courts must resort to custom and usage in order to determine this question.

There are many situations where an employer and an employee are associated in business and in lieu of wages the employee shares the profits of such business. Such associations are not partnerships. If it is the intention of the parties to create a partnership, then the profits of the business must be shared as profits and not in lieu of wages. The question as to whether it was the intent of the parties to establish a partnership relation or a mere employment relation, often arises where the contribution to the business association by one of the parties involved is that of skill only. Since this is often the situation in the association of architects, it is particularly important that the intention of the parties be clearly and validly expressed in the partnership or employment contract.

Every partnership agreement should declare the rights of each partner in the management and conduct of the business and the duties of each partner including the services to be rendered. In the absence of an express agreement, it will be assumed that each partner has an equal right of management and control and that each partner must contribute his full time to the partnership business. A limitation upon the right of equal control and management of the partnership enterprise and the freedom to participate in other businesses is often desirable. A carefully drawn agreement will avoid future disputes on this subject. Even where it is the intention of the parties to have equal control and management of the partnership, nothing should be left to inference, but the partnership contract should expressly set forth the intention of the parties.

There are other problems to be considered in relation to management and control of the business enterprise when the partnership contract is drawn. For example, in a large partnership it may be desirable to give the partners the right to expel a partner. There is no right of expulsion unless it is specifically provided in the partnership contract. It is a rule of law that where partners have an equal right of management and control, the majority view will govern. However, where a difference of opinion is equally divided between the parties or where there are only two partners, a tie will result and the partnership activity will be stymied. It is therefore of importance that this situation be considered and a solution provided in the partnership agreement.

Each partner has the right of possession, in common with all other co-partners, of the partnership property. If considered desirable, the partnership agreement can provide exclusive control of the property in one or more of the partners. Any type of property may become partnership property. Moreover the partnership agreement may prohibit the partnership from acquiring certain types of property. The property of the partnership consists of all property that is contributed at the formation of the contract and all that is subsequently acquired by the firm. It was the law in many states, prior to the adoption of the Uniform Partnership Act, that real property could not be held by a partnership as such. Many states today still indulge in a presumption that real property is not partnership property. In order to avoid confusion and doubt on this subject, where it is the intention of the partnership to own real property, the partnership contract should specifically so provide.

The liabilities of partners to third persons, the necessity of expressing the scope of the partnership business in the partnership contract, the consequence of a partnership dissolution or the death of one of the partners are all important phases of this subject that must be considered in the formulation of a well drawn partnership agreement. Next month's column will discuss these aspects of the relationship.



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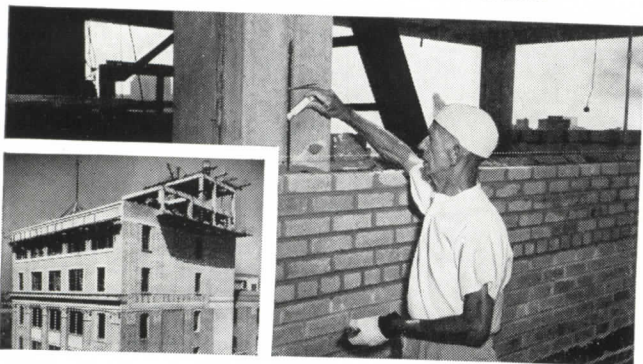
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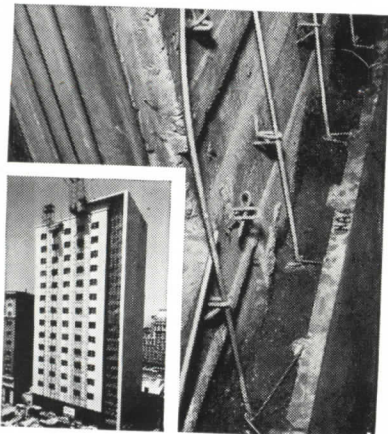
## ANCHORING BRICKWORK



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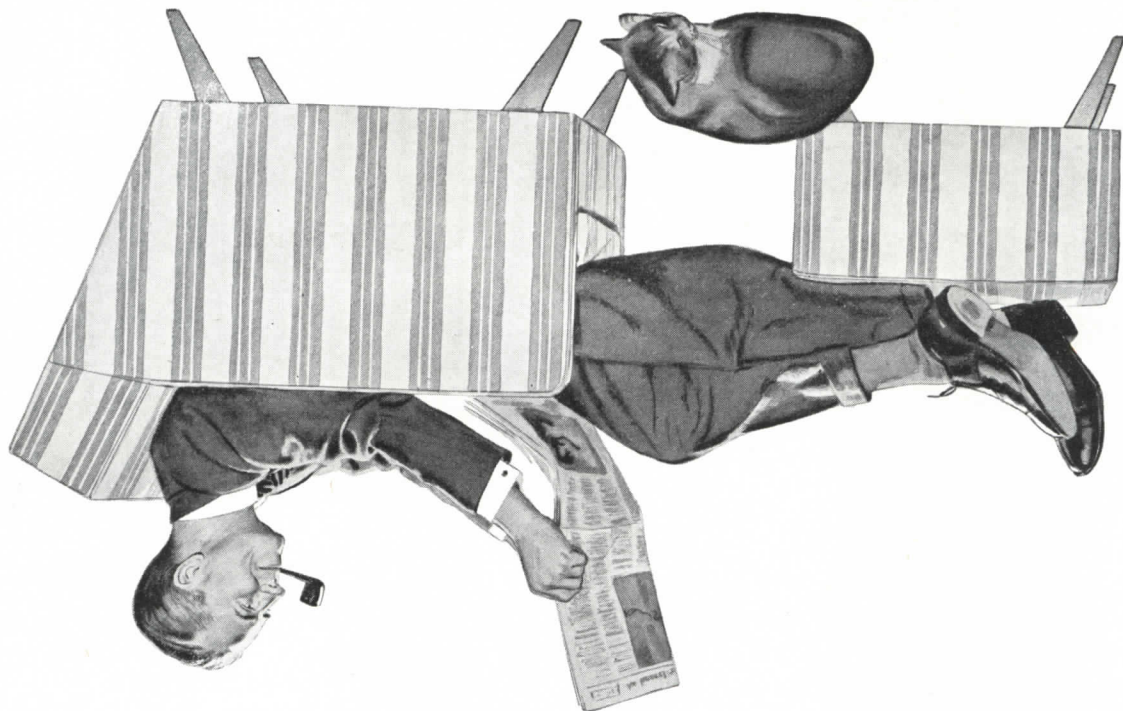
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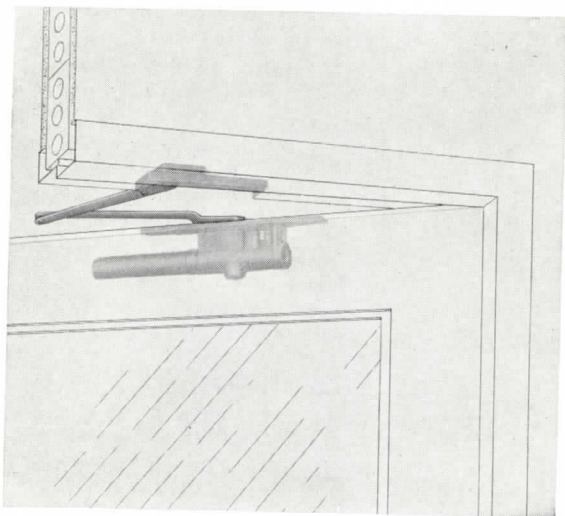
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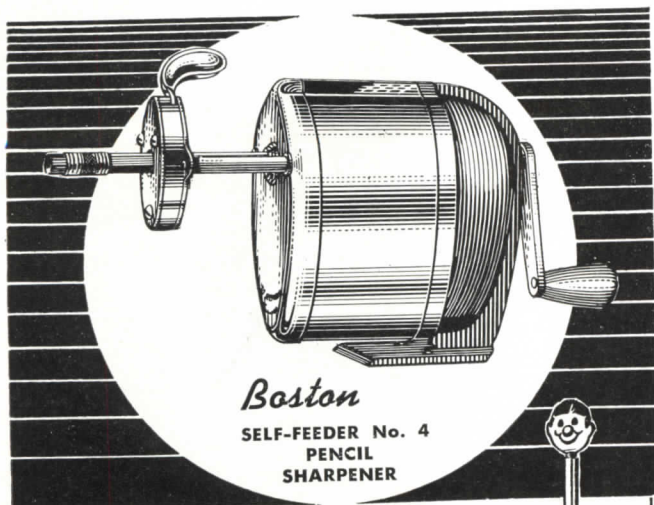
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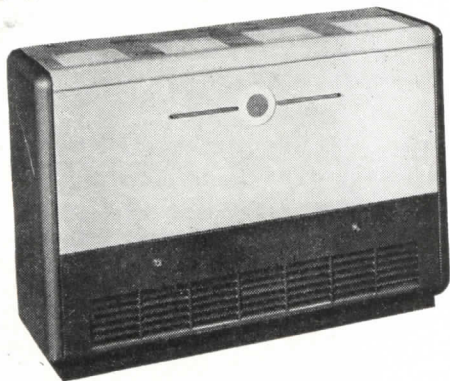
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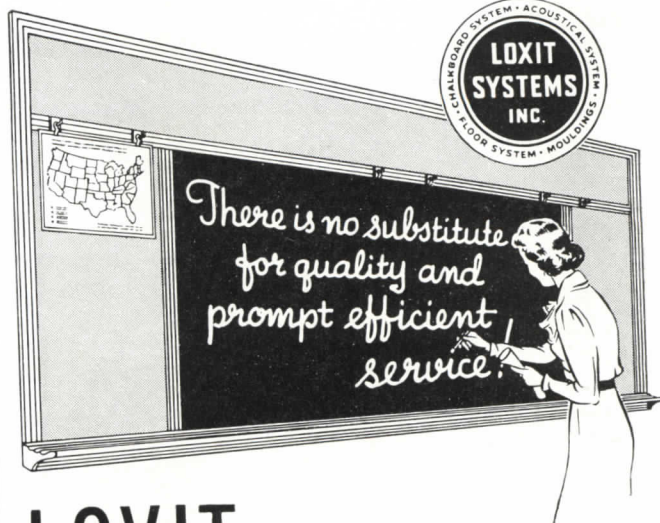


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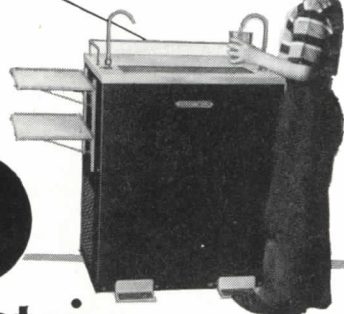
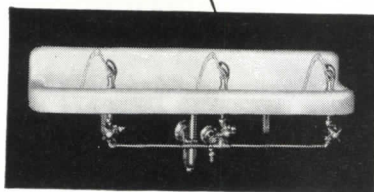
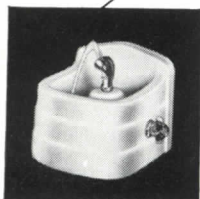
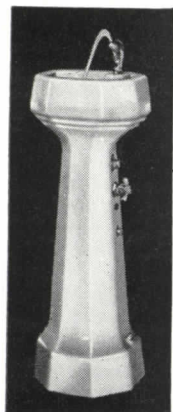
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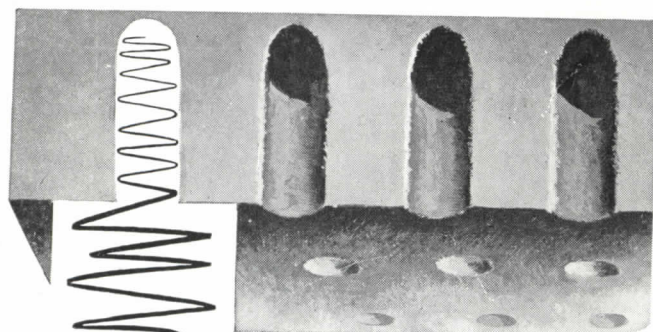


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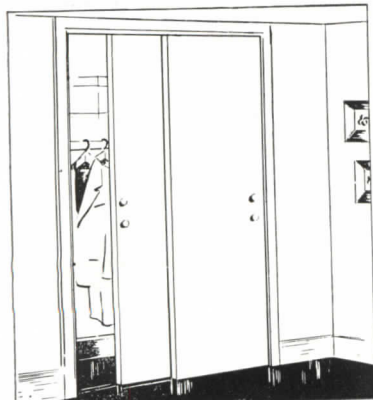


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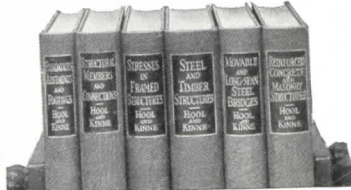
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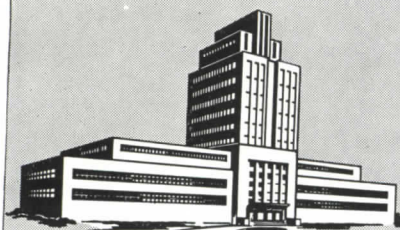
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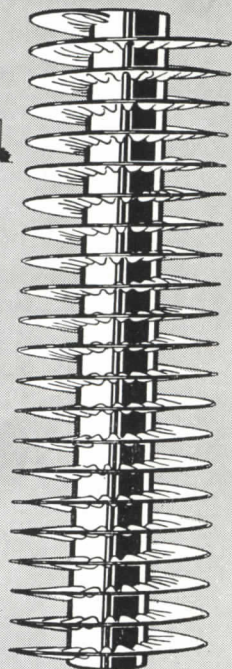
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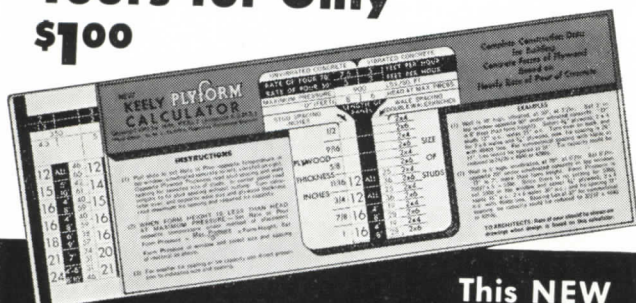
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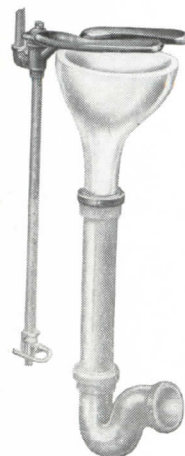
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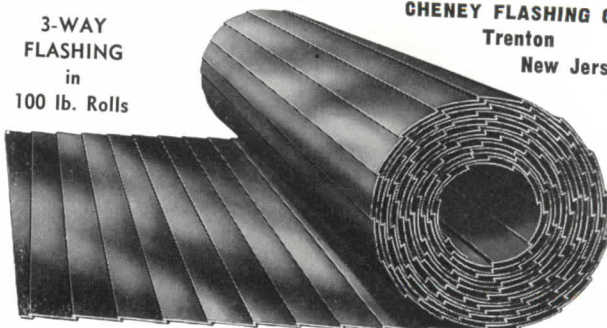
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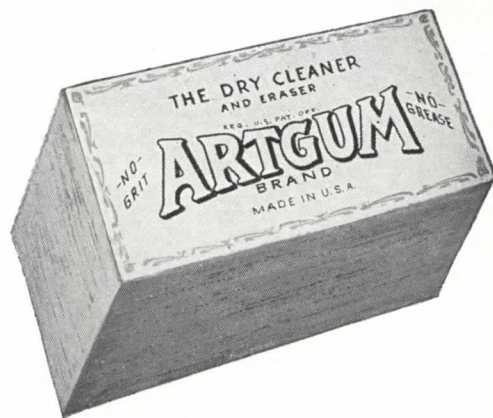
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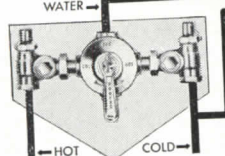


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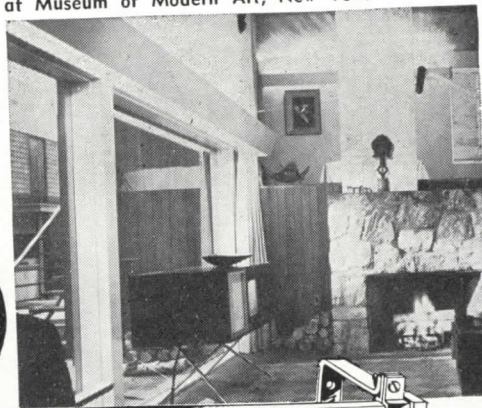
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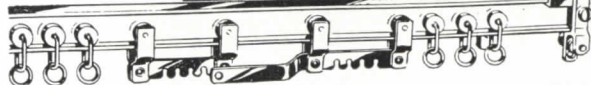
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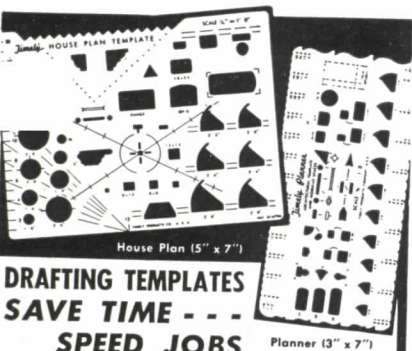
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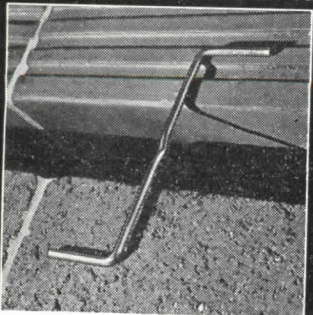


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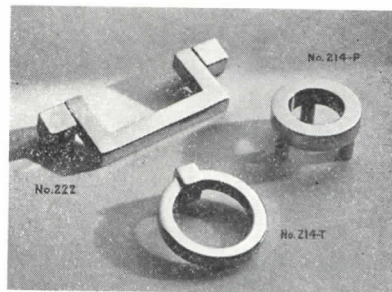
● One of the country's major steel fabricators and producers of automotive bodies—the Murray Corporation of America—will enter the field of home appliances early in 1950. A full line of moderately priced gas and electric ranges, matched steel kitchens and cabinets, as well as a line of porcelain steel bathtubs and other plumbing fixtures, will be marketed under the Murray name and distributed nationally through appliance distributors and plumbing supply wholesalers.

● Widespread popularity of all-glass doors has been due, to a considerable extent, to the use of the improved Pittco Checking Floor Hinge, according to officials of the Pittsburgh Plate Glass Company. This precision-engineered checking device, needing little or no attention, can now be installed easily and accurately by means of the new Pittco Hinge Setter which makes possible the precision leveling and aligning of hinges almost instantly. Among the engineered advantages of the Pittco Hinge are graduated pressure areas in the normal 90° opening arc, with the greatest spring load in the initial and final 15° opening. All bearings in the unit are anti-friction, precision ground.

● Texfloor, an inlaid, felt-base linoleum with the textured surface appearance of broadloom, has been introduced by the Sloane-Blabon Corporation as a new idea design in home decorating. The entire line of 26 patterns utilizes 5 basic colors; the patterns are so completely co-ordinated in color and design that, the manufacturer claims, any one can be used harmoniously in combination with another. The designs feature leaf motifs, diamond patterns, basket-weave effects, kitchen tile, and 9" x 9" jasper tile.

● A new weather-proof incandescent reflector flood lamp manufactured by Sylvania Electric Products, Inc., is especially recommended by the company for outdoor lighting appliances such as signs and billboards, floodlighting of service stations, factory yards, roadside stands, home sports areas and gardens. The 300-watt R-40 (designating a reflector 5" in diameter) lamp is enclosed in a heat-resistant glass bulb which absorbs thermal shocks caused by rain, snow, insects, oil, and other elements more efficiently than standard reflector bulbs, according to Sylvania.

● First prize in the International Competition for Low-Cost Furniture, held at the Furniture Mart in Chicago, (see December P/A, p. 127) was awarded to British designers Robin Day and Clive Latimer for their plywood veneer storage units. Half of the first prize went to Don R. Knorr, American designer, who produced a chair ingeniously constructed of flat sheet metal. The second prize for seating was divided between Charles Eames and Davis J. Pratt, a relative newcomer in the field of furniture design.



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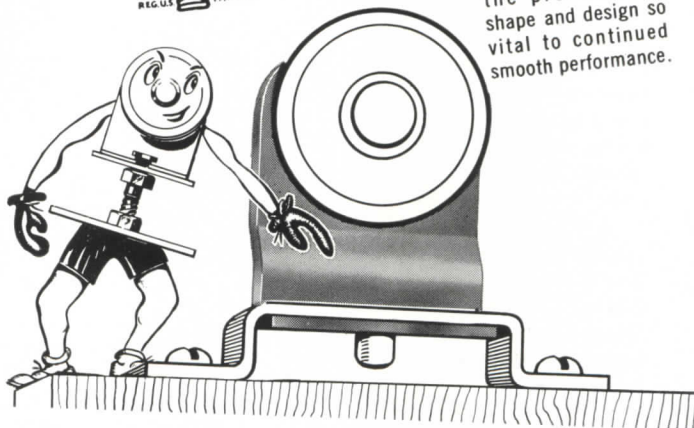
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# P.S.

**COLLABORATION AMONG THE ARTS** is an aim which all serious architects profess. Criticism of contemporary work because it is bare and barren and sports no ornament is common. One rejoices, therefore, when a good piece of architecture appears, on which a good painter or sculptor has worked. And yet one is almost invariably disappointed in the results.

The common reason for the lack of success is the fact that there has been no real collaboration—to say nothing of true integration. The best that is usually done is for the architect to leave a piece of wall for a painter or sculptor to use as work area. In that case, at least there will be some thought in the original design as to placement of the work of art, perhaps even as to its scale, its general visual impact, its relation in size and color to the rest of the structure.

A worse approach to the problem, it seems to me, is for an artist to come to a work of architecture which had been originally conceived as a design entity without benefit of painted or sculptured ornament, and apply his own concepts of integrated decoration after the fact. Can it never be today that architect, painter, and sculptor work together in the development of the design?

**IN THE CASE OF THE VERMONT CHURCH** by Whittier and Goodrich illustrated in this issue, the editors saw, and liked, the building as it was originally conceived—a simple wood form, using modern construction methods, and most appropriate to the rugged, rocky, sometimes wooded, sometimes barren Vermont countryside. I had talked to the architects about it, and I knew what they were after. It came as something of a shock, then, to see the photographs of the church after the painter had done his over-all job.

We are indebted to Maurice Lavanoux, secretary of the Liturgical Arts Society and editor of the quarterly, *Liturgical Arts*, under whose general supervision the painting was done, for background of the development. It seems that the pastor, Father McDonough, first expressed interest in paintings of the stations of the cross that André Girard had made some years ago. A visit by Girard to Stowe resulted in the further idea of painting the win-

dows—an interesting technique of painting on glass. Then followed gilding of the trusses, and painting of angelic figures and arabesques on the ceiling. The next step was installation of a large painted canvas behind the altar; then angelic heads flanking the altar; next, a triptych above the side altar. Finally came the thought of depicting scenes from the lives of Father Damien and Brother Dutton, leper missionaries, on the tympanum of the façade, the six exterior panels, and the main doors.

**ONE WONDERS IF THE ENTHUSIASM** of the painter in the chance to “decorate a church without hindrance and with full liberty of action” perhaps ran away with the good judgment of the people involved. If the church had been designed for over-all decoration, the results might have been different. But since the building was meant to stand on its own feet as recognizable structure, it is my impression—though Mr. Lavanoux, a more than capable critic of the arts, has a totally different one—that the final outcome is a series of beautifully conceived and executed paintings spread too diffusely over walls, windows, ceilings, and doors that happened to be there. There is an inevitable comparison with Niemeyer’s Pampulha chapel, where the over-all decorative treatment of the end wall is controlled, purposeful, integrated.

I was interested in the understanding of the church by the congregation—the people who will use it—before and after the decoration. Architect Whittier writes, “As to the people’s reaction to the design . . . at the time of completion we found them very favorable for the most part; . . . it did cause some comment, but most people sensed the structure, liked it for its naturalness and simplicity, and accepted it with favor for that area.” (If I may interpolate, that means that the Vermonter expresses wild enthusiasm by a slight cracking of the lips.) Whittier continues: “However, because of the recent painting, the attitudes have changed considerably—some like it, others do not.”

I shall end this dissertation with another comment from the architects—a beautiful Vermont understatement: “We, as the architects, regret that (the

painting) happened in such proportions. We feel that painting of any sort should enhance the structure, not subdue it.”

**ARCHITECTS AS A GROUP ARE ACCUSED**, rightly, of ignoring the problem of the low-cost individual house, of letting it fall almost completely into the hands of the speculative builder, of avoiding the question by pointing out that it is an unprofitable field of practice. All the more credit, it seems to me, goes to a man like A. Q. Jones for his attempts to find a way to help with this most pressing social problem. One approach to it, which he has tried successfully, is the large operative development, where the architect, if he is paid properly, can save the builder and the purchasers money, and come up with a better living environment than the depressing sublevel subcommunities that are common. Another interesting method of reaching an answer is the house in this issue (page 62), intended frankly for repetitive use on privately owned lots, and designed accordingly.

**IN DESCRIBING THE PROBLEM** and its solution Jones made to us some remarks about the builder operation that are quotable. For instance:

... the builders of investment houses have wanted to buy cheap plans and not provide adequate funds for research and study. This viewpoint is definitely shortsighted, in that such “research funds” distributed throughout even a small tract are soon turned into a profit through quicker sales.

The whole study (the house published in this issue) has conclusively proven that a good contemporary house can be built to meet any competitive market, and that the . . . so-called “prohibitive” architect’s fee . . . is the most well-spent money on any investment project.

... the buying public is not only receptive but is searching for the chance to eliminate the necessity of buying small double-hung windows, shutters, false chimneys, bay windows, inadequate storage, poorly ventilated rooms, view through a maze of muntin bars “picture windows” that really put the family on display, and kitchens as far removed from use as possible.

Thomas H. Wright